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Early Western Travels

1748-1846

Volume XXII

Early Western Travels

1748-1846

A Series of Annotated Reprints of some of the best and rarest contemporary volumes of travel, descriptive of the Aborigines and Social and Economic Conditions in the Middle and Far West, during the Period of Early American Settlement

Edited with Notes, Introductions, Index, etc., by

Reuben Gold Thwaites, LL.D.

Editor of "The Jesuit Relations and Allied Documents," "Original Journals of the Lewis and Clark Expedition," "Hennepin's New Discovery," etc.

Volume XXII

Part I of Maximilian, Prince of Wied's, Travels in the Interior of North America, 1832-1834



Cleveland, Ohio

The Arthur H. Clark Company

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PREFACE TO VOLUMES XXII-XXIV

Early trans-Mississippi exploration was undertaken largely in the interests of science. The great expedition of Lewis and Clark (1804-06) was, both in conception and plan, a scientific excursion.

Bradbury and Brackenridge voyaged up the Missouri (1811) in search of rare plants and animals, Nuttall sought the Arkansas (1819) on a similar errand. Long's expedition (1819-20) was entirely scientific, both in organization and objects; while Townsend crossed the continent with Nathaniel Wyeth (1834) to secure a harvest of rare birds in the mountains and beyond. In the early nineteenth century, scientific collection was the chief object of ambition among thoughtful explorers—to secure for the world a complete catalogue of its plants and animals was worth much toil and hardship, heroic endeavor, and mighty daring. To such, the still unknown regions of the New World offered strong attractions. There were in the trans-Mississippi and in South America, spread out upon mountains and prairies and bordering far-flowing streams, fresh races of barbarians yet uncontaminated by civilized contact, beasts of prey, birds of brilliant plumage, and unknown plant species.

Among those to whom this call of the New World came clearly, was a German savant, prince of a small house in Rhenish Prussia. Even while upon Napoleonic battle-fields, he felt a desire for the wilderness, and news of the victory of Waterloo reached him upon the far-distant rivers of Brazil. His later journey to North America was but the completion of a purpose formed in early boyhood. Alexander Philip Maximilian, Prince of Wied-Neuwied, was born in the quaint capital of his little Rhenish sovereignty in September, 1782. The eighth child of the reigning Friedrich Karl, natural aptitude for study early marked his career for that of a scholar. Nevertheless, in obedience to the call of patriotism, he entered the Prussian army and was present at the battle of Jena. Soon thereafter he was captured and for some time suffered imprisonment. Exchanged and returned to Neuwied, he continued the scientific pursuits which had long interested him; but a fresh military crisis called him once more into service, in which he rose to a major-generalship, won the honor of the iron cross at Chalons, and entered Paris with the victorious army in 1813. Reminiscences of this warlike experience came to him twenty years later in the Missouri wilderness, when he notes that the song of the Assiniboin warriors before Fort McKenzie resembled that of the Russian soldiers heard in the winter of 1813-14.

While successful as a soldier, at heart Maximilian was a searcher for knowledge. In his boyhood his mother had encouraged his love for natural history, and under the direction of his tutor he had begun a collection that was creditable to a youth. Later, in his university course, he came under the influence of the celebrated Professor Johann Friedrich Blumenbach, and as a favorite pupil absorbed from him a keen desire to contribute to the world's stock of knowledge. Throughout what leisure he could snatch in the Napoleonic campaigns, the young prince was planning a scientific expedition to Brazil, and no sooner was he finally released from martial duties than he made preparations that culminated, early in 1815, in a departure for that country. Joined in South America by two German scholars who had preceded him thither, the trio spent two years in the tropical forests of that country, studying its flora and fauna, and above all the native races. After the return to Germany, Maximilian's succeeding years were spent in arranging his collections and preparing for publication the results of his journey. His Reise nach Brasilien in den Jahren 1815 bis 1817 (Frankfurt, 1820-21) was soon translated into French, Dutch, and English; later appeared Beitrage zur Naturgeschichte von Brasilien (Weimar, 1825-33), designed to accompany the atlas of ninety plates, entitled Abbildungenen zur Naturgeschichte Brasiliens (Weimar, 1822-31). The publication of these works gave Maximilian an honored place among scientists, and proclaimed his ability as an exploring naturalist.

By 1831 the prince was engaged in preparations for his second great enterprise—a visit to North America, including a scientific exploration of the trans-Mississippi region. Embarking on an American packet at Helvoetsluys, May 17, 1832, our traveller arrived in Boston amid the salvos of artillery ushering in the anniversary of American independence.

Maximilian was accompanied on this voyage by a young Swiss artist, Charles Bodmer, whom he had engaged to paint primitive landscapes in the New World, together with portraits of its aborigines. The artist's work proved eminently successful, as evidenced by the rare quality of the plates engraved from his sketches, which we reproduce in the accompanying atlas, our volume xxv. Bodmer—born in Zurich in 1805—had studied in Paris; after his excursion to America with Maximilian, he returned to his former haunts, finally settling with the artist colony at Barbizon, in the forest of Fontainebleau, where he became a successful landscapist, and received medals of honor at the salons of 1851, 1855, and 1863, and in 1876 the ribbon of the legion of honor. One of his canvases was purchased by the French government for the Luxembourg gallery. His son Henri, also a painter, was recently exhibiting in the Paris salons. During the winter spent at Fort Clark, Bodmer experienced several adventures. At one time he was for several hours lost upon the prairie; again, his paints and oils congealed in the zero-blasts of the Dakotan winter. His interest in his task, however, was unwearied; by cajolery, bribery, and rare patience he secured sittings from famous Indian chiefs, faithfully presenting their portraits to the world in the full equipment of savage finery, thus giving us an unexcelled gallery of Indian types and costumes.

In addition to this admirable artist—in some respects perhaps the most competent draughtsman who has thus far sought to depict the North American tribesmen—Prince Maximilian was accompanied by his faithful jäger Dreidoppel, who had been with him in Brazil, and who rendered efficient service on the Missouri hills and prairies.

"There are," our author tells us in his preface, "two distinct points of view" from which the traveller may study the United States—he may consider its present conditions and its future prosperity; its resources, population, immigration, and "gigantic strides of civilization." Maximilian's own purpose, however, was to collect data concerning the remnants of its aboriginal population, and the primitive state of its fields and forests; these he sought to observe and to

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perpetuate both in description and drawing. The America of the Eastern states had therefore slight charm for our traveller, his object being to reach the frontier as soon as was consistent with his scientific purposes.

Tarrying briefly in Boston, New York, and Philadelphia, communities which he describes in a few terse sentences, he sought the forests of Pennsylvania for preliminary experience in the simpler phases of woodcraft and hunting, as well as to visit the German immigrants settled in this region. He had expected to journey westward by way of the Great Lakes, but the appearance of cholera at Detroit and Buffalo made this plan impractical; instead, he visited the Moravians at Bethlehem, and made a leisurely journey through northern Pennsylvania, inspecting the coal mines and the geological structures. In the early autumn the prince and his two companions reached Pittsburg, but there finding the water in the Ohio too low for navigation, they went overland to Wheeling, where they embarked (October 9) for the descent of the river. At Louisville, they found that the cholera scourge had preceded them, whereupon with but a brief stay they continued their voyage to the Wabash, where they turned aside to visit the colony of naturalists settled at the Indiana town of New Harmony.

For some years Maximilian had been in correspondence with Thomas Say, the entomologist, who had accompanied Major S. H. Long's expedition, and was now managing the property of William Maclure, president of the Philadelphia Academy of Natural Sciences, who had purchased Robert Owen's communistic settlement on the Wabash, founded in 1825. Owen's two sons, Robert Dale and William, were still in the vicinity, together with Charles Alexander Lesueur, a French naturalist of repute. Even more attractive than the society of the scientists was the presence of a good library of Americana and natural history, at that time probably the best west of the Atlantic seaboard. Here, therefore, on the banks of the Wabash, our naturalist contentedly spent the winter of 1832-33, preparing for his journey into the Far West, and studying the antiquities and natural sciences of America. During these months, Bodmer made a voyage to New Orleans, but returned in time to set forth with his patron, March 16, 1833. After a steamboat journey to the mouth of the Ohio and up the Mississippi, they arrived at St. Louis before the departure for the interior of the usual spring caravans of the Western fur-traders.

At this entrepôt of the wilderness trade, Maximilian presented letters to its prominent citizens, and was invited by General William Clark to accompany a deputation of Sauk and Foxes, headed by Keokuk, on a visit to the imprisoned Sauk chiefs, Black Hawk and his confrères, at Jefferson Barracks. The interest with which Maximilian regarded these first North American barbarians whom he had come so far to see, is well expressed in the narrative. Black Hawk he describes as a "little old man, perhaps seventy years of age, with grey hair, and a light yellow complexion, a slightly curved nose, and Chinese features, to which the shaven head, with the usual tuft behind, not a little contributed." The meeting between the prisoners and their free countrymen appeared to the prince most affecting.

Maximilian had desired to visit the Rocky Mountains and their inhabitants, and accordingly planned to join one of the annual fur-trading caravans that, under the auspices of the Rocky Mountain Fur Company, set off for their rendezvous in the heart of the Cordilleras. From this purpose he was dissuaded by General Clark, Major Benjamin O'Fallon, and other St. Louis folk cognizant with the situation. They represented to the illustrious traveller that these caravans avoided rather than sought the Indians; and that if they met, the encounter was apt to be hostile rather than friendly. It would also be extremely difficult to transport any extensive collections of fauna and flora by the land route. They thereupon advised a visit to the American Fur Company's trading posts on the Missouri via that company's annual steamboat, a plan which met the approval of the scientist and his companions.

The tenth of April, 1833, the travellers boarded the "Yellowstone," on its third trip to the posts of the upper Missouri. Before parting with Major O'Fallon, the latter gave them a manuscript map copied from one prepared during the Lewis and Clark expedition by Clark himself, the topographer of that famous exploring party. This chart was constantly used by the prince. His narrative recites the daily routine and incidents of the river voyage on the outward route. By April 22 the steamer had reached Fort (then Cantonment) Leavenworth, and ten days later they were at Bellevue, just below the present Omaha. It was not until the eighteenth of May that the prince's party were greeted by their first sight of buffalo, and by the last of that month they had arrived at Fort Pierre, the company's main post among the Sioux. Here our travellers were transferred from the "Yellowstone" to her sister steamer, the "Assiniboine," a newer, larger boat with, however, a lighter draught; the latter was to continue to the upper river, while the "Yellowstone" returned to St. Louis.

Slowly the party steamed up the river, past the Sioux territory and the Arikara villages into the land of the Mandan and the Minitaree, where on June 18 they were landed at the company's Fort Clark, just below a Mandan village several miles above the present Bismarck, North Dakota. Tarrying here but one day, the steamer continued its journey to the mouth of Yellowstone River, where Fort Union was reached on the twenty-fourth of June. After spending two weeks at this point, Maximilian and his suite were transferred to a keel-boat, and continued their voyage to Fort McKenzie, on Maria's River, among the treacherous Blackfeet.

Here, during a stay of two months, the German naturalist was initiated into the mysteries of the fur-trade, came to understand the jealousies and rivalries of Indian tribes, and witnessed a battle before the stockade of the fort, between Blackfeet and Assiniboin warriors. Because of this intertribal quarrel and the consequent restlessness and untrustworthiness of the neighboring

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barbarians, it was deemed inexpedient by the fur-traders for the travellers to advance farther into the Rockies, and Maximilian had need to content himself with such glimpses of the mountain ranges as could be had from the bluffs of Maria's River, and the upper reaches of the Missouri. The "Assiniboine" having long since departed on the home trip, the chief factor at Fort McKenzie built a barge for the princely visitor, upon which Maximilian embarked (September 14), together with a small crew of *voyageurs*, two cages of live bears, and several animal pets.

Since wintering in the mountains had proved impracticable, our author determined to occupy the long cold months now at hand with the most interesting aborigines of the upper river. For this purpose he selected the Mandan and Minitaree, both because of their settled habitations and of the interest that these tribes had awakened in previous travellers. Known first to the early French explorers, it was from their villages that the Vérendrye brothers had in 1742 set forth on their explorations toward the "Shining Mountains." Located at the upper bend of the Missouri, they were readily accessible to British traders of the Assiniboin and Saskatchewan valleys, who were found as habitués in their villages by Lewis and Clark, in 1804-05. Accordingly Maximilian requested permission of the American Fur Company officials to pass the winter at Fort Clark, the Mandan post. McKenzie accommodatingly ordered to be built for the famous traveller a small house within the stockade, and every facility to be given him for making records of the neighboring tribesmen. In company with Toussaint Charbonneau, Lewis and Clark's former interpreter, the German visitor attended various ceremonies, dances, and feasts, took many portraits of the chiefs, and studied the manners and customs, and myths and superstitions of this vanishing race. The latter part of the winter the prince suffered with a serious attack of scurvy, from which, however, he recovered in time to set forth for the lower country on the breaking up of the ice.

By the eighteenth of May he was once more at Fort Leavenworth. After brief visits at St. Louis and New Harmony, he journeyed eastward by way of the Ohio Canal and Lake Erie, stopped to wonder at the majesty of the Falls of Niagara, and on July 16, 1834, embarked at New York on the Havre packet for the Old World. A large portion of his collections were left behind at Fort Pierre, to be forwarded with the season's furs by the annual steamer. A fire occurring on the "Assiniboine," but few of these natural history specimens ever reached him, and one object of the prince's American visit was thereby frustrated.

An interesting reminiscence of the visit of Prince Maximilian is found in the journals of Alexander Culbertson, a young fur-trade clerk who accompanied the scientist from Fort Union to Fort McKenzie. Culbertson says: "In this year an interesting character in the person of Prince Maximilian from Coblentz on the Rhine, made his first appearance in the upper Missouri. The Prince was at that time nearly seventy years of age [fifty-five], but well preserved, and able to endure considerable fatigue. He was a man of medium-height, rather slender, sans teeth, passionately fond of his pipe, unostentatious, and speaking very broken English. His favorite dress was a white slouch hat, a black velvet coat, rather rusty from long service, and probably the greasiest pair of trousers that ever encased princely legs. The Prince was a bachelor and a man of science, and it was in this latter capacity that he had roamed so far from his ancestral home on the Rhine. He was accompanied by an artist named Boadman [Bodmer] and a servant whose name was, as near as the author has been able to ascertain its spelling, Tritripel [Dreidoppel] ... McKenzie subsequently visited him in his palace at Coblentz, where he lived in a style befitting a prince, and was received with great cordiality and entertained with lavish hospitality. He inquired whether the double barrelled gun and the meershaum had reached their destination, as he had remembered his promise and forwarded them soon after his return to Europe. They had not, and never were received, for it subsequently appeared that the vessel in which they were shipped was lost; so they are probably now among the ill-gotten hoards of the Atlantic."[1]

The years immediately following the prince's return to Europe were spent in preparing the results of his journey for the press. This proved to be his last foreign expedition, but he nevertheless continued absorbed with studies and consequent collections at his native place until death removed him in 1867. A few months before that event he wrote an interesting letter in English to the artist George Catlin, whose account of Mandan religious ceremonies had been discredited by many. The prince therein speaks of reviving the "quite forgotten recollections of my stay among the Indian tribes of the Missouri, now thirty-three years past," and says that not only does he know "most of the American works published on the American Indians," but he possesses many of them. [2] His library and collections are yet cherished as the chief treasures of Neuwied, where his grand-nephew Wilhelm still directs the principality's affairs.

The narrative of Maximilian's North American journey was first published in German, having been written, as the author says, for foreigners rather than Americans, its title being *Reise in das Innere Nord-America in den Jahren 1832 bis 1834* (Coblentz, 1839-41), and its form two handsome quarto volumes, with an atlas of Bodmer's remarkable engravings. A French edition in three volumes, with the atlas, appeared at Paris in 1840-43. The Englished version, undertaken by H. Evans Lloyd, was issued in London in 1843, in one quarto volume. This latter translation we here reprint for the first time. In addition we have included in the Appendix to our volume xxiv, the twenty-three Indian vocabularies, one of the glories of the German original, which feature has never been reproduced in any other of the translated editions. Carefully recorded and scientifically collated by a trained observer and scholar, they form a contribution to American philology now impossible to duplicate. But five years after Maximilian's visit to the upper river, smallpox broke out among the tribes, and carried its ravages to such an extent that bands once

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powerful were reduced to scanty remnants. The Mandan were at the time reported to be absolutely annihilated; a few, however, are still living on Fort Berthold reservation, in North Dakota. Maximilian's observations are the more valuable because made in the plenitude of that tribe's power and prosperity, before their diminished numbers made them subservient to the invading fur-traders.

In addition to the vocabularies, and unique in the present English edition, we present Maximilian's account of the Indian sign language, his catalogues of birds for both the Missouri and Wabash river valleys, and a summary of his meteorological observations on the upper Missouri. All of these were omitted from the London edition of 1843. It has been our purpose to give to American readers the entire scientific as well as narrative product of the prince's famous expedition.

While the chief value of the present work lies in its ethnological significance, it is highly interesting as an historical description of natural conditions west of the Mississippi, seventy years ago. The author's style is simple, natural, and unforced, rather the expression of the scientific than of the literary type of mind. A traveller of today, gliding across the plains and along the windings of the Missouri in a palace-car, may follow the pages of Maximilian and the plates of Bodmer, and thus obtain as clearly as words and pictures can express, an accurate presentation of the trans-Mississippi region in 1833. These volumes are thus a fitting supplement to the work of the prince's great progenitors, the American explorers, Lewis and Clark.

In preparing this volume for the press, the Editor has had throughout the valuable assistance of Louise Phelps Kellogg, Ph.D., who in turn has been aided by Clarence Cory Crawford, A.M. The translations from the German, not given by Lloyd, have been made for the present reprint by Asa Currier Tilton, Ph.D., chief of the department of maps and manuscripts in the Wisconsin Historical Library.

R. G. T.

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Madison, Wis., November, 1905.

PART I OF MAXIMILIAN, PRINCE OF WIED'S, TRAVELS IN THE INTERIOR OF NORTH AMERICA

Reprint of chapters i-xv of London edition: 1843

TRAVELS

INTERIOR OF

NORTH AMERICA.

MAXIMILIAN, PRINCE OF WIED.

WITH NUMEROUS ENGRAPINGS OF WOOD

...

BY H. RVANS LLOYD.

ACCOMPANT THE OBIGINAL SERIES OF SIGNET-OFE BLABORATELY-COLOURED PLATES

LONDON: ACKERMANN AND CO., 96, STRAND

MDCCCXLIII.

TRAVELS

IN

THE INTERIOR OF

NORTH AMERICA.

BY

MAXIMILIAN, PRINCE OF WIED.

WITH NUMEROUS ENGRAVINGS ON WOOD,

AND A LARGE MAP.

TRANSLATED FROM THE GERMAN,

BY H. EVANS LLOYD.

TO ACCOMPANY THE ORIGINAL SERIES OF EIGHTY-ONE ELABORATELY-COLOURED PLATES.

SIZE. IMPERIAL FOLIO.

LONDON:

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MDCCCXLIII.

AUTHOR'S PREFACE

Immense additions have been made of late years to our knowledge of the extensive continent of North America. A large portion of that country, which, only a few years ago, was covered with almost uninterrupted primeval forests, and a scanty, scattered population of rude barbarians, has been converted, by the influx of emigrants from the Old World, into a rich and flourishing State, for the most part civilized, and almost as well known and cultivated as Europe itself. Large and flourishing towns, with fine public institutions of every kind, have risen rapidly, and every year adds to their number. Animated commerce, unfettered, unlimited industry, have caused this astonishing advance of civilization in the United States. The tide of emigration is impelled onwards, wave upon wave, and it is only the sterility of the North-west that can check the advancing torrent.

We already possess numerous accounts of these daily-increasing States, and there are many good statistical works on the subject. We have even excellent general works on the physical state of this continent, among which Volney's "Tableau du Climat et du Sol des Etats Unis," holds a high rank. [3] Little, however, has yet been done towards a clear and vivid description of the natural scenery of North America: the works of American writers themselves on this subject, with the exception of Cooper's and Washington Irving's animated descriptions, cannot be taken into account, as, in writing for their countrymen, they take it for granted that their readers are well acquainted with the country.

For this reason I have endeavoured, in the following work, to supply this deficiency to the best of my ability, and have aimed rather at giving a clear and faithful description of the country, than at collecting statistical information. Hence these travels are designed for foreign, rather than for American readers, to whom, probably, but few of the details would be new.

There are two distinct points of view in which that remarkable country may be considered. Some travellers are interested by the rude, primitive character of the natural face of North America,

and its aboriginal population, the traces of which are now scarcely discernible in most parts of the United States; while the majority are more inclined to contemplate the immigrant population, and the gigantic strides of civilization introduced by it. The account of my tour through a part of these countries, contained in the following pages, is chiefly intended for readers of the first class. I have avoided the repetition of numerous statements which may be found in various statistical publications; but, on the contrary, have aimed at a simple description of nature. As the United States were merely the basis of my more extensive undertaking, the object of which was the investigation of the upper part of the course of the Missouri, they do not form a prominent feature, and it is impossible to expect, from a few months' residence, an opinion on the social condition and character of that motley population.

The indulgent reader, following the author beyond the frontier of the United States, will have to direct his attention to those extensive plains—those cheerless, desolate prairies, the western boundary of which is formed by the snow-covered chain of the Rocky Mountains, or the Oregon, where many tribes of the aborigines still enjoy a peaceful abode; while their brethren in the eastern part of the continent are supplanted, extirpated, degenerated, in the face of the constantly increasing immigration, or have been forced across the Mississippi, where they have for the most part perished.

The vast tracts of the interior of North-western America are, in general, but little known, and the government of the United States may be justly reproached for not having done more to explore them. Some few scientific expeditions, among which the two under Major Long produced the most satisfactory results for natural history, though on a limited scale, were set on foot by the government; and it is only under its protection that a thorough investigation of those extensive wildernesses, especially in the Rocky Mountains, can be undertaken. [4] Even Major Long's expeditions are but poorly furnished with respect to natural history, for a faithful and vivid picture of those countries, and their original inhabitants, can never be placed before the eye without the aid of a fine portfolio of plates by the hand of a skilful artist.

In my description of the voyage up the Missouri, I have endeavoured to avail myself of the assistance of an able draughtsman, the want of which I so sensibly felt in my former travels in South America. On the present occasion I was accompanied by Mr. Bodmer, who has represented the Indian nations with great truth, and correct delineation of their characteristic features. His drawings will prove an important addition to our knowledge of this race of men, to whom so little attention has hitherto been paid.

After mature consideration, I have judged it desirable to throw the account of my voyage on the Missouri itself into the form of a journal, as the daily notices were numerous, but the variety very trifling; so that the patience of the reader will unfortunately be tried a little in this part of the narrative. In those uninhabited, desert countries the traveller has nothing but the description of the naked banks of the river, and the little diversity they afford, interrupted at times by the adventures of the chase, and occasional meetings with Indians; the reader will therefore excuse many observations and unimportant descriptions, which would have been omitted if the materials had been richer in variety. I need still more indulgence with respect to many observations on natural history, but for this the loss of the greater part of my collections will be a sufficient excuse. The cases containing them were delivered to the Company, to be put on board the steamer for St. Louis, but not insured; and, when the steamer caught fire, the people thought rather of saving the goods than my cases, the contents of which were, probably, not considered to be of much value, and so they were all burnt. This may be a warning to future travellers not to neglect to insure such collections.

Though the main object of my journey, namely, to pass some time in the chain of the Rocky Mountains, was defeated by unfavorable circumstances, I should have been able, but for the loss of my collections, to communicate many new observations, especially in the department of zoology, which are now more or less deficient. The accounts of the tribes of the aborigines, and wil especially of the Mandans and Manitaries, are more complete, because I spent a whole winter among them, and was able to have daily intercourse with them. Authentic and impartial accounts of the Indians of the Upper Missouri are now especially valuable, if the information that we have since received is well founded, namely, that to the many evils introduced by the Whites among those tribes, a most destructive epidemic—smallpox—has been added, and a great part of them exterminated: according to the newspapers, the Mandans, Manitaries, Assiniboins, and Blackfeet have been swept away except a small remnant. The observation of the manners of the aborigines is undoubtedly that which must chiefly interest the foreign traveller in those countries, especially as the Anglo-Americans look down on them with a certain feeling of hatred. Hence we have hitherto met with little useful information respecting the Indians, except in the recent writings of Edward James, Long, Say, Schoolcraft, M^cKinney, Cass, Duponceau, Irving, [5] and a few others; and as good portraits of this race have hitherto been extremely rare, the faithful delineation contained in the portfolio of plates accompanying this work will be interesting to the friends of anthropology and ethnography.

Several men, of great eminence in the learned world, have had the kindness to contribute to the publication. President Nees Von Esenbeck has undertaken the determination and description of the plants which I brought home; [6] Professor Goldfuss, of Bonn, that of some fossil shells; Professor Göppert, of Breslau, that of the impression of fossil plants from Mauch Chunk; [7] Professors Valenciennes at Paris, and Wiegmann at Boston, the comparison of some zoological specimens with those in their cities; [8] and Lieut.-Col. W. Thorn, the construction of the map; for

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TRANSLATOR'S PREFACE

The author, in his Preface, gives so full an account of the objects and results of his travels in the interior of North America, that it would have been unnecessary for me to prefix any observations of my own, were it not for some circumstances, connected with the translation, which seem to require explanation.

The prospectus of the German original announced that the work would consist of two large quarto volumes, accompanied by a portfolio of above eighty beautifully coloured copper-plates, executed by eminent artists at Paris, from the original drawings. Some specimens of the plates having been brought to London, were so much admired by many competent judges, that Messrs. Ackermann were induced to agree with the Paris publisher for a limited number of copies of the plates; and as it might justly be presumed that the English purchasers would be desirous of having the narrative of the travels, it was resolved to publish a translation compressed into a single volume. By selecting, however, a page of a large size, the translator has been able to retain all the most interesting parts, omitting only minute details of the measurements of animals, &c. All the chapters illustrative of the manners, customs, traditions, and superstitions of the Indians are given without abridgment, and these, as the author justly observes, are by far the most attractive and valuable portions of the work. The papers in the Appendix, giving an account of the plants collected, are also inserted entire, and have been kindly revised by my friend Sir William Hooker. [9]

The principal omission is that of the very extensive vocabularies of the languages of the different Indian tribes. ^[10] They are written so as to represent the pronunciation in German, and have, in numerous instances, special directions, as thus: kontschue (on as in French, schue, short and quick, $e^{1/2}$). It appeared to be a hopeless and unprofitable task to rewrite these vocabularies, and to represent the true pronunciation in English. Those who are curious in such matters will find many specimens in Mr. Catlin's interesting work. ^[11]

The numerous Indian proper names are, of course, written in the original as pronounced in German. It has been thought best to leave them unchanged, merely requesting the reader to observe, in general, that the consonants are pronounced as in English; only that ch is guttural, as in the Scotch word loch; that sch is pronounced sh, and that the vowels have the same sound as in French, ah, a, ee, o, oo.

The author alludes, in his Preface, to the recent fearful ravages which have been caused among the Indian races by the small-pox. The origin and extent of these ravages will be seen from the following very affecting letter on the subject:

X"New Orleans, June 6, 1838.—The southern parts of the United States, particularly Florida, Alabama, and Louisiana, are as healthy as can be wished; there has been no appearance of the vellow fever, and even at the Havannah only a few isolated cases have occurred. During the autumn, winter, and spring, the small-pox has carried off many victims among the whites, and thousands of the Indians; but it has now wholly disappeared in the territory of the Union, in consequence of a general vaccination of persons of all ages. On the other hand, we have, from the trading posts on the western frontier of the Missouri, the most frightful accounts of the ravages of the small-pox among the Indians. The destroying angel has visited the unfortunate sons of the wilderness with terrors never before known, and has converted the extensive hunting grounds, as well as the peaceful settlements of those tribes, into desolate and boundless cemeteries. The number of the victims within a few months is estimated at 30,000. and the pestilence is still spreading. The warlike spirit which but lately animated the several Indian tribes, and but a few months ago gave reason to apprehend the breaking-out of a sanguinary war, is broken. The mighty warriors are now the prey of the greedy wolves of the prairie, and the few survivors, in mute despair, throw themselves on the pity of the Whites, who, however, can do but little to help them. The vast preparations for the protection of the western frontier are superfluous; another arm has undertaken the defence of the white inhabitants of the frontier; and the funeral torch, that lights the red man to his dreary grave, has become the auspicious star of the advancing settler, and of the roving trader of the white

"The small-pox was communicated to the Indians by a person who was on board the steamboat which went, last summer, up to the mouth of the Yellow Stone, to convey both the government presents for the Indians, and the goods for the barter trade of the fur dealers. The disorder communicated itself to several of the crew of the steam-boat. The officers gave notice of it to the Indians, and exerted themselves to the utmost to prevent any intercourse between them and the vessel; but this was a vain attempt; for the Indians knew that presents and goods for barter were come for them, and it would have been impossible to drive them away from the fort without having recourse to arms. Two days before the arrival of the steamboat, an express had been received at the trading fort, 2000 miles west of St. Louis, with the melancholy news of the breaking-out of the small-pox on board; this was immediately communicated to the Indians, with the most urgent entreaties to keep at a distance; but this

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was as good as preaching to the winds. The survivors now lament their disobedience, and are as submissive as the poor dogs which look in vain in the prairie for the footsteps of their masters. The miserable remnants of the Indians implore us not to abandon them in their misfortune, and promise, if we will take pity on them, never more to disobey our commands.

"The disease first broke out about the 15th of June, 1837, in the village of the Mandans, a few miles below the American fort, Leavenworth, from which it spread, in all directions, with unexampled fury.^[13] The character of the disease was as appalling as the rapidity of the propagation. Among the remotest tribes of the Assiniboins from fifty to one hundred died daily. The patient, when first seized, complains of dreadful pains in the head and back, and in a few hours he is dead: the body immediately turns black, and swells to thrice its natural size. In vain were hospitals fitted up in Fort Union, [14] and the whole stock of medicines exhausted. For many weeks together our workmen did nothing but collect the dead bodies and bury them in large pits; but since the ground is frozen we are obliged to throw them into the river. The ravages of the disorder were the most frightful among the Mandans, where it first broke out. That once powerful tribe, which, by accumulated disasters, had already been reduced to 1500 souls, was exterminated, with the exception of thirty persons. Their neighbours, the Bigbellied Indians, and the Ricarees, were out on a hunting excursion at the time of the breaking-out of the disorder, so that it did not reach them till a month later; yet half the tribe was already destroyed on the 1st of October, and the disease continued to spread. Very few of those who were attacked recovered their health; but when they saw all their relations buried, and the pestilence still raging with unabated fury among the remainder of their countrymen, life became a burden to them, and they put an end to their wretched existence, either with their knives and muskets, or by precipitating themselves from the summit of the rock near their settlement. The prairie all around is a vast field of death, covered with unburied corpses, and spreading, for miles, pestilence and infection. The Bigbellied Indians and the Ricarees, lately amounting to 4000 souls, were reduced to less than the half. The Assiniboins, 9000 in number, roaming over a hunting territory to the north of the Missouri, as far as the trading posts of the Hudson's Bay Company, are, in the literal sense of the expression, nearly exterminated. They, as well as the Crows and Blackfeet, endeavoured to fly in all directions, but the disease everywhere pursued them. At last every feeling of mutual compassion and tenderness seems to have disappeared. Every one avoided the others. Women and children wandered about in the prairie seeking x for a scanty subsistence. The accounts of the situation of the Blackfeet are awful. The inmates of above 1000 of their tents are already swept away. They are the bravest and the most crafty of all the Indians, dangerous and implacable to their enemies, but faithful and kind to their friends. But very lately we seriously apprehended that a terrible war with them was at hand, and that they would unite the whole of their remaining strength against the Whites. Every day brought accounts of new armaments, and of a loudly expressed spirit of vengeance towards the Whites: but the small-pox cast them down, the brave as well as the feeble; and those who were once seized by this infection never recovered. It is affirmed that several bands of warriors, who were on their march to attack the fort, all perished by the way, so that not one survived to convey the intelligence to their tribe. Thus, in the course of a few weeks, their strength and their courage were broken, and nothing was to be heard but the frightful wailings of death in the camp. Every thought of war was dispelled, and the few that are left are as humble as famished dogs. No language can picture the scene of desolation which the country presents. In whatever direction we go, we see nothing but melancholy wrecks of human life. The tents are still standing on every hill, but no rising smoke announces the presence of human beings, and no sounds but the croaking of the raven and the howling of the wolf interrupt the fearful silence. The above accounts do not complete the terrible intelligence which we receive. There is scarcely a doubt that the pestilence will spread to the tribes in and beyond the Rocky Mountains, as well as to the Indians in the direction of Santa Fé and Mexico. It seems to be irrevocably written in the book of fate, that the race of red men shall be wholly extirpated in the land in which they ruled the undisputed masters, till the rapacity of the Whites brought to their shores the murderous fire-arms, the enervating ardent spirits, and the all-destructive pestilence of the small-pox. According to the most recent accounts, the number of the Indians who have been swept away by the small-pox, on the western frontier of the United States, amounts to more than 60,000."[15]

The general correctness of the melancholy details given in the above letter has been confirmed to me by several travellers who have visited these nations since they were desolated by this awful epidemic. The almost total extinction of these tribes greatly enhances the value and importance of the full and interesting particulars imparted by his Highness.

H. EVANS LLOYD.[16]

Charterhouse Square, May 1st, 1843.

> TRAVELS IN THE INTERIOR OF NORTH AMERICA, IN THE YEARS 1832, 1833, AND 1834

> > [PART I]

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CHAPTER I

VOYAGE TO BOSTON, STAY IN THAT CITY, AND JOURNEY TO NEW YORK, FROM MAY 17TH TO JULY 9TH, 1832

Voyage—Boston—Festival of Independence—The American inns— Charlestown—Monument on Bunker's Hill—Cambridge—New England Museum—Pawtucket—Providence—Embark on board the Boston—Voyage to New York—Fine view of that city.

Voyages to North America are become everyday occurrences, and little more is to be related of them than that you met and saluted ships, had fine or stormy weather, and the like; here, therefore, we shall merely say that our party embarked at Helvoetsluys, on board an American ship, on the 17th of May, in the evening, and on the 24th saw Land's End, Cornwall, vanish in the misty distance, and bade farewell to Europe.

Even when we were in latitude 48° 40′, and for several days afterwards, we had very unfavourable weather and violent storms, which were succeeded, on the 10th of June, by calms. On such days, shoals of dolphins crowded round the ship, and some men got on the bowsprit to throw the harpoon at them. The mate was at length so fortunate as to drive his harpoon through the body of one of these monsters of the deep, an event which was hailed with loud cheers. By the aid of several sailors the heavy prey was drawn upon deck. The animal, after it was wounded, made desperate efforts to free itself, and the harpoon had nearly given way, when the fish was secured by a rope thrown under the pectoral fins.

2 On the following day we had some of the flesh dressed as steaks, which we found to be very good; indeed, we preferred them to all other meat. I did not know, at that time, that I should soon find dog's flesh relishing! It is necessary to remove the blubber immediately; because, if this precaution be neglected, the flesh contracts a taste of train oil. The liver in particular is excellent.

On the same day we were to the south of the bank of Newfoundland, and, therefore, steered in nearly a northerly direction. On the 19th we were in a thick fog. White and other petrels flew round us, with some gulls, and birds resembling sea swallows, with a forked tail. We sounded, but found no bottom. On the 20th, however, we were on the bank, where, at half-past eight in the morning, the temperature of the air was $+5\frac{1}{4}$ ° Reaumur, and that of the water, $+2\frac{3}{4}$ °. At two in the afternoon, with thick fog, the temperature of the air was $+8^{\circ}$; that of the water, $+4^{\circ}$. We then had a calm, and sounded in thirty-five fathoms. Large whales and flocks of sea-birds showed that we were on the bank. A hook and line being thrown out, we caught a fine cod, from whose stomach clams were taken, which served as a bait for other fish. We were on the middle of the lower point of the great bank, when large dolphins, quite black, called by the Americans blackfish, swam rapidly past in long lines, alternating with porpoises, which threw up white foam as they leaped and tumbled on the waves. A diver was shot while swimming, and flocks of black petrels hovered round us. A dead calm succeeding, a boat was put out to give chase to the latter. Fat was thrown out to entice the birds, and many of the little black petrel, (Procellaria Pelagica), were shot, and also some of the birds, called by Charles Bonaparte, [17] Thalassidroma Wilsonii, which very nearly resemble each other in colour, as well as in shape. A snow white gull (probably Larus eburneus) flew about the ship. On the 26th of June, we had been just forty days at sea, and at noon were off the lower part of Sable Island bank, in fifty-five fathoms, but did not see the island itself. We steered towards Nova Scotia, but the wind soon forced us in a southerly direction. We had many indications of the vicinity of land, and from this time we proceeded more satisfactorily, till the 3rd of July, at noon, when, to the joy of all, we descried land. Cape Cod Bay lay to the south of us, about fifteen miles distant. It showed low sandhills, with dark bushes on them. About two o'clock we could distinguish a lighthouse of moderate height, with a wind-mill, and several other buildings. As the wind was unfavourable, we were obliged to tack often, in order to sail into the great bay of Massachusetts, which we did in the finest and most lovely weather. The cool of the evening had succeeded the heat of the day; the dark blue mirror of the sea shone around us, moved only by a gentle breeze, while a few white or dark brown sails hastened to the coast, which was already veiled in the evening mist.

Sublime repose prevailed in this extensive and grand scene, our ship alone was in a state of activity. Various preparations were made for the approaching landing, while we Europeans looked eagerly at the distance. I had hoped in vain for a sight of the famous sea serpent; it 3 would not shew itself. I had, in the sequel, opportunities to speak with several American naturalists on the subject, but they all looked upon the story as a fable.

The moon rose in the utmost splendour, and lighted up the unagitated surface of the sea, and the fishing-boats which lay at anchor. Before midnight we saw Boston lighthouse, and soon afterwards several other such lights on the coast, which are a most welcome sight, and increase the impatience of the stranger in a remote quarter of the globe.

The following day (4th of July), on which I landed for the second time in the New World, was the anniversary of the day on which America proclaimed its independence. Early in the morning, the salutes of artillery resounded from the coasts, which we now saw clearly before us. In the centre, in the direction of the city of Boston, was the white lighthouse, with its black roof, on a small rocky island, [18] and around it several little picturesque islands, partly of white sand, with plots of grass; partly rocks, which adorn the beautiful bay. At a distance we saw some low mountains, the

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coast covered with numerous villages, obscured by the smoke of the gunpowder, and numbers of ships and boats sailing in every direction, all adorned with gay flags in honour of the day. We passed in succession several islands, the lighthouse, the telegraph, and drew nearer and nearer to the coast of the Continent, diversified with gentle eminences covered with corn, or beautifully green as in England: and here and there, in the bays and inlets, adorned with lofty trees. These coasts, with the numerous white buildings of the towns and villages, presented a most charming scene in the splendour of the morning sun. At length the long-expected pilot came on board, and in the bay, on our right, we saw the city of Boston, and many steam-boats before it. The sea had no longer the blue colour, but the green tinge which it has on all coasts, and was covered with medusæ, and the leaves of the sea grass, which grows on these shores. The heat was very great, 18° in the shade, by Reaumur's thermometer, on board the ship, when we cast anchor at India Wharf, Boston, on the forty-eighth day of our voyage. The temperature in this oblong basin, which is surrounded with large magazines of naval stores, was by no means agreeable at the moment of our arrival; we, therefore, left the ship as soon as possible, and repaired to the Commercial

Coffee House, where we took up our quarters.

Boston, an extensive city, with above 80,000 inhabitants, [19] reminded me, at first sight, of one of the old English towns; but various differences soon appeared. The streets are partly long and broad, partly narrow and irregular, with good flag pavement for foot passengers; the buildings are of brick or stone; but in a great portion of the old town the houses are of wood; the roofs are, for the most part, covered with shingles; the chimneys resemble those in England, but do not seem to be so lofty; the dark colours of the buildings give the city, on the whole, a gloomy appearance. A There are many important buildings and churches, which have been described by numerous travellers. In the front of the houses there are frequently little plots of garden, next the street, in the English fashion, planted with tall, shady trees, and flowers. Strangers will immediately look for American plants, especially for those species of trees which are generally cultivated in Europe; but, instead of them, they will observe only European trees, such as Lombardy poplars, Babylonian willows, syringa hibiscus, chestnuts, elms, &c., and it was with much difficulty that I found some stems of the catalpa, which was just then on the point of flowering, and some other native trees. Besides the little grass plots, planted with flowers, in the front of the houses, there are, in Boston, many plantations and avenues of very tall and shady elms, which, like the same species in England, are remarkably vigorous and flourishing. Among these avenues, the principal is that called the Commons, where there were fireworks in the evening of the 4th of July.

Washington-street is looked upon as the finest and longest street in Boston; its length is nearly equal to that of the whole city. Here, as in the first cities of Europe, there are numerous fine and elegant shops, with the most costly articles; and the productions of the West Indies. Cocoa-nuts, oranges, bananas, &c., are nowhere to be found so fresh, and in such perfection as in the seaports of North America. On account of the celebration of this day, most of the shops were closed; but then the entire population seemed to throng the streets, and the gay crowd was very interesting to strangers, as it was not difficult to catch the general features. Though a great part of the Americans have much of the English stamp, there are, however, some essential differences. The peculiar character of the English countenance seems to have disappeared in America, in the strange climate; the men are of a slenderer make, and of taller stature; a general expression of the physiognomy seems to be wanting. The women are elegant, and have handsome features, but frequently a paleness, which does not indicate a salubrious climate, or a healthy judicious way of living.^[20] Straw hats, trimmed with black or green ribbons, were in general use. Cloth was much worn, and everything was according to the newest English and French fashions. Among the busy throng were a great number of negroes, who, in the Northern and Eastern States, have been made free. Not far from the public walks was a small narrow street, almost entirely inhabited by negroes and their hybrids. The stranger in Boston looks in vain for the original American race of the Indians. Instead of its former state of nature, this country now shows a mixture of all nations, which is rapidly proceeding in the unjustifiable expulsion and extirpation of the aborigines, which began on the arrival of the Europeans in the New World, and has unremittingly continued.

After we had enjoyed a hasty view of the city, we returned to our inn, where we had an opportunity of making ourselves acquainted with many new customs, differing from those of Europe. It must be confessed that the arrangements in the large and much frequented inns of 5 the great towns in the United States, are, in many respects, inferior to those of Europe. The rooms are very small, and all have beds in them: parlours, that is, rooms without beds, must be hired separately. The hours for meals are fixed—three times in the day; and the signal is usually given, two or three times, by ringing a bell. In general, a number of persons habitually take their meals in these inns; they besiege the house before the appointed time arrives, and, when the signal is given, they rush tumultuously into the eating-room; every one strives to get before the other, and, for the most part, the crowd of guests is far too great, in proportion to the number of the black attendants. Then every one takes possession of the dish that he can first lay his hands on, and in ten minutes all is consumed; in laconic silence the company rise from table, put on their hats, and the busy gentlemen hasten away, whom you see all the day long posted before the inns, or at the fire-side in the lower rooms, smoking cigars and reading the colossal newspapers. The hat, which the Americans seldom lay aside, except in the company of the women, is always taken off at table, which is certainly no small exertion in this land of perfect liberty, as Captain Morrell expresses it.^[21] Elegance of dress is far more common in America than in Europe; but then this is all that the gentleman in America cares about, when he has finished his mercantile

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business, read the newspaper, and performed his part in the government of the State. I have often been surprised at the crowd of idle gentlemen before and in the American inns, who spend the whole day in total inactivity; and these elegant loiterers are, in fact, a characteristic feature of these inns. Here, too, there is a peculiar arrangement, which many travellers have noticed, and which we do not meet with in ours—I mean the bar-room, where a man stationed behind the bar, mixes compounds, and sells all sorts of beverages, in which a quantity of ice and of freshly gathered peppermint leaves are employed. Very agreeable cooling liquors are here prepared, which the heat of the climate calls for. In the evening the European is surprised at being desired to pull off his shoes before a number of people in the bar-room, and to exchange them for slippers, which are piled up in large heaps. The attendance is, in general, indifferent. There are scarcely any white servants, or, at least, they are almost useless; all menial offices must be performed by blacks, who, though free people, are still held in contempt by the Americans, who so highly estimate the dignity of man, and form a rejected caste, like the Parias in India.

At the approach of evening, on the 4th of July, the whole population of Boston was in motion; but the streets were soon entirely deserted, and all the inhabitants had collected in the promenade, called the Commons. The sight was highly interesting. An extensive piece of ground, covered with green sward, stretches in a gentle slope to the water, and is surrounded by avenues of lofty, shady elms. Numerous paths cross each other in the centre, and here there is a gigantic elm, with a wide-spreading crown, measuring from thirty to forty paces in diameter. We regretted that the great crowd of people rendered it impossible to approach this fine tree, on 6 this busy evening. All Boston, rich and poor, was here assembled, in the most elegant dresses. Groups were sitting, or lying in the grass; rows of tables and little stalls were set out, where there was a real oyster feast, in which the people indulged to an extent that rendered the appearance of the tables anything but inviting. As it grew dark, there was a very indifferent display of fireworks, on the eminence, in honour of the day, the expense of which was defrayed by subscription. Several companies of city militia had previously paraded the streets; they are all volunteers, who equip themselves, and that in a very superior manner; but their uniforms are very gay and motley, as may be expected, where every one is left to follow his own taste. Each company, or troop, had a different uniform—one red, another blue, and, in part, richly embroidered with gold. There were very few men in a company. It seemed very strange that the musicians, who preceded them, were, for the most, in plain clothes of all colours, with round hats. "The Yankee-doodle," the favourite popular song of the Americans, was heard in different directions; and it is much to the credit of this motley assemblage, that there was no impropriety of conduct or unseemly noise. The effect of the light on the mixed crowd of whites and negroes was very interesting, and we enjoyed the scene till the coolness and damp of the night air made us retire to our inn.

On the following morning, the shops were opened, and Boston resumed its usual appearance of commercial activity. Our baggage was put on board a schooner bound to New York, to which city I wished to go by land. Our next excursion was to the monument on Bunker's Hill, from which there is the best view of the surrounding country.

Early in the morning we got into our carriages, and drove rapidly through the streets, refreshed by the cool morning breeze, where many wagons were arriving with the productions of the environs. We noticed vehicles of various descriptions, with four or two wheels, often with an awning of linen, or leather, open at the sides, and drawn by two or four horses. The drivers, generally in a white summer dress, with straw hats, sit on a bear skin, which is here worth eight or ten dollars. On the causeway, out of the city, the dust was troublesome, but a number of water-carts (like those used in the streets of London) were already preparing to water the road.

Boston is joined to the continent by a narrow tongue of land, at the two sides of which creeks, or bays run into the land. Over these creeks there are several long wooden bridges, made to draw up in the middle, one of which leads, in a north-west direction, to the neighbouring town of Charlestown; another, more to the south, to Cambridge, where there is a college, or university. All these places have been described by several travellers. We took the road through Charlestown, to the Navy Yard, close to which is the eminence on which the Bunker's Hill monument is erected. The hill is called Breed's Hill, and immediately beyond it is Bunker's Hill, where the English troops were posted during the battle fought in 1775. The Americans were repulsed, and lost their leader, who was a physician. The monument in memory of this action has been begun on the foremost, or Breed's Hill. The granite (Quincy granite) employed in it is found in the neighbourhood, and is of a grey colour.

It was intended, originally, that this monument should be 210 feet high; it is now meant to be only 180 feet high. What is already done is a pyramid between fifty and sixty feet in height, which was covered with a temporary wooden roof. Withinside, a convenient stone staircase leads to the top, and from the small windows in the roof, there is an incomparable view over the city of Boston, Charlestown, the two inlets, the long bridges, the Bay of Boston, with its diversified islands, and the ships with their white swelling sails, coming from, and bound to, all parts of the world. Looking into the country, there is an alternation of verdant hills, numerous villages, and dark woods; the whole forming a highly picturesque landscape. Cattle were grazing near the monument, on the green hill; a well-dressed boy was employed in milking the cows. [22]

From Bunker's Hill we went to Cambridge, and had, on this road, the first sight of an American landscape. Meadows, partly covered with arundinaceous plants, corn-fields, and European fruit trees, alternated with small thickets and groves. The apples that grow here are said to be yellow, and not particularly good; they are chiefly used to make cider. On almost all these fruit trees we saw caterpillars' nests of extraordinary size, they being often a foot and more in diameter. The

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butterfly which produces them must be in vast numbers, and it is surprising that more care is not taken to destroy them. The road was bordered with trees, as is generally the case here; we observed Celtis occidentalis, Lombardy poplars, partly lopped, and not growing to any great height. The thickets consisted of oaks, with various deeply indented leaves, in general of a beautiful shining green; different kinds of walnut, ash, and elm, which always attain a great height here, and, where they stand free, the stems are clothed with thick boughs down to the ground. The low thickets were of a bright green, and in adjacent meadows, which were partly marshy, grew plants, much resembling those of Europe, such as Ranunculus, Pyrethrum, several with white flowers of the genus Syngenesia; both a white clover and a red clover, common with us, seemed to be generally cultivated, as well as potatoes, corn, and maize. This part of the country has, on the whole, the European character—like England, for instance—but it is even now more wooded, and pines of different kinds give a variety: the population, too, is distributed in a different manner. In one of the nearest thickets, a little songster (Sylvia æstiva), and some other birds, reminded me that I was not in Europe, but on the borders of the northern part of the New World, and the beautiful Icterus Baltimore flew to the higher thickets; and I very well distinguished its black and bright red plumage. These new objects gave a us great pleasure, and we only regretted that we could not immediately pursue them. On the summit of the gentle eminences we came to Cambridge College, which is very agreeably situated on a verdant lawn, shaded with trees, and surrounded by avenues of elms, Weymouth pines, maples, ash, planes, and other shady trees. The buildings stand separately; and in all the gardens of the neat habitations, we observed, in general, European plants—the rose, syringa, hibiscus, and but few American plants, of which the trumpet tree was not then in blossom. My visit might have been very interesting if I had known that Mr. Nuttal, [23] one of the most active naturalists and travellers in North America, held an office in this college.

On our return to Boston, we visited many of the curiosities of the city, which are enumerated in various works. Among them I mention only the New England Museum, [24] as in part, at least, an institution for natural history, but where the expectation of the stranger is grievously disappointed. These museums, as they are styled, in all the larger cities of the United States, except, perhaps, the Peale Museum, at Philadelphia, are an accumulation of all sorts of curiosities, the selection of which is most extraordinary. Here we find specimens of natural history; stiff, awkward, wax figures; mathematical and other instruments, models, bad paintings and engravings, caricatures; nay, even the little prints out of our journals of the fashions, &c., hung up without any order. Among the animals there are some interesting specimens, but without any ticket or further direction. This collection was placed in several stories of a lofty house, in narrow passages, rooms, and closets, connected by many flights of steps; and to attract the public, a man played on the harpsichord during our visit—a concert which could have no great charms for us.

Boston, however, has much that is worthy of notice, and numerous excellent institutions, respecting which the many descriptive works may be consulted, which treat on the subject more in detail than a passing traveller can do. As my time was limited, I took places in a stage-coach that was to set out at noon for Providence, from Bunker's coach-office, at the Marlborough hotel. The establishment of stage-coaches, and the mode of travelling in this country, have been accurately described by Duke Bernhard of Saxe Weimar; [25] I therefore merely say, that we went in a commodious stage, with nine seats inside, and four good horses, which carried us at a rapid pace from Boston to New Providence, forty-one miles distant, where we embarked for New York.

The causeway was a good, solid, broad road, paved in some places, and very dusty at this dry season; it led over low hills and plains. Near the city there is a great number of pretty, and some elegant country houses; and as they became less numerous, they were succeeded by the houses of the farmers and planters, which are spread over the whole country. All these farm-houses are slightly built, boarded, and roofed with shingles; often grey, of the natural colour of the wood; but many of those belonging to the richer class are neatly painted, and variously ornamented. The walls, even of large buildings of this kind, are extremely thin, and one would think they must be too slight for the cold winters of this country. It seems quite inconceivable that, throughout the United States, you find only open fireplaces; and very rarely good stoves, against which the Americans are prejudiced, because they are not aware of their great superiority. The business of the occupant is painted on the house in large letters, as in England and France.

The road by which we travelled was often bounded by hedges, or by walls of blocks of granite, or other kinds of stone, on which plantain, elder, stagshorn, sumach, &c., were growing. In the low marshy meadows were willows, a kind of reed mace, cotton grass, rushes, and, in the water, adder's tongue. Near the road, the hills, which here and there gradually rise to a great elevation, are covered with shrubs and trees, among which we noticed some firs, mixed with the other trees.

Juniper trees, from fifteen to twenty feet high, grew in all these woods, partly as underwood. In the low grounds, near the road, we observed luxuriant tufts of various kinds of oak, walnut trees—some with large shining leaves, chestnuts, now in blossom, and many other kinds of trees cultivated in European gardens. Wild vines, with the under side of the leaves whitish, twine round many of the bushes; but, in these northern parts, they do not attain a great height. These thickets alternate with open tracts of land, where the peasants, tanned by the powerful American sun, wearing large straw hats, were busily employed in making hay.

However small and poor the dwellings, we still saw at the windows, and before the doors, the

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women, most elegantly and fashionably dressed, engaged in their household employments. In this land of freedom, nobody, of course, will allow his neighbour to have an advantage over him; hence we often see silk gowns, and the newest fashions of all kinds, in laughable contrast with the poor little habitations. Small country carts pass the traveller, in which, beside the owner, who drives, sits a country lady, handsomely attired, who looks like a copy of some *journal des modes*. The dress of the countrymen is, in general, not so fine, but is, in some degree, according to the man's circumstances.

We were much pleased with some thick forests of oak, with beautiful glossy (often deeply indented) leaves, of a great variety of forms. Forests, consisting wholly of the Weymouth pine, alternated with the oak. The trunks were large, but the height of the tree was not great in proportion. Among them there was always a number of dead trees; others had a quantity of bearded moss hanging on them; in a word, though so near to the habitations of man, and in a cultivated country, they had more of the wild character of unreclaimed nature than our European forests. In many places there were openings into dark forests, to a great distance; and, now and then, into lovely valleys, with a lake or a river, where the white buildings had a very picturesque appearance, contrasted with the dark woods and the green meadows. Mr. Bodmer, however, was not satisfied with all these landscapes: he had expected to find, at once, in America, forms differing from those of Europe; but these must be looked for under another zone; for, in 10 North America, the general character of the vegetation resembles that of Europe. In some parts, we remarked in the meadows large stones, something like those in Westphalia, or in the Westerwald, in Germany.

We changed horses at three places, at one of which we had dinner, which, as in England, was ready when the passengers arrived. The regulations here have an advantage over those in most parts of Europe, inasmuch as fees are nowhere given, so that you cannot be molested by the importunity of the driver: on the other hand, the coachman dines at the same table as the passengers. You are, however, pretty secure against the conversation of unpolished people, because the Americans are usually mute at table.

Towards evening we reached Pawtucket, a neat town on the river of the same name, in the state of Massachusetts. The place has manufactures of various kinds, and is animated by trade and industry. The river empties itself into Narraganset bay, and is said to have falls of fifty feet. We soon travelled the few miles from this place to Providence. The evening being fine, the journey was very pleasant: the road was full of stages, cabriolets, farmers' wagons, and smart country ladies, whose veils on their large fashionable hats waved in the wind; they were generally seated in little chaise carts, the seats of which were covered with bear skins.

At Providence, which we reached before night, we put up at Franklin House, a respectable inn. A crowd of idle gentlemen and other curious persons stared at us, and laughed in our faces, when they found, by our pronunciation, that we were foreigners. We had to pass some days here, waiting for the return of a steam-boat from New York; we therefore employed this interval in exploring the town and neighbourhood.

Providence is a busy town, the capital of the state of Rhode Island, and situated on an arm of the sea. It is built partly on sandy hills, partly on the low ground next the sea, has some good new streets, and a brisk trade, as appears from the many ships at anchor. There is no want of handsome shops, and several public buildings deserve notice; such as twelve churches, several colleges, and other public institutions, which I forbear to enumerate. In the churches the singular style of the architecture calls for censure:—they are of brick, with steeples variously ornamented, but often painted with glaring colours; for instance, the lower part reddish brown, with the frames of the windows and of the doors white; the upper part bright yellow with white. There is a considerable degree of luxury at Providence. The women appear in the streets in the most expensive dresses; and the country ladies (farmers' wives), whom I have so often mentioned, dressed in silk, and wearing large straw bonnets and veils, bring milk to market in little carts. This love of finery is guite a characteristic trait in the American people; but it is, at the same time, an indication of prosperity; for it is true that, in this country, there are neither poor nor beggars; and if you see people doing nothing, they are generally new comers from Europe. Negroes and their coloured descendants are more numerous here than in Boston and the northern parts.

The next day was Sunday, in the observance of which the Americans are very scrupulous. All the people, with their books under their arms, proceeded to the churches, the bells of which were very slowly tolled. The streets were quite still on this day, and all the shops closed; but, then, numerous carriages and cabriolets, filled with finely-dressed people, were in motion. We strolled about the surrounding country, which, in general, has a dead and rather sterile appearance. Here, too, we saw, almost exclusively, European trees and flowers in the gardens; there were, however, some peculiar to the country, among which the magnolia was now in blossom.

Intelligence had been received from New York that the cholera had broken out there, and that numbers of the inhabitants were leaving the city. On the arrival of the Boston steam-boat, the Captain confirmed this unwelcome news, which, however, did not deter us from embarking in this fine vessel for New York. On the 8th of July, in the afternoon, we went on board the steam-boat, which had above 100 passengers. The Boston was a large, handsome vessel, about the size of a frigate. It had three decks; in the lower part was the large dining and sleeping room, where above 100 persons were very well provided for. On the middle deck there was a cabin for the ladies, with twenty-four beds. The numerous attendants were negroes and mulattoes of both

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sexes, all free people. The vessel had two low-pressure engines, which are thought to be less dangerous than the high-pressure engines, though the Americans affirm the contrary. On the upper deck was a pavilion, with glass windows, in which, when the weather was unfavourable, the company could sit and enjoy the prospect.

When all the passengers were on board, one of the engines was set to work, and when we got further from shore, the other also. The low, sandy coast, partly covered with trees, where towns alternated with forests, quickly disappeared. The sky was dark and cloudy, and a cool, fresh breeze blew. We reached the strongly fortified town of Newport, where many small vessels lay at anchor. The place is distinguished by three forts, and other fortifications, and a lighthouse. When twilight set in we were already in sight of the open sea, which, however, remained visible for a short time only, because we steered to the right, into the channel between the continent and Long Island.

On the morning of the 9th of July, the sky was gloomy, and the sea much agitated. On our left we had the coast of Long Island, which, in general, is not high, but has some more elevated parts. with an alternation of sand, bushes, and brushwood. Some very picturesque and diversified inlets run into the land. The channel becomes gradually narrower, and the beauty of the landscape increases in the same proportion. One narrow place is called Hellgate: there are here many rocky islets covered with sumach bushes (Rhus typhinum). At length, turning round a point of the continent, a new and most picturesque scene presented itself. We were in what is called the East River, an arm of the sea, open towards New York, which is connected with the Hudson or North River, one of the most beautiful rivers in North America. At the conflux 12 of both, lies the city. The banks of the East River are like an English park, shaded by beautiful copses and groups of lofty trees: the ground was clothed with the brightest and most luxuriant verdure, with tall tulip trees, planes, Babylonian willows, Lombardy poplars, and many others, alternating with green meadows, where there are neat, and often elegant country-houses; and the eye is charmed by many fine prospects and a great diversity of scenery. Passing the Navy Yard, which is situated on a point of land, the great city of New York, with its innumerable masts, lies before you. As you approach and enter the broad and extensive piece of water formed by the conflux of the East and North Rivers, you see the whole mass of houses, with countless ships, which line both the banks to a considerable distance, with a forest of masts, to which few other cities can present a parallel. The steamer landed us at a spot where, notwithstanding the heavy rain, there was a great crowd of people collected. Porters, black workmen, and coachmen in abundance, with loud cries, and much importunity, offered their services; and we immediately proceeded to the American Hotel, a considerable inn, in one of the handsomest squares in the city.

CHAPTER II

STAY IN NEW YORK, PHILADELPHIA, AND BORDENTOWN, FROM 9TH TO 16TH JULY

New York—Bloomingdale—Hoboken—New Brunswick—Trenton—Bordentown—Philadelphia—Fair Mount, with the water-works—Stay at Bordentown—Park of the Count de Survilliers—Excursions in the forests—Return to Philadelphia.

New York is but little inferior to the capital cities of Europe, with the exception of London and Paris. It has, at present, 220,000 inhabitants, and its commerce is so extensive, animated, and active, that, in this respect, it is scarcely surpassed by any. There are so many descriptions of this great city, that to say much on the subject would be merely repetition. The first impression that it made on me was very striking, on account of the beauty of its situation. In the interior the style of building resembles that of many English cities. It has one remarkably fine street, called the Broadway, which traverses its whole length; other parts are old, and not so handsome. In the Broadway, which is the favourite resort of the fashionable world, is an uninterrupted line of shops, but little inferior to those of London and Paris. The city is extremely animated, and people of all nations carry on business here. We were assured that the population had been diminished, in a few days, by the emigration of 20,000 of the inhabitants, who had fled to other towns for fear of the cholera.^[26] It is well known that this lamentable disease had been very fatal in Canada, and had now penetrated into the Northern States of the Union: it was raging in Albany, on the Hudson, at Detroit, and on the great lakes, so that it seemed as if it would defeat our project of beginning our journey to the interior by that route. This had been my plan, in which the recommendations of our worthy countryman, Mr. Astor, [27] would have been of great service, as he is the founder and head of the American Fur Company, which has spread its trading stations over the whole of the interior of North America. I formed numerous interesting acquaintances, in a short time, in New York. Several estimable fellow-countrymen, Messrs. Gebhard and Schuchart, and Mr. Iselin, did their utmost to afford us their counsel and assistance. Mr. Schmidt, the Prussian consul, contributed not a little to make our stay in this city agreeable; and so did Mr. Meier and other of our German friends. Mr. Schmidt has a country-house at Bloomingdale, 14 where we passed some very pleasant days in the circle of his amiable family. Mrs. Schmidt, an American lady, had visited Europe and travelled in Germany, and remembered, with pleasure, the banks of the Rhine.

The house at which Mr. Schmidt resides in the summer, is charmingly situated on the banks of that picturesque river, the Hudson, seven miles from the town. The pretty dwelling-house, with a veranda all round, covered with passion flowers, honeysuckles, the red trumpet flower, and other

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beautiful climbing plants, stands on a verdant lawn, shaded by lofty trees, among which we observed the finest kinds of this country, the trunks of which were slender, and straight as pillars. The park extends to the Hudson, where the tall sassafras, tulip, oak, walnut, and other trees, protected us by their shade; while the large steam-boats, rapidly passing on the bright surface of the Hudson, had a very picturesque effect. Mr. Schmidt had the kindness to afford us an admirable view of what is called the island of New York. Near Bloomingdale is a large and very well conducted lunatic asylum, from the lofty roof of which we enjoyed an inexpressibly beautiful, extensive, and interesting prospect of the whole country. From this spot we overlooked the East and North Rivers, the broad bend of the latter, and its high banks towards Albany; to the north, dark forests, with detached dwellings and country seats; and, in all directions, luxuriant green thickets, towns, villages, and handsome country-houses. At our feet, contrasting with that rich and noble view, full of variety and life, we looked down on the buildings and court-yards of the hospital, in which we could observe the patients; while, in another enclosed space, Virginian deer were sporting and playing. This asylum is a very excellent establishment, and contains a great number of patients: the physician resides in the house, and was so good as to show us over it. New York has many such useful institutions,—hospitals, poorhouses, and houses of correction, in which latter the young, who may still be reclaimed, are not mixed with the old, hardened offenders, but are kept apart. There is an asylum for the deaf and dumb, &c.

Our returning from Bloomingdale, in the evening, was extremely agreeable, the weather being delightful. In the dark thickets and woods were swarms of fire-flies; and from the marshes and pools came the croakings of the frogs, with which we were not yet familiar; but we did not hear that of the celebrated bull-frog.

The most beautiful spots and environs of New York are indebted for the attraction of their views, to the variety of the waters surrounding the city: thus, for instance, at the end of the Broadway, is the Castle Garden, formerly a circular fort, the walls of which are converted into a public walk. From the wall itself is a fine prospect of the noble harbour, the neighbouring city, the banks, the opposite coast, and the broad river, where ships of every kind and of all nations are coming and going. Another favourite place of resort is the garden at Hoboken, the name of which indicates its Dutch origin, for it is well known that the Dutch founded the first considerable settlement in this place, numerous traces of which still remain. 15 The communication with Hoboken is by means of a steam-boat. The garden extends along the banks of the Hudson, and the lofty trees and thickets are pleasing and interesting to the stranger. The tall hickory and other kinds of walnut trees had now their fruit half grown. Storax trees (Liquidambar styraciflua), with their maple-like leaves, grow very high and straight, Gleditschia triacanthos and inermis, with wild vines, climbing round them; and many other fine forest trees afford protection against the heat of the summer. Many European trees and shrubs, too, have been planted here. Thus we saw a hedge of whitethorn, the growth of which, however, was stunted by other wood. Many birds, whose notes were unknown to us, were heard in these shades. On my first visit to New York, I was interested by some collections of natural history; for instance, two museums, one of which, belonging to Mr. Peale, is, however, much inferior to that of his brother at Philadelphia. Being anxious to see Philadelphia, I hastened to set out for that city, and left New York, where the cholera was daily spreading more and more.

On the 16th, at six in the morning, I embarked on board the Swan steam-boat, which was so crowded with passengers that there was scarcely room to sit down. On our left we had Staten Land; but we soon turned to the right, into the river Raritan, on which New Brunswick is situated.

New Brunswick is a village, consisting of many straggling streets, where all the passengers landed from the steam-boat, and took their seats in stage-coaches, drawn by four horses, which were standing ready to receive them. The heat was great, the company very mixed, and I had the misfortune to have noisy and disagreeable companions. A long hill, with steep sides, which appears to consist of a reddish clay, extends along the water-side to New Brunswick. On the eminence above the town it was naked and rather sterile; the road was bad, and we were roughly jolted as we drove rapidly along. Meadows, fields of clover, rye, oats, and maize succeeded each other in the vicinity of the habitations, as well as plantations of European fruit trees, full of large caterpillar's nests, but flourishing in the greatest luxuriance. The beautiful red trumpet flower partly covered the sides of the houses, about which Italian poplars and Babylonian willows were frequently planted; the latter are often very high and spreading. The cattle are partly without horns. Sheep and swine were numerous.

While we were changing horses at Kingston, negro and other children offered milk, little cakes, and half-ripe fruit for sale, of which a great deal was bought. Some German peasants, lately arrived from Europe, who were welcomed by their relations, previously settled in the country, completely filled a couple of stages, and were not a little merry, in their low German language, at which Americans laughed heartily. From this place the country was rather woody. Here and there were fine forests, the shade of which was very refreshing in this hot weather. The growth of timber was very fine. A pretty wild rose blossomed among the bushes in the meadows. Oak, sassafras, walnut, chestnut, plane, and tulip trees, displayed their luxuriant foliage of various and often glossy green. The tulip trees, when young, are distinguished by their pyramidal shape and beautiful light green leaves; they were at this time covered with their seed vessels, which were full-grown, but not ripe. The branching phytolacea, and the thorn-apple with its large white flowers, which were now open, as well as several plants brought from Europe, grew in abundance by the road-side, also species of sumach, partly entwined with wild vine; and in the forest was

underwood of *Rhododendron maximum*. We passed rapidly through Prince Town, and arrived at Trenton, on the Delaware, a straggling town, lying among thickets, on the low banks of the river. A long, covered wooden bridge led to the opposite bank of this broad river, which was animated by ships and boats. Such colossal, covered wooden bridges are very common in the United States; and many travellers have already described the construction of these useless masses of timber. From Trenton, we hastened over a sandy tract to another place on the river, opposite to which is Bordentown, and at a short distance lay the steam-boat, Trenton, ready to convey us down the river to Philadelphia. We descended the fine river Delaware, the low, verdant banks of which are covered with many towns, settlements, and country houses; here and there, too, with forests of oaks, &c., and of a kind of pine (*pinus rigida*).^[28] After taking dinner, at which we were waited on by negroes and mulattoes, we reached Philadelphia about five or six o'clock.

This city extends a great way along the right bank of the Delaware, but has by no means so beautiful and striking an effect as New York. It is large and regularly built; the long, straight streets crossing each other at right angles. The modern part of the city is handsome, consisting of lofty brick buildings, ornamented in the English fashion; but the older parts of Philadelphia consist of low, mean houses. It is very judicious that, in hot weather, an agreeable shady walk is formed by awnings spread before the houses, and that the streets are well watered. The waterworks are at Fairmount, where there is a basin, from which pipes convey the water to every part of the city.

The streets which run at right angles to the Delaware are called by the names of different kinds of trees-Mulberry Street, Walnut Street, Chestnut Street, &c.: the streets which cross them are numbered, First Street, Second Street, Third Street, &c. Chestnut Street, without doubt the finest, is full of life and traffic. A part of it has, in the middle, a shady avenue of lime trees; and, besides, there are, in many of the streets, rows of trees which do not yet afford much shade. Splendid shops, in almost uninterrupted succession, line the streets, and you find here all the manufactures and produce of the other quarters of the globe. The ancient, injudicious practice of having the churchyards in the towns is still retained in America. They are filled with great numbers of whitish monuments, of various forms, often planted with high trees, and lie quite exposed to view, being separated from the street only by an iron railing. Philadelphia has a considerable number of public buildings, especially many churches and meeting-houses of 17 different religious denominations, most of which are extremely plain brick buildings, without any external ornaments whatever. This country has no history like the Old World, and therefore we look in vain for the ancient Gothic cathedrals, and those awe-inspiring monuments of past ages, from which the traveller in Europe derives so much pleasure and instruction. Besides the churches, the principal buildings are the State House, where the independence of the country was proclaimed on the 4th of July, 1776, the United States Bank, the Bank of Pennsylvania, the Exchange, the University and the Medical College, the Mint, some hospitals, the Deaf and Dumb Asylum, and many others, which it would lead us too far to mention here.

Philadelphia would make a more striking impression if we could find a spot commanding a view of the whole; but as it lies in the plain between the rivers Delaware and Schuylkill, which unite five miles below the city, no such spot is to be found.

It is well known that this city was founded, in 1682, by William Penn, a Quaker, who concluded, under an elm tree, which recently fell down from age, a convention with the Delaware Indians, the proprietors of the soil, by which they ceded to him a tract of land. Philadelphia, literally "the city of the brethren" (Quakers), contains people from all the nations of Europe, especially Germans, French, and English. In some parts of the city, German is almost exclusively spoken. In the year 1834, the population consisted of 80,406 whites, and 59,482 people of colour. I arrived in Philadelphia at an unfavourable moment, for the cholera had already manifested itself also in that city. Letters of introduction from Europe procured me a kind reception in some houses; but, on the other hand, I had not an opportunity of becoming acquainted with several scientific gentlemen, because, being physicians, they were now particularly engaged. Professor Harlan, M. D., well known to the learned world as an author, was of the number.^[29] Mr. Krumbhaar, a German, to whom I had letters, received me with much kindness, and introduced me to many agreeable acquaintances. He took me to the water-works at Fair Mount, one of the most interesting spots near the city, which are indeed worth seeing. The road led past the House of Correction, where young offenders, who are still capable of being reclaimed, are confined. On the bank of the river, there are buildings in which large wheels set in motion the machinery by which the water is raised to the reservoirs, on an eminence about eighty feet high, whence the pipes are carried to all parts of the city. The rocky eminence, from which a fine, clear spring rises, is provided with stairs and balustrades, and adorned with elegant pavilions, which command a view of the water-works, and of the beautiful valley of the Schuylkill. It is a favourite promenade, and daily resorted to by numbers of persons, as they can have all kinds of refreshments there. Beautiful plants, the catalpa, plantain, &c., grow among the rocks with great luxuriance, being watered by the springs. We crossed the great bridge over the Schuylkill, to return to the city, where I made but a short stay, because my fellow-travellers were still detained at New York, waiting for our baggage from Boston. As [18] all the roads were crowded with fugitives from New York, it was not a favourable moment for travelling; I therefore resolved on an excursion to Bordentown, in order to obtain some little knowledge of the forests of New Jersey.

I left Philadelphia, on board the Burlington steam-boat, about noon, and arrived at Bordentown between four and five o'clock. At this place are the estates of the Count de Survilliers (Joseph Buonaparte), who had but lately sailed for Europe. [30] The pleasant country house, in the fine

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park, is about 300 paces from the village, near to the high road, and near, also, to the iron railway from Amboy to Camden, opposite to Philadelphia. [31] Workmen were employed in making this road, in doing which, advantage was taken of the hollow of the valley, so that the railway was much below the common road, or the street of the town. I found some interesting plants in the woods opposite the Count's park. There were three or four kinds of oak, among which are the Quercus ferruginea, with its large, peculiarly shaped leaves; the white oak, the leaves of which are the most like the European; also, varieties of walnut trees, chestnuts, and the sassafras, a fine, tall tree, which was just then in blossom, the leaves of which often vary in shape. The undergrowth of this forest, in which pines were mixed with other trees, consisted of Rhododendron maximum (Pennsylvania mountain laurel) and kalmia, the latter of which, in the deep shade, was already out of flower; but the former still had its large bunches of beautiful white or pale red blossoms, and was from ten to fifteen feet high. The stiff, laurel-like, dried leaves of this fine plant covered the ground, and crackled as we passed along, which reminded me of the Brazilian forests, where this occurs in a much greater degree. On open, uncultivated spots, the great mullein (Verbascum thapsus), with its yellow flowers, and large, woolly leaves, grew in great abundance, and likewise the phytolacea. Among the thick blackberry bushes, entwined with vines, by the road-side, I observed the little striped squirrel, which doubtless climbs to get at the fruit.

At ten o'clock, the heat was already so intense that I returned to the inn, where I arrived very much fatigued. This house is very pleasantly situated on an eminence above the Delaware, at the place where the steam-boats arrive, and from which there is a fine view of the arm of the river, and the adjacent lowland, covered with woods and thickets. A great ornament of this landscape is the white garden-pavilion of Count Survilliers, which rises above the thick groves on the left bank of the Delaware, above Bordentown. In the cool of the evening I usually went to this park. The house itself is a pretty building, on a lawn near the water-side, where oleander and orange plants are placed. The park is very shady, and extends along the Croswick Creek, towards which the bank forms a steep, wildly wooded declivity. In this wood there was likewise a thick undergrowth of Rhododendron maximum, now in full blossom. On an eminence immediately above the river, stands a kind of tower, several stories high, upon a terrace, from the gallery of which is a fine and extensive view over the low, wooded country, and the arms of the river. From this place winding paths lead through the gloomy forest of 19 pine trees, of different varieties, where many birds, of kinds unknown to me, were flying about. The cat bird (*Turdus felivox*, Vieill.), whose voice has a slight resemblance to that of a cat, was very numerous in this place. From the top of the wooded bank a sort of bridge has been carried out, a great height above the river, and a square place furnished with seats, from which you overlook the whole country. An old Canadian pine stands at the edge of the bank, some branches of which we carried off, by way of memorial. The view from this place is remarkably beautiful; to the right and left extends the river, or rather broad brook, which, at the feet of the spectator, is covered with water plants. The yellowblossomed Nymphæa adversus, and the beautiful Pontederia cordata grow here in great abundance. There was plenty of occupation for the botanist and the ornithologist, and the sportsman would have reason to be satisfied, for in the neighbouring thickets there were deer (Cervus virginianus), and hares (Lepus Americanus), which frequently crossed our path. [32]

On my return to Bordentown, I found before the door of the inn a number of gentlemen lying in more than easy positions on the benches; the chief subject of conversation was the cholera, which filled the whole country with terror.

It was precisely the hottest part of summer, and it was scarcely possible to protect one's self against the swarms of European flies, which are very numerous. On this account there are, in the inns, negroes and mulattoes, who attend at table, and give the company rest from those troublesome insects, and, at the same time, cool air, by fanning them with fans, made of feathers, often those of the peacock. Fans are, in fact, an article of luxury, and are purchased in the towns; they are made of the tail feathers of the wild turkey, the crane, or the swan, of palm leaves, &c. It was so hot in the daytime, that it was hardly possible to leave the house; and the cholera, therefore, spread rapidly in New York. In this sultry season, the evenings were really refreshing, and gave new life both to men and animals. When it became dusk, luminous insects flew about, and the crickets chirped in notes like those in Europe, but in more rapid succession.

On the following day I visited other places and woods in the vicinity of Bordentown. The town itself is built in the country fashion, with regular, broad, unpaved streets or roads, and the houses lie detached from each other, shaded by rows of trees: this is very necessary, for now, at 10 o'clock in the morning, Fahrenheit's thermometer, in the cool passage of the inn, was at 73°. The avenues of trees in the town consisted of robinia, paper-mulberry, large-leaved poplars, which exude an aromatic gum, weeping willows, and Syrian mallow, which latter grow to the height of ten and even fifteen feet. These plants, with their beautiful flowers, flourish here in much greater perfection than in Germany. In the gardens we observed monarda (Oswego tea), 20 the Indian cress (tropæolum), purple convolvulus, buckthorn (Lycum Europeum), the climbing trumpet flower, vine, catalpa, larkspur, &c.

From Bordentown I sometimes passed beyond the iron railroad, and penetrated into the neighbouring forest. Five or six species of oak, several kinds of walnut trees, beeches, chestnuts, and dogwood, formed the thick wood, the undergrowth of which consisted of *Rhododendron maximum*, kalmia, rhus, and tall juniper.

On the 23rd of July I left Bordentown, and returned to Philadelphia, as our baggage had not yet

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arrived from Boston. I made use of this interval to examine the museum of Mr. Titian Peale, which contains the best collection of natural history in the United States. There is the fine large skeleton of the Ohio elephant (*Mastodon, Cuv.*), and likewise most of the animals of North America, pretty well stuffed. Among them I noticed, especially, the bison, the bighorn or wild sheep of the rocky mountains, the prairie antelope (*Antilocapra Americana Ord.*), the elk (*Cervus major*, or *Canadensis*) the grisly bear (*Ursus ferox*), and others. Mr. Peale, the owner, accompanied the expedition under Major Long to the Rocky Mountains, where he procured part of these specimens himself. There are likewise many specimens of foreign animals; for instance, a rhinoceros; and the collection of Indian dresses, utensils, and arms, is, I think, the most important that I have yet seen. I was particularly interested by some oil paintings of Indian villages and scenery by Seymour. This artist also accompanied Major Long's expedition. Mr. Peale's collection deserves precedence above all the public museums in the United States, for its more scientific arrangement, and because fewer trifling nicknacks have been admitted into it. Mr. Peale has also travelled in South America, and his health was still suffering from his visit to that country.

As the study of the aboriginal nations of America had peculiar attractions for me, I searched the shops of all the booksellers and printsellers, for good representations of that interesting race; but how much was I astonished, that I could not find, in all the towns of this country, one good, that is, characteristic representation of them, but only some bad or very indifferent copper-plates, which are in books of travels! It is incredible how much the original American race is hated and neglected by the foreign usurpers. Only a few eminent men, who have felt this reproach and defect, are now exerting themselves to rescue from oblivion the neglected materials, scarce as they now are, after it has become next to impossible to collect anything complete respecting the history of many exterminated Indian tribes. Messrs. Morse, Smith Barton, Edwin James, Say, Duponceau, Schoolcraft, Cass, Mc Kenney, and some others, are an honourable exception in this respect. A fine work, with coloured lithographic plates, was contemplated at Philadelphia, which deserves encouragement; it was to give the history of the several Indian tribes, with portraits of their chiefs, for which the Government was ready to furnish all the materials in its possession. It seems that this important publication has at length been carried into execution.

CHAPTER III

RESIDENCE AT FREIBURG AND BETHLEHEM IN PENNSYLVANIA, FROM JULY 30TH TO AUGUST 23RD

View of the Country—Population of German Origin—Freiburg—Residence there—The Rocky Valley—Excursions—The Colony of the Moravian Brethren at Bethlehem—Residence there—Excursions.

All the members of our party had now joined, and, though our baggage was not yet arrived from Boston, I resolved, in order to make myself acquainted with the interior of Pennsylvania, to take up my abode in the settlement of the Moravian Brethren at Bethlehem. I had previously paid a visit to the place, and found it very favourably situated for our object. On the 30th of June [July], before daybreak, in the finest weather and bright moonlight, we drove through the long streets of Philadelphia, and passed the churchyards, with their white, ghost-like monuments and tombstones. The day broke when we got out of the city. On both sides of the road were country houses, alternating with fields, enclosures, gardens, and parks; and high trees of various kinds were everywhere planted by the road-side. We passed through Germantown, a scattered village, and, by eight o'clock, arrived at Chestnut Hill, where the passengers usually breakfast. The inn was rather uncleanly, and the coffee so bad, that a portly Quaker in our company would not take this beverage, of which he was otherwise very fond. At table we were molested by innumerable European flies, though a servant girl took great pains to drive them away, by waving a large green bough over our heads.

The whole country, as far as Bethlehem, and much farther, is chiefly inhabited by the descendants of German emigrants, who all speak an indifferent low German, and say that they rather converse in German than in English. The appearance of the country in this part is not particularly pleasing. Fields of potatoes, clover, oats, and maize as high as a man, alternate with meadows and little thickets, and all the fields are surrounded with hedges or wooden fences. At Montgomeryville, the horses are changed a second time, and the road becomes more diversified. 22 The habitations of the country people are generally small, often rather poor, frequently composed of boards, covered with shingles; sometimes they are merely great block-houses, like the cowkeeper's cottage in Switzerland. These cottages are surrounded with little gardens, in which there are various kinds of European plants, such as the hollyhock, hibiscus, larkspur, balsam, &c. The Hibiscus Syriacus was everywhere in blossom, in the greatest beauty. I have never seen this fine plant so high and vigorous, or its flowers so large and splendid, in Europe, as here. They are of three varieties of colour—white, purple, and bright pink, the latter by far the most beautiful. In general, the trees and shrubs in this country are very vigorous. The vegetative power increases the more you advance towards the south, and the prodigious fertility of the soil remains long unimpaired, even after it has been stripped of its primeval forests.

The country, as we advanced, was gradually more and more wooded. We drove through fine young woods of slender oaks, walnuts and chestnuts, ash, sassafras, beech, tupelo (*Nyssa*

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sylvatica), and other tall trees, all, with the exception of a single spot, without any underwood or young trees, which is a proof that there is no intention of perpetuating these woods for future use. In many parts they are on the way to total destruction, for they contain neither timber fit for felling, nor young plants; and if it is thought fit in future to raise timber in these ruined forests, the country people must be checked in their love of destruction, and forest laws and regulations introduced. It is fortunate for Pennsylvania that the rich coal mines have been discovered. There was a very agreeable succession of woods and meadows, and we saw great numbers of the beautiful red-headed woodpecker, which, when it spreads its wings, displays a large surface as white as snow. It is often seen sitting on the fences where the ground squirrel and the reddish squirrel, with dark lateral stripes (Sciurus Hudsonius), frequently resort. The first, in particular, is seen in great numbers about all these fences, running backwards and forwards on them. The birds which we particularly remarked were the robin, the blue bird, the fox-coloured thrush, the goldfinch, the turtle-dove, &c. The Caprimulgus Virginianus, which the Americans call the night hawk, was flying about in a meadow in bright sunshine. I have seen these birds everywhere, flying about in numbers, in the daytime, like Azaras Nacunda in Brazil. This species, too, shows, when on the wing, the white transverse stripes which are observed in many species in that country. Crows and blackbirds are common, but there are very few birds of prey, which are far more numerous in Brazil. The forests in this part of the country become more lofty; the crowns of the trees spread wider, and afford a thicker shade. Travelling by a road which runs alternately through corn-fields, meadows, and agreeable eminences, we arrived at Freiburg, a straggling village, almost wholly inhabited by descendants of German emigrants. We stopped here a couple of days, to make excursions in the forests, and took up our quarters in a tolerably good country miller's house, close to which a Jew had set up his store.

On the 1st of August, conducted by my obliging neighbour, the German Jew, and some 23 others of the inhabitants of the neighbourhood, we made an excursion to the Rocky Valley, which was represented to us as very well worth seeing. We proceeded through meadows and between fences for about half a league, and often saw the large prairie lark (Alauda magna, Linn.; Sturnella, Vieill.), which usually sits on the ground, on the grass, or on the branch of a shrub, and, when scared, often lights on the pines. Its song is short, and not disagreeable. This handsome bird is shy of the sportsman, and flies away betimes, when it may immediately be recognized by its short, outspread tail, the side feathers of which are white. Our path lay past isolated farm-houses, most of the inhabitants of which spoke German, and we then reached the forest, where we shot many fine birds. We next passed by several lonely log or block-houses, before the doors of which the children, many of them very poorly and dirtily dressed, were at play, and seemed to be the only possession of the inhabitants. The sky was overcast, and it rained, while the weather was very warm, which obliged us to visit the cool draw-wells of the peasants. From this place the forest was more and more filled with blocks of primitive rocks, mixed with hornblende and quartz, and these blocks lay about irregularly, some of them very large, and covered with various kinds of lichens. In this wild wooded spot, our guides could not tell where they were, till a German peasant showed us the rather hidden path, which could hardly be distinguished among the many blocks of stone. The Actæa racemosa, with its long spikes of white flowers, was growing everywhere, four or five feet high, like the *Digitalis purpurea*, in the mountain forests on the Rhine.

The wood now became thicker, and fuller of brushwood. We reached the bed of a stream, now dry, likewise quite filled with blocks of stone, which we followed, leaping from block to block, till we came in sight of the place called the Rocky Valley. Here, on a gentle hill, is a free prospect through the forest up the stream, where prodigious masses of great blocks of stone were so piled up, one over another, that a tract, from 150 to 200 paces in breadth, appears quite covered with them, exactly like similar heaps of stone, especially basalt, in Germany, some of which are found in the countries on the Rhine, where they are called *beilsteine*. No shrub or blade of grass can grow among these boulders, and the rain, which continued to fall, made them so slippery that it was dangerous to climb over them. No living creature was to be seen in this wilderness, nor, as I said before, was there any vegetation. These blocks seem to have been accumulated and piled up by some impetuous torrent, and it is said that, at the season of the year which is less hot and dry, the sound of water running under the stones is heard.

From this place we returned to the habitation of the German peasant who had showed us the way, where we refreshed ourselves with brandy-and-water. The inmates of the house were, in part, engaged, sitting under the shade of the trees, in cutting shingles, which they sold. They were much astonished at our double-barrelled guns, with percussion locks and safety caps. There are now scarcely any wild animals in these forests; hardly any but the grey fox, the $\boxed{24}$ Pennsylvania marmot (ground hog, or *wood chuck*), the grey and the red squirrel, have escaped the love of destruction of the invaders.

On our return to Freiburg, I found our countryman, Dr. Saynisch, of Bethlehem, whom I had previously met with. He is a naturalist, and, being well acquainted with this part of the country, was able to give me much interesting information concerning it. He stopped a couple of days with us, and we set out on a shooting excursion the same afternoon.

On the 2nd of August, early in the morning, we left Freiburg, in the most beautiful weather, and our host drove us in his dearborn (such is the name given to a small covered vehicle), and two spirited horses, to Bethlehem, the road to which afforded us much pleasure. The country is very agreeable: meadows, corn-fields, habitations, and copses succeeded each other on the side of low hills; and the fine valley, called, by the inhabitants, Upper Sakena, is remarkably fertile. The road

was here and there shaded by large trees, and a small pond was extremely interesting to us; for, besides many curious birds, we saw tortoises everywhere on the banks, and on old stumps in the water, which, however, were very shy, and plunged below the surface as soon as we approached them. In the sultry heat of noon, we reached the Moravian settlement, Bethlehem, where we put up at a German inn.^[34]

This settlement is built on the top and the side of a hill, at the foot of which the Monocasa brook joins the Lecha (Lehigh). The Lecha is celebrated for its picturesque valley, which is at first wild and wooded, and lower down, fruitful and well cultivated. At present, Bethlehem is no more than a village, but it is rapidly increasing, and has already some pretty considerable streets, which, however, are still unpaved. The church is a large, neat, light building, quite in the plain style of the German churches of this sect, and gives the place a pretty appearance, being situated nearly at the top of the hill. Another large building is the girls' school, which has a shady garden, planted with timber trees, the lower part of which is on the Monocasa, where flowers of many kinds attract the little humming-birds. The lower part of the village, consisting of but a few houses, one of which is the inn where we lodged, and where there is a long wooden bridge over the Lecha, is situated in Lehigh county; and the large upper part, in the county of Northampton, the boundary line of the two counties passing through the place. Like all the settlements of the industrious brethren, Bethlehem has a number of different trades, mechanics and field-labourers. New settlers are continually arriving, and it will, in time, become a place of importance. The inhabitants are, for the most part, Germans; but there are likewise many English, and divine service is performed in the church in German and English alternately, and most of the inhabitants speak both languages. The country about Bethlehem is agreeable and diversified; the climate very healthy. Large woods alternate in the vicinity with the fields of the inhabitants, and a canal, from the coal district of Mauch Chunk to the Delaware, gives animation and support to the country by the numerous boats that navigate it. All kinds of 25 European field and garden plants are cultivated here, and likewise maize; they have even begun to plant vines; but what is called the Alexander grape, yields a rather acid beverage, which they usually sweeten with sugar. We were told that much better wine is produced in the country about Lancaster, in Pennsylvania, near York. Fruit does not seem to thrive so well in the United States as in Europe: the peach, however, may, perhaps, be excepted.

I became acquainted with the directors of this colony: Mr. V. Schweinitz, well known in the literary world as a distinguished botanist, Mr. Anders the bishop, [35] and the Rev. Mr. Seidel. All these gentlemen received me in a very friendly manner, and Mr. Seidel, in particular, showed me much kindness. Dr. Saynisch lived in the same house with me, and I derived great benefit from his knowledge of the country. Our whole time at Bethlehem was devoted to excursions in the neighbouring country. Opposite the place, on the other side of the Lecha, is a range of mountains, or moderate hills, beautifully wooded, which afforded a great variety of pleasant walks. The mountains are covered with picturesque forests of oak, walnut, and other timber trees, under which there is, generally, a thick covert of tall Rhododendron maximum, which was still adorned with its magnificent large tufts of flowers. In these dark shades we soon learned to distinguish the notes of the different birds, among which was the flame-coloured Baltimore bird, which we recognized, at a distance, by its splendid plumage, when it was flying to its remarkable pendent nest, of which we saw several. The Lecha, the bottom of which was covered with naked blocks and masses of stone, is adorned by picturesque islands, some of them of considerable extent, to which we made many interesting excursions. Numerous kinds of aquatic plants grow in the water; and among these plants we saw numbers of tortoises. Mr. Bodmer made a very characteristic drawing of this wood and water scenery. [36] When we had crossed the river, we landed on the island in a dark, lofty, airy grove, where all the kinds of trees common in this country grow vigorously, and entirely exclude the sun's rays. The ground is clothed with many fine plants: the beautiful Lobelia cardinalis, which is common in all this part of the country, was in blossom on the banks, as well as many other plants.

This beautiful forest was peopled by a great variety of birds; besides those above-mentioned, we saw, in the crowns of the highest trees, the bright red Tanagra, the black and red Baltimore bird, the humming-bird, with reddish-brown eyes; the greenish heron, and the ash-coloured kingfisher, flew up from the stones on the bank. Whenever we were overtaken by a shower of rain on these lovely islands, we took shelter in the hollow trunks of old plane trees, of which there is one capable of holding ten persons. In these cool shades we did not much feel the heat of the summer, but it was very oppressive in the town; at nine o'clock in the evening the temperature of our apartment was 18° Reaumur ($72\frac{1}{2}$ ° Fahrenheit), and there were frequent thunder-storms. At noon the temperature in the cool passages of our house was at 23° or 24° Reaumur (86° Fahrenheit).

We made frequent excursions to these charming islands; and Mr. Bodmer, who went thither every day to complete his sketch of the forests, generally came back laden with tortoises (*Emys odorata* and *picta*) and other amphibia, or fresh water shells. This *Emys picta* is one of the most beautiful kinds of this family in Pennsylvania: there is certainly no country in which tortoises are so numerous, and of such a variety of species, as North America.

The banks of the Lehigh, chiefly covered with high woods, differ from the more open banks of the Monocasa, where extensive thickets of reed and reed mace (*Typha*) are the abode of the beautiful red-shouldered Oriole. The little shrub-like oak (*Quercus chincapin*) grows in abundance on the hills that border this stream. We made other interesting visits to the wooded Lecha mountains, on the north or north-east bank of that river, below Bethlehem. They are thickly covered with high

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timber and much underwood, and from their summits there is a fine prospect over the whole of the surrounding hilly country. The chestnut trees have been very much thinned in these forests, as the wood is highly valued, not for fuel, as it is light and porous, but for fences, because it is said to remain uninjured in the ground for sixty years.

The splendid bright red Tanagra was not uncommon in these forests; but we now met with none that were quite red, because the old males put on, towards autumn, the plain olive-coloured plumage of the females. Many of these fine birds had still bright red spots, which showed that they were undergoing a change in their plumage. Only a couple of species of the genus Tanagra, which are so numerous in the Brazilian forests, are found in all North America; but the manner and mode of living of these animals are everywhere the same. They are quiet birds, not remarkable for their song, but make up for this deficiency by the splendour of their plumage. The small hare (Lepus Americanus) and the grey squirrel were almost the only quadrupeds we saw in these woods; but of the class of amphibia there were many kinds. The larger wild animals have almost wholly disappeared. All North America was formerly one interminable forest, only there were what are called prairies in the western parts beyond the Alleghany mountains; but all Pennsylvania, a state comprising 44,500 square miles, was a primeval forest, which was thinned in a short time by the numerous settlers who flocked to this country. The larger species of game disappeared in the same ratio; and in the immediate vicinity of Bethlehem there are now not even any deer. It was mentioned to me as a very rare occurrence, that a bear had been seen here two years before, and was immediately pursued, but in vain, by the hunters. Some small animals still live in these forests, which, however, are not to be found except at night; among these are the opossum (Didelphys Virginiana) and the skunk (Mephitis Americana). The first is not frequently met with in these parts; the latter, on the contrary, is not uncommon.

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In order to catch the skunk, our hunters went by night to the Lecha mountains, and searched the forest with hounds, and almost always attained their object. The dogs killed the animal by biting it, and were sometimes a little perfumed. It has been reported that they 27 avoid the smell; but I can testify that we did not meet with any confirmation whatever of this statement. In fact, the stories told of the offensive smell of this animal are rather exaggerated, for an European polecat is often nothing behind the skunk in this disagreeable quality. The hunters brought home a half-grown skunk alive, and we kept it in a box in the garden, where it was very tame and quiet, and never emitted the slightest smell. We opened the box, and let it run about at liberty. It is only when alarmed that the skunk is offensive to the olfactory nerves. The hollow trees in these forests were the abode of the pretty flying squirrel, which, however, is not to be seen in the daytime. The banks of the river are inhabited by the musk-rat, which is often seen swimming, and is sometimes taken in the fishing nets.

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One of our usual walks, during our stay at Bethlehem, was up or down the banks of the Mauch Chunk canal. This canal is divided from the Lecha by a dam, on which grow many fine plants, about which numbers of humming-birds were fluttering. In my whole journey through North America, I nowhere found these pretty birds so numerous as here. They hummed about the yellow flowers of the broad-leaved tree primrose (Oenothera), of the violet Asclepias incarnata (swallow wort), of the *Impatiens fulva*, with its deep orange-coloured flowers, &c., and we shot many of these little creatures, among ten of which we found, at the most, one male, with deep red throat. The dam was bordered with stones at the sides; and among them were numbers of the striped ground squirrel. Tall thistles are the constant resort of the goldfinches, which picked the woolly seeds from the flower heads. At some mills, on an island near the road, there was a grove of tall trees, the dark shades of which were animated by many interesting birds, especially the beautiful Baltimore bird and the flycatcher (Muscicapa ruticilla), which is distinguished by the same colours, and is frequent here. Under the old stems, and from the roots of the trees on the bank, the great bull-frogs leaped into the water, however softly and cautiously we approached. Their deep, hollow note was not heard so much in this season, as in the spring and the beginning of the summer. I nowhere saw these frogs so numerous as here in Pennsylvania.

Opposite to these hills, on the other bank of the Lecha, was a wood of very tall, old trees, the airy, shady crowns of which were inhabited by birds of more different kinds than any other place in this neighbourhood. From that wood we always returned loaded with booty. There, too, we observed interesting butterflies, such as *Papileo turnus*, the beautiful black and blue philenor, and other species. The thick hedges near the houses were the resort of numerous cat-birds. The fishing-hawk hovered over the river, watching for prey, and we often saw the three-striped viper (*Coluber sirtalis*) glide among the grass.

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To the north and north-west of Bethlehem the woods consist of oaks without any underwood, the cattle having their pasture there. All these interesting excursions greatly increased our collections; and the Rev. Mr. Seidel, who had a good library, and a taste for the study of Nature, had the kindness to provide us with the necessary literary assistance. We lived here were agreeably in the society of well-informed men and fellow-countrymen, and our residence at the extremity of the place, close to the woods and fields, afforded us the most favourable opportunity for our researches and labours; and our landlord, Mr. Wöhler, from Westphalia, did everything in his power to assist us in our occupations. This, in some degree, indemnified me for the deplorable loss of time occasioned by the delay in the arrival of our baggage. I should have reached the Western States long before, if I had not been obliged to wait for those indispensable articles. During our stay here, we often saw German emigrants arrive, almost all of whom were from Würtemberg, Baden, or Rhenish Bavaria. In the most lamentable condition, without money, without the slightest knowledge of the country or the language, they were going to meet their

precarious fate. They were generally refused admittance at the English inns, and then Wöhler, not without considerable expense, took on him to forward them on their journey.

We received news from Philadelphia that the cholera had rather abated; it had entirely spared Bethlehem and its vicinity. The canal colliers gave me an opportunity of sending my collections to New York, which I did in the beginning of September. The Flora of the country had then produced its white, yellow, or purple autumnal flowers; the golden rod, sunflower, Eupatorium, and some kinds of Aster were in blossom, and the white flowers of the *Clematis Virginiana*.

The weather now remained very uniformly hot during the whole of July and August, with occasional thunder-storms; and if the summers in the United States are usually of this temperature, as we were assured, they are more equally hot, and for a longer time, than that season is in Germany. In order to make myself acquainted with Nazareth, the other settlement of the Moravian brethren, I drove there in company of the Rev. Mr. Seidel. It is ten miles from Bethlehem. On the road to it lies Altoona, consisting of some scattered habitations, and afterwards, on approaching the Monocasa, Hecktown. Nazareth is a pleasant place, with some unpaved streets, and has a gymnasium for the education of young clergymen. All the masters are Germans, but their instructions are given in the English language. The building seems to be old, and not very spacious. From the roof there is a fine, extensive prospect to the blue hills on the banks of the Delaware, and to the verdant, wooded banks of the Lecha. The gymnasium has a small cabinet of natural history. The church is not so large as that at Bethlehem, but can be easily warmed in the winter. A little beyond the garden, which has many shady walks, is the churchyard, where the flat, square tombstones, with short inscriptions, lie in regular rows, near to each other. The names of the brethren interred here show that most of them were Germans. There is a very fine prospect from the higher part of this churchyard. The greensward is here thickly covered with European thyme. Nazareth has about 350 inhabitants, and sixty youths in the gymnasium. There are in the place a good inn, shops of various kinds, &c. Mr. Herrman, [37] the present director of the establishment, had the kindness to show us everything worthy of notice, and we had only to regret that we could not enjoy longer the pleasure of his company, as we were 29 obliged to return to Bethlehem in the afternoon. Mr. Gebhard, from New York, who had surprised us by an unexpected visit, returned direct from Nazareth to his own residence. The view of these Pennsylvanian landscapes would be much more agreeable if the numerous wooden fences did not give them a stiff, unnatural character. Some idea may be formed of the number of these fences from the fact that, in the short distance of ten miles, persons going on foot, direct from Bethlehem to Nazareth, have to climb over twenty-five of these fences.

CHAPTER IV

JOURNEY TO THE POKONO, AND THROUGH THE BLUE MOUNTAINS TO MAUCH CHUNK, IN THE COAL DISTRICT, FROM THE 23RD TO THE 30TH OF AUGUST

Easton on the Delaware—Morris Canal—View of the Blue Mountains—Delaware Gap—Dutotsburg—Chestnut Hill—Sach's Public house on the Pokono—Height of the Pokono—Long Pond—Tonkhanna Creek—Tobihanna Creek—Inn of the Widow Sachs—Saw-mill on the Tobihanna, with the Beartrap—Stoddart's Ville on the Lehigh—Shade Creek—Bear Creek—Extensive View of the Mountains—Wilkesbarre in the Valley of Wyoming, or Susquehannah Valley—Falls of Solomon Creek—Hanover Township—Neskopeck Valley—German Settlers—Lausanne—Neskihone or Neskihoning Valley—Picturesque Scenery on the Lehigh—Mauch Chunk.

In order to make ourselves acquainted with the interior of Pennsylvania, and the Alleghany mountains, which are the most interesting part of that state, we left Bethlehem early in the morning, on the 23rd of August, in a light, covered carriage, driven by our landlord, Wöhler, who was well known in all this country. Dr. Saynisch and Mr. Bodmer accompanied me. I left my huntsman behind to look after our affairs at home. The country was enveloped in fog, as had been generally the case for some time past, till the sun dispelled it. We took the road to Easton, where the fields were partly cleared, and covered with stubble, partly planted with clover, maize, potatoes, and buckwheat, which was just in flower. The ground was gently undulating, with an alternation of fields, and woods of walnut and oak. This country belongs to the secondary limestone formation; where-ever the ground was broken up, limestone was seen, and in the woods were several limekilns, the produce of which was lying on the fields in large heaps, to be spread over them for manure. Isolated farm-houses are scattered along the road. They are slightly built of wood, many of them very small; but there are a great number of wealthy planters in this State. The little gardens of these houses were generally planted with European flowers, and on the road-side in the hedges, the kermes-oak and juniper abounded, and their berries attracted numbers of thrushes. Horses and horned cattle are very numerous, and the first, which are often of a very good breed, are left, day and night, at liberty in the meadow, and little trouble is taken about them. 31 The peasants are very bold in riding and driving, never use drags to their wheels, but drive down the hills full trot. In the hot and dry season, this country is often in want of water, and even the cisterns made by the farmers then become dry, so that the cattle must frequently be driven five or six miles to water. This arid tract is called by the inhabitants, in their German language, "das Trockene land," the dry land.

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We now saw, on our right hand, the heights on the banks of the Lehigh, covered with verdant forests, which we were again approaching. The double call of the Perdix Virginiana et Marylandica, called, by the Americans, quail or partridge, sounded in the clover fields; the ground squirrel ran along the fences; the red-headed woodpecker flew from tree to tree; and plants of various kinds, Verbascum thapsus (great mullein), Antirrhinum linaria (the common toadflax), Phytolacea, Rhus typhinum (Virginian sumach), Eupatorium purpureum, golden rod, &c., grew by the road-side; the dwelling houses were surrounded with large orchards, and the apple trees were loaded with small yellow apples of an indifferent kind, and immense caterpillars' nests covered many of the branches. A great deal of cider is made, but the culture of fruit seems to be, in general, in rather a backward state. The cherry trees, too, were covered at this time with their small, bad fruit, which, as in Europe, was eagerly sought after by numbers of birds. After travelling twelve miles, we arrived at Easton, a small town with a population of 2,000 inhabitants, the capital of Northampton county, situated at the conflux of the Delaware and the Lehigh. We alighted at the inn with many country people, and immediately set out to take a walk in the town, while breakfast was preparing. The streets of Easton cross each other at right angles; they are not paved, excepting a footway on the sides, paved with bricks; the largest of them runs with a gentle declivity to the Delaware. In a square in the highest part stands the Court-house. The buildings in the place are, in general, only two stories high; and the most interesting spot is the terrace, near the bridge over the Delaware. This bridge is 600 English feet long, has three arches, is quite closed, covered with a strong roof, and has fifteen glass windows on each side; it is painted yellow, and the building of it, like all similar undertakings in the United States, was a private speculation, and brings in thirty per cent., a toll being paid.

We crossed this bridge, and walked down the river, till we came opposite to the spot, immediately below the town, where the Lehigh, issuing from its picturesque valley, between the rocky hills covered with pines and other trees, falls into the Delaware. Near to the former, on the same side, is the mouth of the Mauch Chunk canal; and on the other side of the Delaware begins the Morris canal, leading to New York. [38] A great number of men were busily employed at this spot. On the banks of the Delaware grew *Datura Tatula*, with its purple flowers, tall Virginian junipers, a verbena, and other plants; and the three-striped viper darted through the low bushes.

Returning to the inn, we loaded our guns and proceeded on our journey. As soon as we were out of the town, we went up the Delaware on the right bank, and crossed a bridge to Bushkill, a picturesque stream, flowing between lofty shady trees, on banks richly covered with a variety of plants. From this spot the way becomes extremely romantic and agreeable. It leads close by the bright mirror of the river, which may be full 200 paces broad, in the shade of the dark forest of plane, oak, tulip, walnut, chestnut, and other trees; and on the left hand rises the steep rocky wall, covered with many interesting plants, which are protected by the shade of the trees. The river soon becomes broader, and we came to isolated habitations situated in shady groves. We stopped at one of them to send a messenger, on horseback, back to Bethlehem, where the drawing materials, of which we had so much need, had been forgotten.

The rocks often came so close to the bank of the river, that there was scarcely room for two carriages to pass each other: lofty forest trees afforded a welcome shade. In many places the rock stood out. Dr. Saynisch struck off with his hammer some fine pieces of saussurite (Hornstone), and talc, with mica; but a slate formation soon succeeded, and we were glad that we had taken good specimens of the preceding. Continuing our way, in the shade, by the banks of the river, we frequently came to other steep rocks, till the wilderness again gave way to human habitations, where we stopped at the White House to water our horses and take some refreshment. From this place the country was more diversified. The road still runs by the side of the river, which was animated by boats, and by numbers of ducks and geese. The Mudrun creek here issues in a very picturesque manner, between high trees, from a small side valley. A little farther on, we left the Delaware to ascend some pretty high hills. We proceeded along the side valley of Martin's creek, in which there are some spots of marshy meadow, where the splendid Lobelia cardinalis, which is usually found on the banks of all these rivers, attracted the eye by its deep red flowers. We then passed a naked lateral defile, where stubble, and clover fields, and woods, which we saw at a distance, reminded us of some parts of our own country. The road led over the heights, alternately gently ascending and descending till we came to the little village of Richmont, where we watered our horses, which suffered from the great heat, and ascended a considerable eminence, on which there is a mean looking church, called Upper Mount Bethel. We then proceeded through a more elevated plain, where, on the left hand, in a north-west direction, is a near prospect of the Blue Mountains, which form the first chain of the Alleghany.

This first chain is said to be only 2,000 feet above the level of the sea; but it extends here further than the eye can reach, and is uniformly covered with verdant, primeval forests. It runs in the direction from north to south, and has no characteristically shaped peaks, or remarkable forms, so that there is nothing picturesque in the total effect. With the exception of some parts, especially the beautiful Catskill mountains, most of the landscapes of North America are characterized by this want of striking outlines, and this constitutes the great difference between them and $\boxed{33}$ the views in Brazil, where the mountains and the outlines of the horizon are almost always marked by the most striking forms, as is usual in primitive mountains.

In the chain before us, we remarked an opening in a northerly direction, where the Delaware breaks through; this is called the Delaware Water Gap, or the Delaware Gap. It is twenty-three miles from Bethlehem, and was the place of our destination to-day. We were now two miles from it. After passing the little town of Williamsburg, we saw before us, almost in all directions,

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luxuriant verdant woods, and eminences rising behind each other. As our horses hastened to the valley, the height of the mountains seemed to increase. At length the bright Delaware appeared before us, and we soon reached its banks. The river here forms the boundary of Warren County in New Jersey. On the opposite side we perceived a large glasshouse, managed by Germans, called Columbia Glasshouse, where many who have possessed it have already become bankrupts.

As we approached this defile, we observed a water-snake swimming in the river, which suffered itself to be carried down with the stream, but disappeared as soon as we approached. We procured one on the following day, as they are not uncommon here.

We had now reached the mountain chain, which rose bold and steep on both sides, and at every step became more and more contracted. Just before the defile, or gap, is an inn, behind which, at the distance of hardly a couple of hundred paces, runs the steep rocky wall of grauwacke and clay slate, here the predominant kind of rock. This high wall is crowned on the summit with pines, and covered at the base with various other trees, while the middle part is naked and rugged. At the foot of the mountains are luxuriant fields and meadows, in which the fine cattle were grazing. From this spot the rocky wall approaches nearer and nearer to the river, the banks of which, rude and desolate, are covered with many broken trunks of trees confusedly thrown together, many of which were still lying in the water. This is the effect of the rising of the river, and the breaking-up of the ice in spring, which had caused more extensive damages in the spring of 1832 than on any former occasion within the memory of man. Where the banks of the river are flat and sandy, thickets of young planes often supply the place of the willows on the banks of our European rivers. The plane—called by the German inhabitants water maple, or water beech; by the Anglo-Americans, buttonwood, or sycamore—flourishes particularly near the water, or in low, moist situations, where it attains its colossal growth in perfection. These young planes, on the bank, were almost entirely stripped of their bark by the action of the water.

The inn, Delaware Gap, is supposed to be 600 feet higher than Philadelphia, and the steep wall of rock behind it is elevated 600 or 700 feet above it. We might have stopped here for the night, but, as it was early, we preferred passing the Gap. The road now led immediately along the bank of the river, and then obliquely upwards on the steep wooded western rocky wall. The savage grandeur of the scenery is very striking. The forest has underwood of 4 various kinds, where numbers of interesting plants attracted our attention. Picturesque rocks, over which water trickles, covered with various coloured mosses, lichens, and beautiful ferns, stand between the trunks of the trees, and form shady nooks, caverns, seats; while all the forest trees of this country, mixed with pines, particularly the hemlock spruce fir, and the Weymouth pine, make a dark wilderness that inspires a feeling of awe.

The valley of the Gap leaves the river just room enough to force its way between the steep walls of rock; and, if you turn and look back in this interesting ravine, you see against a steep-wooded height what is called the Indian ladder. There are several islands in this part of the river, which are partially stripped of their wood by the action of the current, but some of them have pretty lofty trees on them. At the distance of about a mile from the narrowest part of the Gap, we reached a lonely house, where a man, six feet high, and very corpulent, came to meet us; he was of German descent, and his name was Dietrich. He would willingly have received us for the night in his small public-house, but there was no accommodation for our horses, and we therefore proceeded on our journey. In a short time we reached an eminence, at the turn of the rocky wall, where the solitary dwelling of a Frenchman, named Dutot, is built on a steep rock, high above the river. From this place the valley becomes more open, and the mountains less steep as you recede from the Delaware. A bad road leads over some eminences to a large open place in the woods, forming a hollow, where the poor little village, Dutotsburg, consisting of twelve or thirteen scattered dwellings, is situated. Here we took up our night's lodging in a tolerable public-house, which is also the post-office for the stages, and is kept by a farmer named Broadhead.

We had scarcely taken a little rest, when a poor old man entered, who was the first person that had settled in this part of the country; his name was Dutot, and the village was called after him. He was formerly a wealthy planter in St. Domingo, and possessed 150 slaves; but, being obliged to fly during the revolution, had purchased a considerable piece of land here on the Delaware, and commenced building Dutotsburg. He had previously lost part of his property by the capture of ships, and his speculations here too seem to have failed. The property melted away, and the last remnant of his possessions was sold. He had built houses and sold them, so that he might be called the founder of the whole of Dutotsburg; yet, after all this, he is reduced to a state of great poverty, and his situation excites the compassion of travellers who pass that way.

As the country about Delaware Gap was highly interesting to me, we remained here on the following day, the 24th of August. We were early in motion, when the rising sun beautifully illumined the mountains. Our guide, Wöhler, had accompanied young Broadhead on a shooting excursion in the woods; the rest of us went different ways, each with his gun, till breakfast time. Near the village, a small stream, the Cherry Creek, meandered through the thickets and meadows, where numbers of birds came to drink, while the report of the fowling-pieces of our sportsmen [35] echoed from the neighbouring wood. After our return, I accompanied old Dutot to see his house and his family. He himself had nearly forgotten his native language, and his family knew nothing of it. We found in this house a delightful view into the ravine of the Delaware below, and afterwards took the way to the romantic wild tract which we passed through on the preceding evening. Several plants were here pointed out to me, to the roots of which the inhabitants of the country ascribe great medicinal virtues; for instance, the snake root, perhaps Aristolochia serpentaria, which is said immediately to stanch the most violent bleeding of any

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wound; and, above all, the lion's heart (Prenanthes rubicunda), which is commended as a sovereign remedy against the bite of serpents. Old Dutot related a number of successful cures which he had performed with this root. This plant has a tall flower stem with many flowers, and large arrow-shaped leaves; its root is partly tuberous, partly long, pretty large, and branching, of a reddish yellow colour, and contains a milky juice. It is boiled with milk, and two table-spoonfuls are taken as a dose. The swelling, caused by the bite of the reptile, is said speedily to disappear, after chewing the root. The Delaware Indians, [39] who formerly inhabited all Pennsylvania, made this remedy known to an old man, from whom it was inherited by the family of Dutot. The latter had himself been among the Indians, and gave me some information respecting them. They, as well as the river, were called after an English nobleman, but they named themselves Leni Lenape, that is, the aboriginal, or chief race of mankind, and they called the river Lenapewihittuck (river of the Lenape). They are the Loups, or Abenaguis of the French, inhabited Pennsylvania, New Jersey, &c., and were formerly a powerful tribe. A great part of them dwelt, subsequently, on the White River, in Indiana, after they had been much reduced by the whites; but, in 1818, they were compelled to sell the whole of this tract of country also, to the Government of the United States, and lands have been allotted to them beyond the Mississippi, where some half-degenerate remnants of them still live. They are said to have previously dwelt between fifty and sixty years in the territory of the present state of Ohio. They buried their dead in the islands of the Delaware, which are now partly in possession of old Dutot, but wholly uncultivated, and of little importance. It is said that human bones are still constantly met with on turning up the ground, and that, formerly, Indian corpses were found buried in an upright position, which, however, seems to be uncertain, and with them a quantity of arrow-heads and axes of flint; but all these things were disregarded and thrown away, nor had Dutot anything remaining but a thin, smoothly polished stone cylinder, with which those Indians used to pound their maize. I was filled with melancholy by the reflection that, in the whole of the extensive state of Pennsylvania, there is not a trace remaining of the aboriginal population. O! land of liberty!

Our excursion was extended to the public-house situated on the other side of the Delaware Gap, where we found a live specimen of the red fox of this country ($Canis\ fulvus$, Desm.), which we had not before met with. Loaded with plants, and other interesting objects, we returned to $\overline{36}$ Broadhead's house, where all the persons of our party successively arrived, each with something interesting. Some boys brought me the beautiful water-snake which we had seen on the preceding day. Mr. Bodmer had taken a faithful view of the Gap, near Dietrich's public-house.

We left Broadhead's on the 25th of August, early in the morning. The place which we wished to reach on this day is called the Pokono, and is the most elevated point of the first chain of the Alleghanys or Blue Mountains. Our road led in a south-westerly direction, along Cherry Creek, through a pleasant valley diversified with meadows, thickets, and woods, and gradually ascending.

As we rose higher and higher over gentle hills, we met a disagreeable, raw, cold wind, and reached, on the elevated plain, an isolated church, with a few habitations round it. On our asking the name of the place, a person, pretty well dressed, said, "he did not himself know the name of the place; the clergyman, a German, came, about once in a month, from Mount Bethel, to preach here."

On reaching the top, we saw before us the highest ridge of the Blue Mountains, the summit of which, as I have said, is called Pokono, where an unbroken tract of dark forests covers the whole wilderness. We gradually advanced towards a more bleak and elevated region, where pines and firs more and more predominated. On an elevated plain we were surrounded, as far as the eye could reach, with woods or thickets of low oaks, from which numbers of slender, half-dried, short-branched pines (*Pinus rigida*) shot up. These pines originally formed the forest—the oaks, only the underwood; but the former have, for the most part, perished in the fires, with which the settlers have, in the most unwarrantable manner, without any necessity whatever, destroyed these primeval forests. On a part of the highland, cleared of wood, through which the road passes, we saw a row of new wooden houses, and at once perceived that timber is the source of the subsistence of the inhabitants. Boards, planks, shingles, everywhere lay about, and large quantities are exported. Shops, where most of the common necessaries of life were sold, had already been established in this new settlement.

From this place, called Chestnut Hill, from the abundance of chestnut trees in the forests, the road declines a little, and you see, on all sides, numerous saw mills, which prepare for use the chief product of the country. The outside cuts of the pine and firs were piled up in large stacks; scarcely any use is made of them, and they may be bought for a trifle. We had to pass five or six times the windings of Pokonbochko Creek, the banks of which are agreeably bordered with thickets of alder, birch, willow-leaved spiræa, and the *Lobelia cardinalis*. A great number of skins of different animals were hung up at the house of a tanner, such as grey and red foxes, racoons, lynxes, &c., which led us to ask what beasts of the chase were to be met with, and we learned that deer and other large animals are still numerous. Rattlesnakes abound in these parts; they showed us many of their skins stuffed, and one very large one was hung up on the 37 gable end of a house. Some persons eat these dangerous serpents from a notion that, when dressed in a certain manner, they are an effectual remedy against many diseases.

We had here a foretaste of the wild scenery of North America, which we might expect to find in perfection, in uninterrupted primeval forests on the Pokono; we, therefore, did not stop here, but hastened to the less inhabited, more elevated, and wilder region, where the mixture of firs in the forest already began to preponderate. We halted, and took our dinner at an isolated public-house,

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kept by a man of German origin, whose name is Meerwein. Forests surrounded the verdant meadows about the house, in which woodcocks were numerous. In a little excursion in the forest I saw splendid bushes of *Rhododendron maximum*, kalmia, Andromeda, *Rhodora canadensis*, *Ceanothus vaccinum*; and in the shade of the first, *Orchis ciliata*, with its beautiful orange-coloured flowers, which is found also nearer to Bethlehem.

The entertainment in this solitary house was pretty good and reasonable; all the inmates, except one man, were Germans. If we had stopped for the night, they would have gone out for us with their guns, as deer and pheasants abound in the forests. Having taken the opportunity of forwarding our collections to Bethlehem by the stage which passed the house, we proceeded on our journey. From this place the road continues to ascend, traversing a fine thick wood, frequently crossing the stream. An undergrowth of scrub oak and chestnut is spread uniformly, and without interruption, over the whole country, the pines, as already mentioned, rising above it, most of which have suffered by fire; for in the dry season these woods have often been destroyed by extensive conflagrations, which have generally been caused by the negligence of the wood-cutters and hunters. Even now, clouds of smoke rose at a distance, and announced a fire in this great lonely wilderness. The high road is here carried directly through the forest; it is, for the most part, laid with wood, covered with earth, which requires carriages with good springs.

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When you have nearly reached the most elevated part of this wilderness, and look back, you have a grand prospect. Lofty ridges rise one above another in a narrow valley, all covered with dark forests, and, on the right and left, high walls of rock close the valley. We soon reached the highest summit of the Pokono, or second chain of the Blue Mountains, which, as I have said, forms the most easterly of the Alleghanys.

Mr. Moser, a young botanist, had accompanied us from Bethlehem, and I undertook with him an excursion to a neighbouring lake on the top of the Pokono, while Dr. Saynisch prepared the birds that had been killed, and our other hunters went out to look for stags and woodhens.

We proceeded about half an hour along the high road, when we perceived the summit of the Pokono, and then turned to the right towards an old decayed cottage, where oxen were grazing among the thick bushes, and followed a scarcely perceptible path through the wilderness. We crossed a valley, with thickets and scorched pines rising above them, where the ground was covered with various kinds of plants. An old path led us half a league over an eminence; after which we 38 found a valley, where the lake, called Long Pond, is situated, surrounded by low reeds and rushes, among pine woods and various interesting shrubs. On the narrow lake we found a small boat, in which Mr. Moser pushed about to botanize. He procured in this manner the pretty blue flowering *Pontederia lanceolata*, a red flowering *utricularia*, *nymphæa*, &c. Though this wilderness was perfectly lonely, we did not see any water-fowl, and, in fact, very little animal life, so that the botanist finds much more employment than the zoologist. The lake is about a mile long, has but little open or clear water, and receives its supply from the Tonkhanna Brook. When Mr. Moser reached the bank again, he called to me that he was very near a rattlesnake, the rattle of which he had distinctly heard; but, though we looked diligently, we could not find the animal which we had long wished to possess, because the ground was so thickly overgrown with plants. One of the sons of Mr. Sachs, our landlord, had been lately bitten by a rattlesnake while fishing, and they affirmed that he was soon cured by tea made of the bark of the white ash, which is said to be an infallible antidote to the bite of serpents.

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At noon, while we were all taking some repose, we were suddenly alarmed. A mink, or minx (*Mustela vison*), a small beast of prey, resembling the European lesser otter, had had the boldness to attack, in broad daylight, the poultry that were about the house, and was shot. Our hunters had had no success, a single pheasant being all they had procured.

In the afternoon Mr. Bodmer joined us, having been driven hither by Broadhead. We immediately went out to look in the neighbourhood of the Sand springs^[40] for a bear-trap, with an iron plate fastened to a chain, which was carefully covered up and concealed. Mr. Moser, who thought he could find the place, led us astray, but we amused ourselves with the interesting vegetation.

We made but little addition to our ornithological collections, scarcely anything having been killed but the whip-poor-will (Caprimulgus Virginianus), which is very numerous in all these forests. Day had scarcely dawned on the 17th of August, when our whole company was in motion to go seven miles to the house of another Sachs (a near relation of our host), whose widow lived there. For about a mile the wood retains the same character, the firs then attain a greater height, and are closer together. The wood had been cleared around some houses, and Phytolacea, Verbascum, and Rhus typhinum, which occupy all the uncultivated spots in Pennsylvania, immediately sprang up. The small habitations were built entirely of wood, and generally painted a reddish brown. In some places we observed traces of fire: the low scrub oaks were scorched and black, and were putting forth shoots from the stumps and roots. At times we had an extensive view of the mountains, uniformly clothed with dark pine forests, everywhere high tops and ridges, and all around black woods. The Canadian and the Virginian pine were high and close together, especially in the valleys. The soil in this part is not very fertile, and requires to be well manured. All is forest and wilderness, and bears, deer, and other wild animals abound. 39 The Tonkhanna meanders picturesquely between thickets, and the Lobelia cardinalis was in blossom on its banks. Bull-frogs appeared here, as on the banks of the Lehigh at Bethlehem, and the same species of butterflies as are found there. Not far from this place we came to a second very

romantic brook, the Tobihanna, over which a short, covered bridge is thrown, and about 300

paces further, reached the lonely habitation of the Widow Sachs, in a desert spot without wood, where we were to pass the night.

Mrs. Sachs gave us tolerable quarters, and I immediately sent for the most expert hunters of the neighbourhood, in order, if possible, to procure a bear or a stag. Three or four men came who were ready to go for a remuneration. One of them had but a few days before, met with two bears and their young, among the bilberry bushes, and shot two of them. I obtained from him a fine large skin of one of them, and several interesting stags' horns.

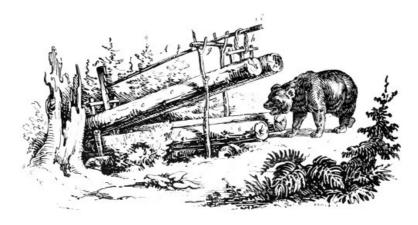
The part of the country in which we now were was so lonely, wild, and grand, that we immediately took our fowling-pieces to ramble about. The Tobihanna, [41] over which is the abovementioned bridge, thirty or forty paces in length, [42] is a pretty considerable stream, and the surrounding scenery is extremely picturesque. It is enclosed in rather high banks, overhung with fine, dark, primeval forests of Canadian pine trees, here called spruce fir, mixed with isolated trees of various kinds, and with a very close underwood of colossal Rhododendron maximum, thicker than a man's arm, [43] whose dense masses of foliage, with their dark green, laurel-like leaves hang down over the water, and are often mixed with the beautiful Kalmia latifolia. Even now, the appearance of this dark thicket on the bank was magnificent; how much more beautiful must it be when in blossom! The black forest of gigantic firs, crowded together, rises in awful gloom, here and there relieved by the light green foliage of other trees. These majestic pine forests have hitherto been visited by only a few settlers, and have escaped the great conflagrations which have deprived the skirts of these wooded mountains of part of their lofty stems. We were charmed with this North American wilderness, where Nature is, indeed, less vigorous, and poorer than in the hot climates, but still has a striking, though very different character of solemn and sublime grandeur. Mr. Bodmer immediately chose a place to sketch the above-mentioned beautiful brook, while the rest of our party strolled through the forest. Old decayed trees, often singularly hollowed, and roots of firs covered with moss, spreading over the surface in all directions, hindered us from penetrating far into this wilderness. A dark, damp shade received us here in the heat of the day, and the three-striped viper, of which there are 40 numbers under the old, decayed trunks, frequently fled as we advanced. Rattlesnakes are said to be less common than in the parts which we had before visited. Birds were not numerous in the deep recesses of these forests; only the hammering of the woodpeckers resounded in the awful wilderness. In places where there was much underwood, very thick stems of rhododendron, often from ten to twenty feet high, formed an intricate, impenetrable thicket. It was now perfectly dark, and we found the most beautiful natural arbours. The Kalmia latifolia, too, grew to the height of eight or ten feet. This country was so wild and attractive that I resolved to stop another day. To the north-east of the solitary dwelling of the Widow Sachs, was a fine beech forest, among the underwood of which pheasants were pretty numerous. We procured some of them, but I could not yet succeed in obtaining a stag or a bear.

On the 28th of August we undertook an excursion to see the bear-trap, in which one of those animals had been caught two or three days before. The man who owned this trap lived on the road between Tonkhanna and the Tobihanna, both of which flow into the Lehigh. He had appointed his house for our rendezvous, where we saw the skin of the bear, lately taken, nailed up against the gable end to dry. The saw-mill of our bear-catcher lay in a rude valley, to the south-west of the road. We came to this saw-mill, in a solitary valley, on the Tonkhanna, which rushes, roaring and foaming over rocks covered with black moss, between old broken pines, in a true primeval wilderness. In this retreat for bears, prickly smilax, brambles, and other thorny plants, tear the strongest hunting dress, and leather alone resists these enemies. At every step we had to clamber over fallen trunks of trees, to the injury of our shins, which were almost always bleeding. We found our guide, who, though it poured of rain, took his rifle, and went before, to lead us to the bear-trap.

The trap was in a place rather bare of thick stems, between young pines, and made of large logs, in such a manner that a young bear might be taken alive in it. It consisted of two round stems lying flat on the ground, between which two others, which are supported by a prop, are made to fit, and fall down when the prop is touched. [44] a is the base on which the two logs, b, rest; c, the two suspended logs, which fall as soon as the bear touches the bait, fixed in e, at the lower end of the rack f. The pole A, A, which is set in the rack f, rests in front on the prop f, and supports in f, by means of a withe, the logs f, f, f, f, which catch or kill the animal. The whole is covered with green fir boughs when the trap is set, and all the parts must have their bark on. The bear caught here, some days before, was about a year old, so that there was room for him between the logs; and as he was not large, and had entered the trap in front and not from the side, his life was prolonged a little. He was shot in the trap, and his head used as a bait; we took the head away with us, and the owner of the trap substituted a piece of the animal's lungs in its stead.

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Bear-trap

View larger image

After a hasty sketch had been made of the bear-trap, we set out on our return; I very much regretted leaving the magnificent wilderness. On the way we found a fine viburnum, with large reddish leaves, and the *Oxalis acetosella*, which grew in abundance among the moss and decaying trunks of trees. The loud hammering of the woodpeckers resounded in this forest, and we shot the great spotted woodpecker of this country, which very much resembles our *Picus major*; for dinner we had bear's flesh, which we thought resembled mutton.

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When I returned to the house of Sachs, I found the hunters, whom I had hired, in no little confusion. One of them, in particular, after receiving his wages for the first day, had remained in the public-house the whole night and the following morning. Stretched at length on a table, he had slept off the effects of his drunken fit, talked big, and found here a willing audience, a number of drinkers of whisky being collected in this place. Brandy drinking is far more common among the lower classes in America than with us; and here, on the Pokono, this bad habit was peculiarly prevalent among the country people. Not far from Tobihanna Creek there was a small wooden house, ten or twelve feet square, with a little iron stove (see the view of the Tobihanna Bridge), in which a school was kept. The stalls for cattle, swine, and sheep, are, for the most part, cages, the bars of which being pretty wide apart, the cold winter wind blows freely through them; nay, many of them had half fallen to pieces. The swine, which ran about in great numbers, had a triangular yoke round their necks to hinder them from getting through the fences. In all this part of the country, garden vegetables are raised in beds, or rather boxes, filled with mould, elevated on four posts. The seeds are sown in these boxes, and the young plants not transplanted till they have acquired a certain growth, otherwise they would be destroyed by the insects. Maple sugar is not made here, because the tree does not grow in sufficient abundance. The 42 chief occupation of the settlers, in this part, is the making of shingles, which are manufactured from the Weymouth pine. We were assured, that these peasants steal the greater part of the wood for their shingles, in the forests belonging to greater landowners, who live at a distance, and have no keepers to protect their property. One workman can make in a day 300 or 400 shingles, which are sold on the spot for half-a-dollar per 100. They are sent to all the neighbouring country, in large wagons drawn by four horses. At Bethlehem, forty-two miles from Pokono, the best shingles were sold, at that time, for eleven dollars per 1,000. These shingles are of two kinds; the German, made by Germans, who first manufactured them in this way, which are considered to be the best, and the English; the former are equally thick at both edges, the latter thicker at one side than the other. Many persons, whose horses are not otherwise employed, come here and fetch shingles.

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On the 29th of August we continued our journey through forests that extended, without interruption, on all sides. After crossing a bridge over the little brook called Two-miles-run, we came to an open spot in the forest, where the great village of Stoddartsville is built on the Lehigh, which at this place is still an inconsiderable stream. The environs of the place are still wild. Stumps of trees, cut or sawed off two or three feet from the ground, were everywhere seen, and this newly-cleared spot was still covered with wild plants. As you come down the hill, you look directly into the street of the place, to which some neat and pretty houses give a very striking effect in this wilderness. We continued our journey over wooded eminences, where bears and stags are said to be still numerous. Having passed Bear Creek and Ten-miles-run Creek, we soon reached the Pokono, or highest summit of the Blue Mountains, and began gradually to descend. In the forests through which we now passed, the firs began to give way to other timber trees, and the woods are again more burnt and ruined, frequently consisting only of shoots from the stumps of oaks, chestnuts, maples, and sassafras trees, with single pines everywhere rising above them, as the palms in Brazil do, above the lower *Dicotyledones*.

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On one of the next eminences, we came to another lofty point, whence we had the most extensive view, backwards and forwards, that we had yet enjoyed in these mountains. Towards the northwest lies the beautiful valley of Wyoming, through which the Susquehannah flows; and backwards, in the opposite direction, a rude prospect of wood and mountain, where peak rises above peak, and the eye ranges over an uninterrupted extent of immense forests. It is said to have been ascertained, by actual measurement, that this spot is 1,050 feet above the level of the Atlantic. Unfortunately, our time would not allow us to take a drawing of this grand prospect.

From this place we began to descend into the valley of the Susquehannah, where the woods assume a more cheerful character, the firs being soon entirely succeeded by the oak, chestnut, and other timber trees. The road resembles an avenue, overshadowed by lofty oaks, tulip, chestnut, walnut, beech, hornbeam, birch, maple, elm, nyssa, and other trees, growing very close together. Here we already see the formation of the conglomerate—the precursor of the coal district, which we now enter. When we had descended rather more than half way down the declivity of the mountain, we were taken about 200 paces to the right of the road, to be surprised by the beautiful prospect of the valley of Wyoming, or the Susquehannah. A group of rocks of conglomerate rises, isolated in the forest, and, on ascending it, you have a magnificent view. The broad and extensive valley, covered with towns and detached houses, alternates agreeably with forests and fields; the river flows through its whole length, and at our feet lay the pretty town of Wilkesbarre, the streets of which we could overlook. It is manifest, at a glance, that the whole of the valley was formerly covered with a thick primeval forest, for strips of wood everywhere traverse the fields.

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Proceeding on our journey we came to a solitary public-house, where we met with a rattlesnake. I bought it, and it was put into brandy, as a live creature of this kind is not the most agreeable travelling companion. This snake had been kept three weeks in a box, and had not taken any nourishment whatever, so that it moved its rattle but faintly when it was irritated. As it was a very large and handsome specimen, I paid two dollars and a half for it. The landlady, a very corpulent personage, was in a very light morning dress when she concluded the bargain with me, and not being able to give me change, she immediately threw on her Sunday clothes, to follow our carriage on foot, and settle the account at Wilkesbarre. Her head was adorned with a large fashionable straw hat; she had a silk gown, and a silk parasol, which she might very well have spared, protected her tanned face from the sun. It was remarkable that, heavy as she was, she reached the town as soon as we did, though we had half a league to go. Wilkesbarre, in Lucerne county, is a place with about 1,200 inhabitants, with three churches, a court-house, a bank, &c. [45] The streets are pretty regular, and the buildings separated by gardens and intermediate spaces. The place has its singular name from the first settlers, who were called Wilkes and Barre. The population consists of handicraftsmen, field labourers, storekeepers, and merchants; and several of the inhabitants are interested in the important coal mines, situated to the west of the road which we had taken. This bed of coals is said to extend fourteen miles along the slope of the valley of the Susquehannah, and then to continue over other eminences, of which there will be occasion to speak in the sequel. For the purpose of conveying the coals by water, a canal has been dug, which was not quite completed, and which is to form a communication between the coal mines and the Susquehannah. On the other side of the river the great Pennsylvania canal is already finished, which connects Pennsylvania with Maryland by means of the Susquehannah. [46] This last canal, which is divided into several parts, will be continued to Baltimore, the chief seaport, but it is not yet quite completed. Pennsylvania is already intersected by numerous canals, which connect the rivers, and are of the highest importance by the facilities they afford to inland trade.

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44 The inn at which we put up at Wilkesbarre was kept by a German, named Christ, who recommended to our notice some interesting points in the environs; and we, therefore, did not take the usual road at the bottom of the valley, but soon turned aside from the Susquehannah, into a wild, lateral valley, in which there are fine waterfalls. At less than a league from Wilkesbarre, we reached, at the foot of the mountain, a wild, thickly-wooded ravine, where we soon heard the roaring of Solomon Creek. Near a mill, the owner of which is General Ross, [47] this stream forms some highly picturesque cascades over smooth, perpendicular black rocks, covered with moss, forming a basin below, in a thick forest of pine and other timber. There are two cascades, one above the other, of which the second is the largest; then comes the last and highest, where the water, conducted from the mill directly across the ravine, falls perpendicularly, about the height of a house, over a steep rock. It was, unfortunately, too late, when we arrived, to make a drawing of this interesting scene. We asked for accommodation for the night in the mill, which is a roomy house; but our countryman (this man's mother was born in Germany) could not, or would not, receive us. They gave us some of the water of the stream to drink, which had a strong taste of iron and sulphur. As it was not possible to find a lodging in the neighbourhood, we were advised to proceed three miles to the top of the mountain, which we, indeed, accomplished, but had nearly had reason to repent of our resolution.

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The road ascends on the left rocky bank of Solomon Creek, in a thick forest, over rough ground, so that we constantly had the steep precipice on the right hand. There was no room for two carriages to pass; luckily, carriages are rare in this remote wilderness. As we had been told that there was abundance of wild animals, we loaded our fowling-pieces with ball. We now turned to ascend in a wooded defile, where a couple of solitary miserable dwellings, built of trunks of trees, scarcely left room for a small field or a little garden overgrown with weeds. While the road became more and more rude, and obstructed by the vegetation, twilight set in, and it was only with the greatest efforts that our horses could draw the carriages among rocks and fallen trunks of trees, and nothing but the greatest care prevented them from being overturned. We met several peasants, with their axes and guns, returning from their work in the woods: they were robust, savage-looking, powerful men, whose sudden appearance in such a lonely spot might elsewhere have excited suspicion. There are no robbers in these parts; at least, I never heard of any, but it must be owned that the place is extremely well suited to them. The beautiful cardinal flower (*Lobelia cardinalis*) grew in such abundance in the swampy parts of the wood, as to form a fine red carpet. The *Chelone obliqua*, with its white flowers, was likewise very common.

At length the moon rose bright and clear to relieve us from our unpleasant situation, and cheered by her friendly beams the gloomy path of the wanderer. When we reached the summit the road divided into two branches, of which we were so lucky as to choose the right one. At 45 length, about nine in the evening, we had the pleasure of seeing a light; and a lonely house, in an open spot, lay before us. On our knocking, the door was slowly opened. We entered a poor hut, where two women—one an elderly person, the other younger—were sitting by the fireside. The master of the house, whose name was Wright, was not at home. The two women were very tall, and were smoking, quite at their ease, small clay pipes. They were not a little surprised at so late a visit, but soon stirred up the fire, and set on water. Our frugal supper, consisting of coffee and potatoes, was soon finished, and we lay down in our clothes on tolerable beds, placed in a large unfurnished room, which in this country are almost always made for two persons. This house belongs to Hanover township; the settlement itself had not yet any name. Only English was spoken here. Not far from the house the Wapalpi Creek ran through the thickets towards the ravine.

The night was soon passed, and at six in the morning we proceeded on our journey. In order to take a view of the Falls of Solomon Creek, Mr. Bodmer left us, and returned to the mill, with the intention of joining us again at Bethlehem, by taking another road. John Wright, brother to our host, lived three miles off, in a little rude valley, where we intended to breakfast. Some men, who were going to hay-making, with their guns and dogs, met us. The inhabitants of these woods generally take their guns when they go to their work, as they frequently have opportunities of killing some large game. They have powerful dogs, resembling our German bloodhounds, brown or black, with red marks; or striped like the wolf, and sometimes, but seldom, their ears are cropped. These dogs are used in chasing the bear or the stag.

In a romantic wooded valley we reached the solitary dwelling of John Wright, where we halted. The mistress of the house, who, with a little boy, was alone at home, gave us a very friendly reception, and prepared us a breakfast with coffee; all very clean and good for this retired spot. In the course of conversation we learned that she was of German descent, and born at Tomaqua. [48] She lived here in a pretty roomy log-house, with a chimney and iron stove; yet she said that in winter it was often very cold in the room, the walls of which were, indeed, not quite air-tight. In many rooms in these mountains we found two iron stoves. Leaving these scattered dwellings of Hanover township, we reached, in five hours, the Nescopeck Valley, eleven miles from our last night's quarters, the road to which is bad, little frequented, and in part stony, gently ascending and descending, and passing through ruined forests, such as have already been described. In some places the wood is thicker, in others the sides of the mountains had been quite cleared, and were covered with young shoots and some higher trees; small streams, here called runs, flow in the defiles and valleys; the bridges of beams over which were, for the most part, so rotten, 46 and in such bad condition, that horses and carriages could not pass without danger. We saw no human beings or dwellings on this road, nor any animals except some small birds and frogs. After this rather monotonous journey, we were glad to descend into the Nescopeck Valley, and reached it, at the mill of one Bug, of German descent, where we refreshed ourselves with milk and brandy. The Nescopeck Creek, a pretty considerable stream, which turns several mills, flows through this beautiful wooded valley. This district belongs to Sugarloaf township, in Lucerne county.

After we had watered our horses, and the miller had questioned us about his native Germany, we crossed the bridge over the stream, ascended the mountain on the other side, and reached an inn on the summit, from which it is eighteen miles to Wilkesbarre. Proceeding from this place, we crossed the valley of the little Nescopeck Creek, which is covered with lofty trees, then passed the little Black Creek, and afterwards came to a high mountain wall, with a beautiful wood of various forest trees, which the inhabitants, who are mostly of German origin, call the Bocksberg. German is everywhere spoken here.

From the mill, the way leads through a thick underwood of shrub-like oaks, with a few higher trees, and we soon reached the high road from Berwick, in the Susquehannah Valley, along which we proceeded to Mauch Chunk, where two stage-coaches pass daily.

We took this road, and soon came to an inn, kept by a German named Anders, who likewise had a saw-mill. The host had, a short time before, caught an old she-bear in a trap, and in the three following days her three cubs, which he sold to travellers passing that way. The point where we now were is called the Hasel Swamp; and, proceeding onwards, we passed Pismire Hill, where rattlesnakes are said to abound. We observed, too late, a very large animal of this kind dead in the road, one of the wheels of our carriage having crushed the head of the snake, which was otherwise in a good state of preservation. My driver laid it in a natural position by the road-side, and I have no doubt that it was again knocked on the head by some other traveller. The marshy tract through which the Beaver Creek flows, is called Beaver Meadow, and is covered with willow bushes. It is probable that beavers may have formerly been numerous here, at least the place is quite suited to them; but those harmless animals have been long since extirpated. We came next to a considerable eminence, called Spring Mountain, which we ascended, and then rapidly descended, always through a thick forest, where we observed, on both sides of the way, the Grauwacke formation. On reaching the bottom of Spring Mountain we entered a wide valley, both the steep sides and bottom of which are covered with thick woods, only thinned a little round the habitations. In the middle of the valley, directly before us, six or seven buildings, in a broad street, formed the village of Lausanne, five or six hundred paces below which the Quackack Brook flows through the valley. A Jew keeps here a public-house and shop, where we met likewise

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with newspapers.

Beyond Lausanne is a high mountain, called Broad Mountain, up which the road is carried in an oblique direction. Trees and shrubs form everywhere a very thick but ruined forest, in which there is scarcely any serviceable timber. The view back over the extensive and wild valley of Lausanne was extremely interesting. One can hardly fancy this sublime and rude country without its aboriginal red inhabitants. The wide and hollow valley is everywhere covered with dense forests; and the little village of Lausanne is scarcely to be seen amidst the dark green foliage. On the Broad Mountain we find again the same formation of conglomerate, which I have before mentioned; the beds of coal are at a small distance. On the side which we descended the wood is more beautiful, the trees taller than on the edge of the mountain; oaks, chestnuts, and other trees, were very vigorous and luxuriant. Several planters have formed detached settlements here, among whom an Irishman was pointed out to us, who had lately been arrested on an accusation of murder, but had been since set at liberty.

The Neskihone or Neskihoning Valley, into which we now descended, is wide, and enclosed by very high, far-extending walls of rock, everywhere covered with thick woods, in which some small cultivated patches are here and there seen. Along the right, or southern wall, an iron railroad has been laid down, which forms a communication between one of the coal mines of the Mauch Chunk Company, on the Rumrun Creek, and Mauch Chunk. It runs down into the valley of the Lehigh, which it follows to the last-named place. The appearance of the valley is very wild and picturesque; the Neskihone, which you pass at a saw-mill, flows at the bottom of it, and then turns to the left into the beautiful valley of the Lehigh, into which the Neskihone empties itself. The Lehigh comes on the left hand, out of a deep, extremely wild mountain valley, or dark glen, the entrance to which is entirely concealed by lofty, steep wooded mountains. Its glassy surface shines, half hid by tall shady oaks, beeches, and chestnuts; and the whole is one of the most interesting scenes that I met with in Pennsylvania. The road from this place to the Lehigh Valley is agreeably shaded by high trees, and on the banks of the river there are several dwelling-houses and inns. In a quarter of an hour we reached Mauch Chunk, now celebrated as the central point of the Lehigh coal district.

CHAPTER V

DESCRIPTION OF MAUCH CHUNK AND ITS COAL MINES—JOURNEY THROUGH THE LEHIGH VALLEY TO BETHLEHEM, AND LAST RESIDENCE IN THAT TOWN, FROM AUGUST 31ST TO SEPTEMBER 16TH

Mauch Chunk—The Coal Mines—Lehighton—Mahoning Creek and Valley—Gnadenhütten, a destroyed Colony of the Moravian Brethren—Weissport—Lehigh Gap—The Devil's Pulpit—Berlin—Crytersville—Howard Town—Schoner's Town—Last Residence in Bethlehem.

Mauch Chunk is a village of about 200 houses, in the deep and narrow Lehigh Valley. The houses form almost one row only, and a small street in the lateral valley of the Mauch Chunk stream. This place has sprung up since the discovery of the very rich coal mines in the vicinity. The Lehigh Company employs from 800 to 1000 workmen, and supplies the whole surrounding country with the very fine coals obtained here. Several iron railroads, leading to the works, have already been made, canals dug to export the coals in numerous barges, great works erected, a large and capital inn established in the valley of the Lehigh, and mills of various kinds built; and travellers ought by no means to neglect this highly interesting spot. This deep and wild valley, which is enclosed on every side by wooded mountains from 800 to 1000 feet high, has become, within a few years, a scene of action and profitable industry, which will soon render this spot one of the most remarkable in Pennsylvania. The principal work, to which an iron railroad has been made, lies on a considerable eminence, nine miles from Mauch Chunk. On the 31st of August, we visited this interesting spot.

As the railroad runs up along the declivity, it has been necessary to cut it obliquely; it is, therefore, narrow, with only one line; and places, at certain intervals, to allow two carriages to pass. For the convenience of travellers who wish to see the works, a stage-coach has been established, which is drawn up by two horses. Our company assembled at the inn, and ascended, by a steep path, from the town, to the iron railroad, which runs a little above the village. The 49 railroad stages are light carriages, with four low wheels, and seats for eight persons; they are covered at top, and open at the sides. The wheels are of iron, and have a groove, which fits into the rail, and runs upon it. The driver sits in front, and has a long tin horn, which he blows, to announce his approach to such as may be coming in the opposite direction; in the other hand he holds, in the descent, the machine with which the carriage is stopped when necessary. This contrivance consists of a pole, at the lower end of which there is a stuffed leather cushion, which, by moving the pole, is brought close to the wheels, and by its friction checks the rapidity of the motion. As a train of coal-wagons was expected, we slackened our pace. The two stages were fastened together, and though both were quite full of passengers, a couple of horses drew them up with great ease. We had not proceeded far, when we heard the rolling of a train of coalwagons. It was interesting to see the black train advance, and dart by us with the rapidity of an arrow. These are built of strong beams and planks; each contains two tons of coals, and forty-five wagons go at the same time, which carry 90 tons; they run five times a day, thus 450 tons, or

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25,200 bushels, are brought down to Mauch Chunk daily. Every fifteen wagons are fastened together by strong iron bands, and in the middle of this train is a man who holds a chain in his hand, by means of which he can check the rapidity of the motion, or even stop it entirely. Four or five hundred paces behind the first column comes the second, and then, at an equal distance, the third, and after these, seven wagons, in each of which there are four mules, with provender, and a bridge for them to get in and out. Their heads are turned to the front, and they eat quietly, as they descend. These mules are to draw up the empty coal wagons.

It was interesting to see the thundering column approach us, and then hasten by. As soon as it had passed, our horses trotted up the mountain, which could not be attempted, except on an iron railroad. The road runs along the rocky wall, always through a forest, where single settlers have here and there built their little wooden dwellings. Cattle were feeding in the neighbourhood, whose bells we heard in the woods. The valley at our left hand was very wild and romantic. Both the high mountain and the valley below, in which the Mauch Chunk flows, are clothed with a forest of fir and other timber, and wild vines twine about the bushes by the road-side. The number of miles is marked on white boards nailed to the trees. When we reached the top we came to an inn, which had a small park with Virginian deer. The fawns of these deer were still spotted a little at the end of August.

As soon as our company had rested a little, and taken some refreshment, as it was very hot, we got again into our carriage, and proceeded, this time without horses, to the coal mines, about ten minutes from our inn, to which the railroad declines a little. You reach these interesting works by a deep section of the upper stratum of sandstone, and then enter the pits, which may be 300 paces long, 150 wide, and 30 feet deep; quite open at top, having been gradually sunk to that depth. 112 men were at work in and about these mines, and 130 mules were employed 50 in conveying the coals, which stand out, shining, and with a beautiful play of colours; in some places they are of better quality than in others. They are detached partly with iron crows, partly by gunpowder, broken into pieces with pickaxes, and loaded in the wagons. From one part of the mine to another there are little railroads, on which boxes with four wheels run like what is called the dog (hund), in our German mines, in which refuse and rubbish are removed. In this manner high heaps of rubbish have arisen about the pits, which extend further and further into the valley. In some parts of the works there are impressions of antediluvian plants, of which we found some interesting specimens. The labour of seeking, in a stooping attitude, was particularly disagreeable on this day, which was hotter than any that preceded it. When we returned from the works to our inn, the thermometer, at twelve o'clock, and in the house, was at 96°; to which we must add that the mine is 1.460 feet above the level of the sea. There was not a breath of air stirring, and everybody found the heat extremely oppressive.

To return to Mauch Chunk we again got into our carriage, but had now no need of horses; the driver shoved the carriage a few steps, leaped into his seat, and we immediately proceeded faster than a horse could gallop. We had travelled the greater part of the way in seventeen minutes, when we were obliged to halt, in order to let a train of wagons, returning, pass us, which detained us about twenty minutes; we then proceeded with the rapidity of an arrow, and travelled the whole distance of eight miles in thirty-two minutes. When we had reached the bottom we hastened to see the place where the wagons are unloaded.

At the end of the iron railroad is a building on the eminence, in which there is a large windlass, with an endless rope, which with one part lowers a loaded coal wagon, on an obliquely inclined iron railroad, down the mountain, while the other part draws up an empty wagon from below. The distance from the windlass to the place on the iron railway, where the wagons deposit the coals in a large shed, is above 700 feet. The mechanism of all these works is well worth seeing, and the whole establishment extremely interesting. Mr. White, one of the principal members of the Lehigh Company, is a man of much and varied knowledge, and particularly well acquainted with machinery. He has erected a saw-mill on the Lehigh, the construction of which is very ingenious. A single workman is able to saw 4,000 square feet of deal in twelve hours. The Company requires six such saw-mills in the Mauch Chunk, to saw the wood that it wants, because the coal barges are sent down the canal and the Delaware, and sold at Philadelphia as planks.

The road from Mauch Chunk through the Lehigh Valley, which we took, on the 31st of August, in the evening, is agreeable and diversified. A violent thunder-storm had passed over the valley, and had poured down torrents of rain, the traces of which were everywhere visible. We proceeded along the right bank of the river, in a rather sandy road, shaded by old trees. On $\boxed{51}$ our right hand we had at first the steep wooded mountain, where *Rubus odoratus* and other beautiful plants grew amongst rude rocks. The mountains then recede, and fields, meadows, and detached dwellings, succeed.

We came to Lehighton, where the sign of the inn was conspicuous afar off.^[51] Lehighton is situated at no great distance from the opening of the Mahoning Valley, from which the Mahoning stream flows. This valley is wooded, has many settlements, and is well known from the destruction of Gnadenhütten, a small establishment, founded there by the Moravian Brethren. Some Delaware Indians, instigated, it is said, by neighbouring colonists, who were hostile to the Brethren, attacked the settlement, which they burnt, and killed eleven persons. Only four of the fifteen who composed the little colony escaped.^[52] Mr. Bodmer, who followed us from Wilkesbarre, visited the spot. He found among the bushes the tomb-stone which covers the remains of the victims, and made a drawing of it. The following is the inscription:—

TO THE MEMORY OF

GOTTLIEB AND CHRISTINA ANDERS,
WITH THEIR CHILD JOHANNA;
MARTIN AND SUSANNAH NITSCHMANN;
ANN CATHARINE SENSEMANN;
LEONHARD GATTERMEYER;
CHRISTIAN FABRICIUS, CLERK;
GEORGE SCHWEIGERT;
JOHN FREDERIC LESLY; AND
MARTIN PRESSER;

WHO LIVED HERE AT GNADENHÜTTEN, UNTO THE LORD, AND LOST THEIR LIVES IN A SURPRISE FROM INDIAN WARRIORS,

NOVEMBER 24TH, 1755.
"Precious in the sight of the Lord is the death of his Saints."
PSALM CXVI. 15.

1788, AND. W. BOVER, PHILADELPHIA.

On the lands at Gnadenhütten, which still belong to the Brethren, several farmers reside, among whom there is a singular female of no ordinary education, and, as it is said, of high rank, [52] whose real name is not known. She is said to have come from Germany, it is supposed from the principality of Lippe. Her sole employment is agriculture; she performs all manual labour herself, milks her cows, to which she has given names, and which she has tamed. She has rented a piece of land from the Brethren, which Mr. Von Schweinitz, as director of the council, let to her.

Near the issue of the Mahoning, or Mahony Valley, a wooden bridge has been built, in a picturesque situation, over the Lehigh. It is surrounded on all sides by fine lofty trees, and on the right hand the wooded eminences of the Mahony Valley overlook it. From this place we came to a level, open part of the valley, where a few scattered dwellings bear the name of Weissport. [53] A man named Weiss proposed to build a town here, and had collected the names of many subscribers, but the town consists, at present, of only four detached houses.

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Night set in, and the moon showed us, in the Blue Mountains before us, a deep cleft, called the Lehigh, or Lecha Gap, where that river passes through the mountain chain. At the Gap we halted at an isolated, but very good inn, kept by a man named Craig, son of the General of that name. He spoke both English and German, and we were very well accommodated in his house.

On the 1st of September we visited the Lehigh Gap, the mountains on the north side of which are low, rocky, and wooded. A projecting portion is called the Devil's Rock. Near the buildings there are great heaps of limestone thrown up, which is obtained from a mountain in the Mahony Valley. The lime is of bad quality, but serves very well for mortar. It contains a number of small bivalve shells. About eight o'clock we left the Lehigh Gap, and took the road to Bethlehem, where we arrived at noon, having passed through Berlin, Cryterville, Howard Town, and Schoner's Town.

Our baggage, which we had so long expected from Boston, arrived at length on the 4th of September, and as Mr. Bodmer rejoined us on the 10th, I should have thought of proceeding on our journey, did not the traveller often depend on accidents, which render it impossible to fix anything for certain. Mr. Bodmer, desiring to finish a drawing that he had begun, undertook a second visit to the Delaware Gap, and on this occasion was severely wounded by the bursting of his fowling-piece, which compelled us again to defer our departure. On our hunting excursions, we now saw the country in its autumnal dress. Night frosts had already set in, and the mornings were foggy, till the sun had risen pretty high, when a hot day followed. Most of the birds of passage were gone; no swallows were to be seen, and the wild pigeons passed by in large flocks. On a walk to Allentown, the capital of Lehigh County, which has 1,700 inhabitants, three churches, and a court-house, six miles from Bethlehem, we found, in the Lehigh Valley, several flocks of birds ready to depart. The blue birds (*Sylvia sialis*) were assembled, twenty together. The yellow woodpecker and the nuthatch were hovering about the gardens and fields, where 3 numbers were collected together. The plants that were in blossom in the fields and hedges were chiefly of the class *Syngenesia*.

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The accounts of the progress of the cholera, which we daily received, were not favourable. In New York and Philadelphia, and more especially at Baltimore, the disorder was extremely dangerous; it had also spread in the country about the great lakes, and on Hudson's River, and had extended from Detroit to the Mississippi and Ohio. It seemed impossible to avoid it; I therefore chose the route down the Ohio, intending to make the Mississippi, in the following spring, the basis of our excursions into the Western wilds or the Indian country. We took leave of our friends at Bethlehem, and set out in the first instance for Pittsburg.

CHAPTER VI

JOURNEY FROM BETHLEHEM TO PITTSBURG, OVER THE ALLEGHANYS, FROM SEPTEMBER 17TH TO OCTOBER 7TH

the Juniata—Huntington—Alexandria—Yellow Springs—The Summit— Ebensburg—Hunting parties—Wild Scenery of the Alleghanys—Laurel Hills— Conomaugh Valley—Blairsville—New Alexandria on the Loyalhanna— Pittsburg—Situation of the Town—Economy, Mr. Rapp's Settlement on the Ohio—Remarkable natural productions of that river.

Violent thunder-storms, accompanied with heavy rains, had taken place during the night before I left Bethlehem, early in the morning of the 17th, with the stage from Easton to Reading. Mr. Bodmer remained behind for some days, on account of the injury done to his hand. At day-break we reached Allentown, where we changed both carriage and horses, and passed the Cedar Creek, which was much swollen. The thunder-storm had not changed the temperature of the air. All this country was covered with plantations of maize, clover, and buckwheat, and detached farm-houses were numerous. The clover was often sown, as among us, with the corn. The ears of the maize were partly cut off, and the stalks tied up in bundles. The maize becomes ripe here in October. We halted very often at the post-houses, where the horses are always watered. As soon as the stage arrives, the large leather bag containing the letters is thrown down, and the correspondence for places further on the road is put in. We were here on a calcareous soil, and many limekilns were burning in the neighbourhood. Flocks of birds, of many kinds, appeared ready to depart; Papilio plexippus flew about the hedges. The Datura, with purple blossoms, and the Phytolacea, with ripe black berries, dark red stems and branches, grow on the road-side, and about the houses.^[55] The leaves of the sumach, and of some kinds of oak and maple, had already 55 changed to a beautiful red colour. The fallow fields were entirely covered with the yellow blossoms of the golden rod, or St. John's wort, and beautiful asters, mostly with small white or purple flowers. The farm-houses in this part of the country are remarkably handsome. The barns are built of stone, very large, and have, in the lower part, the stables, with eight or twelve doors and windows, and over this is the barn, properly so called. At the end of the building there is a passage where the wagons stand under cover; the windows, doors and roof are frequently painted of a reddish brown colour: cattle of all kinds surround these farms. The swine are very fat, have broad hanging ears, and are generally marked with small round black spots, and sometimes, but more rarely, they are reddish brown. We saw some fine forests of oak and walnut trees, among which is much hickory (Juglans alba), which, next to the white oak, and the black walnut tree, furnishes the best timber. In general this country resembles Germany: it is diversified and pleasant; wooded eminences on the sides, and bright green meadows, often kept in very good order, occur as in our country; but large, new habitations, built in rather a different style, the zigzag fences, and the more lofty and luxuriant growth of the trees, give, on the whole, another character to the scenery.

In Maxatawny township we addressed the inhabitants in the German language, who answered us at once in the same, and we heard German names all the way to Pittsburg. After passing Sackoma Creek, we arrived at ten o'clock at Kutztown, eighteen miles from Bethlehem, where we breakfasted. The heat being very great, the dust was extremely annoying, for the thunder-storm, which had passed over Bethlehem, had not extended to this part of the country. The cattle sought protection against the sun, in the shade of single trees, or in the orchards. Large stacks of corn, six, eight, or ten together, stood in rows by the fences. On the right hand ran the Oli Mountains, beautiful verdant wooded eminences, which are connected with the Lehigh Mountains. About noon we had travelled the thirty-six miles to Reading, where we were obliged to stop one day, because the stage had already left.

Reading is a very pretty town on the Schuylkill, with 6,000 or 7,000 inhabitants; it has seven churches, and a new one was just then building. There are about 400 negroes and people of colour. Some of the streets were not paved in the middle, but have on the sides a pavement of bricks for the foot passengers, planted with acacias, planes, poplars, and other trees. All these towns are rapidly increasing. The cholera had already carried off many persons here, but the inhabitants would not confess this. We saw a funeral procession returning home, in which there were several women on horseback; the veils on their large fashionable hats fluttered in the wind, and gave this caravan of Amazons a singular appearance. Much fruit is grown in the neighbourhood, and the apples are good, but not the plums. Peaches thrive very well; we saw whole wagon-loads of them brought into Reading, around which the people crowded to buy, while the children stole them.

on the 18th of September it was with very great difficulty that we got places in the stage, the travellers being very numerous. After we had passed Kakusa Creek, we came to Womelsdorf, founded by Germans, fourteen miles from Reading, where we stopped to dine, and then proceeded over Dolpahaga Creek, to Lebanon County, which is in a tract diversified with eminences and wooded mountains. On this road we several times passed the Union Canal, which goes from Baltimore to Pittsburg, is very nearly completed, and is said to have cost 18,000,000 of dollars. After we had passed the River Swatara, which runs into the Susquehannah, we continued our journey in a dark but fine evening; the crickets and grasshoppers chirped all around; but their note is by no means so loud as that of those in the Brazils. At length we perceived a number of lights before us, and came to Harrisburg, the capital of Pennsylvania, the end of our journey to-day.

Harrisburg is a small town, with only 5,000 inhabitants, situated between the Susquehannah and the Union Canal. It has broad streets crossing each other at right angles; but many of the buildings are of wood, for which they are now, however, gradually substituting better ones of brick. Rows of trees are planted in front of the houses. The inn at which we put up was in a

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square, which they were just covering with broken stones. Here, too, is the market-hall, a long roofed building supported by pillars, in which the productions of the country are exposed for sale, as in most of the towns in the United States. Harrisburg, being the capital of the state, is the residence of the Governor. The state-house is built on a gentle eminence on the canal, near the town, and with its two wings is a very considerable building, with a colonnade and a cupola supported by pillars. Another interesting point of the town is the view of the Susquehannah, which is very broad here, and forms an island. A long bridge, covered at top, and enclosed at the sides, is built over each arm of the river. One of these bridges is about 600 paces in length. In the first there are twenty-three glass windows, and it has two pillars on shore, and five in the river. There are colossal bridges of this kind in the United States; and there is one further down the Susquehannah, which is one and a quarter mile and four rods in length, and has fifty-two pillars. The view from this bridge up the river is peculiarly beautiful. Verdant wooded islands adorn its surface, which is broad, but it was at this time very shallow. There are 500 negroes and people of colour. Germans are met with everywhere, and we were told that an able German physician lived here.

The defective arrangements of the post-houses obliged us to stop here three days, and it was not till the 21st of September, in the evening, that we could leave the town to continue our journey during the night. We passed the Susquehannah, and the Juniata, which comes from the Alleghany Mountains, and flows into it. On the 22nd, at day-break, we were at the little village of Mexico.

Mexico is in Mifflin County, forty miles from Harrisburg. Three miles further is the village of Mifflin Town, the capital of the county, where they were just building a new town-hall. The Union Canal, which connects Philadelphia and Baltimore with Pittsburg, in general follows the 57 same direction as the river Juniata, near which it often runs at a greater elevation, and sometimes is even carried over it. The river is here about as broad as the Lehigh, but was at this time very shallow. Beyond Mifflin Town it receives the Los Creek. From this place we observed in the valley many robinias, which grow very high and vigorous, as well on the mountain, which is rather dry, as by the water-side; vines as thick as a man's arm twine round the trunks, and frequently rise to the very summit. The nettle tree (Celtis) grew in great abundance, and the maples were just assuming their red tinge. The picturesque forest is intermingled with Canadian pines, many of which are quite blighted and withered. The valley now became wilder and more romantic; on the right hand rose a high precipice, covered with bolders, fragments of rock, mouldering trunks, and the finest trees of the country, forming a real wilderness. A very narrow part of the valley, where we watered our horses at an insulated house, bears the name of the Long Narrows; and the steep wooded mountain, on the south bank of the river, is called Blacklog Mountain; it is said to be the haunt of bears and stags. The cattle belonging to the log-houses were grazing among the rocks. After some time the valley grew more open, and at a wider spot, near the road, which descended towards the defile of James Creek, was a group of lofty and slender robinias, on which a flock of tame turkeys were sitting. These birds resemble in colour the wild ones which are common in this country; they often go into the forests, where they breed, and come home again with their young ones. After passing Kishikokinas Creek, we reached, at a broad part of the valley, the village of Louis Town, in which there are some considerable houses. The country people were ploughing and harrowing their fields; and I may here observe, that, in all Pennsylvania, they never employ oxen in these operations, but horses only, of which they have great numbers. The plough is rather different from that of Germany.

Beyond Louis Town we saw a number of horsemen, assembled for the fox-chase. The fox was caught in a trap, then let loose at a certain spot, and hunted with many dogs, as in England. In a district diversified with forests and cultivated fields, we came to Waynesburg, a small town agreeably situated in a valley. The forests began to assume their autumnal tints; the maples, the dogwood (*Cornus Florida*), and the sumach, were partly red; the walnut trees, and the hickory, yellow, which gave great variety to the landscape. Near some habitations we observed weeping willows of extraordinary size. The surrounding mountains were covered with forests, into which we penetrated to ascend the first ridge of the Western Alleghanys. The road, which is, for the most part, in bad condition, rose obliquely on the side of a rude picturesque precipice. Except a pheasant, which flew past us, we saw but few living objects. Advancing into the valley we again came to the Juniata, over which the canal is here carried by an aqueduct, supported by four pillars. In this part of the river there are several dams, such as we had seen in the Lehigh, near Bethlehem, with this difference that here they are triple. For this purpose, rows [58] of stones, piled one upon another, are laid across the river, forming, in the direction of the stream, acute angles, where a basket is placed, in which the fish are collected.

At a place where three valleys meet stands the village of Huntingdon, [56] ninety miles from Harrisburg, where we found a tolerably good inn, on an eminence above the banks of the Juniata. From this inn we proceeded, during the night, through high rude tracts and forests, past Alexandria, and at midnight reached Yellow Springs, and then the highest points of this ridge, called the summit, between 2,400 and 3,000 feet above the level of the sea, in the vicinity of Blair's Gap. This wild mountain region bears hemlock spruce firs of colossal magnitude, mixed with other timber. The night was clear and cool; towards morning fogs arose from the deep valleys, which at daybreak covered the pine forest through which we descended. We passed the Conomaugh Creek, and then arrived at the little town of Ebensburg, on an open spot in the forest. We stopped here at a small inn to wait for our travelling companions.

Ebensburg, the capital of Cambria County, is an inconsiderable place, consisting of wooden buildings, forming not much more than one broad, unpaved street, but has a town-house and a

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pretty large church. The inhabitants, about 300 or 400 in number, are of English, Irish, and some of German extraction. The surrounding country is very mountainous and woody, and is said to abound in all sorts of game, as indeed the many skins of lynxes, racoons, martens, and minks, fastened against the houses, prove; bears, stags, and wolves, are said not to be uncommon, as lofty and dark forests surround the town within a couple of hundred paces. Ebensburg derives some profit from the numerous wagons, drawn by two, four, or six strong horses, that pass through it on the high road to Pittsburg.

Our hunting excursions in this rude country were very interesting. We proceeded first in a northern direction into the forest, which we found to be quite a primeval wilderness. The mountains rise peak above peak, with deep ravines, where pines, beeches, chestnuts, birches, maples, and walnut trees of various kinds, form a gloomy forest, and fallen and decayed trunks check your advance at every step; cool, sylvan brooks rushed foaming through all the defiles, and we had continually to cross them on natural bridges, formed by the fallen trunks of trees. Such old trunks are covered with a whole world of mosses, lichens, fungiwood, sorrel, ferns, &c.; nay, even young shoots of maple, beeches, and tulip trees, had taken root on them. We clambered over the trunks, went round the fallen giants of the forest, and found everywhere, on the ground, traces of the numerous squirrels (*Sciurus cinereus*), in the remains of fruit and shells, especially, of the chestnut.

But there was also an interesting wilderness in the opposite direction. Here a very extensive fall of timber had been commenced—a gigantic labour, as in Brazil, where the wood is burnt afterwards, as soon as it is sufficiently dry. The sturdy woodcutters were of German extraction, and spoke German. From this place a dark narrow path led through an old pine forest, where 59 the little creeping Michella repens, here called ground berry, with its beautiful red berries, grew among the moss, and often covered the ground. Several small runs and muddy ditches crossed the forest, over which I walked or rode on trunks of trees that served as bridges; in doing which my clothes suffered not a little. Woodpeckers abounded here, especially the great black woodpecker (P. pileatus), which we had not seen before. It is nearly as large as a crow, and its splendid bright red tuft is conspicuous at a great distance. They were very shy; knocked and hammered on the dead pine trees, which stood like the ruins of a colonnade, and were pierced and bored by their strong bills. This fine large bird is called here, and in general, woodcock. A young man who lived in the forest, some miles off, told me that bears, stags, and other wild animals, were very numerous, particularly the pheasant, or cock of the wood (Tetrao umbellus), one of which we shot. There is a saw-mill here, among the lofty pines, on an arm of Conomaugh Creek, in a wild, lonely spot. The owner was not a little astonished at my double-barrelled percussion gun. After we had spent two days here in exploring the woods, our travelling companions, Dr. Saynisch and Mr. Bodmer, at length joined us, on the 26th, but as the latter still had need of rest, on account of his wound, we took their places, and set out immediately for Pittsburg.

Seven miles from Ebensburg is the place which is looked upon as the boundary of the Alleghanys, properly so called; here begins the ridge called the Laurel Hills, for these mountains consist of several parallel chains, many of which have distinct names. The forest now assumes a different character. Oaks of various species succeed the pines and beeches; the forest is not so high, rude, and thick, and from an elevated spot on the road there is a fine view as you look back on the long wooded chain of the Alleghanys.

The traveller soon sees before him a deep and wide valley in which the Conomaugh River flows, and beyond it a long ridge, covered with verdant woods, called the Chestnut Ridge, in which there is a gap, through which both the river and the canal pass. The eminences are uniformly wooded, and the chestnut and chestnut oak appear to predominate. We changed horses at Further Laurel Hill, and at Amagh, and then passed the gap. In the meadows and fields, the stumps of the trees that had been cut down were still standing, for the whole country was formerly one unbroken forest. The habitations were few in number, and, at the same time, small and wretched. We were told that this part of the country is chiefly inhabited by Irish, who are bad managers, and addicted to drinking. A better character is given to the settlers of German origin, and they are said frequently to possess well cultivated farms.

In the woods of this district, we everywhere remarked that the tops of the branches, for about a foot or a foot and a half, were hanging down and withered, which is caused by a kind of cricket (locust, *Cicada septem decem*, Linn.). This insect, which, as is well known, appears only once in seventeen years, but then, like the cockchafer with us, in prodigious numbers, had abounded on Pennsylvania in 1832, and in many places was a real scourge; it does not, however, appear everywhere at the same time. But a few weeks before, they were so numerous in these forests, that the noise they made almost overpowered the human voice. On examining the withered twigs, we found the bark, as it were, ripped open in many places, the wood quite dry, and in the sap, a whitish substance, which consists of the eggs of the insect.

As we drove rapidly down the hills, we saw before us the extensive valley of the Conomaugh, for the most part covered with woods, and gently rising on all sides, in which, a little higher up, the small town of Indiana is situated. We stopped at a lonely inn by the road-side, watered our horses, and hastened forwards. On every side we saw extensive forests, and from the next eminence looked down into another valley, in which the Conomaugh runs by the town of Blairsville, a pretty little place, with many respectable houses, and a very good inn, in a broad main street, which runs directly across the valley. The country is hilly, or mountainous, well cultivated, and with neat farm-houses scattered around. From this place, it is ten miles to New

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Alexandria, a village with tolerably good wooden houses, many of which are painted. Beyond it runs the Loyalhanna, a small stream, which was at this time very shallow, with a covered bridge over it. At nightfall we reached New Salem, then Millersburg, and about midnight, Pittsburgh. [57]

Pittsburg is an old, large, but by no means handsome town, celebrated for its manufactories and brisk trade, and has been described by many travellers. The town itself has 12,000 inhabitants; but with the suburbs, its population is estimated at 24,000 souls, including many Germans, some of whom are respectable merchants. Coal mines in the immediate neighbourhood (a part of which is now on fire), afford an ample supply of fuel for the numerous steam-engines, stoves, &c. The style of building in the town is everything but uniform, neat brick houses being mixed with small wooden ones. The streets are ill-paved, dirty, and badly lighted; some of them, however, are modern and regular; and the new edifices are handsome and elegant. There are many iron works, nail manufactories, glasshouses, cotton manufactories, &c., in many of which, steam-engines are employed, of which, as we were told, there are above 100 at work, which are likewise made here.

This town lies on the tongue of land between the rivers Monongahela and Alleghany, which, by their union, form the Ohio; this river is not very considerable here; yet, at certain seasons, when the water is high, it is navigable by steam-boats, of which I counted sixteen on the banks of the Monongahela. Over the Alleghany there is a covered bridge, 500 paces in length, which has, on each side, an additional covered footpath; and a covered aqueduct, of the same length, is likewise carried across the river. A similar long and colossal bridge is built over the Monongahela.

The situation of Pittsburg itself is not very pleasing, but there are interesting points in the environs. As I was furnished with very good letters of recommendation, several of the inhabitants of Pittsburg endeavoured to make my stay there agreeable. Messrs. Volz and Von Bonnhorst [61] (the latter of whom had been an officer in the Prussian army) were extremely kind to me. Mr. Lambdin, possessor of a museum which was yet in its infancy, likewise gave useful recommendations and instructions. [58] Mr. Volz had the goodness to accompany me to Economy, the remarkable and interesting colony of Mr. Rapp. For this purpose we left Pittsburg on the 29th, passed the great Alleghany bridge, and the suburb, and drove by the large new House of Correction, towards the Ohio. [59] On the eminence to the right of the town is the convent of Flanders nuns, who have established a school, in which they receive children of all religious denominations. We proceeded on the right bank of the Ohio, eighteen miles, to Economy.

Economy has been described, in its leading features, by Duke Bernard of Saxe Weimar; ^[60] but it has become much more flourishing since that time. It is well known that old Mr. Rapp, with a company of between 600 and 700 Swabian emigrants, came to America, and had, at that time, but very limited resources. He founded, with his people, successively three settlements; first, Old Harmony, near the Ohio; then, New Harmony, on the Wabash, in the State of Indiana; and then, Economy, near Pittsburg. This last settlement has now about 150 houses, which at first were slightly built of wood, but are now succeeded by better ones of brick; they are two stories high, and neatly painted. The church is spacious and plain, built of brick, with a pretty steeple, and a good bell.

The rapidity with which these settlements sprung up, amidst thick forests, proves the judgment and prudence of their founder. The order introduced at Economy is admirable; nobody is seen in the streets during the day; all the inhabitants are usefully employed; young men and women, and also the children, are distributed among the several manufactories, where they work and receive no wages, but all their wants are amply provided for, free of cost. They are cleanly and neatly dressed in their Swabian costume, and nothing but German is spoken amongst them. The possessions and the revenues of the whole establishment are the joint property of the community, every inhabitant having placed his property in the common fund. Mr. Rapp and his adopted son are the directors, and the only complaint is, that no account is given of the management, and that the government of the institution is rather too dictatorial. Be this as it may, it cannot be denied that the arrangement and direction of this artificial society are admirable, and do honour to the founder. Mr. Rapp has established several important manufactories with steam-engines; even silks are manufactured from silk produced on the spot. The mulberry plantations and the management of the silk-worms are under the especial care of Mr. Rapp's grand-daughter. The manufactories alone are said now to yield an annual profit of 20,000 dollars. Several large buildings have been erected for a cotton and a woollen cloth manufactory, a mill, an inn, where the accommodations are very good and reasonable, &c. Everything they want is raised or made by themselves. They have extensive corn fields and vineyards, and breed great numbers of 62 cattle. Mr. Rapp has erected a large building, with a great saloon in the upper story, where the inhabitants meet on festive occasions, and where they have musical entertainments. In the lower story of this building, a cabinet of natural history has been commenced, in three rooms, which already contains some very interesting specimens.

After we had viewed all these objects, and had been led by Mr. Rapp, jun., through the manufactories, we went to the dwelling-house of the director of the establishment, and met with a very friendly reception from his family, who were dressed entirely in the manner of the country people of Würtemberg. They told us they would never deviate from their old national manners, and would always remain Germans, which we were very glad to hear. Soon afterwards, the founder of the establishment, Mr. Rapp, came in. He was a vigorous old man, of venerable appearance, with white hair and a long beard. We supped with him, drank very good wine produced here, and, in conclusion, were entertained by six or seven girls and a young man, who is the schoolmaster, and is said to be well informed, with singing and playing on the piano. We

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here became acquainted with Mr. Ehrmann of Mannheim, an agreeable, well-educated man, whose wife is likewise a very interesting person, and who was engaged in establishing a manufactory near Economy.

On the following day we viewed the park, in which there were seventeen Virginian deer. Most of them had already got their winter coat; some were still a little red: they cast their horns in March. As it was Sunday, the people assembled, at nine in the morning, in the church, which has neither pulpit nor organ. The men sat on the right hand of the preacher, the women on the left; the older persons in front, the young people a little way back. Mr. Rapp's family had the first place. When the congregation were assembled, old Mr. Rapp entered with a firm step, seated himself at a table which was on a raised platform, and gave out a hymn, which was sung in rather quick time. After a prayer delivered standing, he preached on a text from the bible, in a bold, figurative style, well suited to country people, and with very animated gesticulation. After the sermon some verses were sung, and Mr. Rapp delivered a prayer, which the congregation repeated after him, sitting. The word Amen was always repeated by the whole congregation. In the afternoon we took a very cordial farewell of the worthy family of Mr. Rapp, and set out on our return.

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The country about Pittsburg has some zoological rarities, specimens of which my travelling companions had collected during my absence. Among them are, in particular, many interesting fresh water shells of the Ohio. Several American naturalists have written on these Bivalve testacea; and there is, probably, no other country so rich in beautiful and manifold productions of this kind. On their excursions in the neighbouring islands in the Ohio, they met with trees of colossal size, and especially a maple, that measured twenty French feet in circumference at the height of twelve feet from the ground, where it divided into four thick parallel stems, from which 63 the branches issued. Among the remarkable and interesting natural productions of these rivers, we must mention the soft shell turtles of the Americans (Trionyx, Aspidonectes, Wagl.), of which there are two or three species. They grow to a great size, and are often seen in the markets. Another very remarkable animal, which is very numerous here, is the great Alleghany salamander (Menopoma, Harlan), which is here called alligator, and of which I obtained many specimens alive, so that Mr. Bodmer was able to make an accurate drawing from the life. Then there is the Triton lateralis, Say., or Menobranchus lateralis, Harlan, which differs from the preceding by the tufts at the gills, which remain even in old age. America is well known to abound in these singular enigmatical animal forms, which are nearly akin to the European Proteus, or Hypochthon.

CHAPTER VII

JOURNEY FROM PITTSBURG TO NEW HARMONY, ON THE WABASH, FROM 8TH TO 19TH OCTOBER, 1832

Cannonsburg—Wheeling—Embarkation in the Nile Steam-boat—Marietta, on the Muskingum River—Indian Antiquities—Flat-boats—Gallipolis—Portsmouth, at the mouth of the Scioto River—Cincinnati—Big Miami River, which forms the boundary between Ohio and Indiana—Louisville, on the Falls of the Ohio—Horse-races—Embarkation in the Waterwitch Steam-boat—The Cholera on Board—Mount Vernon—Landing—Journey by Land to New Harmony.

The Ohio, called by the French *La Belle Rivière*, was at this time too shallow at Pittsburg to be navigated by steamboats, and we were therefore obliged to go by land to Wheeling, ^[61] a distance of fifty-seven miles; by the river, it is ninety-five miles. After taking leave of Dr. Saynisch, who returned to Bethlehem, we crossed the Ohio, near the town, in a well contrived ferry, the wheels of which were moved by four horses. Our stage was drawn rapidly, by four good horses, along the path of the mountains, where the road passed through lofty forests, great part of which was, however, ruined and cleared. The foliage was adorned with the most beautiful varied tints of autumn, a circumstance which distinguishes North America, at this season, from all other countries. In the Brazils, it is the spring, or the transition from the rainy to the dry season, that adorns the forest with the most beautiful diversity of tints, which, however, are chiefly produced by the flowers, which frequently appear before the leaves. North America, on the other hand, has but few such flowering trees; most of them have catkins (*amenta*), and it is the foliage, which assumes in the autumn so great a variety of colours.

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On the next eminence, the road leaves the river, and turns to the south-west. Strata of coal appear in some places, and workmen were busy in removing the earth above them. We frequently met with European emigrants, most of them in their peasant's dress, with faces burnt by the sun, and carrying their children. The country consists of high hills and forests, and we frequently saw the robinia, pseud-acacia, which is partly planted for the sake of its timber, potatoes, clover, and corn, which was now in the ear. A great deal of fruit is cultivated here, and the farmers were just reaping the maize. The farm-houses are all slightly built of wood, with the chimney on the outside, to avoid the danger of fire. As the sun shone with intense heat, the birds were all life, twittering on the high trees, where the loquacious blackbirds flew about in companies. The woods, presenting a beautiful mixture of yellow, vermilion, purple and green, gave us much pleasure, and we reached Chattier or Shirtee Creek, which, after numerous windings, falls into

the Ohio, near Wheeling. We proceeded along its valley, where colossal planes and elms, as well as robinia and willows, afforded a welcome shade. We had passed several covered bridges before we reached Cannonsburg, eighteen miles from Pittsburg, where we changed horses, and, as usual in all such places in the United States, were gazed at by the curious and the idle. There is a college here for young divinity students. We now traversed the valley of the Chattier Creek, where the plane trees were very lofty and spreading. They were covered with their round fruit, from which the Americans have given the tree the name of button-wood.

At noon we reached Washington, [62] a village, beyond which the country presented an alternation of forests and fields, where stumps of trees showed that the whole country east of the Mississippi was a primeval forest. We found an ample variety in the splendid woods, where the lime (Tilia grandifolia), with its colossal leaves, was not uncommon, and the willow-leaved oak (Quercus phellos), was likewise in great abundance, the foliage of which resembles our white willow, but the bark and fruit are exactly like those of the oak. After passing a village called Alexandria, or more properly Alexander we reached the boundary of the state of Pennsylvania, and entered Virginia, which last state has a narrow strip of land on the eastern bank of the Ohio. The land here is said to be fruitful, and very well cultivated, though we did not immediately perceive this in the narrow valley of the Wheeling Creek, through which we drove. We saw numbers of young oxen, all brought for sale from the state of Ohio, where the breeding of cattle is very extensive. Many of these oxen had uncommonly large horns, others none at all. It was a beautiful moonlight evening when we passed the Mean Creek, which joins that above-mentioned, and both together forming Wheeling Creek. At this place, not far from the road-side, there is a pillar erected in honour of Mr. Henry Clay, who had been very instrumental in the opening of this road. The night prevented our taking a view of it. From an eminence we saw before us numerous lamps in Wheeling, and the Ohio sparkling in the light of the moon, and then took up our quarters at an inn at that place. Wheeling is a rapidly improving town, containing 5,200 inhabitants, where at this time they were building whole streets, and is situated on a ledge of the mountain, on the bank of the Ohio. On the summit there is not much more than one broad, unpaved street, with footpaths of bricks: shops of all kinds were already opened. The Ohio at this place is about as broad as the Moselle near its mouth. The banks are moderately high wooded mountains, the uncultivated places in which are often overgrown with Datura. Two 66 steam-boats were expected on the 9th of October, and at noon we embarked on board the Nile, a small vessel, because steamers of a large size cannot come so high up the river. Our large or lower cabin had sixteen beds, the upper cabin being appropriated to the women. The river was, at this time, very low, and its banks, from forty to fifty feet high, consisted of yellowish red clay and strata of sand.

The traces of the great inundation of the preceding spring were everywhere visible in uprooted trees, thrown one over the other. The water at that time overflowed the lower stories of the houses of Wheeling; whereas it was now so low, that our boat was obliged to stop for the night. Early on the following morning, however, the 10th of October, we passed Elizabeth Town. On the banks of the river lay piroques, composed of the trunk of a tree hollowed out, like those in Brazil, and small habitations were scattered in the lofty and picturesque forests. A little field of maize generally surrounded these dwellings, and the recently felled trees indicated that it was a new settlement. The eminences on the banks of the Ohio are, in general, rounded, steep, wooded hills, separated by valleys or ravines. In many places stacks of wood were piled up for the steam-boats, and some was already in boats. We arrived at New Town, on the right bank, at the mouth of the Sunfish Creek, a village with only eight houses, which was not yet marked on Tanner's map. [63] Near Fishing Creek, which falls into the Ohio, we saw the white-headed eagle soaring in the air, while the kingfishers flew about the banks, and the note of the black crow sounded in the tall forests. Near the village of Sistersville, on the right bank, in the state of Ohio, the sand-banks in the river were covered with the yellow blossoms of some plant, which, however, I was not able clearly to distinguish; but it was an autumnal flower, and the wind reminded us of the approach of the cold season, blowing quantities of leaves from the forest, in some places entirely covering the surface of the water with them. Towards noon, the sun shone bright, and the gay tints of the forest appeared more lovely than ever; colossal planes, maples, tulip trees, beeches, elms, ashes, limes, walnuts, and other trees, grow to a great height, and beneath their shade we saw many rustic bridges, or planks, thrown picturesquely across the little brooks. The trunks of the trees, covered with the Hedera quinquefolia, which made them look like scarlet columns, and the varied tints of the foliage, charm the beholder. All along the Ohio, Mississippi, and Lower Missouri, the papaw tree (Asimina triloba Dunal) grows as underwood. Its fruit, resembling a small cucumber, was now ripe, and great quantities were brought on board our steamer. This tree has a beautiful light green, large, smooth leaf, and violet brown flower, which grows isolated, but it does not attain a greater height than between twenty and thirty feet. The fruit has a pleasant taste, but the smell is disagreeable. It contains a whitish, juicy pulp, and twelve thick black kernels.

A heavy fall of rain was very welcome to us, the water in the river being so low that our boat frequently grounded. At a narrow part of the river we came to the village of Newark, and then to the mouth of the Muskingum River, at the town of Marietta, which was founded in 1788.^[64] This [67] place is small, but it has neat brick buildings, some of which looked like churches. We have read much about the ancient Indian remains and ramparts, between the Ohio and the Muskingum. Smith Barton, Attwater, Schultz, and especially Warden, [65] have written on this highly interesting subject, and given ground plans of the Indian ramparts, which are met with at many places in the state of Ohio, at Cincinnati, Wheeling, Chillicothe, as well as in all the States west of the Alleghanys, and respecting which Warden has collected everything that is known; but most of these interesting remains have been entirely annihilated by the love of devastation, or the

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negligence of the new settlers. Thus Marietta is built just on the fore part of the Indian works, and many of them are no longer to be seen. It is much to be lamented that the government of the United States suffers all this to be done without any attempt to prevent it. It looks on unmoved, while the plough continues from year to year the destruction of these remains of ages long since past, the only historical monuments of this country. Schultz gave, in 1820, a ground plan of the ramparts near Marietta, as Smith Barton and Warden did more recently; and Mr. Thomas Say made a sketch of them in 1815, which he communicated to me. A great part of them has been since ploughed over.

From Marietta we came to the Island of Muskingum, and then to Vienna Island; opposite to which, on the left bank, lies the village of Vienna. Swallows, which had long since left Pennsylvania, were still flying about here. We everywhere heard accounts of the great flood in the Ohio, when the steam-boats were on a level with the second story of the houses in Marietta.

We saw tall forest trees, among the thick branches of which the river had deposited beams and other pieces of wood. [66] Below Parkersburg, a village on the southern side, the little Kenhava River issues from the high bank opposite Belpie, a settlement of a few houses. [67] A steam-boat, which had been entirely crushed by the ice, proved how violent the effects of the breaking up of the ice in the Ohio sometimes are. Our captain lay to for the night, on the right bank, which was necessary, on account of the unfavourable weather; the rain being so heavy, that it drenched the upper row of beds in the large cabin.

On the 11th October the weather was fairer, but very cool. The appearance of the bank was the same as before—an unbroken, thick forest, with here and there some little settlements. We reached, at an early hour, the Little Hocking River, which comes from the state of Ohio. Ducks, particularly teal, flew past us, and we observed, also, many other birds of passage on their flight. Near Shade Creek, the banks of the river consisted of stratified, rocky walls, which appeared to be Grauwacke slate; we observed, in the forest, trees of remarkable forms and colours; the trunks, covered with the scarlet foliage of the five-leaved ivy, were particularly beautiful. We frequently met, in the river, with flat boats, which are built all along the banks all of the Ohio, from Pittsburg, and are sent with the produce of the country to New Orleans. These boats are large four-cornered chests, composed of beams and planks, are often heavily laden, draw much water, and, having neither masts nor sails, proceed very slowly. They are propelled with large oars, and can only go down the river; they are many months on the voyage to New Orleans, and the rowers are commonly new European emigrants, hired for low wages, and often merely for a free passage. Many of these boats are wrecked, and they are, therefore, frequently insured; at New Orleans they are sold for lumber.

The woods in the valley of the Ohio are more lofty and luxuriant than on the other side of the Alleghany Mountains; vines twine round the trees, and present a faint image of the woods of warmer countries. The kingfisher was common; the swallows had not yet taken their flight, and in some places the sandpiper was seen upon the bank. In the vicinity of the houses were cattle, horses, swine, large sheep, and numerous flocks of European geese and ducks; here, too, the papaw tree was sometimes planted in rows. The river increased in breadth, but not in depth, of which we had the proof before us, for a flat boat had run aground, and the people stood in the water, trying to get it afloat. In this part of the country there are, in the state of Ohio, many Swiss colonists, who are much commended for their industry. The soil is extremely fruitful, and needs no manure. The dwellings of these people are small log-houses, exactly like the huts in Switzerland. Towards noon, before we reached Point Pleasant, we saw, in many places on the Ohio, considerable coal-pits, the sulphureous smell of which was perceptible in the steamer; many boats lay ready to take in cargoes; negro children were sitting in groups on the bank, near their extensive plantations of maize. These people are free in the state of Ohio. After we had passed Point Pleasant, a village on the left bank, where fine forests cover the low bank of the great Kenhava River, which here falls into the Ohio, we reached, in about twenty minutes, Gallipolis, on the right bank, an old French colony, the inhabitants of which still speak the French language. [69] Immediately below that town, there is a fine forest of beech trees; on the waterside, thickets of plane, and between them the papaw tree took the place which, in Pennsylvania, is occupied by the *Rhododendron maximum*; willows grew in front of the planes.

The sun disappeared behind the hills on the bank; the evening sky was clear and serene, and the bright mirror of the Ohio extended unruffled near Racoon Creek, where we saw large flocks of ducks. We intended to continue our voyage during the night; but, about nine o'clock, we struck violently on a sand-bank, near the Indian Guyandot River, where there is a small village of the same name, and, as a thick fog arose, we lay to, six miles below Guyandot.^[70]

On the 12th of October, in the morning, a dense fog covered the river, and the thermometer was, at half-past six o'clock, at 10° Reaumur, above zero. We passed the mouth of Symes Creek, and then Burlington, a small scattered village in Lawrence County, where our boat struck upon some stones, and was thrown a little on one side. On the left bank was Cadetsburg, [69] with Big Sandy Creek, then Hanging Rock, a small village, where most of the iron utensils for the whole of Ohio are shipped. The situation of the place is picturesque, surrounded with forests and rocks. On the left, or Kentucky bank, we passed Greenupsburg, a row of seventeen or eighteen small houses, on the high bank. The inhabitants, in order to attract the notice of the vessels that pass by to their public-houses, stores, or shops, have set up posts, with boards painted white, on which their trade, &c., is described in very large letters. The beech woods on this part of the river were remarkably fine, their foliage green and yellow. On our right hand was the little Scioto River; we

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then came to the village of Portsmouth, at the mouth of the Scioto River, on the Ohio bank, where the celebrated Ohio Canal begins, which connects that river with lake Erie. At this place we took on board a number of European emigrants, among whom were many Germans, with their baggage, beds, and other effects, and many children. The negroes brought provisions for sale; one of them had a number of fowls, all of which escaped, and caused no little amusement. From this place, fine forests covered the bank, in which were tall poplars (*Populus Angulata*, or *Canadensis*), which I had not before observed. Here, too, I noticed some interesting forms of mountains, which in general are very rare in this country. Most of the summits are round, some broad, but very few pointed. Towards evening we came to the village of Rockville, [71] on the right bank, which was not marked on our map, and lay to, at nightfall, when we learned that our vessel had caught fire, but happily it was already extinguished. On the bank near the steam-boat, a large fire was burning, the reflection of which, on the dark forest, had a fine effect, and so had the steamers that hastened past us, which were brightly lighted up inside, and emitted sparks of fire as they rushed along in the dark night.

On the 13th, at daybreak, the landscape was obscured by rain. We had passed, during the night, Adamsville, Manchester, Aberdeen, Ripley, Vanceburg, Maysville, and Augusta, and were now off the village of Neville, where the Helen Mar steam-boat lay near us, to take in wood. We then came to Moscow, then to Point Pleasant, and on the right bank to New Richmond. [72] Near the little Miami River, six miles from Cincinnati, the Ohio was so shallow, that we saw the shells at the bottom, and our boat struck several times. The Miami River was nearly dry. At Columbia, in the state of Ohio, the valley becomes rather wider, but the hills soon close in again upon the river, and we come to the beginning of the great town of Cincinnati.

Cincinnati, the most important and flourishing town of the West, with more than 36,000 inhabitants, was at this time visited by the cholera, which, as we were assured by a physician who came to our vessel, carried off, on an average, forty persons daily. I therefore resolved not to stop now, but to visit this town on my return; our baggage was transferred to the Portsmouth steamer, which was just about to depart; and at noon we reached the mouth of Big Miami River. [73]

On the 14th of October, we had pleasant sunshiny weather. The river had become considerably broader, when we came to Six-miles Island, a beautiful island six miles from Louisville. We had passed several places during the night, and likewise the celebrated Big-bone Lick, ^[74] where colossal bones of the mammoth have been dug up at the foot of a hill of black earth. I would gladly have stopped at this spot, but some of our passengers, who were well acquainted with the country, assured me that there was now nothing to be seen there, nor was anything more found. All that had been obtained had been sold to England and the American museums.

Fossil bones^[75] of animals are still found in the United States, but the possessors having learnt the value of such things, ask so high a price for them that it is difficult to obtain them; they are, besides, frequently presented, out of patriotism, to the American museums.

We soon reached Louisville, a considerable town, with 12,000 inhabitants, which in 1800 had only 600. ^[76] It is in the state of Kentucky, and, when seen from the river, does not make nearly so good an appearance as Cincinnati. Negroes conveyed our baggage to the inn, where we found, as usual, a great number of gentlemen, for the most part travelling merchants. The merchants are, in America, the class of people among whom the most idleness is found, and they are extremely numerous. The least numerous classes are the men of learning, and the military; the latter, in particular, so very few, that they are not at all remarked. The young men who, in North America, besiege the doors of the inns, are, doubtless, most of them, traders. Foreigners are often treated with contempt by these persons, who are usually equally conceited and unpolished, and make observations, as soon as they discover a foreigner, either by his incorrect pronunciation of English, or by his dress. This American conceit is to be attributed partly to their excessive patriotism, and partly to their ignorance, and want of acquaintance with other countries.

When the dinner-hour was come, such a crowd of gentlemen had assembled before the house, that, at the ringing of the second (dinner) bell, the dining-room was in a manner carried by storm. All rushed impetuously into the room, every one making good use of his elbows, and in ten minutes all these people had dined and hastened out again. Mr. Wenzel, a German merchant, to whom I had letters, had the kindness to show me the town and neighbourhood. Louisville has the appearance of being likely soon to become an important town, and many new houses were, in fact, building. The streets are long, broad, and straight, crossing each other at right angles, and the situation on the Ohio is very favourable for trade. Handsome, showy shops are common here, as in all the towns of the United States, and elegance of dress characterizes everywhere, even in the smallest places, the inhabitants of this country, the great object of whose efforts is the acquisition of wealth. As it was Sunday, the various sects of the population were flocking to their respective places of worship; afterwards, many of them were driving out in their gigs. There were already above thirty hackney carriages, partly belonging to negroes, of whom only the far [71] smaller portion are free in the state of Kentucky. The state of oppression in which the negro slaves live in North America, makes them corrupt and knavish, which travellers often have occasion to learn by their own experience. At Louisville, the cholera had already appeared. Five persons, most of them negroes, were carried off the day before our arrival, and a general panic had seized the inhabitants.

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Mr. Wenzel took us to a spot which was intended for horse-races, an institution quite new in the Western States. A society had purchased a beautiful level spot of ground, surrounded with woods, and about four miles in circumference. This place was surrounded with palisades, with several stands in the centre, and stables in the neighbourhood for the horses. The horses of Kentucky are considered to be the best in the country; the stallions which were to run, and some of which had come from a distance, seemed to be mostly of a very good breed, not large, but well built. The first races were to continue the whole of the next week. This institution will, doubtless, have a good effect in improving the breed of horses, and afford the inhabitants of the town and neighbourhood both advantage and amusement.

In the afternoon we left Louisville to embark at Portland, below the town, on account of the Falls of the Ohio, that now cannot be navigated past the town, and therefore a canal has been made, where, by the aid of five sluices, the boats are raised twenty-two feet. Those who land at Louisville embark again at Portland, where there is generally a great number of steam-boats, among which we chose the Water-witch, bound to New Orleans. [77] There were a great many passengers eager to embark, who drove in carriages into the river to reach the steam-boat, to which the baggage was conveyed in the same manner. The loading of the vessel not being completed, we did not set out till the 16th of October. At seven o'clock in the morning of that day, Reaumur's thermometer was at 5° above zero, while a thick fog covered the river. We put off at half-past ten, and had a fine view of the magnificent Ohio, with the large town of Louisville in Kentucky, and New Albany in Indiana, [78] opposite, with numerous steam-boats on both banks. It was soon discovered that our engine was out of order, and we were forced to lie to, on the Indiana side, to repair it. As this required much time, we took the opportunity of exploring the first forest in this State. The bank was fifty feet high, and steep; the upper part of the declivity was covered with Datura, the seeds of which were now ripe, but very few of the light purple flowers were to be seen. The beautiful blue flowering Eupatorium coelestinum and the Lobelia syphilitica bore their flowers amongst the thorn-apples. On the summit of the bank there was a noble forest of tall, thick beech, maple, oak, walnut trees, &c., in which there were some plantations of maize, with their block-houses. The underwood was everywhere the papaw tree, and on the skirts of the forest the yellow flowering Cassia Marylandica, with ripe seed. Old trunks lay rotting on the ground, which was partly covered with the falling leaves.

At nightfall our engine was repaired, and we proceeded on our voyage, and on the morning 72 of the 17th reached the village of Brandenburg, on the Kentucky bank, which is here rocky, and marked with horizontal white stripes, or strata. The mountains were rounded and covered with wood. In Indiana the forest was cleared in some places for plantations, which afforded a view into the picturesque interior; for on these cleared spots the tall forest trees stood, as in the primeval forests in Brazil, like columns crowded together. This dense forest was interrupted for a short space by the towns of Leavenworth and Rome, in Indiana, and Stevensport in Kentucky; the two last with some indifferent buildings. From this part the country had no great variety, the forests being seldom interrupted. The islands were bordered with willow bushes, with tall trees in the middle. On the bank where the rock was exposed, on account of the low water in the river, we observed singular forms produced by the action of the stream. They consisted of round or elliptical stratified masses, which gradually decreased in breadth, so that the whole looked like a truncated pyramid rising in terraces. Before night we reached Cloverburg, in Kentucky, and lay to till the stars or the moon should appear. [79] Numerous card parties sat down in the great cabin, where the heat was intolerable. Our beds swarmed with cockroaches, which ran over our faces and hands, or fell from the ceiling. These disagreeable animals are as common here as in Brazil; they gnaw everything, and, being quite soft, are crushed by the slightest motion.

On the 18th, at half-past six o'clock in the morning, the thermometer was +16° Reaumur, with rain, and wind, and a clouded sky. We reached at an early hour the little place of Rockport, [80] in Indiana, and at half-past eight, Owenburg, or Yellow Banks, in Kentucky, where we landed many passengers. We saw the Turkey buzzard hovering over the woods—a bird which we had not observed since we left Cincinnati, and which is not found to the west of the Alleghanys. The Ohio, though the water was extremely low, was still very broad and beautiful, its wooded banks rather low. French Island, and some others, covered with bushes and lime trees, lay quite dry, surrounded with a large sand-bank. It was discovered that we had the cholera on board. A man from Kentucky had declared himself ill early in the morning, and was dead before eleven o'clock, though the Captain employed all the remedies in his power. He was quite well in the evening, had played at cards all night, and did not complain till towards morning. A coffin was made of some planks; the vessel lay to on the bank, which was steep, and the bell was rung while the body was conveyed on shore and buried. Many of our passengers landed to see the funeral; others were extremely alarmed, and, meantime, took a walk.

After the funeral was over, and a white board, with the name of the deceased, had been set up on the grave, the bell called the passengers on board; in half an hour we reached Evansville on the Indiana bank; soon afterwards Pigeon Creek; above this, on the other bank, the Green River, and subsequently the village of Henderson. [81] Here we took in fresh provisions, and, among the rest, 1000 fowls were offered for sale, of which we took a good supply at a dollar per dozen. [73] The sun was setting with great splendour as we left this place; the broad, unruffled bosom of the Ohio shone like a silver mirror, in which the beautiful wooded banks were reflected, and the magnificent purple and orange hues of the sky tinged the river with their glow.

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next morning, to New Harmony, to visit the naturalists at that place. After passing the night at an indifferent inn, I set out for New Harmony, on the 19th of October, in the morning. I had been indisposed, as well as my huntsman, since I left Louisville, and was not in a mood properly to appreciate the fine, lofty forests of Indiana, the road through which was very bad and rough; the last part of the forest was remarkably grand and wild: vines and other climbing plants hung down from the old trees. The *Amorpha fruticosa* frequently formed the underwood. At some of the isolated dwellings of the farmers, racoon skins were hung up to dry, and the beautiful large feathers of the wild turkey were scattered on the ground. After having passed, in the most oppressive heat, the Big Creek, which flows between the wooded hills, we soon reached the fertile valley of the Wabash, near to which New Harmony is built.

CHAPTER VIII

DESCRIPTION OF THE COUNTRY ABOUT NEW HARMONY IN INDIANA, AND WINTER RESIDENCE THERE FROM OCTOBER 19TH, 1832, TO MARCH 16TH, 1833

New Harmony on the Wabash—The Environs—Forests—Animals—Geological Formation—Climate—Aborigines—Remains of the former Population—The present Indians—The White Usurpers—Cultivation of the Country—Productions—Breed of Cattle—Buffaloes—The Naturalists at Harmony—Excursions—Fox River—Black River—Long Pond—The present sanitary State of the Country.

New Harmony was founded by Mr. Rapp, and his Swabian followers, in a wooded plain on the left or east bank of the Wabash, about fifteen or twenty miles distant from any other place. As Duke Bernhard of Saxe Weimar has already spoken on this subject, I need not give any further account of the history of this settlement; I will only add that Mr. Owen, a Scotchman, bought the whole of Mr. Rapp, but afterwards disposed of it to Mr. William Maclure, President of the Academy of Natural Sciences of Philadelphia. [83] At the time of our visit, Harmony had fallen into decay, and the people whom Mr. Maclure had settled there, were in part dispersed. Two sons of Mr. Owen were, however, still here, and also Mr. Thomas Say, and Mr. Lesueur; the first, well known as having accompanied Major Long in his two journeys into the interior, and the second, by his voyage round the world with Captain Baudin, and the celebrated Piron. Though Mr. Maclure did not appear to take any active part in the management of Harmony, because the climate did not agree with him, and he therefore resided in Mexico, he took care to furnish Mr. Say with a fine library of books on Natural History, which was constantly enriched with the most valuable new works published in Europe. He likewise had here a printing press, a copper-plate press, and an engraver. Mr. Maclure had purchased in France all the plates of Audebert and Vieillot's splendid ornithological works, which are preserved in the library.^[84] Mr. Say has undertaken the superintendence of Mr. Maclure's property on the Wabash, but lives in a very retired manner, devoted to the study of natural history, and to literary pursuits.

Harmony is now a large village, with about 600 inhabitants; the buildings, which are partly of brick, are detached from each other; the streets are at right angles, broad, and unpaved. The church built by Mr. Rapp has been transformed into an amateur theatre. The situation of Harmony is by no means unpleasant. The Wabash, a fine river, as broad as the Moselle, winds between banks which are now cultivated, but were lately covered with thick forests. A hilly tract, covered with woods, bounds the valley of the Wabash, which is frequently overflowed by the river, and thereby gains in fertility. The place itself lies rather higher than the valley, surrounded by orchards, and is not exposed to inundations. The Wabash divides at Harmony into two arms, the eastern of which is called Cutoff River, [85] and further down into several branches, forming many wooded islands, the largest of which are inhabited.

New Harmony, [86] is surrounded on all sides by fields, which are from 600 to 800 paces in diameter; all around are lofty forests, where settlers have everywhere cultivated detached patches. These people are generally called backwoodsmen, who live like half savages, without any education or religious instruction. The forests which they inhabit are very extensive, and the soil extremely fertile: vegetation is much more luxuriant than to the east of the Alleghanys; and, therefore, a short description of the natural productions of the country will not be out of place here.

Some remarkable peculiarities strike the observer when he looks at the forests on the Wabash; one of these is the want of evergreens, if we except the *Viscum flavescens, Pursh, Bignonia cruciata, Equisetum hyemale*, and *Miegia macrosperma*. The leaves of that bignonia, for the most part, remain green in the winter, as well as those of the miegia, and the stalks of the *Equisetum hyemale*, at least, in mild winters, which often grow to the height of eight or ten feet in the dry forests. The planes often attain an enormous size, and are then generally hollow, and divided into several colossal branches. We measured several of these trees, and found one that was forty one feet five inches in circumference. The hollow inside was twelve feet in diameter, so that in our winter excursions we used to light a fire in it, where we sheltered from the wind. Tall tulip trees shoot up straight as masts, blossom, and bear seeds at their summits, unseen by human eye. Maples of great height and circumference, many species of oak, especially the mossy overcap oak (*Q. macrocarpa*), with its large acorns, which, at this time, lay on the ground, stand crowded

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together. A great many species of trees are mixed together; among them the *Gymnocladus Canadensis*, or *Guilandina Bonduc*, with its broad pods, the divers kinds of walnut trees, the *Gleditschia tricanthos*, with its formidable thorns; and many climbing plants twine round the trunks, and among them, the most beautiful of all, the *Bignonia radicans*.

In the forests of Indiana the ground is covered with a thick undergrowth, fifteen, twenty, or thirty feet high, consisting chiefly of the papaw tree, the spinewood (*Laurus Benzoin*), and the red bud; the flowers of the two latter precede the leaf. Under these lower trees, shrubs cover 6 the ground. No pine, rhododendron, kalmia, azalea, magnolia, nor even the chestnut tree, are found in these forests; but they seem to be especially the native country of the beautiful catalpa tree, of which it was not known in what part of America it properly grew wild, and which here attains a considerable height and size.

These lofty forests re-echo with the hammering of the numerous woodpeckers; and, during the winter, the scarlet cardinal (*Fring. cardinalis*) shines in the distance; and the titmouse (*Parus. bicolor*, and *Atricapillus*), and the nuthatch (*Sitta Carolinensis*), everywhere seek for insects and nuts

The inhabitants of these forests would never be in want of an ample supply of wood for fuel and for timber, if they had been at all careful. The black walnut and cherry tree wood are the best for cabinet work; and for fuel, the hickory, which affords more heat than beech wood. The price of wood, at Harmony, was one dollar for a cord; but the price is already rising, because the forest in the neighbourhood of the village is gradually cleared, and the carriage is more expensive.

There are several kinds of officinal plants in the vicinity of Harmony; ginseng (*Panax*) grows close by the village, and its roots are still in request, but not so much as formerly. Another plant of the woods of Indiana, which is much esteemed, is the spurious Colombo root; likewise the peppermint, which grows in every part of the United States. The wax tree (*Myrica cerifera*), of the berries of which the green, fragrant tapers are made, does not grow in Indiana, but is found on the whole east coast, from New Jersey to Florida. A kind of bark, which is now much used, is that of the slippery elm (*Ulmus rubra*): if chewed, or softened for a moment in water, it dissolves into a viscous slime, and is found very useful in dressing wounds, as it is cooling, and allays the inflammation. It is said to have been applied with success in cholera, and is now sold, in powder, in all the apothecaries' shops. A teaspoonful of this bark, in boiling water, makes a very useful beverage, which is sweetened with sugar, and has the same effect as linseed. Michaux has given a print of this elm, and it would be desirable to cultivate it in our gardens.

The country on the banks of the Wabash is as interesting to the zoologist as to the botanist; formerly there were great numbers of the bison or buffalo of the Anglo-Americans, the elk, [87] bear, and beaver; but they are now entirely extirpated. The Virginian deer is still pretty numerous, but is daily becoming more scarce: when Mr. Rapp first settled here, seventy of these deer were shot, in a day, in one of the Wabash islands. The wolf is still common, and seems to differ but little from the European, but is a different species from the wolf of the prairies of the Missouri; 77 it is said that there is a black wolf in the prairies of Illinois, which may, perhaps, be a distinct species. Of foxes, I saw only the grey, though the red fox is said to be found here. In the works that treat of the natural history of North America, there are many errors. The racoon is common in the forests of Harmony, and is never seen in the daytime; it is hunted in the night with dogs, which drive it into a tree. It does not sleep through the winter, for I often obtained it in that season. The opossum is also common, and lives much in the same manner as the racoon. The polecat, the otter, and the mink are common; the pine marten is said to be sometimes seen; the ermine is not rare in the prairies of Illinois. The marmot, or ground hog, grows to a considerable size, and is found in the islands of the Wabash; the musk-rat abounds in all the rivers. The rabbit, as it is called (*Lepus Americanus*), is nowhere so common as in Europe, yet is found in all parts of the country. Of squirrels there are many species.

The most interesting of the birds of this part is the wild turkey, which was formerly extremely numerous, and is still pretty common. A large cock was sold at Harmony for a quarter of a dollar. A young man in the neighbourhood, who supplied the place with this delicate game, had often ten or fifteen hanging about his horse at the same time. The pheasant or heathcock is found in these forests, but in no great numbers. The prairie hen is common in the prairies of Illinois, and comes in large flocks to the neighbourhood of Harmony, as soon as the cold weather and snow set in. Partridges abound, and so do parrots (*Psitt. Carolinensis*) which remain here during the winter. No other kind of parrot seems to bear so great a degree of cold as this. We often saw them flying about in the forests, feeding on the fruit of the plane, when Reaumur's thermometer was at 11° below zero. In the mild climate of the Ohio and Wabash they remain all the year through. They are amusing birds in a cage, and become very tame.

There are but few species of amphibia in the country about Harmony. Soft shell turtles and several kinds of *emys* are numerous, such as the snapping turtle (*E. serpentina*), likewise *E. geographica*, *picta*, *pulchella*, &c.

There are several lizards, but no great number of species. The rattle-snake is seldom seen, this country not being sufficiently dry and stony; the copper-head, on the contrary, is said not to be rare, but I cannot speak with certainty. The hognose-snake is very common. There are many kinds of adder in the Wabash that are not venomous.

The proteus (*Menobranchus lateralis*, Harl.) of the Ohio, and of the great Canadian lakes, is found in the Wabash. The rude inhabitants have many superstitious notions and fables respecting

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several kinds of animals, especially serpents. Of the glass-snake (*Ophisaurus ventralis*), which easily breaks to pieces, they say, that when the pieces are placed together, they immediately unite: they affirm that the horn-snake, which has a horn or sting at the end of its tail, takes it in its mouth, and then runs along like a hoop; and that if it passes a tree it wounds it with its sting, which always makes the tree die. Mr. Thomas Say was once informed that a length planter had brought one of these snakes, and would prove the truth of this assertion. He sent for the man, and found that he had the tail of one of these snakes carefully wrapped up. Mr. Say asked him whether he must die if he pricked himself with this horn? The man answered "undoubtedly." Mr. Say immediately pricked himself with the horn and drew blood, but was not affected by it; and the impostor, who affirmed that he had witnessed the effects of the sting, excused himself by saying that he had been deceived by a neighbour who gave him the snake. The inhabitants of the country generally believe that venomous serpents sting both with the tongue and with the tail, that they fascinate other animals, an old, long since refuted fable, which, however, is occasionally revived in American journals, with other stories of a similar kind.

There are many kinds of fish in the Wabash, on the whole the same as in the Ohio and the Mississippi: the cat-fish is said sometimes to weigh above 100 lbs. Several species of sturgeon and pikes are found here; the horn-fish, the buffalo (*Catastomus carpioles*), a large fish resembling the carp, &c. The remarkable paddle-fish is likewise met with, but not frequently, nor in all the rivers. Mr. Lesueur has given it the name of *ptalyrostra*, and has sent several specimens of it to Paris. This naturalist, during his long residence at Harmony, has very carefully studied this branch of zoology. He possesses a large collection of drawings and descriptions of this class, and specimens, for the most part stuffed. He has presented many of them to the National Museum at Paris; and it was his intention soon to visit Europe, and publish his observations on this subject, which will form an important supplement to the great work of Cuvier and Valenciennes.

The bivalve shells (*Unio, Alasmodon*, and *Anodonta*), of which there are a great many different species, some of them very large and beautiful, are an interesting portion of the natural productions of the Ohio, the Wabash, and the tributary streams, especially Fox River. Several American naturalists have written on this subject. Mr. Say, who was the first, states the number of species of these bivalves at forty-four. He would have given descriptions and drawings of all the species existing in this country, as well on land as in the rivers, in his natural history of the North American testacea, had not death called him from this world, too soon for his friends and for science. He died on the 10th of October, 1834, soon after I had left him in good health on my second visit to Harmony. This part of the country has two species of crustacea (*Astacus Bartoni*, Bosc.), and (*Astacus affinis*, Say), which are here called craw-fish. These are the only large species of crustacea, but there are many smaller ones. Mr. Say, by many years' study, made himself fully acquainted with the insects. It is remarkable that the bee, which was brought to America by the Europeans, is now common in all the forests; the Indians are said to call this insect the white-man's fly. Many beautiful butterflies and moths adorn the woods of Indiana.

The eminences about Harmony are of secondary formation, with a basis of limestone, and upon that, strata of sandstone, clay-slate and indurated clay. The land in the neighbourhood of [79] Harmony is extremely fertile. The fields are not manured for many successive years, and produce the finest crops; such land, however, in good situations, is no longer cheap. The climate is salubrious, and the inhabitants attain a great age. The winters are generally mild; the changes of temperature are often very great and rapid. The cholera has not yet visited this country. We arrived at the season called the Indian summer, when, with a temperature of +16° to 17° Reaumur, the atmosphere was gloomy and misty. Most persons experience, at this season, irregularities in the digestive organs, and head-ache. Pöppig gives a very accurate account of the North American autumn, and Mrs. Trollope felt the peculiar effect of this warm autumnal weather on strangers; it is, however, very remarkable that this state of the atmosphere in the Ohio Valley quickly put an end to the cholera, on which Dr. Daniel Drake wrote an essay. [88] The weather in the wintertime is generally bright and clear; sometimes there are fogs, and hoar frost, which encrusts the trees with the most beautiful crystals: parhelia and aurora borealis are frequently seen. On the 14th of December we had a tremendous thunder-storm at daybreak; Reaumur's thermometer was at +2°; the rain, thunder, and lightning were equally violent; the latter covered the heavens with a sheet of fire, and was extremely dazzling; the thunder resembled a discharge of artillery. We were told that, in the preceding year, 1831, the weather had been exceedingly unhealthy, and the inhabitants even affirmed that wounds would not heal.

Like the whole of the interior of North America, the country on the Wabash has still numerous traces of a very early extinct original population, of which even the present Indians have no traditions, and whose remains have been spoken of by many writers. Warden, in his account of the United States, and more particularly in the great work, entitled "Antiquités Mexicaines," has mentioned such remains in all the states, and collected much information on this subject. Here, too, in the neighbourhood of Harmony, there are ancient tumuli, which, externally, are exactly similar to those which are everywhere found in our German forests. Lesueur had examined many of these tumuli, and sent part of the articles found in them to France. Some of the most considerable tumuli were found on the spot, near the back of the village, where Rapp made his churchyard, and which is now planted with acacias. The bones of the Swabian peasants are here mingled with those of the aboriginal Indians. Lesueur dug through some of those tumuli, which are now much levelled, and covered with greensward, and found a right-angled oblong parallelogram, level at the bottom, formed of large flat stones, set edgewise, and likewise covered over with similar stones. Some decayed bones were found in it, of which I received a

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considerable number from Mr. Lesueur, and sent them to Mr. Blumenbach, at Göttingen. [89] This mode of interment is not that of the present Indians, who themselves affirm that these tumuli were made by the whites. Most of the skulls which were found were without the bones of the face, and all were very much decayed. The race of men to which they belonged were not smaller than those now existing, and, consequently, afford no evidence of a dwarfish race, which has been fabulously [80] ascribed to America. Potsherds were found in many of the tumuli; they were made of a grey clay, and in general marked with stripes, or rings; it would appear that they had been moulded in a cloth, or basket, as they were marked with similar impressions, or figures. Mr. Lesueur has seen unbroken vessels of this kind, which were large, very flat, and had figured handles. Broken shells are frequently found intermixed with the dark grey clay of these vessels. In one of the tumuli was found, together with the human bones, the jawbones of an animal of the stag kind; in others, battle-axes, arrow-heads, and tobacco-pipe heads of clay, different in form from those now used in Indiana.

One of these pipes was in the shape of a squatting frog, the mouth serving for the tobacco; some of them are represented in the accompanying woodcuts. [90] Some of the most interesting articles found in and near these graves, are the narrow, oblong, square pieces of flint, which those nations made use of instead of knives. They are from two to two inches and a half long, and scarcely half an inch broad; very thin and very sharp on all the four sides. Several of these knives were discovered near New Harmony, and Mr. Lesueur found one during my stay there. There is a very remarkable coincidence of these knives with the perfectly similar instruments of obsidian or volcanic glass, which are found, even now, in Mexico, some of which Mr. T. Say brought with him, from his journey to that country, and wrote a paper respecting them. [91] In the [81] forty-eighth plate, I have represented the two kinds of stone knives together, as they seem to testify the affinity of the aborigines of the interior of North America with those of Mexico, which is supported by other reasons.

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Indian pipes

About fifteen miles from Harmony, lower down the Wabash, is a part of the bank known by the name of the Bone Bank, where the river has partly cut through a hill, or laid it bare, in which there are numbers of human bones seen imbedded in the bank. Mr. Lesueur sent a perfect skull from this spot to Blumenbach. An old tree having fallen down on this place, he saw under the roots an entire human skeleton; this, therefore, was undoubtedly a burying-place. While the observer deeply regrets that he is wholly without information respecting these remarkable remains of antiquity, he feels that the present white population of North America may justly be reproached for neglecting or destroying them. Nobody in Harmony was able to give any account of the names of the Indian tribes who inhabited the country at the time when this village was founded. One of the first settlers of the country about Mount Vernon, who had grown up in Kentucky among the Indians, but had removed, in 1806, to the forests on the Lower Wabash where at that time there were no white settlers—had been well acquainted with the Indians about Harmony, and frequently visited them in their huts. He was the only man who was able to give me any information about them. He called them Muskoghe Indians; this name, however, seems to be incorrect. They lived in this part of the country till 1810; but in the year preceding the battle of Tippekanoe they all removed, and did not return. They were not numerous, and lived chiefly about the mouth of the Wabash, and on the Big Creek. [92] They were a good-looking, robust race; wore a kind of apron, and had bows and arrows, in the use of which they were very expert. They had among them thirty or forty indifferent guns; they smoked Sumach leaves in wooden pipes,^[93] the tube of which was made of cane. Their huts, at the mouth of the Wabash, were composed of large bundles of reeds, lined inside with deer-skins. Many of these Indians fastened their pipes to the tomahawk. Their heads were shorn, with the exception of a tuft at the back, like the Indians of the Mississippi and Lower Missouri. They coloured their faces with red paint. To the whites they were friendly, visited the first settlers in their dwellings, and reposed around their hearths, especially in bad weather. At that time there were elks and beavers, yet in no great numbers; but bears and wolves in abundance. My informant had killed many bears, and great numbers of wild turkeys.

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The early history of Indiana mentions, as the inhabitants of this State, when the French first settled here, the Kickapoos, Musquitons, Potanons, and some other nations, remnants of which are still to be found at the sources of the Wabash, as well as the Piankishaws, Miamis, and Viandots. In the year 1804, a treaty was concluded with them at Vincennes for the purchase of the lands between the Wabash and the Ohio, after which they emigrated. [94] Some well-informed inhabitants of Harmony, who, at the time of the Indiana emigration, when the United States had

repeatedly bought land of those people, saw the several dislodged tribes pass through this country, assured me that the character of their physiognomy was often essentially different; and I myself found this confirmed both in North and South America; though the fundamental features of the American race are everywhere the same. All these Indians are now totally extirpated or expelled from Indiana, and the country enjoys the advantage of being peopled by the backwoodsmen.

The fertile and salubrious country of Harmony has attracted a great number of settlers, who have begun to thin the great forests of Indiana. These settlers are usually called backwoodsmen. because they live in the remote forests. They are a robust, rough race of men, of English or Irish origin. They dwell very isolated, scattered in the forests, and but seldom come to the towns, only when business calls them. There is a school at Harmony where the children learn to read and write; two dollars are paid quarterly, and the children receive instruction in the morning and afternoon; but in the country the young people grow up without any education, and are, probably, no better than the Indians themselves. In the Western States, the sixteenth section of the Congress land (i. e., land belonging to the Government) is always assigned for the benefit of the schools, but is not always employed according to the first intention. At this time there was in the state of Indiana only one college; it was at Blooming Town. [95] There was no clergyman at Harmony, and, with the exception of the meetings of some religious sects, the inhabitants were destitute of both religious and school instruction. Business, or festive occasions, bring the backwoodsmen into the town, where they indulge their love of whisky, which generally retards their return homeward. They have a good race of horses, and are bold horsemen; even the women are frequently seen on the saddle, and whole families travel in this way—man, woman, and child ofttimes mounted on the same beast. There is nothing characteristic in their costume, like the original dresses which are met with in the country in Germany; but they wear a medley, and bad imitation of all the fashions of English towns; caps, felt and straw hats, frocks, greatcoats, plaids, &c. The women, too, endeavour to imitate the fashions of the towns, wear large hats with loose veils, and gaudy plaid mantles, which, altogether, have often a most ludicrous effect in these remote forests. The winter dress of the men is often not ill chosen, though perfectly novel to a stranger. At that season they wear great-coats made of the common woollen horsecloths, white or green, with gay stripes on the collar, cuffs, and pockets; 83 nay, some are striped all over like zebras: such a coat, of the commonest kind, cannot be had here for less than eight or ten dollars. Noisy parties of these people frequently assemble at the public-houses of Harmony, gather round the fire, and let the whisky circulate briskly, while their horses are frequently left the whole day, standing in the street, amid rain and snow. On Sunday, which is kept by many of the inhabitants, though there is no divine service, they are more decently clad, wash their faces, and make some attempt at putting their hair in order, which hangs dishevelled about their faces. The young men often went to the chase, others played in the streets, generally at ball, but a great number remained at their work, and the peasants and farmers, with their huge wagons, followed their usual occupations. On certain days, especially when a magistrate, a president, or a governor was to be chosen, all were gathered together, for they all take great interest in the government of the country, and would not, on any account, renounce the privilege which, in their estimation, makes them important statesmen. On such election days, whole troops of them ride into the town; the streets are crowded with their horses, which are tied up, and the whisky-shops resound with their tumultuous discussions. Every man gives his vote; disputes arise; and, as in the Polish diets, their excited passions frequently lead to blows. They are all great politicians, and some of them are well acquainted with the newspapers. In the winter, as soon as snow fell, sledge parties commenced at Harmony. Six or eight persons were on separate seats, two and two together, upon one sledge; others amused themselves with skating, for which, however, they had not much opportunity in the winter of 1832-3. There were frequent balls at the inns; on New Year's Eve they literally danced the whole night through.

Agriculture is still in its infancy about New Harmony, and the people depend on the extraordinary fertility of the soil. In the immediate vicinity of the town land is not cheap, having already risen to fifteen dollars per acre; whereas, at the distance of two miles, there was still a considerable quantity of Congress land, which might be had at one dollar per acre. There was a tax of fifty cents, or half a dollar, [96] on every quarter of a square mile of land. What is called Congress land, is frequently taken possession of, for a time, by new comers, who have no right to it. They fell the wood, erect their huts, and nobody hinders them in their proceedings till the lawful owner ejects them, who has purchased the land of the Government. A square mile of 84 Congress land was still to be had for 100 dollars; but these lands are subject to the periodical inundations of the Wabash, when the farmers are obliged to fly with all their effects to more elevated stations. They have then to look for their cattle in the great forests, and drive them away; but they cannot always find all the animals, many of which perish. The fertility of the soil is increased by these inundations. Congress land which was not exposed to inundation, could be bought for one dollar twenty-five cents per acre. This high water is said often to present an interesting scene. Hogs and other animals, even the opossum, have been found on low trees, where they had sought protection.

The chief vegetable production of this part of the country is maize, which grows to the height of twelve or thirteen feet; the ears are very large and heavy; I found some weighing fourteen to fifteen ounces, and nearly three inches in diameter, in which I counted above 1,000 grains. They ripen in September, October, November, and December, and are often left standing through the winter, till wanted for use. There are fifteen varieties of this important plant; one kind, called sweet corn, is particularly good when roasted in an unripe state. It is calculated that the best soil

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will yield 100 bushels of corn per acre. Very good cakes and bread are prepared of maize flour, and there are many other ways of dressing it. When boiled with milk it is called mush. All living creatures in this country subsist, almost exclusively, on this invaluable production. When the whites arrived in America numerous Indian tribes subsisted on it; quadrupeds, birds, nay, even fish, are fond of it. At the places where the flat boats, laden with maize, land, the fish collect and assemble in great numbers, and fall an easy prey to the fishermen. At this time the corn was sold at six and a half cents per bushel at Harmony; whereas, on the frontiers of Canada, two dollars were paid for it. Living is, consequently, very cheap on the banks of the Wabash. The maize is brought to market in large wagons, drawn by four oxen, and a considerable quantity is thence sent by water carriage. Other kinds of grain—wheat, rye, barley, and oats—which ripen in June, are likewise cultivated. Barley is grown for the brewers; and oats, in considerable quantities, for the horses. Potatoes, too, are extensively cultivated, but they are by no means so good and mealy as in Germany. There is a great variety of culinary vegetables. There are abundance of apples, but not many pears, which do not thrive; peaches are good, and very productive; quantities fall to the ground, where they are consumed by the hogs; plums and cherries are rarely grown; the latter are not so good as in Europe, but very fruitful. The vine was formerly cultivated, but it is now quite neglected. According to Warden, cotton is grown at Vincennes, Princetown, and Harmony, but this does not seem to be the case at present. This plant does not thrive beyond the 31st degree of latitude. The inhabitants grow hemp and flax for their own consumption, and some tobacco; bad cigars are made at Harmony, and, in general, good tobacco is rarely to be met with in the United States. Maple sugar is manufactured in great abundance in Indiana. Warden says that, in 1810, 50,000 lbs. 85 were made in this State, and, at present, it was worth seven or eight cents a pound. Many of the inhabitants obtain, in the spring, about 100 lbs. of this sugar. In this part of the country the corn is not thrashed, but generally trodden out by horses; a very imperfect process, which appears to have originated in the times of the ancient Hebrews, Greeks,

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Next to agriculture the breeding of cattle is an important object among the backwoodsmen; but is likewise ill understood. The breed of swine furnishes the principal supply for food and exportation, great quantities of pork being sent to New Orleans. Mr. Owen had established a whisky distillery, and fattened the swine on the refuse. About 1,500 barrels of whisky, worth ten dollars a barrel, were made every year in Mr. Owen's distillery. Great numbers of swine are in the woods of Indiana, far from all human dwellings, where they grow very fat by the abundance of oak and beech mast. They are of a reddish brown colour, with round black spots; there are some quite wild, which anybody is at liberty to shoot. These animals are never housed, even in the vicinity of Harmony. We observed them, in our excursions, in the depth of winter, when the young ones often perish with cold; and we also saw them eaten by the mothers. Dead swine were lying about in all directions, partly devoured by others. The negligence and want of feeling with which the animals are treated, are very great; and, accordingly, the breed of cattle can never flourish. The cattle, which are very fine, are kept in the open air day and night, amidst ice and snow, with which their backs are covered; the same may be said of the horses; nay, in cold moonlight nights, we saw these animals standing in the street, near their master's dwelling, as if they hoped to be let in. The animals are generally fed in the morning with maize, and a woman usually appears at an early hour, in her plaid, to milk the cows.

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The cattle of this country are large and handsome, very hardy, and do not differ in figure or colour from those of Germany; no food is given them in winter but the dry leaves of maize. No clover or other forage is cultivated, so that the cattle and horses are confined to straw, the bark of trees, and the green reed, miegia, which forms a thick underwood in the forests on the Wabash. Everywhere one sees the bark and twigs gnawed, and even the fruit trees are often damaged in this manner. Horses and cattle frequently starve to death in the winter. I was told that the animals gnaw, in preference, the nettle-tree (*Celtis occidentalis*), the hack-berry (*Celtis crassifolia*), and the sugar maple. It is remarkable that the swine, which otherwise refuse no species of fruit, will not touch that of the papaw tree (*Asimina*). All the beef in this country is of a bad quality, because, as I have said, no forage is cultivated. In Pennsylvania it is quite the reverse; there a great deal of clover is grown, and the beef is, consequently, good. In Indiana pork is said to be much better and easier of digestion than to the east of the Alleghanys. We saw but few sheep, and no goats, at Harmony. There were plenty of geese and domestic fowls, but only a few tame ducks.

The mode of tilling the ground for the different kinds of grain, has been described by 66 many travellers; I will therefore merely observe that the plough is different in its construction from that used in Germany, and that the oxen are attached to it by a very peculiar yoke, which consists of a long, thick, crooked piece of wood, which is laid horizontally over the necks of the two oxen, with two bows underneath, through which the heads of the animals are put. [97]



Neck-voke and plow

My stay at New Harmony, which was at first intended to be only for a few days, was prolonged by serious indisposition, nearly resembling cholera, to a four months' winter residence. At any other place in this country I should have extremely regretted such a loss of time, but here I derived much instruction and entertainment from my intercourse with two highly-informed men, Mr. Thomas Say and Mr. Lesueur, who, during my two months' illness, gave me constant proofs of kindness, and endeavoured to make our time pass agreeably and usefully. I received also much kindness from other estimable families, Messrs. Owen (who were educated by Fellenberg, in Switzerland), Mr. Maclure and his sister, and Mr. Twigg. My walks and hunting excursions with the two naturalists were very instructive. Mr. Say's house was in a garden, where he cultivated many interesting plants of the interior of Western America. I there saw a large Maclura aurantiaca (Nuttall), the bow or yellow wood, or Osage orange, from the river Arkansas, of the wood of which many Indian tribes make their bows. It is a prickly tree, with very tough wood. There was one at St. Louis, in the garden of Mr. Pierre Chouteau, which did not, however, flourish. [98] Dr. Pitcher had the kindness to give me some of the seeds of this tree, [87] which, however, have not succeeded. In Mr. Say's garden I likewise saw Euphorbia marginata, from Arkansas, several beautiful phlox; and the Lonicera sempervirens was laden with its ripe fruit. The Euphorbia marginata flourishes exceedingly well at Bonn, where it was raised from seeds which I brought.

Mr. Say's zoological collection was confined to insects and shells. He was less anxious to possess a complete collection than to have a good library, which, thanks to Mr. Maclure, he really possessed, and new insects and shells were sent to him from all parts of the United States, which he immediately described. He had a very extensive correspondence, even with Europe, and received many conchylia, which he used and compared for his work on American conchology. This work was entirely got up here in Harmony, for Mrs. Say drew and coloured the figures very faithfully after nature, which were engraved by an artist, engaged by Mr. Maclure; the text also was printed there. Mr. Say's entomological collection was continually damaged by the rapacious insects, which are much more dangerous and destructive here than in Europe. The most fatal to the zoological collections, in this country, besides the common European moth (*Phalæna sarcitella*), are the *Dermestes lardarius, Anthrinus muscorum, Dermestes vulpinus, Necrobia violetia, Acarus destructor*, and several others, among which there are some brought from Europe.

Mr. Lesueur's labours were chiefly in the higher orders of the animal kingdom; he had explored the country in many directions, was acquainted with everything remarkable, collected and prepared all interesting objects, and had already sent considerable collections to France. He was a skilful draughtsman, and his portfolios of drawings, made during his voyage round the world, and in his residence in America, afforded us much gratification during the winter. He had paid great attention to the fishes of the Wabash, Ohio, and Mississippi, for which his frequent visits to New Orleans had given him the best opportunity. His friend Barrabino, who died prematurely in that city, and took much interest in the sciences, had been of great assistance to him. It would be a pity if the interesting labours of Mr. Lesueur, in natural history, were not communicated to the learned world during his lifetime.

I shall always retain a most pleasing recollection of the excursions which we made in the neighbourhood of Harmony, with Mr. Say, and to greater distances, with Mr. Lesueur. One of the most agreeable was when we sailed down the Wabash, and landed on its wooded islands. Immediately on the west of the river, is Fox Island, a large thickly wooded tract, between the Wabash and Fox River. ^[99] We generally left Harmony by water, in bright, sunny weather. The Wabash divides into several arms, forming beautiful romantic islands, covered with tall forests, partly surrounded by quantities of drift wood. The water of the river is clear and dark green, and the bottom, which is plainly seen, is covered with large bivalve shells (*Unio*), as well as with several kinds of snails. High trees uniformly clothe the shore, and colossal, wide-spreading

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planes rise above the dense forests. In some places there are sand-banks, where shells are 88 found in abundance, and where the track of the racoon and the mink, which come here in the night to seek their food, are imprinted in all directions on the wet ground. Under the old roots of trees on the bank, which is from ten to twenty feet high, we saw the burrows of the minks, into which it had taken a quantity of shells. The common people here think that this is done by the musk-rat, which is certainly a mistake. The musk-rat lives on vegetables, and it is only the small beasts of prey that live on shell-fish. There were various species of ducks, which rose in flocks before us, and flew rapidly to the undisturbed parts of the banks. Besides the common wild duck, which was the most numerous, there were the beautiful wood duck, the blue-winged teal, and the pintail duck, or sea-pheasant. After proceeding about three quarters of an hour, we usually landed on Fox Island, on the right bank, fastened our boat to the trunk of a large fallen tree, and then went up the steep bank into a thick, lofty forest, where the high reeds were intersected with small, narrow paths, made by the horses and cattle of the neighbouring farmers. From our several landing places, we had to proceed only about 100 steps across the island to the Fox River, which runs here, for a pretty considerable distance, parallel to the Wabash, and joins it below Fox Island.^[100] The stream is highly picturesque, with romantic banks, large uprooted trees, colossal planes, magnificent oaks, hickory, shellbark hickory, &c. Here grows the lofty gymnocladus, with its large, broad pods, and the beautiful catalpa. Bignonia radicans and cruciata wind round the trunks, as well as thick, clustering vines (Hedera quinquefolia) and the poison vine. Vast quantities of fallen trees lay in the water, and, when it was low, often formed a kind of bridge. The trunks of the plane are very remarkable; they are often so thick that five or six men cannot span them. When of this size they are generally hollow. These trees are suffered to grow so old, because they yield but indifferent timber. Twenty or thirty feet from the ground, the trunk usually divides into several thick branches, which rise to a very great height; they have a bark of dazzling whiteness, which forms a singular contrast with the brown forests, when leafless and bare in winter. This tree never attains such a thickness and height in Europe, and hence the white colour of the branches is wanting. The quiet, lonely Fox River is covered, during the whole day, with numerous ducks. Whenever we approached cautiously through the reeds, and over the dry leaves, scattered on the ground, we could immediately fire at them. The kingfisher (Alcedo alcyon), is constantly seen here, and many species of birds, particularly the blue-crested roller (Garrulus cristatus), came to the water to drink. Unluckily we had no European hounds, which would have been of great service to us, and thus, from want of them, we often lost the ducks we had shot. The turkey buzzards were seen hovering in the air, and, after wet weather, were often observed sitting in the sunshine, with outspread wings, on the highest trees. If we shot a bird, and did not immediately pick it up, it was sure to be devoured by these ravenous creatures. If the buzzards were driven away, the cunning crows supplied their place. The whole air was soon filled with these buzzards, hovering round and round, 89 while numbers of others sat together on the high trees. If we shot at them when flying, they immediately vomited; this I likewise observed in Brazil. We found here some heads of the paddle-fish, which lives in the stream. If we left the banks of the rivers, and advanced far into the forests, we had often to clamber over fallen trunks of trees, covered with moss, and to penetrate through matted reeds, where we heard the voice of the grey squirrel, and the hammering of the numerous woodpeckers. Among the entangled climbing plants, we often saw, throughout the whole winter, the beautiful cardinal, or red-bird; finches of various kinds; and on the decayed trees, on the ground, some kinds of Troglodytes. Towards the end of autumn, and early in warm days in February, nay, even in December and January, we often saw in Fox River, on stones, and old submersed trunks of trees, large tortoises basking in the sun, which we sometimes shot at with our fowling-pieces, but we seldom got them. They are very shy, and plunge into the water as soon as any one approaches.

Towards noon the scattered sportsmen usually re-assembled, with their booty, round a cheerful fire, under ancient plane trees, on the bank of Fox River. Our frugal repast, which we had brought with us, was seasoned by the exercise in the open air, in the fine forests of Indiana and Illinois. Tortoises, shell-fish, birds, &c., were deposited in our boat. Mr. Lesueur frequently accompanied us in these excursions. Once, on the 7th of March, he found, on Fox Island, a couple of marmots above ground, one of which ran into its burrow, while the other sought refuge on a low tree, where, however, it was shot. We then dug for the other, in hopes of finding it, but the burrow went so far and deep into the ground, that we were forced to give it up. This circumstance may serve as a proof that the animals which sleep throughout the winter make their appearance about this time.

In our excursions we often visited some others of the numerous islands in the Wabash, being particularly attracted thither by the loud cries of the wild turkey; their voice is exactly similar to that of the European turkey. We could hear them scratching among the dry leaves on the ground, in search of food. If we surprised them, they were generally too far off for our fowling-pieces, loaded with small shot, for they ran away with extraordinary rapidity. Turkey Island seemed to be a favourite place of resort. At the upper end of the island drifted wood was frequently piled up to such a height, that it was difficult to clamber over it, and among this wood there were generally many otters. Here we often found wild turkeys, and even the Virginian deer; and it is really a fine sight to see a flock of these wild turkeys fly across the river, or a swarm of wild geese, with loud screams, swim down the stream. The grey eagle was often seen sitting on the lofty plane trees, on the bank; and the white-headed eagle hovered in the air, at a great height.

On another hunting excursion, up the Wabash, we proceeded as far as Black River, [101] a stream which falls into the Wabash, three miles from Harmony. On the 5th of January, at eight [90] o'clock

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in the morning, the mercury in Reaumur's thermometer was twelve and a half degrees above freezing point, and the fish leaped above the surface of the water as in summer. Near some small log-houses the people were employed in felling the high trees, and our boatmen observed that those new settlers had taken possession of this Congress land without any right to do so. Such irregularities are very frequent here; thus, for instance, they cut down large trees on Mr. Maclure's property for making their flat boats, and yet nobody calls them to account. These are the backwoodsmen of Illinois and Indiana. On the high banks of the river we observed in the forest a mink-trap. It nearly resembles, in miniature, the great bear-trap; is covered on all sides with brushwood, so that the animal can enter only at a certain place. The Black River, which, in some parts, is wide and expanded, was now rather narrow and shallow, the water of a pure green colour. The bottom consists chiefly of sand or clay; it is contracted at the mouth, where a quantity of sand has accumulated, and where poplars and lofty planes grow; colossal vines wound round their trunks, of which we cut off one that was very thick, as a specimen. While our boatmen were engaged in this work, and in looking for shell-fish, we advanced several miles up the stream, where we met with frequent obstacles in the forest. The large dry leaves of the planes made such a rustling, that we could seldom get near the ducks, numbers of which were swimming on the stream. I collected on the bank the beautiful orange-coloured seeds of the Celastrus scandens, and several others. We generally returned home with ducks and other birds, but we were unsuccessful in our chase of the wild turkeys, of which we sometimes saw whole flocks fly across the Wabash. Many an hour we passed in these forests, watching for ducks and birds of prey; where, while we stood concealed in a hollow plane, the small birds sometimes flew almost into the face of the sportsman, or settled on his gun.

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In order to explore the forests of Harmony, in the southern direction, Mr. Say took me to a neighbouring estate of Mr. Maclure, on Rush Creek, through a romantic, lofty forest, where very fine tulip trees, with thick and high trunks, as straight as a ship's mast, and very rough bark, were growing. This tall, splendid tree bears its fine large flowers only at the very summit. The wood is of a greenish pale yellow colour, and is used by cabinet makers. The red-headed woodpecker was almost the only bird that was seen here. The whole track consists of steep hills, separated by small valleys, on which we particularly observed the ancient tumuli of the aboriginal inhabitants of these forests. Passing through a valley we came to Rush Creek, which we crossed by a very ruinous bridge of branches of trees, to the opposite bank, where Hydrangea arborescens grew. Several species of maple grow here, which have certainly not been properly distinguished and classed. Their trunks, covered with rough bark, are often not to be spanned by three men, and they grow perfectly straight. Near the junction of the Rush Creek and the Wabash, we came to the small log-house of a tenant of Mr. Maclure, where the woman was engaged in domestic employments, while the children were picking bones, probably 91 of wild turkeys, with which they ate maize bread. In front of the house lay large blocks of catalpa wood, which, when fresh cut, is of a brownish yellow colour, and emits a peculiar smell. We were told of a stream in the neighbourhood, the water of which was said to have killed many persons. We visited this dangerous water, which is very cold, but does not appear to have any peculiar ingredients. One of our party, who had often drunk of it, without injury, affirmed that those men had not been killed by the water, but by whisky; probably, however, death was caused by drinking this excessively cold water when they were overheated.

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In a dense forest, some miles to the north-west of Harmony, was a narrow pond, or, rather, long, broad ditch, called Long Pond, which, at certain seasons of the year, is connected with Fox River, to which we sometimes made excursions. Beyond the Wabash, in this direction, the forest has a sandy soil, which, however, is soon succeeded by a rich clay. A man well acquainted with the country was our conductor; we were obliged to force our way through the closely-matted reeds, where there was no path, and our clothes were completely torn by them. On all sides we heard the bells of the oxen and horses, and our guide easily found his own beasts, which knew his voice. He had wished me to take a compass, which was not done, and we, in fact, twice lost our way, in consequence; for it is not easy to discover one's latitude in such thick, bewildering reed forests. Woodpeckers and squirrels were the usual fruits of our excursions in this wilderness. After passing a couple of isolated habitations, we came to a hollow in the forest, about a mile long, and full of water. This was the Long Pond, in which many varieties of water plants were growing.

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Our guide had taken a hatchet and a basket, in order to dig up the roots of a yellow-flowering *Nymphæa*, [102] which was growing in luxuriance, and which he intended to employ as a poultice to a swelled face. The surface of the water was covered with an elegant plant, Azolla Caroliniana (Wild), which formed mossy verdant spots, and is here found on all standing water. The cardinal and the blue-crested roller frequented this place; and near a field of maize, in the forest, I saw large flocks of parrots, of which we often shot many with great ease. They were not shy, and soon re-assembled after our shot had dispersed them. Their manner and note much resembled those of the long-tailed paroquet of Brazil. [103] With a shrill cry they flew rapidly from tree to tree, when their beautiful bright green colour was seen to great advantage. Mr. Bodmer has given a very faithful representation of one of these flocks. [104] They eat the fruit of the planes; and if we did not disturb them, they sat in a row, close together, to warm themselves in the faint beams of the January sun. We sometimes found a great number of turkey buzzards collected about the carcass of a dead animal; some sitting crowded on the high trees, others hovering in the air; but it was not easy to get at them. We occasionally met with horses, which, in these 92 wildernesses, familiarly approach those who happen to pass, in the hope of receiving salt from them. On our return home we were often gratified with the view of a splendid fiery evening sky on the Wabash; the lofty crowns of the forest trees appeared to burn, while the snow-white stems of the tall

planes assumed a roseate tint, and reflected their beauty in the smooth surface of the water.

The winter which we passed at Harmony was, on the whole, mild. Woodpeckers, pigeons, thrushes, the great lark, the cardinal, the blue-bird, and many others, were seen in the orchards during the whole winter. The coveys of partridges lay in the fields of maize, or the thorn hedges, sheltered and protected from the cold. There were often very warm days in the middle of winter. On such a day, the 31st of January, I found, at noon, the thermometer being +5° R., at the foot of a thick plane tree, a great number of the red and black spotted lady-bird, which were half frozen. Tortoises were seen, on warm days, during the whole winter. In the middle of February, a great number of the white maple, called also the soft or swamp maple, were in blossom in the forests; and, towards the end of that month, the song of many birds resounded through the woods and orchards. Flights of cranes passed over. The Arabis bulbosa (Mühlenb.) blossomed, as well as the hazel, yet there were still some cold days. The Americans have a proverb—"When winter comes in like a lion, it goes out like a lamb," and vice versa. This winter, however, the cold had not set in early. At the beginning of March we had frost. On the 2nd of March, at eight in the morning, Reaumur's thermometer was at -16°; and at twelve o'clock at noon, -9°. Small pieces of water were frozen over; the ducks, especially the pintail ducks, which were now constantly disturbed in the Wabash, by the navigation and by the sportsman, sought for small pieces of open water; and when they were driven from these, repaired to the woods or the maize fields. The blackbird and the robin sought their scanty food on the banks of the brooks. Many species of animals were, however, in motion at the beginning of March. Numbers of tortoises appeared; the note of the owl was heard in the forests, even in the daytime; the wood-snipe fluttered about, and the young leaves of the sambucus, and the flowers of the corylus, gave an enlivening appearance to the forest. The voice of the turtle-dove was heard as early as the 8th of February; insects buzzed about; flocks of migratory pigeons flew towards the north and east; and on the 9th, the first steam-boat went up the Wabash.

We had satisfactory accounts of the sanitary state of the southern and western parts of the United States. At Cincinnati the violence of the cholera had abated at the commencement of the Indian summer; on the Ohio it had generally ceased; and St. Louis, by the latest reports, was perfectly healthy. Mr. Bodmer, who had made an excursion to New Orleans, in December and January, found the cholera still there, but it had greatly abated; and I therefore resolved to make preparations for proceeding on our journey, as soon as our collections were packed up and sent off

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CHAPTER IX

JOURNEY FROM NEW HARMONY TO ST. LOUIS ON THE MISSISSIPPI, AND OUR STAY THERE, FROM MARCH 16TH TO APRIL 9TH, 1833

Mount Vernon—Mouth of the Wabash—Shawneetown—Battery Rock—Cave-in-Rock—Cumberland River—Tenessee River—Mouth of the Ohio—Cape Girardeau—Grand Tower—St. Genevieve—Merrimack River—Vide Poche—Kahokia—St. Louis—Sac and Fox Indians—Meeting of the Black Hawk with his Countrymen at Jefferson Barracks—The American Fur Company—Preparations for the Journey up the Missouri.

After taking leave of our friends at Harmony, who, during a residence of four months, had given us unvarying proofs of kindness and hospitality, we set out on horseback early in the morning of the 16th of March, leaving our baggage to be conveyed by the Ohio. The day was fine, and, rejoicing in the warm spring sun, we reached the hills that bounded the valley of the Wabash. We were immediately surrounded by lofty forests, and cast a farewell look on the cheerful country which had so long sheltered us. Perched on the top of the maple, oak, and tulip tree, the robin poured forth his morning song. The turtle-dove was cooing with her sweet low moan, and the shrill voice and hammering of the woodpeckers resounded on every side. In Europe the soft note of the turtle is not heard till spring is more advanced, and the trees are clothed with verdure. Many trees were covered with buds; those of the dog-wood were particularly forward, the beautiful white flowers of which appear before the leaves; this is the case with many of the trees of this country. We passed Rush Creek, on the eminences near which grow many sugar-maple trees, the juice of which was tapped, and had in some of them already ceased to flow. At the lower part of all the trunks, we found small tubes of elder inserted, from which the insipid sweetish juice ran into the troughs placed below them. It is said to flow in great abundance, when hot spring days are succeeded by cold frosty nights. We soon reached what is called a sugar camp in the forest; it is a hut, in the floor of which four kettles are fixed for boiling the juice. This 94 hut contains likewise large troughs, in which the juice from the smaller, placed at the trees, is collected. Such a hut, with the maples growing around it, is called a sugar camp, and the quantity of sugar produced depends on the number of maples in the vicinity. Many camps furnish in one spring 300, 500, or even 1000 lbs. of sugar, which is crystallized in loaves. It is brown, but very sweet, and has no disagreeable flavour. We refreshed ourselves with the juice in the small troughs, which our horses drank greedily.

The people in the isolated dwellings in the forest were partly engaged in burning the timber. Many of the small wooden houses of these peasants were without windows; glass windows are quite a luxury, and the only light enjoyed in the daytime is admitted by the open door. We saw in

all these dwellings, very wide, large beds. We crossed the Big Creek, a considerable stream, with rising banks, by a wooden bridge; here we saw many piles of oak bark, which is sold to the tanneries. At noon, the weather being excessively hot, we reached Mount Vernon, on the Ohio.

In this little scattered place, with about 600 inhabitants, among whom there are five medical men, about one third of the buildings are of brick; the town-hall stands in an open square. The Ohio, which we immediately visited, had now a much more striking appearance than at our first visit in the autumn. It is considerably broader than the Rhine, and it is said that it often rises thirty feet higher—up to the very thresholds of the buildings standing on the bank. The view both up and down the river was beautiful. The immediate environs of Mount Vernon consist of damp marshy forests; hence the water is very bad, and the inhabitants prefer even that of the Ohio. The temperature at noon was now very warm; 14° Reaumur.

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We were obliged to wait a couple of days in this little town for a steam-boat, to go down the river. The rushing noise of the steamers often called us to the river, but they were mostly going up, and disappeared at Diamond Island. At last, on the 18th of March, about ten in the morning, two steam-boats appeared, of which the largest, the Napoleon, did not stop; while the smaller one, the Conveyance, took us in. [105] We proceeded rapidly, reached before noon Wabash Island, near the mouth of that river, and after dinner landed at Shawneetown.

Shawneetown or Shawaneetown is a hamlet lying along the banks of the river, and containing from 600 to 700 inhabitants. The best buildings are some inns, shops, and the post-office. The tribe of the Shawnee Indians formerly dwelt in this country, and were succeeded by some Delawares, who have been long since expelled or extirpated. Arrow-heads of flint, as well as the bones, &c., of these people, are frequently found in the neighbourhood. The Shawnees were said to have previously dwelt on the Savaney River, on the coast of Florida, and afterwards lived for about sixty-five years in the state of Ohio. They consisted, according to Dr. Morse, of four tribes: —1. The Piqua; 2. The Maguachake; 3. The Kiskopokoke, to which the celebrated prophet, Elsquataway, and his distinguished brother, Tecumseh, belonged. They were very warlike. In 95 1806 they settled near Greenville, in the State of Ohio, and their subsequent history is well known. They afterwards went to the country about Tippecanoe. 4. The Chillicothes, who live in the vicinity of the town of that name; these, and further accounts of these people, are to be found in Dr. Morse, and other writers. [106]

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Twelve miles inland from Shawneetown are the celebrated salt works on Saline River, [107] near Equality; much salt is annually manufactured there, and sent to Shawneetown, on the Ohio, where it is embarked. Here, as at Mount Vernon, the environs of the place consist of damp forests, with many marshes, from which noxious exhalations arise. The weather was chilly, windy, and rainy, especially towards evening, so that a fire was very welcome. Coals are found about seven miles from the town, and seem to be of a good kind. There were many negroes in Shawneetown; whereas, in Harmony and Mount Vernon, there were only two or three families of that race.

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On the morning of the 19th, the weather being warm, and the sky clouded, we embarked in the Paragon steamboat. [108] The fine broad river shone brightly; on the banks the summits of the forest formed an even line parallel to the shore, as even as if they had been cut, the snow-white stems of the planes glistening among the sombre mass. The kingfisher, the wild duck, and redbreasted goose, were numerous in the wild, romantic willow islands. The banks of the Ohio now began to be higher; the rocks are of limestone, which forms, in many parts of the forests, romantic masses of rock, partly yellow, partly of a grey colour. The river was at this time nearly of the same colour as the Rhine, when clear. After passing the mouth of the Saline River, we reached, on the right, or Illinois bank, the long flat bank of rocks known by the name of Battery Rock.^[109] This wall of rock, at the lower part of the bank, is marked with horizontal strata, or stripes, from sixty to eighty feet high, covered with whitish or bluish green and bright green lichens and mosses, rent by several ravines, and crowned with woods, and a small house or cottage on the very summit. From this place we saw, on the rocky banks, some red cedars here and there, from twenty to thirty feet in height. I observe, for the botanist, that this tree is not found except where the bank consists of rocks. After passing Cave-in-Rock Island, a long, wooded island, we glided past Cave-in-Rock, [110] a cavern which traverses from side to side a steep rock in Illinois, and has been drawn by Lesueur. The rocky wall, in which this well-known opening is situated, is marked with regular, narrow, yellowish grey or reddish strata of limestone, and is crowned with cedars and other trees. It is twenty-five miles below Shawneetown. Calcareous petrifactions, or rather impressions, are very numerous. Above the larger mouth of the cavern, towards the Ohio, is a smaller chamber, which is said to have formerly been the retreat of banditti and coiners. The rock is hard limestone, with sea shells and animal remains scattered in it, but no fossil bones have ever been found there.

then Golconda in Illinois, a small town, with a few white buildings, in which they were erecting a court-house, and which is the seat of the tribunals of Pope County. Near Sister Islands we met the Brunswick steamer, which had in tow two large flat boats, full of horses, which were being conveyed from Mount Vernon to New Orleans. The owners of the horses have to pay above 500 dollars for the voyage. Opposite Cumberland Island is the mouth of the Cumberland River, which

Towards noon we reached Golconda Island, twenty and a half miles from Cave-in-Rock, on and

dollars for the voyage. Opposite Cumberland Island is the mouth of the Cumberland River, which comes from Kentucky, and falls into the Ohio, at an acute angle. This river is not so large as the Wabash. A small village, called Smithland, is built at the mouth, which reminded me of a little

Brazilian villa, the houses, mostly one story high, lying in a row by the water-side. [111]

At this place the Paragon took in wood and provisions. Not far from Smithland is the mouth of the Tenessee River, which is said to be more considerable than the Cumberland, and to have a course of 1,200 miles. The little village, Paduca, on the left bank of the Ohio, appeared to have much traffic, and a number of new shops had been built. The Western Pilot of the year 1829 does not mention this place—a proof of its recent origin. From hence we came to the spot where Fort Massac formerly stood, stones of which are still found. [112] We lay to some hundred paces below to take in wood, of which our vessel consumed twelve cords daily. The grass on the banks was already of a bright green colour, and a race of large long-legged sheep were grazing on it. We lay to for the night.

Early in the morning of the 20th of March we approached the mouth of the Ohio, where it falls into the Mississippi, 959 miles from Pittsburg, and 129¾ miles from St. Louis. The tongue of land on the right, which separates the two rivers, was, like the whole of the country, covered with rich woods, which were partly cleared, and a few houses erected, with an inn and store, and the dwelling of a planter, where we took in wood. In this store we saw, among heaps of skins, that of a black bear, lately killed, of which one of the three cubs, a very comical little beast, had been kept alive. This young bear had on his breast a semicircle of white hair. The settlement, at which we now were, has no other name than Mouth of the Ohio.[113] We now entered the Mississippi, and ascended it, keeping to the left or eastern bank. This river is not broader here than the Ohio, and the water of both was of the same colour; the bank was steep, covered with broken stems of trees, and crowned on the summit with high slender poplars. The lower banks were clothed with lofty trees, and at their feet strips of poplar and willows bending over the water. On the right hand, in particular, were romantic forest scenes; a wilderness of fallen trees, which the floods and storms had thrown and piled upon each other, like an abatis. Parasite plants wound round the trees, and matted them together; while, further on, rose the picturesque terraces of the wood-covered bank. There being many snags (trunks lying in the water) in the river, we could only proceed by daylight. The islands, covered with high poplars, were generally bordered with thickets of willow, which had now no appearance whatever of green, but looked of a bright yellowish red, from the colour of their branches. Gleams of sunshine 📴 sometimes cast over these willow thickets a fine red glow, and gave them a very original appearance. Large quantities of drifted wood were frequently seen on the points of the islands towards the current. The water being very low, we were obliged to take soundings, and yet our vessel proceeded five or eight hours against the stream. The O'Connell steam-boat had run aground in this place, and its people were employed in landing the cargo, consisting chiefly of lead. [114] In many places on the bank. slender poplars form thick groves, whose tall stems spread into branches at the summit. They are all of an equal height, and are one of the characteristic features in the landscape scenery of the Mississippi and Missouri. At twelve at noon, Reaumur's thermometer was at +14½°, with a high wind, which blew the sand of the sand banks into the air. We lay to, to take in fuel, which cost three dollars for two cords. Here was a high, steep, sandy bank, and a small, very wretched planter's log-house, exposed on all parts to the wind, the sides of which consisted only of boards set upright. A couple of bad beds took up almost the whole of the interior. The woman, with her pipe in her mouth, was occupied at the miserable fire-place; the man was just returned, with a boy, from the forest; the two other children looked unhealthy, weak and pale; one of these girls was employed in planting onions in a small patch of newly-prepared ground. A couple of oxen, five or six young hogs, and some Muscovy ducks, were feeding about the cottage. Immediately behind, and close to it, commenced the magnificent, dense, and lofty forest, which we resolved at once to explore, and there very sensibly felt the heat of the spring, because the wind could not penetrate. The underwood of the forest consisted of the spicewood (Laurus benzoin), which grows to the height of ten and fifteen feet; its bark is highly aromatic, and it was covered with small yellow blossoms, which appear before the leaves, and resemble those of our cornelian cherry. The abundance of these flowers gives to the underwood a lively tint, which strikes the eye at a distance. Large, lofty trees, overgrown with climbing plants, formed the forest on the Mississippi, and the ground was covered with a delicate yellow flowering plant (Corydalis flava, N.) In the front of the cottage, which was close to the bank, stood a tree, about which a beautiful Bignonia radicans entwined; and the turkey buzzards hovered high in the air above the forest.

As we proceeded on our voyage, the wind was so high, and it raised the waves and the sand so excessively, that we sought the protection of the opposite bank. We passed many islands, several of which give a great insight into the formation of the banks of the Mississippi. One of them, especially, showed, at a certain place, a bank which had sunk down, where we perceived layers of large trunks of trees, heaped one upon another, the tops of which were visible. On such foundations the river throws its sand, willows and poplars grow up, by the leaves of which good earth is formed, and, in the end, lofty forests of hard wood arise. Though the Paragon drew only five feet of water, we were often aground; the wind laid the vessel a little on the side, the crew shoved with poles, sounded, stopped the engine, then made the vessel go backwards 98 and then sidewards, and so got afloat again. Little villages were seldom seen on this part of the banks of the Mississippi; however, we came to the village of Commerce, [115] on a rocky hill, and it is here that rows of hills of a very interesting appearance commence on the left or Missouri bank. Fragments of rock lie about, and the cedar (Juniperus Virginiana) immediately appears again. The forest seems to decrease in height in these calcareous rocks, especially the planes, which are more colossal in Indiana; and on the eminences in the forests, isolated groups of rocks are often seen, frequently of singular forms, like pulpits. Night setting in, we retired to our cabin to avoid the cold evening air, and lay to under cover of the bank. At this spot there was a single planter's

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dwelling upon the steep bank, which was fifty or sixty feet high. A large fire was kindled at the top, which brilliantly illuminated the high trunks of the forest, and warmed our crew by its intense heat. In the cleanly cottage of the peasant, which was well closed on all sides, we conversed with his wife, who told us that their house had been burnt down a short time before, and rebuilt; she said also that wild animals abound in this part of the country; stags especially are numerous, but bears are rarely met with.

On the 21st of March we reached Cape Girardeau, an ancient French settlement, now a large scattered village, which, as we were told, had of late much improved. Beds of limestone appeared on the bank, and heaps of it were piled up; it contains many shells. After passing Devil's Island, we found in the river a sunk steam-boat, which was now guite broken up; many of these vessels passed us. The spicewood was everywhere in flower in the forests on the bank, and it is said that its appearance indicates a fine soil. The pretty narrow-leaved willow, on the contrary, was still covered with its last year's dry leaves. We passed by the villages of Bainbridge and Harrisburg, and then came to that part of the river which is called Hanging-Dog-Bend, where the Mississippi is wide and beautiful. Various strata and ravines are observed in the wooded calcareous mountains; such a stratified rock, cleft perpendicularly, has the name of Devil's Tea-table; other rocks resembled round towers standing close to each other, all crowned with wood, where the turkey buzzard resorted.^[116] The opposite or Illinois bank has very seldom any such rocks, and it is more cultivated close to the river. Flocks of ducks, probably Anas rufitorques, were swimming on the water. The calcareous rocks, grey, bright yellow, bright blue, or yellowish red, were frequently very singularly formed, especially a little further up, the interesting Grand Tower, an isolated, cylindrical rock, from sixty to eighty feet in height, which we reached when it was splendidly illumined by the setting sun.^[117] To the right, on the Illinois bank, opposite the Tower Rock, at the point or corner of the mountain projecting towards the Mississippi, three or four very strangely formed rocks are standing, full of clefts and ravines, the foremost of which is called the Devil's Bake-oven, and is covered at the summit with pines. The Grand Tower^[118] stands [99] quite isolated on the left bank; and its summit is crowned with red cedars. Behind it there is another large rock, split into several perpendicular divisions, like towers, and the whole group forms, as it were, a most original portico. Some habitations were picturesquely situated against these rocks. A little above that narrow rocky portico of the river, the Obrazo Creek, in the State of Missouri, appears, where we took in fuel. The ravine of the stream was covered with fine tall timber, to which the kingfisher resorted. A couple of cottages were inhabited by negroes, and in front of them lay a piece of fertile land, where rows of cotton trees were planted. The high old elms were now in flower by the side of the stream, and the large red cedars, around the dwellings, were still partly laden with their black berries. The *Mnium ciliare* (Grev.; Bryum) was abundant in this neighbourhood. Above Hat Island, we lay to for the night on the Missouri bank.

The morning of the 22nd of March was serene; the sight of the rising sun from the poop of the vessel was truly magnificent; as the flaming disk of the king of day rose above the woody banks of the Mississippi, the waves formed by the rapid course of the vessel glowed with the most resplendent colours; the wild geese and ducks, frightened by our Paragon, hastened away with rustling wings; the kingfisher was frequent on the shrubs. Near St. Mary River we ran aground, but were not long delayed by this accident. The cords of wood for the steam-boat were lying ready piled up on the bank, stating the price and the quantity. The village of Chester, in Illinois, where we took in wood, was quite a new settlement, consisting at present of but a few houses. Among the limestone and wood on the bank, we shot a beautiful lizard (Agama undulata, Daud.), which is said to attain a considerable size, especially on the river St. Peter. The buds of the red oak were very forward. At noon the weather was excessively warm, and on the river the thermometer was +11½° Reaumur. We saw the mouth of the Kaskaskia River, on the Illinois bank, six miles up which Kaskaskia is situated, one of the oldest French settlements on the Mississippi.^[119] The tribe of Kaskaskian Indians dwelt in these parts, and some remains of them still live near the settlement. We were told that there was at present only one man among them of the pure race. A wooded chain of hills runs along the Kaskaskia, in which large columns of smoke were rising, doubtless occasioned by the woods being on fire. Numbers of tortoises were basking at noon on the trunks of trees and stones in the river. They have hard shells, and most of them are not large; though we often shot at them, we did not succeed in getting a single one. Wild geese were walking upon the sand-banks; we fired at them; the first shot did not in the smallest degree discompose them; at the second, when the ball whizzed close by them, they flew away, but only to a short distance. At St. Geneviève Island, the river divides, and we steered to the west of the island. It is covered with lofty trees; the banks are abruptly broken; large trunks 100 of trees were lying in the water. Before us we saw St. Geneviève, [120] where columns of smoke ascended in the distance; on the island was a small settlement, with a hut, worse than that of an Indian, and near, the canoe, turned bottom upwards. The inhabitants were sunburnt, badly clothed, of a savage aspect, like the Indians. A tall forest surrounded this characteristic scene. The Mississippi is here very broad, and is certainly a very noble stream. The prospect up the river is highly picturesque. Gentle eminences bound the horizon, and on account of a bend which the river makes to the right, it appears to come through a narrow opening. St. Geneviève, an old French settlement, now a large village, with 600 or 800 inhabitants, is about twenty minutes' walk from the landing-place, and appears to be in a state of decline; it was founded at the same time as Kaskaskia. The streets are at right angles, unpaved, and bordered with hedges. The houses, which are of one story, are separate from each other, and have, in general, a verandah in front. The church is built of red brick. French and English are spoken, and there are several German inhabitants. Caravans go every spring from hence to the interior of the western prairies,

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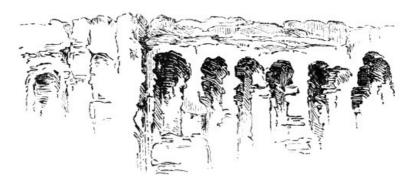
to Sante Fé and the Rocky Mountains; they consist of many armed men, with their horses and wagons. The well-known lead mines are further up the country.^[121] Limestone everywhere stands out: the water is very bad, and not fit for drinking.

On the morning of the 23rd of March, the sun shining very brightly, strange forms of rock, alternating with high forests, appeared on the banks of the river; on the left, or western bank especially, the walls of rock were cleft by rude valleys, from which a small stream generally issued. Single pines are scattered in the woods; on the right bank, on the skirts of the forest, is a row of poplars, of perfectly equal height, but the planes are not so high as those we have before seen. We passed the place where Fort Chârtres formerly stood. The limestone rocks in these parts assume the most highly original shapes and formations, about which much might be said if our limits would permit. They have often natural caverns and excavations, like the niches cut for the images of saints, which we see in Europe. Others have regular of projecting ledges and lofty cones; sometimes they are so rounded as to represent a row of perpendicular towers, &c. On many of the rocks shot towers have been erected, the whole country, as is well known, abounding in lead.

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Formations of limestone rocks

We passed by the settlement of Selma, and the village of Herculaneum; [124] the latter consisting of about thirty houses, the immediate vicinity of which is remarkable for a perforated limestone rock. The distance from hence to Geneviève is twenty-one miles, and to St. Louis, thirty. After passing round the point of Little Rock, which is about forty feet high—beyond which the small Platteen Creek falls into the river—we soon reached the mouth of the Merrimack River, where we saw large flocks of ducks and sea-gulls.^[125] About Robert's Island the country becomes flat and uninteresting. Towards evening we reached Jefferson barracks, on the left bank, where the 6th regiment of regular infantry was in garrison, and the flag of the United States was hoisted. These barracks were interesting at this time, because the celebrated Indian chief, Black Hawk, was imprisoned in them. Before night, we passed the French settlement of Vide-Poche, or Carondelet, founded about 100 years ago, a large scattered village, the inhabitants of which are reported to be not very industrious. The neighbouring hills are covered with low oak bushes. We passed the night nearly opposite Kahokia, and on the morning of the 24th of March, to our great joy, beheld the town of St. Louis. [126] Its first appearance is not prepossessing, as it has no high steeples. The mass of houses, however, unfolds itself as you approach; the environs are low and monotonous. We landed about nine o'clock in the morning, in a cold high wind. The people whom we first saw were mostly negroes, or labourers.

St. Louis is a rapidly increasing town, with 6,000 or 8,000 inhabitants, on the western bank of the Mississippi, about 1,200 miles from New Orleans, and 1,134 miles from Pittsburg. It is built on a rather bare, gently rising, and not very elevated part of the banks; forms two streets parallel to the river, besides many houses lying on the summit in the prairie, where building seemed to be proceeding rapidly. On this upper part there are churches and other considerable buildings, of which the town has many of different kinds; and the highly favourable situation, in the centre of the trade of the Mississippi, Ohio, and Missouri, will soon make it one of the most important places in the west. St. Louis was originally founded by the French; at first there was only a fort, and it was not till 1764 that the building of the town commenced, which in 1816 contained about 2,000 inhabitants. Persons were still living—for instance, M. Chouteau—who had the wood felled on the spot where the buildings of the town now stand. [127] The principal streets are full of handsome shops; numerous steam-boats come and go, daily, to and from New Orleans, Pittsburg, Cincinnati, Louisville, Prairie du Chien, &c.; and a very brisk trade employs the motley population of many nations. Most of the merchants have their warehouses, which are mostly built of solid stone, on the bank of the Mississippi. The greater part of the workmen in the port, and all the servants in St. Louis, are negroes, and their descendants, who, as in the State 102 of Missouri, are all slaves. They are very numerous here; and though modern travellers represent in very favourable colours the situation of this oppressed race, the negro slaves are no better off here than in other countries. Everywhere they are a demoralized race, little to be depended upon; and the manner in which they are treated is generally not so good as has been represented. We were witnesses of deplorable punishments of these people. One of our neighbours at St. Louis, for instance, flogged one of his slaves in the public streets, with untiring arm. Sometimes he stopped a moment to rest, and then began anew.

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St. Louis was the more interesting to us, at this moment, because we had, here, the first opportunity of becoming acquainted with the North American Indians in all their originality; for the office for all the Indian affairs of the west is at St. Louis, under the direction of General Clarke, celebrated for his journey with Captain Lewis to the Rocky Mountains and Columbia River, who has the title of superintendent of Indian affairs. [128] He manages all these matters; and all strangers who wish to visit the interior of the western territory are obliged to have a passport from him, and all Indian agents and sub-agents are under him. It happened that, during our stay at St. Louis, a deputation came down the Mississippi from two Indian tribes, the Saukies (Sacs) and the Foxes or Outagamis, to intercede for the Black Hawk, who was a prisoner in Iefferson barracks.^[129] A Saukie chief, named Kiokuck, was at the head of this numerous deputation, and he was the very same person who had delivered the unfortunate Black Hawk into the hands of the Americans.^[130] General Clarke, to whom I was introduced by the kindness of Duke Bernhard of Saxe Weimar, had very obligingly informed me of the meetings or councils which he held with the Indians, and we had the pleasure of being able thoroughly to observe and study these remarkable people. Quarters were assigned them in a large magazine near the harbour, to which we immediately repaired. We saw already on the beach a collection of the populace, and amidst the crowd of curious spectators, distinguished the strange dark brown figures, enveloped in red, white, or green blankets. We did not come up to them till they were in the house, and the first sight of them, which did not a little surprise me, convinced me at once of their great affinity to the Brazilians, so that I cannot hesitate to consider them as belonging to the same race. [131] They are stout, well formed men, many of them above the middle size, broad shouldered, muscular and brawny. The features of the men are expressive, and strongly marked; the cheek bones prominent, the lower jaw broad and angular; the dark brown eyes animated and fiery, and especially in youth, the inner corner rather drawn down, but not so much so as in the Brazilians. The outer corner of the eye is not elevated either in the North or South Americans, at least I have seen it 103 in very few instances. The forehead appears to me not to recede so much in the North Americans as has been generally assumed, which is also the case with the Brazilians. Meyen^[132] confirms this with respect to the people west of the Cordilleras. The teeth are strong, firm, and white, and generally perfectly sound, even at an advanced age. The nose is large and prominent, often much arched, but not always, a trait which occurs much more rarely among the Brazilians.^[133] The lips are usually rather thick; the hair straight, smooth, and black, as in all the Americans. The colour of the skin a darker or lighter brown, often deeper than in the Brazilians, but, on the whole, perfectly the same. Some of these Indians resemble the Chinese, which Bossu, too, affirms of the now extirpated race of the Natchez. The features of others strongly reminded me of the Botocudos.[134]

It may be observed here, with Von Humboldt and Meyen, [135] that, notwithstanding a certain general affinity and resemblance of the race, there are, however, very great diversities among the people of American descent. Thus, for instance, the large aquiline nose of several northern nations may be mentioned, which must have been very remarkable among the ancient tribes of Mexico, as is proved by the old monuments of that, historically, most interesting country. Though this similarity appears to indicate an affinity of the Mexicans with more northern nations, a similar conformation was found here and there in South America also; as Duperrey[136] represents the Peruvians, and as Dr. Meyen also states. I am, however, of opinion that the notion of the last-named learned travellers is untenable, viz., that on account of the different^[137] form of their skulls, the Puris and the Botocudos, who live so near to each other, are distinct races. I have compared numbers of Mandan skulls with each other, which were all genuine, and found great diversity in them, especially with respect to the receding of the forehead and the flattening of the head. In the same manner the brown colour of the American is of different shades. Mr. Von Humboldt found the Mexicans darker than many South Americans; [138] and many of the North American nations which I have seen, were likewise of a darker complexion than many Brazilians. My observations with respect to this point coincide so perfectly with the views of that distinguished traveller, that I might copy the passages in his works which treat of the Americans, and confirm them by many additional proofs. Among the Botocudos I met with individuals who were nearly white; Volney was certainly deceived by Michichinakua (the little tortoise), who wanted to raise himself to the dignity of a white man, for the North Americans are not of a lighter colour on 104 those parts of their bodies which are clothed, than on those which are exposed to the air and sun. Pike, and some other travellers, pretend to have found the Mongol physiognomy among the North American Indians, especially the Pawnees and the Sioux; [139] but I can affirm that I met with no such physiognomy, though I saw a few instances of it in Brazil. Mr. Von Humboldt very justly observes, on this head, that not merely the bodily conformation, but likewise the mode of living, of the two races, are entirely different. The great contrast between the American and Mongol races is immediately apparent, when we consider that the former have no breed of cattle, and do not subsist on milk, without which the latter cannot live. [140] The Tartar features, which are very handsome, did not occur to me in North America. Warden, in his work on American antiquities, [141] gives a drawing of a vessel found near the river Cany, which is adorned with three human heads. These heads have not the Tartar physiognomy, as the author believes, but precisely that of the North American Indians.

From this digression on the general conformation of the North Americans, we return to our narrative.

The Saukies and Foxes had shaved their hair off the whole head except a small tuft behind, the

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greater part of which was cut short, like a brush, and which terminated in a thin braid, to which was fastened the chief ornament of the head, the deer's tail, which is a tuft of hair from the tail of the Virginian stag, white, with some black hair, the white part being dyed red with vermilion. [142] It is fastened in an ingenious manner, with some strings and pegs of wood, to the tuft of hair at the back of the head; and in the middle of it, concealed between the hair, is a small piece of carved wood, to which a small bone box is affixed, into which a large eagle's feather is fastened, projecting horizontally behind; this feather is often dyed with vermilion, and is the characteristic distinction of a brave warrior. He who has become renowned for horse-stealing, which, according to their notions, is a heroic exploit, fastens to the tip of this feather the rattle of a rattlesnake. The whole deer's tail, when it is not worn, is rolled up in the form of a thick ball, fastened with leather straps, and kept in this manner, that the hair may remain smooth, and in the proper position. Mr. Bodmer took an admirable likeness of Watapinat (eagle's nest), a handsome Fox Indian, wearing this head-dress. [143] The North Americans pluck out their eyebrows, beard, &c., like the Brazilians, and, at present, employ in this operation a spiral wire, between the windings of which they take hold of the hair. These nations adorn their ears in a very original manner; three large holes, one above the other, are made at the outer rim, in which short strings of blue and white wampum shells^[144] are hung, like tassels. Some of the men had even cut through [105] the whole outer rim, which remained attached only above and below, and was adorned with strings of wampum and metal rings; similar strings, and pieces of blue and white shells, are worn in many rows around the neck.

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The women are small and thickset; most of them have large round heads, and broad, flat, round faces. They let their hair grow naturally, part it on the forehead, and tie it together, at the back of the head, in a short, thick bunch, which is bound round with red and green ribbon. A few old men had not shaved their heads; but in winter it is said that these Indians let their hair grow, to protect them against the cold. Both sexes had their faces more or less painted red: the Saukies mostly red, in different designs; the Foxes, red and yellow, or red, white, and black. The manner of painting depends on the taste of the individual; nearly all of them had red circles round the eyes and ears, and red stripes down the cheeks, the rest of the face being left of the natural colour. They use, for this purpose, vermilion, which they obtain from the merchants. The Fox Indians had often the whole head painted red; a yellow or white stripe on the forehead, and the mouth and chin with the figure of a yellow hand, or else quite black. A tall, handsome Saukie Indian, called Massica (the tortoise), had a bold, fierce countenance, and an aquiline nose; his cordiality was very striking; his brown eyes sparkled, and his white teeth looked quite dazzling, contrasted with the dark brown face, which had a good deal of red paint on it. On his forehead he wore a band of otter skin, which was fastened behind the head, and then fell down in two long stripes to the ground. He had attached a black and white eagle's feather to his deer's tail, and was covered with a large red blanket. Mr. Bodmer has given a very good likeness of this handsome man in Plate 36, but without his head-dress, in order to show the manner in which the tuft of hair was cut. Many of these people wore coloured calico shirts, and all used the Indian leather leggins, which come down to the shoes, and are ornamented at the ankles with leather fringes. They are fastened, with leather straps, above the girdle. They also wear a piece of woollen cloth, generally striped blue and white, round the waist, which is fastened under the girdle. The girdle and knee bands were often very elegantly adorned with glass beads, and in the former is a sheath, similarly ornamented, for a large, broad, and very sharp knife, which they obtain, by barter, from the merchants, and employ for various purposes, especially for cutting up game, and scalping their enemies. The shoes, generally called mocassins, are made of soft, tanned buckskin, and the upper edge turned down below the ankle. These people wear them very plain, without any ornament. Many of them had fastened swan skins, with the down, or that of polecats, much marked with white, below their knees, the long hairy tail of which hung down to the ground, or to the ankle. Most of them had no other covering, on the upper part of the body, under their blankets; and 106 many wore brass necklaces and bracelets. The men, who were between thirty and forty in number, never appeared without their arms; they carried tomahawks, [145] or else the common Indian club, [146] which has, at the upper end, a steel plate, sharp on both edges, and pointed.^[147] We did not see any bows and arrows among these Indians, because they had not come out on a warlike expedition, but on a festal visit; many of them had a kind of lance, made of a long sword blade, fastened to a pole, which was covered with red cloth, and ornamented with many black raven's or eagle's feathers, hanging down either in a long row, or in long bunches.^[148] These weapons they had always in their hand, and never laid them aside. The women, like those of Brazil, carried their bundles on their backs, with a leather strap passing over the forehead; they had their children with them, some of whom were in very convenient cradles. They all had very neat bast mats, ornamented with black figures, on which they slept, and some had, likewise, bear skins. Their travelling sacks, or bags, in which they had all their effects, were of the same material.

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The chief or leader of the Indians assembled here, was the Saukie chief, Kiokuck, a slender man, of the middle size, with agreeable features, not very different from those of an European, though of a darker colour. He wore a coloured calico shirt, and, on his breast, a large medal, which he had received from the President of the United States; and likewise wore a figured handkerchief round his head, and was wrapped in a green blanket. He carried in his hand a calumet, ornamented with feathers. His face was not painted, his ears not disfigured, and it was affirmed that he was not of pure Indian origin. He wore brass rings round his neck and wrists.

The dwelling-place of these Indians is on the western banks of the Mississippi, about Rock River

and Rock Island, where the agent appointed for them by the government resides. In 1805 they sold, to the United States, their territory on the east of the Mississippi; still claiming a large tract of land, which extends from the upper Jowa River, along the west bank of the Mississippi, down to the river Des Moines, and further back to the Missouri. [149] The Fox Indians call themselves Musquacki, or Mus-quack-ki-uck. They live sociably in villages, in permanent arched huts, and it is said that they can muster 1,600 warriors (according to Dr. Morse, however, only 800), [150] and that they number about 5,000 souls. They plant maize, beans, gourds, &c. The men hunt, and work in their lead mines, which are very productive, so that, it is said, they have yielded 500,000 lbs. in one season. [151] Their language has not a barbarous sound; it has some nasals and gutturals; the words are very frequently pronounced indistinctly, so that [107] it is often difficult to write them down; though, on the whole, less so than is the case with many other nations.

The French and English find much more difficulty than the Germans, in pronouncing all the Indian languages of North America, with which I have become acquainted. It was highly interesting to us, to observe so many of these Indians together. They were by no means grave and still; on the contrary, they were very cheerful, and often laughed heartily. If one went up to them familiarly, and spoke to them, many of them had a very agreeable, friendly expression; others were cold, and appeared, to us, hostile. Several repeated, with pleasure, the words of their language, and were very willing to have their portraits drawn, for which they always required a present. At last they were so annoyed by the importunity of the motley crowd, that we could have no more intercourse with them. They sold many of their effects, for which they received money, which they soon disposed of, but always examined whether it was genuine or false. There were some grave, dignified men among them, who carefully observed what was passing around them. Of these, I especially noticed Watapinat and Massica.

General Clarke invited us to a small assembly, which he was to hold in his house with the Indians. We accordingly repaired thither. This meeting took place in the apartments, which are ornamented with a highly interesting collection of arms and utensils, which the General had procured on his extensive travels with Captain Lewis. [152] The rooms contain, likewise, portraits of the most distinguished Indian chiefs of different nations. General Clarke, with his secretary, was seated opposite to the Indians, who sat in rows along the walls of the apartment. We strangers sat at the General's side, and near him stood the interpreter, a French Canadian. The Indians, about thirty in number, had done their best to ornament and paint themselves; they all looked very serious and solemn, and their chief sat at their right hand. The general first told them, through the interpreter, for what reason he had assembled them here, on which Kiokuck rose, with the calumet in his left hand, gesticulating with his right hand, in harmony with his thoughts; he spoke very loud, in broken sentences, interrupted by short pauses. His speech was immediately translated and written down. This conference lasted above half an hour. General Clarke had introduced us to the Indians, telling them that we had come far over the ocean to see them; they all testified their satisfaction in a rather drawling "Hah!" or "Ahah." Before and after the sitting all the Indians passed us in a line, each giving us his right hand, and looking steadfastly in our faces. They then withdrew, headed by their chiefs. The General had told them that they should persevere in their amicable sentiments as hitherto; and they had expressed the wish that their brethren might soon be set at liberty, because their wives and children at home were suffering hunger and distress. Upon this the General advised them, when Black Hawk and his associates should be set at liberty, to keep a watchful eye over them. On this condition he would intercede for the prisoners. We were invited by the General to accompany him, on the 108 following day, on board the Warrior^[153] steam-boat, when he intended to convey the Indians to the barracks, to grant them an interview with Black Hawk.

On the 26th of March we found the Indians already on board the Warrior, which was hired for this excursion; others of these original figures, wrapped in their red blankets, were walking on the beach. We had provided cigars and other trifles, by which we soon gained their confidence. Massica, the tall young Saukie Indian, was the most interesting among them. As soon as General Clarke came, the anchor was weighed, and the Warrior proceeded down the Mississippi. The Indians assembled on the fore part of the ship, to sing: the bleak wind was much felt by many of them, as they wore no covering under their blankets, yet they always remained on deck. Below, in the after hold of the vessel, they had a fire, at which they boiled and roasted the provisions that were given them. They examined, with much attention, the steam-engine, the hissing and roaring of which interested them extremely. They formed groups of different kinds; many were busy in improving the painting of their faces, at their small looking-glasses; others were smoking their pipes in philosophical ease; and others lay asleep on the floor, wrapped in their blankets. They very readily acquiesced, whenever we asked them to sing; their chorus-singing was remarkable; it rises and falls, now loud now low, often quavering, yet, on the whole, not inharmonious; and though it has some resemblance with that of the Botocudos, in Brazil, it was by no means so rude and savage. Sometimes they shouted aloud, and generally ended their song with their war-whoop—a shrill cry, in which they cause the voice to quaver, by holding the hand before the mouth.

About ten o'clock the Warrior approached Jefferson barracks, where the inhabitants had assembled on the shore to see the Indian deputation land. The Indians sung a wild chorus, rattling their weapons, and, as soon as they had landed, marched in procession, led by their chiefs, to the heights, where the barracks formed a quadrangle, open to the river, enclosing a large space. General Clarke introduced us to General Atkinson, the commandant of the place; [154] and, after resting a short time in his house, we proceeded to a spacious empty hall in one of the

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adjoining buildings, where the Indians were already seated in rows. The Generals sat opposite to them, surrounded by the spectators, among whom were several ladies. When all were assembled, Kiokuck, with the aid of the interpreter, delivered an address to General Atkinson, who replied, on which the prisoners were introduced. First of all, Black Hawk appeared, a little old man, perhaps seventy years of age, with grey hair, and a light yellow complexion; a slightly curved nose, and Chinese features, to which the shaven head, with the usual tuft behind, not a little contributed.^[155] None of the prisoners were painted. These poor men entered with downcast looks; and though no Indian betrayed any lively demonstrations of emotion, such feelings were very manifest in many of them. The prisoners gave their hands to their countrymen all round, and then sat down with them. Two of the Indians, known as particularly 109 dangerous men, one of them the celebrated Winnebago prophet, who has a repulsive countenance, had chains with large iron balls at their feet. [156] The other prisoners were not chained, and we were told that they were taken out every day to walk, by the guard. The speeches now recommenced: Kiokuck spoke often, and interceded for the prisoners; and General Atkinson repeated to them pretty nearly what General Clarke had already said, on which the Indians again uttered their "Hah," or "Ahah." When the speeches were ended, the company withdrew, and left the prisoners alone with their countrymen, to give free vent to their feelings. The sight of old Black Hawk, and the whole scene of the prisoners and their friends, was affecting, and many of the spectators appeared to participate in their feelings.

We then examined the barracks, in which four companies of the 6th regiment were quartered. The hospital is a detached building; the surrounding country is open prairie; in the vicinity of the buildings, however, it is covered with a wood of slender oaks, without underwood, and from the eminence is a very agreeable prospect over the river. General Atkinson invited us to dinner, and introduced us to his family. At three o'clock we again embarked on the Warrior with all the Indians, and reached St. Louis late in the evening.

As it was my intention to travel through the interior of the western part of North America, and, if possible, the Rocky Mountains, St. Louis was unquestionably the most proper basis for such an enterprise. The question was, whether it was more advisable to go by the caravans by land to Santa Fé, or to proceed by water up the Missouri? Captain Stewart (of Grand Tully), an English traveller, with whom I had become acquainted at St. Louis, was on the point of setting out by land by the caravan, and it would have been agreeable to me to travel in his company; [157] but after I had consulted many persons well acquainted with the country, the plan of following the course of the Missouri seemed to be the most suitable for my purposes; for, first, I should not be able to observe any Indians on the land journey; for if you happen to meet with them, you must fight them, and, therefore, cannot become well acquainted with them; and, secondly, it is extremely difficult, nay impossible, to make considerable collections of natural history on such a journey. These reasons were decisive: I hoped, therefore, to obtain from the gentlemen of the American Fur Company, a passage up the Missouri in their steam-boat, the Yellow Stone, which was daily expected to return from New Orleans; and as soon as it had taken in a cargo, was to set out on its voyage up the Missouri. [158] It is necessary to prefix a few words respecting this American Fur Company. The first regular company of this kind in the United States was the Michilimakinack Fur Company, established in 1790. Its capital belonged chiefly to some persons in Canada; but as foreigners were not allowed to trade with the Indians in the United States, some citizens of the latter gave it the sanction of their names.^[159] The last war with England dissolved the company, and during that time no trade was carried on with the Indians. About 1816, Mr. Astor, of New York, a countryman of ours, formed a fur company, under the name of 110 the American Fur Company. [160] His plan was well conceived, very extensive, and designed to carry on trade with all the Indian tribes. Mr. Astor's enterprises towards the Columbia River did not succeed, but in all other parts the fur trade prospered, and is carried on, up to the present time, with great success.^[161] About the same time two other companies were formed at St. Louis —the Missouri Fur Company, and the French Company, which proposed to carry on the trade on that river. The first continued its operations for about five or six years, when it terminated, having met with many difficulties.^[162] In 1822 the Columbia Fur Company was established, and violent opposition and rivalry arose between the three companies, which continued till 1826.^[163] During this time the fur trade had afforded but little profit to any of the persons engaged in it. In the spring of that year, a person of the name of Crooks was sent from New York by the American Fur Company to buy up the two other companies, in which he succeeded. [164] Some of the members of these companies were received into the American Company, and thus the whole of the very extensive fur trade was concentrated in the hands of that company, and remains so up to this moment. Some individuals and small associations have since made frequent attempts to carry on the trade in the Indian territory and the Rocky Mountains, [165] but have always been obliged to give way to the powerful and wealthy company, which has now spread its commercial stations over a great part of the interior of North America, and continues to extend them more and more.[166]

In British North America, two great fur companies were founded at an earlier period—the Northwest, and the Hudson's Bay Company, which for a long time were at open war with each other, but afterwards joined, and still exist under the name of the Hudson's Bay Company. [167] To the north of the Missouri on the borders of British North America, they are rivals of the American Company, and both parties endeavour to draw over the Indians to their side. But as no white settlers have yet penetrated to those remote and desolate regions, the American Company rules

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there alone, by its commercial stations and its numerous servants, the goods with which they carry on the trade having become necessary even to the most dangerous Indian tribes; for this reason foreign travellers cannot expect to succeed in their enterprises without the consent and assistance of this company. [168]

At St. Louis I had become acquainted with several very interesting persons; Major Ofallon, having been formerly agent of the Indian nations on the Missouri, was well acquainted with the country, and assisted me with his advice, as well as Major Dougherty, [169] now agent for the nations of the Pawnees, Otos, and the Joways: they both advised me, as the only practicable means of visiting those countries with safety, to join the American Fur Company, and to obtain from the [11] directors a passage on board their steam-boat. Fully appreciating the value of this counsel, I endeavoured to become acquainted with Mr. Pierre Chouteau, who directed the affairs of the company at St. Louis, and with Mr. Mc Kenzie, who usually lived on the Upper Missouri, and was now on the point of proceeding on board the steamer to Fort Union, at the mouth of the Yellow Stone River. Both gentlemen received me with great politeness, and readily acceded to my request. [170]

Our necessaries for this journey, [171] and many small articles for bartering with the Indians, were procured and placed on board the Yellow Stone steamer. General Clarke favoured me with his advice, as well as several other gentlemen, particularly Major Pilcher, [172] who had penetrated far into the Indian territory to the Rocky Mountains, while he was a member of the Missouri Fur Company; likewise Messrs. Sanford and Bean, the former of whom was agent for the Crows, Mandans, Assiniboines, Manitaries and Blackfeet, and the latter for the Puncas and Sioux. [173] All these persons, who were well acquainted with the Indian territory, were to accompany us up the Missouri to their several stations. Major Ofallon, whom we visited at his pleasant country seat, near St. Louis, had the kindness to furnish me with the map of the course of the Missouri, by Lewis and Clarke, on a large scale. [174] We found at his house an interesting collection of Indian articles, and a great number of Indian scenes by Catlin, a painter from New York, who had travelled in 1831 to Fort Union.

Before we left St. Louis, another deputation of Saukie Indians arrived from the Lower Missouri, who held councils with General Clarke. They came down the Missouri in long double canoes. Among them were several very strong, robust men, who, when they were in liquor, were dreadfully savage and wild. One of their most distinguished warriors, who was remarkable for a curved nose, exactly such as we see in the Mexican sculptures, suffered severely from consumption; his family seemed much concerned about him; the women sat around him and lamented. The time passed rapidly in observing these interesting people, till the 10th of April, which was the day fixed for our departure.

CHAPTER X

JOURNEY FROM ST. LOUIS TO THE CANTONMENT OF LEAVENWORTH, OR TO THE BORDERS OF THE SETTLEMENT, FROM THE 10TH TO THE 22ND OF APRIL

Departure from St. Louis—The Engagés, or Voyageurs—St. Charles—Gasconade River—Osage River—Jefferson City—Boonville and Franklin—Arrow Rock—Chariton—Grand River—Battle of the Missouri Indians—Fire Prairie—Dangerous place and situation of the vessel—Fort Osage—The Osages—Liberty—Quicksands—Konzas River—Boundary of the United States—The Konzas Indians—Pilcher's Expeditions—Little Platte River—Dwelling of the Joways—Diamond Island—Cantonment of Leavenworth.

On the 10th of April, at eleven o'clock, all our company having collected, the Yellow Stone left St. Louis; Mr. Pierre Chouteau, and several ladies of his family, accompanied us to St. Charles. [175] Some guns were fired, as a signal, on our departure, on which numbers of the inhabitants assembled on the shore, among them the Saukies and some half-civilized Kikapoo Indians. Mr. Bodmer made some interesting sketches of the former, of which the plate gives a specimen. [176] There were about 100 persons on board the Yellow Stone, most of whom were those called engagés, or voyageurs, who are the lowest class of servants of the Fur Company. Most of them are French Canadians, or descendants of the French settlers on the Mississippi and Missouri.

The appearance of the river above St. Louis did not differ from that already described. The redbud (*Cercis Canadensis*) appeared as underwood in the forests, covered with dark red blossoms before the appearance of the leaves, which form red stripes along the shore, and make a pleasing contrast with the young, bright green leaves of the willows. At noon, Reaumur's thermometer on board was at $+17\frac{1}{2}$ °. We had soon passed the $16\frac{1}{2}$ miles to the mouth of the Missouri, [177] but before we entered it, we lay to, on the Illinois side, to take in wood. The Yellow Stone entered 113 the Missouri, which, at its mouth, is about the same breadth as the Mississippi at this place. In the afternoon we reached, on the S. W. side, Belle Fontaine, a rather decayed building belonging to the military station established, in 1803, against the Indians, but which was subsequently abandoned. The current of the river runs here at the rate of five miles an hour; on the left bank there is a chain of calcareous hills with the same singular forms of towers, &c. as on the

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Mississippi. The bushes of wild plums were covered with snow-white blossoms, and those of the *Cercis Canadensis*, with their red flowers; and I could not help remarking that, in this country, most of the trees and bushes have their flowers before their leaves. On the beach the inhabitants had fixed fishing rods, which they examined, from time to time, and we saw them take up a large cat-fish. Towards evening the lofty plane trees, with their white branches, were beautifully tinged with the setting sun. We passed several islands, which showed us the usual formation of these accumulations of sand, which arise rapidly, and are often as rapidly destroyed. Against the stream they generally have a naked, sandy point, with layers of thick, heavy timber; young willows grow first, then poplars, and, lastly, hard timber. In many places in the forests, and between the willows, we observed the high rushes (*Equisetum hyemale*) which are said to be injurious to the horses, unless salt is given them with it.

Next morning we reached St. Charles, on the N. E. shore, one of the oldest French settlements on the Missouri, consisting of about 300 houses, where the massive church, with its low tower, has a very good appearance. The environs of this scattered village are rather bare, but there were many European fruit trees in blossom. Most of the houses are built of wood, but a modern part of the place is of brick. On an eminence rising behind it, stands an old stone tower, which formerly served as a defence against the Indians. We lay to, opposite St. Charles, where Messrs. Mc Kenzie and Dougherty joined us, and M. Chouteau and his family took leave, and returned to St. Louis. After stopping a few hours, we continued our voyage till a storm of wind filled the air with sand, from the sand banks, and compelled us to stop after twelve o'clock, above the whirlpool, called Remoux á Baguette; [178] towards dark, however, we reached Isle au Bon Homme, in the vicinity of which we passed the night. On the 12th of April, the original forms of the calcareous rocks again appeared, with the red cedar, as usual, growing upon them. The hills were covered with forests, where many trees were putting forth leaves, especially the very delicate green foliage of the sugar maple. A cavern at this place is called the Tavern Rock (Taverne de Montardis), and on both sides of the river were numerous snags, which often prove dangerous to vessels. Near some habitations the European peach trees were in blossom; among the strange forms of the rocks, I saw one flattened at the top like a table, on a thin stem, and quite isolated. The country is here pretty well peopled, and game is rather rare in the forests, at least we were told that stags, bears, and wild turkeys were not often found there. The people settle on the eminences, rather than below on the bank of the river, where the air is 114 said to be less salubrious. The inundations of the river form marshes on the low grounds, which, being protected from the sun by the surrounding trees, produce fevers. Flint, in his History and Geography of the Mississippi Valley,^[179] gives a very good account of the climate and diseases of this country. We passed Isle and Rivière au Bœuf, as well as the village of Pinkney; [180] observed very picturesque rocky scenes, climbing plants, which twined round overthrown broken trunks of trees, and gloomy ravines, which were now full of the bright green young leaves that were everywhere sprouting forth. The Yellow Stone had several times struck against submerged trunks of trees, but it was purposely built very strong, for such dangerous voyages. This was its third voyage up the Missouri. The Fur Company possess another steamer called the Assiniboin which had left St. Louis to go up the Missouri before us.^[181] At night-fall we lay to on the right bank, where a cheerful fire of large logs was soon made, round which our engagés assembled and chatted incessantly in French. We spent part of the night with Messrs. Mc Kenzie, Dougherty, and Sanford, under the canopy of the starry heavens, while a couple of clarionets, on board the vessel, played Scotch airs and the famous "Yankee-doodle."

On the morning of the 13th of April, the weather was serene and cool, the thermometer, at eight in the morning, +5° Reaum., and at noon, +9°. We had lain to, for the night, near Otter Island, [182] and soon saw before us the country about Gasconade River. There were extensive sand banks on the left hand, picturesque hills, many pleasing gradations of tint in the forests; an island, on the surface of which we distinctly saw the layer of black mould, six feet thick, with sand beneath it; further from the left bank a chain of hills, valleys, and eminences, covered with high trees, which were just beginning to put forth leaves, all illumined by the beams of the brightest morning sun. Near the Gasconade, where we took in wood, many interesting plants were in blossom. The Gasconade, which is an inconsiderable river, and rises not far from the source of the Merrimack, in the State of Missouri, expands behind a high, bold eminence, the summit of which is covered with rocks and red cedars. The hills near it are frequently covered with the white and the yellow pine, which supply St. Louis with boards and timber for building. Its mouth, which is reckoned to be 100 miles from that of the Missouri, is picturesquely situated in a lofty forest. Near it, our hunters fired unsuccessfully at a flock of wild turkeys. We soon passed the village of Portland; then the mouth of Little-Au-Vase Creek, where we observed, in the woods, the young leaves of the buck-eye trees (Pavia) which grew in great abundance. [183] A little further on, the Osage River appears between wooded banks: it is a small stream, in which, according to Warden, many soft-shelled tortoises are found: we came then to Côte-Sans-Dessein, an old French settlement of six or eight houses, celebrated for the brave defence made by a few men against a numerous body of Indians. It must have been formerly much more considerable, since Brackenridge calls it a beautiful place. [184] The river has destroyed it, and it is now quite insignificant. Opposite to it, on the left bank, further up the country, there [115] are many originally French families, and half-breeds, descendants of the Osage Indians, who formerly dwelt in these parts. While Mr. Bennett, the master of our vessel, landed to visit his family, who lived here, we botanized on the opposite bank, where oaks of many kinds were in blossom, and where the Monocotyledonous plant is found, which is called here Adam and Eve. Its roots consist of two bulbs joined together, of which it is said that, when thrown into the water, one swims and

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the other sinks. It is held to be a good cure for wounds. The flower was just beginning to appear.

From Côte-Sans-Dessein, you soon come to Jefferson City, on the south bank of the Missouri, the capital, as it is called of the State of Missouri, where the governor resides. [185] It is at present only a village, with a couple of short streets, and some detached buildings on the bank of the river. The governor's house is in front, on the top of the bank, and is a plain brick building of moderate size. The gentle eminences, on which the place was built about ten years ago, are now traversed by fences, and the stumps of the felled trees are everywhere seen.

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The morning of the 14th of April was clear but cool; at 8 o'clock +8°, a thick mist rising from the river. On a wooded eminence, on the left hand, at some distance from the bank, is a high, isolated rock, which stands like a tower in the forest. Major Dougherty, once passing this place with some Joway Indians, was told by them, that there was a tradition among their ancestors, that this rock was formed of the dung of a race of bisons, which lived in heaven, but they themselves no longer believed this fable. The Manito rocks, two isolated blocks, about fifty feet high, which have been mentioned by many travellers, appear below, on the bank of the river. They are mentioned in the account of Major Long's Expedition, which contains much information respecting the Missouri, as far as Council Bluff, to which I refer. We learn from that work, that almost all these calcareous rocks of the Missouri contain organic remains, encrinites, &c. On the rocks, which are divided by ravines into broad rounded shapes, like towers, the Virginia red cedar grows, and falcons build their nests. We see here on the rocky walls red spots, strokes and figures, remaining from the times when the Indians dwelt here: two towering overhanging rocks, in which there are several caves, put me in mind of the ruins of the castle of Heidelburg. Just before dinner we reached Rockport, a village founded two years ago, on the Manito River, six miles up which river Columbia is situated.^[186] Near this place there are again many red figures on the rocky walls, among others that of a man with uplifted arms; not thirty years have elapsed since this whole country was in the possession of the Indians. After passing Manito and Bonne Femme Creek, we stopped at the village of Boonville on the left bank, opposite which is Old Franklin. [187] As this place was threatened by the river, and is besides in an unhealthy situation, the people founded New Franklin, rather further inland, now a thriving village, near which salt springs have been discovered. We afterwards passed the mouth of La Mine River, which is about equal to the Lahn, and lay to for the night at Arrow Rock (Pierre à flêche), a chain in which 116 flint is found, of which the Indians formerly made the heads of their arrows. In a ravine, before Arrow Rock Hill, there is a new village, which was called New Philadelphia, though the inhabitants did not approve of this name.[188]

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On the following morning (April 15th), proceeding on our voyage, we passed little Arrow Rock, and found a very fertile and rather populous country. Near the mouth of Chariton River, there are several islands, covered with willows, poplar, and hard timber. The river here makes a considerable bend; the numerous sand banks did not permit us to proceed in a direct line, but compelled us to take the narrow channel, at the outer edge of the bend, and to take soundings continually, being in great danger of striking against the snags. Some parts of the banks were rent in a remarkable manner by the rapid stream, when the water was high. In many places, large masses, fifteen or eighteen feet in height, had sunk down, with poplars thirty or forty feet high, as well as entire fields of maize, and piles of timber, which form together a wild scene of devastation, to which the broken poplars not a little contributed.

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The drift wood on the sand bank, consisting of the trunks of large timber trees, forms a scene characteristic of the North American rivers; at least I saw nothing like it in Brazil, where most of the rivers rise in the primeval mountains, or flow through more solid ground. On the banks which we now passed, the drifted trunks of trees were in many places already covered with sand; a border of willows and poplars was before the forest, and it is among these willow bushes that the Indians usually lie in ambush, when they intend to attack those who tow their vessels up the river by long ropes. At five o'clock in the afternoon we reached the mouth of Grand River, which was then very shallow, almost as broad as the Wabash. The Yellow Stone nearly run aground at the mouth of this river, and stirred up the sand so as to discolour the water. The Joway Indians dwelt on the Grand River till 1827, when they removed to Little Platte River. [189] They continue, however, like the Saukies and Foxes, to hunt in the prairies at its source, where buffaloes, elks, and stags, are said to be still pretty numerous. The first of these Indians called the Grand River, Nischna-Honja; and the Missouri, Nischna-Dja:—Ni, in their language, means water, and Nischna, the river. [190]

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We lay to, for the night, beyond Waconda Creek. [191] Our hunters dispersed into the neighbouring woods and plantations, but they only shot some parrots. On the 16th, in the morning, we had, on the left bank, undulating hills, thinly covered with trees, and on the bank were strata of limestone. Here is the mouth of the stream, the Bonnet de Bœuf, which, doubtless, has its name from the caps, with ox horns, which the Indians, who formerly dwelt here, wore in their dances. Some highly dangerous submerged snags left only a very narrow channel open for our vessel. At ten 117 o'clock we came to some excessively dangerous parts, where our vessel frequently struck, and we were obliged to stop the engine, and to push by poles. The vessel stuck fast in the sand, and it was necessary to fasten it to the trees on the bank till it could be got afloat again. At this point the great forests begin to be interrupted by open places, or prairies, and we were at the part called Fox Prairie, where the Saukie and Fox Indians, and, perhaps, some other nations, [192] formerly attacked, and nearly extirpated the tribe of the Missouris. The remainder of the people saved themselves among the Otos, on the southwest banks, where their descendants

still live, mingled with the natives. The Missouris came down the river in many canoes, and their enemies had concealed themselves in the willow thickets. After the Missouris, who suspected no evil, had been killed or wounded with arrows, the victors leaped into the water, and finished their bloody work with clubs and knives: very few of the Missouris escaped. [193]

To-day we saw, for the first time, from the deck of our vessel, the prairies of the Lower Missouri covered with luxuriant young grass, but the air was misty, and bounded our prospect. In the afternoon we took in fuel at Webb's warehouse; the river was here again covered with wood, which so greatly impeded our progress, that we were obliged to lay to for the night, seven miles above Webb's warehouse. In the morning of the 17th we saw only an uninterrupted forest; in the course of the day we again encountered much danger from the quantity of snags, which, in some places, scarcely left a channel of ten feet in breadth; but our pilot steered, with great dexterity, between all these dangers, where many a smaller vessel had been wrecked. During this hazardous navigation, we were all on deck, anxiously expecting the result, but everything went off well. We afterwards sounded, sought another channel, but proceeded very slowly, so that we only passed Fire Prairie, [194] and lay to for the night, five miles below Fort Osage.

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Our engine was broken, so that we could not proceed till the next morning (18th April). On that morning I had the misfortune to break my last Reaumur's thermometer, so that, henceforth, all the observations of the temperature are according to Fahrenheit's scale. Some of my people, attracted by the cries of the wild turkeys, were tempted to land, but returned without having met with any success. I happened to have taken no piece with me, which I much regretted, for a wild turkey-cock came out of a bush about ten paces from me, and stood still, looking at me, while his splendid feathers shone in the sun. Vegetation was rather backward. A large flock of sandhill cranes, taking their course to the north-east, filled the air with their cries; their note is very similar to that of the European crane. After the people had returned on board, at the repeated summons of the bell, we proceeded on our voyage, but were soon obliged to take soundings, and to saw off some dangerous snags; we then landed twenty men on a sand bank, to tow the 118 steamer, but their efforts broke the rope, and they all tumbled one upon another, to the great amusement of those on board. By way of precaution, our vessel was fastened to a large tree, which proved our safety, for the rudder was soon afterwards deranged, and rendered unserviceable. It was repaired about two o'clock, but we soon run aground on a sand bank, where we were obliged to remain all night, in a rather unsafe situation, for the current, on the bank, was very strong, and we could not fasten the vessel to anything, so that we might easily have been carried down the stream; the river, however, continued to subside. On the morning of the 19th a flat boat was procured, to lighten our vessel, by landing a part of the cargo, which was piled up in the wood, on the bank, and covered with cloths. Mr. Bodmer made a faithful sketch of this scene.[195]

At four o'clock in the afternoon, the crew had got the steamer off the sand bank into deeper water, on the right, a little below the mouth of Fishing Creek.^[196] Here our anchors, boats, &c., were taken on board, and three men left to take care of the landed goods, which consisted of the presents for the Indians in Major Dougherty's agency. The flat boat was sent back to its owner, on Fishing Creek, under the care of thirty men, who had to wade in the water to keep it afloat. After taking in fuel, for which the wood of the red mulberry and the ash is preferred, we proceeded slowly, and reached, at dusk, the hill, on the right bank, where Fort Osage, built, in 1808, by Governor Lewis, formerly stood. The ridge on which it was situated is free from wood, and cultivated, and the last posts and beams were taken away by the people in the neighbourhood. This part of the country was the chief abode of the Osages. Only ten years ago they were still at Côte-Sans-Dessein. They are peaceably disposed towards the Americans; and the Fur Company have trading posts in their territory. The whole tract, from the Osage River, through which we have passed, was formerly theirs, but they sold a part of it to the United States, and they are now entirely forced back into the prairies, on the river Arkansas.^[197]

We lay to, for the night, a short distance below Fort Osage. On the 20th, in the morning, Blue Water River was hid from us, by a long island, on the steep banks of which large snags, covered with sand and earth, projecting very far, formed a threatening point. [198] We had scarcely passed it, when we run aground on a sand bank. The engine was immediately backed; but the current carried the vessel so close to the above point, that it tore away our side gallery with a great crash. The carpenter soon repaired it, and our progress was now more favourable. At noon we had 68½° Fahrenheit. At this time a thunder-storm arose, accompanied with hail and rain. The rain continued to fall in torrents till we reached the landing-place of the village of Liberty, which is at some distance from the river.^[199] Some buildings and detached houses were situated on the bank, in front of the wooded mountains, where the vigorous vegetation, refreshed by the rain, was very brilliant. The tall, slender, forest trees, grow among picturesque rocks; the beautiful flowers of the red bud tree, bright green moss, and a thick carpet of verdure, chiefly consisting 119 of the leaves of the May-apple (*Podophyllum*), everywhere covered the mountains. The papaw trees were just opening their buds. This is about the northern limit for the growth of this tree. Some keel-boats were lying here, belonging to the Fur Company of Messrs. Ashley and Soublette, which was just established as a rival to the American Fur Company. [200] In the pay of these gentlemen, there were, in the boats, about ten Germans, who had engaged in this service, for which they were not well qualified, and were, besides, wholly inexperienced in the mode of trading with the Indians. We next reached the mouth of the Blue Water River, the clear blue waters of which formed a great contrast to those of the Missouri.^[201] We were here joined by a

couple of canoes, with some Canadian *engagés* from the Upper Missouri, who brought to Mr. Mc Kenzie news from Fort Union, at the mouth of the Yellow Stone River. Their half Indian costume, which is usually worn, was new to us. One of them, named Defond, a tall, slender, brown man, was a half-breed Indian, and one of the best and most experienced pilots of the Missouri. Mr. Mc Kenzie had sent for him to steer our vessel up the river, and he fully justified his reputation. He was likewise a sportsman, and brought us several turkeys which had been lately shot. Before evening we became acquainted with the quicksands of the Missouri. These are sand banks which are so soft that one immediately sinks in them. We saw an ox, which went deeper at every motion, while nobody could afford it any assistance.

On the next morning (21st April), we reached the mouth of the river Konza, or Konzas, called by the French, Rivière des Cans, which is not quite so broad as the Wabash, and was now very shallow. Its clear green water was distinguished by a well-defined, undulating line, from the muddy stream of the Missouri. The steam-boat has navigated the Konzas about seven miles upward, to a trading-post of the American Fur Company, which is now under the direction of a brother of Mr. P. Chouteau. It is said that this country formerly abounded in beavers, but their numbers are much diminished. At the point of land between the Konzas and the Missouri, is the boundary which separates the United States from the territory of the free Indians. It runs directly from south to north, comes from the territory of the Osages, passes the Osage River, and goes northward from the Missouri, parallel to the Little Platte River, to Weeping Water River, which falls into the Missouri, whence it runs eastward to the Des-Moines and the Mississippi. About 500 or 600 paces from the mouth of the Konzas, the banks of the river consist of high yellow clay walls, in the forest; and near it live the remnants of several Indian tribes, which were driven or dislodged from the States to the east of the Mississippi, to whom land was assigned in these parts. Among them were the Delawares, Shawnees, Miamis, &c., &c.

Proceeding 90 or 100 miles up the river, you come to the villages of the Konzas (Cans, of the French), the best accounts of whom are given by Mr. Say in the narrative of Mr. Long's travels. ^[203] These people formerly lived nearer to the Missouri, but have gradually retired from it. Their language is entirely the same as that of the Osages, and the language of these two people 120 is only a dialect, originally not different from that of the Omahas and Puncas, being distinguished only by the pronunciation, and not by its roots. At present the Konzas inhabit the tract on both sides of the river of the same name, and its tributaries, and they make excursions into the prairies of the Arkansas.

We were now in the free Indian territory, and felt much more interested in looking at the forests, because we might expect to meet with some of their savage inhabitants. We examined the country with a telescope, and had the satisfaction of seeing the first Indian, on a sand bank, wrapped in his blanket; but our attention was soon called to the obstacles on the river: we avoided one dangerous place, where the Missouri was so full of trunks of trees that we were forced to put back; but at noon, when the thermometer was at 75°, we got among drift wood, which broke some of the paddles of our wheels, so that it was necessary to stop the engine. Forty-two of our men, most of whom had been out with their fowling-pieces, came on board. Among them was Dr. Fellowes, a young physician, going to the cantonment at Leavenworth.

The underwood of the forest consisted chiefly of *Laurus benzoin* and *Cercis Canadensis*; the ground was covered with *Equisetum hyemale*, from one and a half to two feet high. Limestone everywhere stood out; large blocks of it were on the bank. The Little Platte River here falls into the Missouri. On the northern bank, seven miles up that river, are the villages of the Joway Indians, who speak the same language as the Ottowas. ^[204] They inhabit and hunt the country about the Little Platte, Nadaway, Nishnebottoneh Rivers, together with a band of the Saukies, who have settled in this neighbourhood. A couple of Shawnee Indians stood on the high bank, and made us friendly signs. We halted, for the night, near Diamond Island; our people cut down some trees, and kindled a large fire, which illumined the tall forests.

The next morning, 22nd of April, was warm and cheerful, the thermometer being at $64\frac{1}{2}^{\circ}$ Fahrenheit, at half-past seven o'clock. About six, we passed several islands, separated by narrow channels, where our pilot steered so close to the left bank that the hens which we had on board flew to the land. [205] We soon came to a place where most of the trees were cut down, and we were not a little surprised at the sight of a sentinel. It was the landing-place of the cantonment Leavenworth, a military post, where four companies of the sixth regiment of infantry of the line, about 120 men, under Major Ryley, were stationed to protect the Indian boundary. [206] There were also 100 rangers, who are mounted and armed militia, who are well acquainted with Indian warfare.

We were stopped at this place, and our vessel searched for brandy, the importation of which, into the Indian territory, is prohibited; [207] they would scarcely permit us to take a small portion to preserve our specimens of natural history. Major Dougherty rejoined us here, and brought with him several Kickapoo Indians who had come from St. Louis to receive land in these parts. [208] The [121] Kikapoos, and Delawares, and some other Indians, are settled at no great distance from this place; the officers of the garrison were on board the whole day, and our hunters rambled about the surrounding country. We saw, in the neighbourhood, the beautiful yellow-headed *Icterus xanthocephalus*. The black oak and other trees were in blossom, and many interesting plants. Near the bank, where the vessel lay, the beds of limestone were full of shells, of which we kept some specimens. Between these limestone strata there were, alternately, thin layers of dark

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CHAPTER XI

JOURNEY FROM THE CANTONMENT OF LEAVENWORTH TO THE PUNCA INDIANS, FROM APRIL 22ND TO MAY 12TH

Dangerous place, Wassoba-Wakandaga—Independence River—Blacksnake Hills, with Roubedoux Trading House—The Joways and Saukies—Nadaway River—Wolf River—Grand Nemahaw River—Country of the Half-breeds—Nishnebottoneh River—Little Nemahaw River—Violent Storm—Weepingwater Creek—La Platte River—Belle Vue, Dougherty's Agency—The Omaha Indians—Their Dance—Council Bluffs—Boyer's Creek—Little Sioux River—Blackbird Hills—Floyd's Grave—Big Sioux River—Joway River—Vermilion Creek—Jacques River—The Punca Indians—Meeting with the Assiniboin Steamer

The Yellow Stone left the cantonment at five in the afternoon of the 22nd of April, and we soon reached the narrow part of the river called, by the Osages and Konzas, Wassoba-Wakandaga (Bear-Medicine). There were so many trunks of trees in the river that it seemed very problematical whether we should be able to pass between them. Our people cut off some of the most dangerous branches below water, and got our vessel gradually through; soon after which we lay to for the night.

The next morning, 23rd of April brought us a storm, with thunder, but without lightning, Early in the morning a large branch of a tree, lying in the water, forced its way into the cabin, carried away part of the door case, and then broke off, and was left on the floor. After this accident, when one might have been crushed in bed, we came to Cow Island, where, in 1818, some troops, on their way to Council Bluff, were overtaken by the frost, and obliged to pass the winter.^[210] At half-past seven o'clock, the temperature was 67°. The heat of the preceding day had greatly advanced vegetation; the forests were beautifully verdant, and there were many flowers. The Indians now make sugar from the maple. The Kikapoo Indians, whom we had seen at St. Louis, were to have lands assigned them in these parts, and their territory is said to extend to Independence River. There were no fixed Indian villages at that time, but the 123 Joways, Saukies, and Foxes hunt in these parts. We proceeded past Cow Island, which is six miles in length, and covered with poplars, and shave grass. The sand was marked by the footsteps of the stags which come here to drink, by which they tread down deep paths to the water's edge, and lick holes in the saline clay of the bank. Here began green hills without wood, which are the transition to the entirely naked prairie, as they at first alternate with woods, which grow in the ravines, and on the banks of the river. At twelve o'clock the thermometer was at 77°. Our navigation was attended with many difficulties to Independence River, the mouth of which is on the right bank; here we reached, on the same side of the river, naked grassy eminences, where a village of the Konzas formerly stood, and which is still usually marked in the maps. The Spaniards had a post of a few soldiers here.^[211] The soil is said to be very fertile and favourable to settlers. The forests were now in their greatest beauty, and began to afford some shade.

On the 24th we saw the chain of the Blacksnake Hills, but we met with so many obstacles in the river that we did not reach them till towards the evening. They are moderate eminences, with many singular forms, with an alternation of wooded and open green spots. Near to the steep bank a trading house has been built, which was occupied by a man named Roubedoux, an agent of the Fur Company. This white house, surrounded by the bright green prairies, had a very neat appearance, and Mr. Bodmer sketched this pretty landscape, which had a beautiful effect of light and shade. It is only this part of the chain that is called Blacksnake Hills, for the chain itself is no other than that which we had long observed on the banks, of which there are two, one on each side, running parallel to each other, and forming the valley of the Missouri, more or less approaching to or receding from it. The river flows through the alluvial soil which it has thrown up, and which is changed, every year, crossing from one chain to the other, and, where it reaches the chain, produces high banks by the shock.

When the steam-boat lay to, between 500 or 600 paces from the trading house, some of the *engagés* of the company came on board, and reported that the Joway Indians, whose village was about five or six miles distant, had made an incursion into the neighbouring territory of the Omahas, and killed six of these Indians, and brought in a woman and child as prisoners, whom they offered for sale. Major Dougherty, to whose agency the Joways belong, immediately landed to rescue the prisoners, accompanied by Major Bean and Mr. Bodmer, but they returned, at eleven o'clock at night, without having accomplished their object, because the Joways, fearing his reproaches, had completely intoxicated both themselves and their prisoners. [213] Mr. Bodmer brought some beautiful plants from the prairie, among which were 124 the fine orange-coloured flowers of the *Batschia canescens*, which we here saw for the first time.

On the forenoon of the following day, the 25th, we passed the mouth of the Nadaway River, [214] and met with many difficulties, so that we were even obliged to back for some distance, and landed our wood-cutters in Nadaway Island. A Captain Martin wintered on this island for two

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seasons, 1818 and 1819, with three companies of riflemen. [215] At that time there was so much game that they entirely subsisted on it. We were told that in one year they killed 1,600, in the other 1,800 head of game (Cervus Virginianus), besides elks and bears; and wounded, perhaps, as many more of those animals, which they were unable to take. The woods were very picturesque. The numerous horse-chestnuts were in full leaf; the white ash was in flower, as well as many species of pear and plum, which looked as if covered with snow, and formed a beautiful contrast with the red masses of the flower of the Cercis. The canal between Nadaway Island and the cantonment is called Nadaway Slew, at the end of which we saw the remains of some Indian huts. In a dark glen in the forest, we observed a long Indian hut, which occupied almost its whole breadth, and must have served for a great number of persons. The bald eagle had built its nest on many of the high trees on the bank. In some places we saw smoke rising in the forest; in others, the trees and the ground were burnt guite black. Such fires are sometimes caused by the Indians, in order to escape the pursuit of their enemies, and sometimes, also, by the agents of the fur traders. We were told that the forest was green, this year, a fortnight earlier than usual. We saw everywhere pairs of the beautiful Anas sponsa, which came out of the holes in the bank, where they doubtless had their nests. Before dusk we reached the mouth of Wolf River, where an eagle had built her nest. The Oto Indians, mixed with some Missouris, live in these parts, on the west bank of the Missouri. [216] They are allies of the Joways, and hunt as far as the river La Platte.

On the following morning, April 26th, we saw great numbers of water fowl, and many wild geese with their woolly young; the parents never abandoned them, even when our people shot at them. The care and anxiety which these birds shewed for their young interested us much. We came to the mouth of the Grand Nemahaw river in a beautiful romantic country, from which, to the Little Nemahaw, the territory of the people called Half-breeds extends. Among the Omaha, Oto, Joway, and Yankton (Sioux) Indians, there lived from 150 to 200 of their descendants by white men, to whom they assigned this tract of land as their property. They had taken this resolution two years before, but had not yet carried it into execution. The land was given by the Otos to whom it belonged, and the other tribes bore part of the expenses. Towards noon, when the thermometer was at 27°, we again, several times touched the bottom, near Tarkio 125 River, but without receiving any injury. Picturesque forests alternate with the verdant alluvial banks of the river, and Indian hunting huts were everywhere seen, but no inhabitants. One may travel thousands of miles along this river without seeing a human being. From the mouth of the Nishnebottoneh to Council Bluffs, there is a narrow green prairie before the chain of hills; the mouth itself is between lofty trees on the east bank. In the wood below, Major Dougherty once killed twenty elks, all belonging to one troop. They had divided, and part broke into the ice in the river, where they fell a prey to the Otos who pursued them. Beavers formerly abounded in this river, but they are now extirpated. When the evening sun, gradually sinking behind the tall forest, illumined the whole country, we had a lovely view of the chain of hills, variously tinged with brilliant hues of violet, pink, and purple, while the broad mirror of the river and adjacent forest shone as if on fire. Silence reigned in these solitudes, the wind was hushed, and only the dashing and foaming of our steamboat interrupted the awful repose. We were disagreeably roused from our reverie by our vessel striking against the snags in the river. We passed the night near Morgan's Island, not far from which there was formerly a trading house for the Oto Indians, but it no longer existed. [217] The note of the whip-poor-will, which we had not before met with, was heard in all the adjacent forests.

The next morning, proceeding on our voyage, we plainly observed in the steep banks of the river, the alternate strata of clay and sand, with a thick layer of fertile black mould at the top, and, about eight feet below the surface, a black stratum of bituminous coal, or coal slate, which we were, however, unable to examine closely. On the bank we saw what are called pumice stones, which are pieces of the rock of the Upper Missouri, changed by fire, and brought down by the river; the Indians use this pumice stone to smooth their tanned and hardened skins. At the mouth of the Little Nemahaw River, the Missouri was very shallow. Our vessel having received several violent shocks by striking, and a storm, accompanied by heavy rain, arising, we ran aground, about noon, on a sand bank, and were obliged to put out a boat to take soundings, but the wind, which blew with increasing violence from the open prairie on the south-west, drove us further into the sand bank. Every moment it became more furious; our vessel lay almost on her side, which the people endeavoured to counteract by fastening her with strong cables to the trees lying in the water. After dinner several of our hunters went on shore, but the boat had scarcely returned, when the storm suddenly increased to such a degree that the vessel appeared to be in imminent peril. One of our chimneys was thrown down, and the foredeck was considered in danger; the large coops, which contained a number of fowls, were blown overboard, and nearly all of them drowned. As they got upon the sand banks they were afterwards taken up, with other things which we had been obliged to throw overboard; our cables had, happily, held fast, and, as the wind abated a little, Captain Bennett hoped to lay the vessel close to the bank, which was twenty feet high, where it would be safe $\overline{126}$ but the storm again arose, and we got deeper and deeper into the sands. Some of our hunters and Mr. Bodmer appeared on the bank, and wanted to be taken on board, but the boat could not be sent, and they were obliged to seek shelter from the storm in the neighbouring forests. Mr. Mc Kenzie, and other persons acquainted with the Missouri, assured us they had never encountered so violent a storm in these parts. After four o'clock, however, the wind abated, and the boat was dispatched to pick up the articles we had

On the following day we were obliged to lighten the ship before we could proceed, by landing the wood which we had taken in the previous day, and many other articles. Our vessel, however, soon

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ran aground again, and as we could not proceed, we made the vessel go backwards to the right bank, where we passed the night. In the preceding year the Yellow Stone had been detained five days at this place. Towards evening a flock of above 100 pelicans, flying northwards, passed over us. Their flight was in the form of a wedge, and sometimes of a semicircle. On the 29th, we found sufficient water, and proceeded; a still larger flock of pelicans induced our engagés to make use of their rifles, and they winged one of the birds, which strutted about on the shore, but we could not venture to take it. At half-past seven, A.M., we were at a place called the Narrows of Nishnebottoneh; here, about thirty miles from its mouth, this river comes so near to the Missouri, that between both there is an interval of only 200 paces. The appearance of the chain of hills beyond the Nishnebottoneh is very remarkable. [218] The calcareous rock is in very strange forms, sometimes like entrenchments and bastions, partly clothed with verdure, partly with dry yellow grass, and spotted with yellowish red clay. The soil is extremely fertile, and well adapted for agriculture; formerly there were hundreds of elks and stags in these parts, but they are now rarely met with. By a general agreement the Otos, Joway, Fox, and Saukie Indians hunt this country in common. Having been on shore for some time, I was returning to the vessel when the pilot called out that there was a rattlesnake very near me, the rattle of which he heard; I looked, and immediately found the animal, and having stunned it with some slight blows, I put it into a vessel in which there were already a live heterodon and a black snake, where it soon recovered. The three agreed very well together, but were afterwards put into a cask of brandy to go to Europe. This rattlesnake was of the species Crotalus tergeminus, first described by Say, which is very common on the Missouri. The water being too shallow, it was necessary partly to unload the vessel on a sand bank, and to stop for the night. On the morning of the 30th, many attempts were made to move from this spot; we sounded, put out thirty men, but were at last obliged to return to the place where we had passed the night. Messengers were then sent up the river to endeavour to procure a keelboat; meanwhile all our hunters went ashore. I found in the vicinity traces of the Indians, and large traces of wolves in the sand. A storm drove us back to the vessel, and soon drenched us with a torrent of rain. Our hunters killed a wild goose, a wood duck, and an owl, and brought a 127 black snake with them; one of them had broken off a piece of poison vine, by which his hands and face were much swollen; but the people here do not much mind such accidents, though the swelling frequently lasts many days.

The 1st of May set in with rain and a clouded sky; the forests were dripping wet; during the night we had observed some fireflies. Numerous flocks of two kinds of swallows passed us, flying to the north. About noon a white cat-fish was caught by one of the lines which we had thrown out; a second broke the strong line as we were drawing it up. The first we had caught weighed sixty pounds, and we soon took another weighing sixty-five pounds, and a third weighing 100 lbs, in the jaws of which was the hook of the line that had been broken. In the stomach of this and the other cat-fish were found large pieces of pork, the bones of fowls, &c., feet of geese, all refuse from the vessels; and likewise the entire gills of another large fish. A great number of leeches were attached to the gills of these fish. It is only on the Upper Missouri that this fish attains so large a size.

On the following morning the Missouri had risen a little. In the neighbouring thickets some birds were singing, or rather twittering, and there was nothing like the loud concert which, at this season of the year, animates the European forests. The Yellow Stone did not set out till near eleven o'clock. In the afternoon we came to some almost perpendicular hills on the bank, the base of which consisted of violet, the middle of bluish grey, the upper part of yellow red clay. In some places a whole colony of swallows had built against them. About the place where Weepingwater Creek opens, among beautiful thickets, before the green hills of the prairies, we met with great obstructions, and were several times obliged to put the vessel back. We reached Five Barrel Islands, in a broad part of the river, just when the evening sun gave a peculiar charm to the verdant landscape.^[219] The forest was picturesque but not very lofty; the bird cherry was in flower, but the blossoms of the red bud had lost their bright colour. Vines twined round the trunks of the trees, and the numerous blossoms of the phlox formed blue spots amongst the rocks. Towards night we met a canoe, with two persons on board, one of whom was M. Fontenelle, clerk to the Fur Company, who resided near at hand at Belle Vue. He was a man who had much experience in the trade with the Indians, and had often visited the Rocky Mountains. As he was shortly to undertake an expedition to the mountains, with a body of armed men, he turned back with us.[220]

Early on the morning of the 3rd of May, we came to the hill called by the Otos and Omahas—Ischta Maso, or Ischta Manso (the iron eye). It is rather higher than the neighbouring hills, and a small stream of the same name runs from its side into the Missouri. [221] We were now near the month of La Platte River. Four or five miles before you come to the conflux, you distinguish the water of the two rivers by their colour, that of the La Platte being clear and green, and keeping unmixed on the western bank. A mile further up, the water was covered with foam, in [128] consequence of the heavy rains. In half an hour we came to the first mouth of the river, which is divided from the second by a low island, with gently rounded verdant hills in the back ground. The second mouth is the largest. There were large piles of drift wood on the sand bank, next the island. The river, which was much swollen, brought down wood and foam, and its waters, though, at present, not quite clear, yet still of a bluish tint, were plainly distinguished as they ran in a semicircular bend, from the yellowish, dirty water of the Missouri. After passing the sand bank at its mouth, we reached, in twenty minutes, Papilion Creek, and saw before us the green-wooded chain of hills with the buildings of Belle Vue, the agency of Major Dougherty. There were many sand banks in the river, on which there were numbers of wild geese, and some quite white birds,

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with black quill feathers—perhaps cranes or pelicans. At two in the afternoon we reached M. Fontenelle's dwelling, consisting of some buildings, with fine plantations of maize, and verdant wooded hills behind it. A part of the plantations belongs to the government. The prairie extends beyond the hills. The land is extremely fertile; even when negligently cultivated, it yields 100 bushels of maize per acre, but is said to produce much more when proper care is bestowed on it. The cattle thrive very well, and the cows give much milk, but some salt must now and then be given them. M. Fontenelle expected to possess, in a few years, 5,000 swine, if the Indians did not steal too many of them. The government of the United States bought of the Indians a great tract of land to the east of the Missouri, extending to Big Sioux River, but have hitherto left them in possession of this land. [222]

Belle Vue, Mr. Dougherty's post, is agreeably situated. The direction of the river is north-west. Below, on the bank, there are some huts, and on the top the buildings of the agents, where a subagent, Major Beauchamp, a blacksmith, and some servants of the company, all lived with their families, who attend to the plantations and affairs of the company. These men were mostly married to women of the tribes of the Otos and Omahas; all, on our landing, immediately came on board. Their dress was of red or blue cloth, with a white border, and cut in the Indian fashion. Their faces were broad and coarse, their heads large and round, their breasts pendent, their teeth beautiful and white, their hands and feet small and delicate. Their children had dark brown hair, and agreeable features. Belle Vue was formerly a trading post of the Missouri Fur Company, on the dissolution of which it was bought by M. Fontenelle, who parted with it to the government, and was appointed to the agency of the Otos, Omahas, Pawnees, and Joways.^[223] M. Fontenelle settled, as I have said, 600 or 800 paces further down the river. Here the Yellow Stone lay to, and we inspected the buildings of the agency, from which there is a very fine view of the river, especially from the summit of the hill, where the cemetery is situated. The rock here is limestone, with a great number of shells, of which, however, I could see only bivalves; but our time was too short to decide on this point.

It was near this place that a marauding party of twelve Joways lately crossed the river, and pursued a defenceless company of Omahas, who had just left Belle Vue; and, having overtaken them three miles off, killed and plundered all of them, except some who were desperately wounded, and whom they believed to be dead. The victors returned by another way. A woman and a child recovered. Major Dougherty took leave of us at Belle Vue, intending to go to the Omahas, and appease the vengeance of that tribe. About five in the afternoon we also left, and were proceeding along the west bank, when we met two Mackinaw^[224] boats, which had been obtained for our vessel by a boat which we had sent before. On the same bank we suddenly saw three Omaha Indians, who crept slowly along. They were clothed in buffalo robes, and had bows, with quivers made of skin, on their backs. About the nose and eyes they were painted white.^[225]



Omaha Indians

Among these Indians there was a woman who had been severely wounded; namely, the well-known Mitain, who is spoken of in Major Long's "Travels to the Rocky Mountains," as an interesting instance of maternal affection, but without mentioning her name. She and her child had received many severe wounds, but were so fortunate as not to be scalped.^[226] The nearest village of the Omahas is twenty-five miles from Belle Vue.^[227] This country is the proper territory of this tribe, which lives on both sides of the Missouri, from Boyer River to Big Sioux River, and hunts further up to Jacques River, as well as between Running Water River (l'eau qui court) and the La Platte.

On the morning of the 4th of May, at half-past seven o'clock, the thermometer was at 69%. We had all round us beautiful low prairie hills, before which was alluvial land, thrown up by the $\overline{130}$ river, covered with fine grass. The river had risen an inch during the night. The noise and smoke of our steamer frightened all living creatures; geese and ducks flew off in all directions. There was formerly a village of the Joway Indians at this place, the inhabitants of which, on the death of their chief, returned to their countrymen further down. On the left bank there were whole tracts

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covered with dead poplars, which had been killed by the fires caused by the Indians in the forest and prairie. We soon saw the white buildings of Mr. Cabanné's trading post, which we saluted with some guns, and then landed.

We were very glad to see, at the landing-place, a number of Omaha and Oto Indians, and some few Joways, who, in different groups, looked at us with much curiosity; all these people were wrapped in buffalo skins, with the hairy side outwards; some of them wore blankets, which they sometimes paint with coloured stripes. In their features they did not materially differ from those Indians we had already seen, but they were not so well formed as the Saukies. Many of them were much marked with the small pox. Several had only one eye; their faces were marked with red stripes: some had painted their foreheads and chins red; others, only stripes down the cheeks. Few only had aquiline noses, and their eyes were seldom drawn down at the corners; generally speaking, their eyes are small, though there are exceptions. They wore their hair loosely hanging down their backs; none had shaved their heads; and, on the whole, they looked very dirty and miserable. The countenances of the women were ugly, but not quite so broad and flat as those of the Foxes and Saukies; their noses, in general, rather longer. Their dress did not differ much from that of those Indians, and they wore the same strings of wampum in their ears. The men carried in their hands their tobacco pipes, made of red or black stone (a hardened clay), adorned with rings of lead or tin, which they generally obtain from the Sioux, at a high price.

This trading post consists of a row of buildings of various sizes, stores, and the houses of the engagés, married to Indian women, among which was that of Mr. Cabanné, which is two stories high. He is a proprietor of the American Fur Company, and director of this station.^[228] He received us very kindly, and conducted us over his premises. From the balcony of his house was a fine view over the river, but the prospect is still more interesting from the hills which rise at the back of the settlement. Between the buildings runs a small stream, with high banks, which rises from a pleasant valley, in which there are plantations of maize for the support of the inhabitants. Mr. Cabanné had planted fifteen acres of land with this invaluable grain, which yield, annually, 2,000 bushels of that corn, the land here being extremely fertile. The banks of the stream are covered with fine high trees, and many of the plants were in flower, especially the beautiful blue lychnis, the white oak, &c. A high wind prevailed throughout the day, but, within doors, the weather was warm, 78° at four o'clock. Our vessel remained here the whole day, and we were besieged all the time by Indians, who caused a very disagreeable heat in our cabins. Among [131] them was a Joway, called Nih-Yu-Máh-Ni (la pluie qui marche), who sold us several articles of his dress. Mr. Bodmer made a sketch of the boy of an Omaha, whom the father first daubed with red paint. He took vermilion in the palm of the hand, spat upon it, and then rubbed it in the boy's face. The head of this boy was shaved quite smooth, excepting a tuft of hair in front, and another at the back. [229] A number of men and women stood round, looking on with eager curiosity. I showed the Indians a rattlesnake in brandy, and they gave me to understand that a child had lately been bitten by one of these animals, and died in consequence. The little child, lately wounded by the Joways, was brought to us; the wounds, though they had not been dressed and covered, were almost healed.

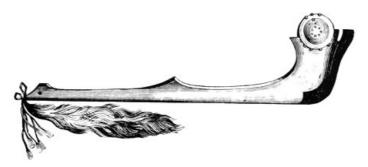


An Omaha boy

We spent a very pleasant evening with Mr. Cabanné; sitting in the balcony of his house, we enjoyed the delightful temperature and the fine scene around us. The splendid sky was illumined by the full moon; silence reigned around, interrupted only by the noise of the frogs, and the incessant cry of the whip-poor-will, in the neighbouring woods, till the Indians assembled round the house, and, at the request of Mr. Cabanné, performed a dance. About twenty Omahas joined in it; the principal dancer, a tall man, wore on his head an immense feather cap, like those of the Camacans in Brazil, but larger and of less elaborate workmanship, composed of long tail and wing feathers of owls and birds of prey; [230] in his hand he held his bow and arrows. The upper part of his body was covered only with a whitish skin, which fell over the right shoulder and breast, and was adorned with bunches of feathers; his arms, face, and the uncovered parts of his body, were painted with white stripes and spots. His trousers were marked with dark cross stripes, and trimmed at the ankles with a great quantity of fringe. He also wore an apron. He had a savage and martial appearance, to which his athletic figure greatly contributed. Another man, 132 who was younger, of a very muscular frame—the upper part of whose body was naked, but painted white—had in his hand a war club, striped with white, ornamented at the handle with the skin of a polecat. [231] He wore on his head a feather cap, like that already described. These two men, and several youths and boys, formed a line, opposite to which other Indians sat down in a row; in the middle of which row the drum was beat in quick time. Several men beat time with war

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clubs hung with bells; and the whole company (most of whom were painted white) sung, "Hi! hi! hi!" or "Hey! hey! hey!" &c., sometimes shouting aloud. The manner of the dance was thus: bending their bodies forward, they leaped up with both feet at once, not rising high from the ground, and stamped loudly, while the drum beat in quick time, and their arms were rattled and occasionally lifted up into the air. Thus they leaped opposite to each other, with great exertion, for about an hour; they perspired violently, till the usual presents, a quantity of tobacco stalks, were thrown on the ground before them. This dance was very interesting to me, especially in connection with the beautiful evening scene on the Missouri. The bright light of the moon illumined the extensive and silent wilderness; before us, the grotesque band of Indians, uttering their wild cry, together with the loud call of the night raven, vividly recalled to my mind scenes which I had witnessed in Brazil. We did not return to our vessel till late at night, after taking leave of our kind host, and of Major Pilcher; the former was on the point of returning to St. Louis, leaving the superintendence of the trading post to Major Pilcher.



Omaha war club

The Omahas, or, as some erroneously call them, Mahas, were formerly a numerous tribe, but have been much reduced by frequent wars with their neighbours; the smallpox, too, has committed dreadful ravages, and there are now but few vigorous young men among them. Their language differs from that of the Otos, Missouris, and Joways; there is, however, an affinity between them. The best and most complete accounts of the Omahas are given by Mr. Say in his Narrative of Major Long's "Expedition to the Rocky Mountains," to which I would refer my readers. [232]

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On the 5th of May, the Yellow Stone left Cabanné's trading house; the weather was warm [13] and serene; we passed the mouth of Boyer's Creek on the east bank, where the Missouri makes a bend, and saw the ruins of the former cantonment, or fort, at Council Bluffs. [233] This military post was established, in the year 1819, for 1,000 men, but, in fact, there were now only 500 men of the regiment in garrison at Jefferson barracks. In the year 1827, these troops were withdrawn and stationed at Leavenworth; the fort, or, rather, the barracks, formed a quadrangle, with a bastion or blockhouse, in two of the angles. At present there were only the stone chimneys, and, in the centre, a brick storehouse under roof. Everything of value had been carried away by the Indians. We were told that numerous rattlesnakes are found among the ruins. The situation of Council Bluffs is said to have been much more favourable for observing the Indians than that at Leavenworth; and it was even conjectured that this post will be again occupied. The military station was at first placed a little further inland, but the scurvy carried off 300 of the garrison in one winter. Mr. Sandford, who had rejoined us, once found here the large grinders of a mastodon, which are now in the possession of General Clarke, at St. Louis.

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At twelve at noon, we ran aground, but happily sustained no damage, at a dangerous place, where the left bank was blocked up with many snags, and which is called the Devil's Raceground. The country was low and uniform till we again reached the hills, which were rather bare of wood, but of grotesque form, and covered with a fine verdant carpet. Near the mouth of the Soldier River, an $engag\acute{e}$ met us, who brought letters from the Assiniboin steamer. We went on pretty well till the evening, when we got upon a sand bank, and then made the vessel fast for the night; after which our people exerted themselves to get off the bank, in the midst of a storm of thunder and lightning.

The steamer was got afloat by daybreak on the 6th. On both sides there was alluvial soil, thickly covered with willows and poplars, mixed, in some places, with other trees. Here we saw, on a sand bank, two large wolves, which seemed to look at us with surprise. The Omaha Indians hunt on both banks of this part of the river; they are said to be the most indolent, dull, unintellectual, and cowardly of the Missouri Indians. At two in the afternoon we landed on the prairie, which was covered with tall trees, and forty or fifty of our men immediately began to hew down wood for fuel; there was abundance of grass, but not a single flower, which was caused by the prairie having been set on fire; black burnt wood was scattered about, and the ground itself was discoloured in places by the effects of the fire.

From this place the country becomes more and more level, and bare of wood, and the eye roves over the boundless prairie. Behind a willow-tree I saw some remains of Indian huts, in front of one of which a pole was set up, with a piece of red cloth attached to the top. The forest, which had been inundated, was likewise destitute of flowers; numerous traces of stags were everywhere seen. During the night a man deserted, whom Mr. Mc Kenzie had some time before put under arrest for having uttered vehement threats. The 7th day of May, the anniversary of our 134

departure from Germany, was very fine. We soon reached the chain of hills on the left bank, at a place where the yellow limestone rock was nearly perpendicular, and in which innumerable swallows had built their nests; these are called Wood's Hills, and do not extend very far. On one of them we saw a small, conical mound, which is the grave of the celebrated Omaha chief, Washinga-Sahba (the blackbird). In James's Narrative of Major Long's Expedition, is a circumstantial account of this remarkable and powerful chief, who was a friend to the white man: he contrived, by means of arsenic, to make himself feared and dreaded, and passed for a magician, because he put his enemies and rivals out of the way when it suited him. An epidemical smallpox carried him off, with a great part of his nation, in the year 1800, and he was buried, sitting upright upon a live mule, at the top of a green hill on Wakonda Creek. When dying, he gave orders that they should bury him on that hill, with his face turned to the country of the white men. [234] The Omahas have been since so reduced by their enemies, the Sioux, Saukies, and Foxes, that they are now quite powerless and insignificant, not being able to muster above 300 or 400 warriors. Washinga-Sahba was so feared by his own people, that nobody ventured to wake him when he slept: it is said that they used then to tickle his nose with a blade of grass. The present chief of the Omahas is Ongpa-Tanga (the great elk), of whom Godman, in his Natural History, has given a good portrait. He lives on the Horn River, which falls into the La Platte, about twenty miles above its mouth. [235]

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On the following day (the 8th of May) we came to Floyd's Grave, where the sergeant of that name was buried by Lewis and Clarke. The bank on either side is low. The left is covered with poplars; on the right, behind the wood, rises a hill like the roof of a building, at the top of which Floyd is buried. A short stick marks the place where he is laid, and has often been renewed by travellers when the fires in the prairie have destroyed it. A little further up is Floyd's River, and on Floyd's Hills there were a few fir trees, over which the kite hovered in the air. [236] About half a league beyond Floyd's River is the mouth of the Big Sioux River, interesting from the circumstance of its being the boundary of the territory of the Dacota, or Sioux nation. Its breadth, at the mouth, is about sixty paces, and it is said to be navigable by Mackinaw boats for 100 miles. About 120 miles up this river, a tribe of the Sioux reside, which is known by the name of Wahch-Pekuté; this, and another tribe of this people on the Mississippi, and near Lake Pepin, are the only ones of their nation who plant maize; all the other hordes of the Sioux are hunters. The territory of these people formerly extended further to the south, till the before-mentioned treaty for the purchase of land was concluded with the Indians. [237]

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At noon, with a temperature of 75°, there was such a violent wind, that the fine sand from the banks penetrated into the innermost parts of our vessel; the broad river was so agitated by the wind, that the pilot could not distinguish the sand banks, and we were obliged to lie to. In a small meadow in the woods we saw the giant footsteps of the elks, and likewise of the common \$\frac{135}\$ stag, which we would willingly have followed had not a rising tempest compelled us to return on board. Vivid lightning flashed in the horizon, the rain soon poured down in torrents, and at night a storm arose which, at midnight, raged with such fury, that we might have felt some alarm, had not our vessel been so well protected by the bank. The storm frequently forced open the doors of the upper cabin, and the rain beat into the room. Towards daybreak the tempest returned with increased violence; the flashes of lightning and the claps of thunder were incessant during the twilight, and everybody thought that the vessel must be struck.

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The 9th of May set in with rain, a cloudy sky, and high wind; the thermometer, before so high, fell, at half-past seven o'clock, to 56°. When the storm had passed over, our vessel quitted the place where it had taken shelter. We passed along wild, desolate banks, then a green prairie, by a chain of steep hills, partly bare, partly covered with forests, or with isolated fir trees and picturesque ravines, with dark shadows, into which the close thicket scarcely allowed the eye to penetrate. We here saw, for the first time, a plant which now became more and more common; namely, the buffalo-berry-bush (Sheperdia argentea, Nutt.), with pale, bluish-green, narrow leaves. At the mouth of the Joway River, which runs into the Missouri, on the south bank, at a very acute angle, clay-slate appeared to stand out on the bluffs, divided into narrow, horizontal strata, the lower of which were blackish-blue, and those above of yellowish-red colour.^[238] Our hunters and wood-cutters landed, on which occasion we lost a hound, which had strayed too far into the forest. Five or six hundred paces further up, we saw, among the thickets of willow and poplar, an old Indian wigwam,^[239] near which the red willow, mixed with the common willow, was in blossom. The thermometer, which had been at 56° in the morning, rose at ten o'clock, when the sun broke through the clouds. We frequently observed the wild geese, which endeavoured to take their young, of which they never had more than four or six, to some place on shore, where they would be safe from us. When we came very near, the mother fluttered anxiously to a little distance, and called them to her.

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We continued our voyage, but soon lay to at the prairie, on the right bank, because Mr. Mc Kenzie wished to form a plantation at this place. The whole plain was covered with high, dry grass. On the bank of the river there was a fine border of tall timber trees, in which the turtle-dove cooed, and flocks of blackbirds were flying about. The hills of the prairie were covered with the finest verdure, and the singular forms of the hills afforded us an interesting subject of observation on the otherwise uniform appearance of the country. We halted for the night near the high trees that bordered the prairie, where there were numbers of ducks and plovers. As soon as it was dark, the young men set fire to the dry grass of the prairie, to give us the pleasure of seeing how the fire spread, but the attempt did not fully succeed, because there was 136 no wind. Mr. Mc Kenzie left some men here, with agricultural implements, to make a plantation; among

them was one François Roi, of Rheims, whose name gave occasion to many innocent jokes, and we deliberated what name should be given to the kingdom he was going to found.

On the following day, the 10th, we had been exactly four weeks since we left St. Louis. At the spot where we now were, it is said that large herds of buffaloes are seen in the winter, but we had not yet met with one of these animals. The character of the country was much changed; it is, for the most part, naked, and without woods. The trees which are found here are no longer lofty and vigorous, as on the Lower Missouri; yet the wild vines are still seen climbing on the bushes, though this, too, entirely ceases further up the river. Near the mouth of Vermilion Creek, the green hills of the prairie approach very near the water; and here we saw, on the back of one of the hills, a grave surrounded with poles, which was that of some Sioux Indians, who had been killed by lightning in a violent thunder-storm. At the mouth of the stream we saw wild ducks and geese, of which a pair of the latter, with six young ones, anxiously endeavoured to escape us. The female remained faithfully with her young ones, while the male flew away.

The morning of the following day (the 11th of May) brought us to the mouth of Jacques River. which was concealed from our view by a sand bank. The steep banks, which in Lewis and Clarke's map are called Calumet Bluffs, have deep ravines, and are of an ash-grey colour at the base, and yellow above. We reached the island called by those travellers Sego Island, where we found very little water, and then came to Lewis and Clarke's White Bear Bluffs, of which Mr. Bodmer made a drawing. $^{[240]}$ At noon the thermometer was at 63°. After dinner we saw, at a distance, the Assiniboin steamer, with which we came up in half an hour. It had not been able to proceed any further for want of a sufficient depth of water. After we had saluted the master of the vessel, Mr. Pratte, son of the General of that name at St. Louis, and a member of the American Fur Company, we went on board his vessel.^[241] In this steamer there were two cabins, much lighter and more pleasant than those in the Yellow Stone; the stern cabin had ten berths, and the fore cabin twenty-four, and between decks was the large apartment distinct for the engagés. The crew had lately killed a she-bear—the young ones were alive on board. While we were visiting the Assiniboin, we suddenly perceived, on the left or southern bank, a number of Indians, between fifteen and twenty of whom rolled down the hills. As our people did not seem very desirous of having anything to do with them, and contented themselves with looking at them through a telescope, we took advantage of the fine weather to make an excursion into the prairie.

The chain of hills, bounding the valley of the Missouri on the north, crossed the verdant prairie, in a straight line, at a distance of about 1,000 paces from the river. The appearance of this chain was singular, with perpendicular, yellow, calcareous walls, which indicated that the 137 river must, formerly, have flowed in that direction; and the cylindrical hollow marked the ancient bed of the river. In the prairie itself there were many pools of water, and we found several interesting plants, among which were some with long roots like carrots, especially the yellow flowering Batschia longiflora (Pursh.), and the Oxitropis Lamberti B. The great yellow-breasted lark (Sturnella, Vieill.), was everywhere seen in pairs, and its short, coy call, and its pleasing, whistling note, were heard from every side. Besides these, we saw the prairie hen, and the great long-billed curlews (Numenius longirostris), of which we shall speak hereafter. Skeletons of buffaloes were scattered in the plain, especially many skulls, but very few of which were entire.

When I returned to the vessel, I found there three Punca Indians, the chief of the tribe Shudegacheh, [242] his brother Passitopa, [243] and Ha-cha-ga. They were all robust, good-looking men, tall, and well-proportioned, with strongly-marked features, high cheek-bones, aquiline noses, and animated dark hazel eyes. Their hair hung down as far as the shoulders, and part of it lower; that of the chief was shorter, and fastened together in a plait. The upper part of the body of these Indians was naked, only they wore round the neck an ornamented band, and had a large slit in their ears: from those of the chief an ornament of shell work was suspended. His beard below the chin consisted of scanty hairs, which had been suffered to grow very long. [244] They wore a narrow bracelet of white metal round the wrist, very plain, leather pantaloons, and large buffalo robes; the chief, however, was wrapped in a white blanket.

The Puncas, as they are now universally called, or as some travellers formerly called them, Poncaras, or Poncars, the Pons of the French, were originally a branch of the Omahas, and speak nearly the same language. They have, however, been long separated from them, and dwell on both sides of Running-water River, and on Punca Creek, which Lewis and Clarke call Poncara. They formerly lived, like the Omahas, in clay huts, at the mouth of the river, but their powerful enemies, the Sioux and the Pawnees, destroyed their villages, and they have since adopted the mode of life of the former, living more generally in tents made of skins, and changing their place from time to time. Their external appearance and dress do not much differ from those of the Omahas. They are said to have been brave warriors, but have been greatly reduced by war and the smallpox. According to Dr. Morse's report, they numbered, in 1822, 1,750 in all; at present the total amount of their warriors is estimated at about 300. [245] The band of them, which 138 we met with here, has set up eight or nine leather tents, at the mouth of Basil Creek, [246] on a fine forest. [247] They plant maize, which they sell to the Sioux, but they had neglected to cultivate this grain for about three years, and obtained it from the Omahas; they, however, intended to grow it again themselves.

As Major Bean was agent of the Puncas, they came to speak to him. The chief had formerly received, through the agent, a large silver medal of President Madison, which he wore suspended round his neck. On the face of all these medals, which are given as a distinction to the Indian

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chiefs, there is the bust of the President, and, on the reverse, two clasped hands, with a suitable inscription. [248] Shudegacheh had a remarkably intelligent countenance, and fine manly deportment. He sat down by us, and smoked, with his comrades, the only pipe that they had with them; but, according to Indian custom, several pipes soon circulated in the company. The evening was very cool, and, as some of the Indians had no leggins, we took them into our cabin, where their portraits were drawn, after they had been regaled with pork, bread, and tea, which Mr. Mc Kenzie gave them. One of the Indians made me a present of his wooden war-club, which was painted reddish-brown; [249] another, with a pair of shoes, made of elk leather, which were dyed black with the juice of white walnut. These people were not armed, as they had come merely on a visit, and had left their best effects behind. Among them was a French Canadian, named Primeau, who has long lived among them. He acted as interpreter, and communicated to me some words of the Punca language. [250]

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Punca war club

The morning of the 12th of May was cold, there having been a hoar frost during the night. The Indians sat upon the bank, wrapped in their buffalo skins, as represented in the subjoined woodcut.^[251]



Punca Indians in buffalo robes

139 While the Yellow Stone remained stationary, the Assiniboin attempted to pass the shallow place on the river, during which time the hunters went into the prairie. The Indians had a conference with their agent, in which the chief expressed a wish that their great father (the President) would send them several articles, particularly agricultural implements. The attitude and gestures of the speaker were graceful; his right arm and shoulder were bare, while he gesticulated with his hand; and his fine, manly countenance was very expressive. As he had not put on his leggins, we observed, on his muscular calves, two tattooed stripes crossing each other, X; otherwise, he was neither tattooed nor painted. Some of these Indians had been inoculated with the smallpox by a surgeon, whom Major Bean had taken to them the year before, and who had inoculated 2,600 Indians of different tribes. Many of them had manifested distrust on this occasion; and, when he offered to perform the operation, said, "Now we are well; if we should become sick it will be time enough to submit to the operation." Shudegacheh had on the upper part of his arm a large, round scar, which he is said to have burnt into his flesh with his tobaccopipe, on the death of a relation. Major Bean presented to the Indians, in the name of the Government, tobacco, powder, and ball, and the chief received a fine blanket. Mr. Mc Kenzie observed to him, that "the Puncas furnished too few skins, and did not plant maize enough; it was not possible to purchase anything of them;" to which he replied, that "there was no unity among his people; that they lived too scattered, and, therefore, he could not superintend them, and keep them to work." At noon, the thermometer being at 67°, our hunters returned, without having seen anything of consequence, except a couple of large curlews. The boats, which had been sent out to take soundings, likewise came back, and great exertions were made to lighten the steamer, by transferring part of the cargo to the Maria keel-boat. At length, at two o'clock, we were able to weigh anchor, and run awhile down the river, which was done with such rapidity that the Indians became giddy, and sat down on the floor. In this manner we turned round a sand bank, and proceeded upwards, along the south coast of the river, and in twenty minutes were opposite the huts of the Punca Indians. They lay in the shade of a forest, like white cones, and, in front of them, a sand bank extended into the river, which was separated from the land by a narrow channel. The whole troop was assembled on the edge of the bank, and it was amusing to see how the motley group crowded together, wrapped in brown buffalo skins, white and red blankets some naked, of a deep brown colour. The little children, with their protuberant bellies, [252] and

their legs, of a dark brown colour, carrying bows and arrows in their hands, were running along the beach, or cowering like little monkeys, while the men walked about, very gravely, with their weapons in their hands. We landed our Indian visitors on the sand bank; the boat brought back some skins, and we afterwards saw Primeau, with the Indians, wade through 40 the channel. A little further up we witnessed a great prairie fire, on the left bank. The flames rose from the forest to the height of 100 feet—fiery smoke filled the air: it was a splendid sight! A whirlwind had formed a remarkable towering column of smoke, which rose, in a most singular manner, in graceful undulations, to the zenith. Afterwards we came to steep hills, behind which is Manoel's Creek, so called from Manoel Lisa, a Spaniard, who formerly carried on the fur trade in these parts. [253] Towards evening we were near the Assiniboin steamer, which lay before us, and halted in the vicinity of Basil Creek, where the Puncas formerly dwelt, numbers of whose graves are seen upon the hills. The trunks of trees in the river had much injured our paddles.

CHAPTER XII

VOYAGE FROM L'EAU QUI COURT TO FORT PIERRE, ON THE TETON RIVER (THE LITTLE MISSOURI), AND STAY THERE, FROM MAY 13TH TO JUNE 4TH

Running-water River (l'eau qui court)—Punca Creek—Remarkable Mountains —Cedar Island—Delay caused by the insufficient Depth of the Water—First Sight of Buffaloes and Antelopes—Burning Mountain—Black Strata of bituminous Coal—Bijoux Hills—Prairie Dogs—Shannon, or Dry River—White River—Ruins of Cedar Fort—Fort Look-out (Sioux Agency)—Visit to it—The Dacotas of the Branch of the Yanktons—Wahktageli—Big Bend, or Grand Détour—Medicine Hills—Teton River—Fort Pierre—Stay there—The Tetons, a branch of the Dacotas or Sioux.

On the morning of the 13th of May, the Yellow Stone passed the mouth of the Running-water River (l'eau qui court), [254] when the thermometer was at 55°. The Assiniboin was before us. We reached the mouth of Punca Creek, which runs along the chain of hills obliquely to the Missouri. At the time when the Puncas separated from the Omahas, they built a kind of fort of earth, some miles up this river, which, however, they no longer occupy. There are said to be hot springs in the neighbourhood, such as are known to exist in several places on the banks of the Missouri. [255] Springs of any kind are, however, very rare in these dry prairies. In this neighbourhood are many villages of the prairie dogs (Arctomys ludoviciana, Ord.), in the abandoned burrows of which, rattlesnakes abound. It has been affirmed that these two species of animals live peaceably together in these burrows; but observers of nature have proved that the snakes take possession of abandoned burrows only, which is in the usual course of things. Deep 142 gullies traverse the summits of the banks, above which the turkey buzzards were hovering. On a sudden, three Punca Indians appeared and hailed us; they were wrapped in their buffalo skins, and carried their bows and arrows on their shoulders. One of them had a very singular appearance, having bound up the hair of his head, so that it stood quite upright. Though they made signs to us to take them on board, we did not stop, but renounced the pleasure of more closely observing these interesting people. The trees on the edge of the prairie, by which we passed, were old, thick, and low, with their summits depressed and cramped. They were the resort of the Carolina pigeon, which is found all along the banks of the river. The red cedars, in particular, were stunted and crippled, often thicker than a man's body in the trunk, and very frequently wholly withered. The swallows' nests—numbers of which were built against the steep banks—were not yet inhabited. We were unable, on account of the shallowness, to reach a fine grove of poplars on the right bank, and proceeded along the hills of the left bank, which were seventy or eighty feet in height, where the red cedar abounded, and we stopped to fell a number of these trees. A wild lateral ravine here opened to the Missouri, up the steep sides of which our wood-cutters climbed, and cut down the cedars, which were loaded with their black berries. The wood of this tree emits a very aromatic scent, and it is much used by the steam-boats for fuel, because it supplies a great deal of steam, and the berries, as we were told, are eaten by the Indians for certain medicinal purposes. At the bottom of the narrow ravine, there was a thicket of elm, cedar, bird-cherry, clematis, celtis, celastrus, vine, and other shrubs; and the neighbouring lofty verdant hills of the prairie produced many beautiful plants, among which was Stanleya pinnatifida, with its splendid long bunches of yellow flowers. Returning to our vessel, when the bell gave the signal for departure, we found one of the three Punca Indians whom we had seen in the morning. He had taken advantage of our slow progress to overtake us. His hair hung down to his shoulders, and was tied together in a queue. His countenance was good-natured and friendly; he wore a buffalo robe, had a bow and arrows on his back, and, in his hand, a large hussar sabre, which he had received as a present. Major Bean gave him some tobacco, powder, lead, and ball; and after he had satisfied his craving appetite he returned, well satisfied, to his comrades. In the afternoon the country was by no means attractive, rather flat, and not so verdant; our vessel sustained many violent shocks. The chain of hills, in the distance, appeared in more and more singular forms, partly resembling ramparts and batteries, and then again perfectly flat, like table-land. An isolated, round, conical eminence, which is called the Tower, stands on them. [256] On the bank were, again, singularly stunted woods and thickets, probably kept down by the cold winds of the prairie. The soil and the whole character of the country was changed; on the Lower Missouri it was a black mould, and very fertile. Cedars flourished here, growing to the height of forty or fifty feet, yet they were

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143 On the following morning, the 14th, we had a very difficult navigation, and were even obliged to put back, so that the Assiniboin overtook and passed us, and we followed it up the river on the north bank, and afterwards landed forty men to lighten the vessel; ran happily over a sand bank, and again passed the Assiniboin. In the preceding year, the whole prairie was seen from the steamer to be covered with herds of buffaloes, but now there were no living creatures, except a few wild geese and ducks, which had likewise become scarce, since the termination of the great forest below the La Platte River. The monotony of this rude landscape was, however, soon interrupted by the appearance of a canoe, in which were four white men rowing down the river. A boat was speedily manned, into which Mr. Mc Kenzie and Mr. Sandford went, well armed, in order to speak to them, because they were supposed to be *engagés* of the Company who were deserting. We were informed by them, that the Arikkaras, a dangerous Indian tribe, had lately murdered three beaver hunters, one of whom was a man named Glass, well known in the country, of whom I shall have occasion to speak in the sequel. [257]

Upon an island, to which we came, was a real wilderness; the beavers had formed a kind of abattis, by felling poplars; another island was remarkable because there is a hot spring opposite to it, on the main land, the water of which has no mineral taste. On the left bank, about five or six miles below Cedar Island, we observed the remains of Indian huts. Mr. Mc Kenzie had met here, in the preceding year, a camp of the Punca Indians. On the steep banks were coloured stripes, or regular strata; some black, doubtless bituminous coal, others reddish brown, and, in several places, burnt black. Some parts had burnt very lately, and, in many places, had fallen in. Unhappily we were not able more closely to examine these remarkable strata. We fastened the vessel for the night to the western coast; and the lightning was very brilliant.

On the following day, the 15th of May, we saw in the thickets, behind which the prairie extended, many traces of an Indian camp; heads of elks, stags, and other animals, were scattered about; the marks of horses' feet were everywhere visible; and a practicable trodden path led through the thickets. At noon, when the thermometer was at 77°, the Assiniboin again passed us, and, with the keel-boat Maria, vanished from our sight. At four in the afternoon, we reached the place where we had stopped the preceding night, with the help of the keel-boat, which had returned, and at length succeeded in getting forward; but again had a storm of thunder and lightning. The whole country, beyond the banks, consisted of hills, rising one above the other; some covered with verdure, some of a yellowish colour, mostly without life and variety. While the lightning flashed from the dense black clouds, we again overtook the Assiniboin, which had landed its wood-cutters to fell some cedars on the steep mountain. We, too, landed 300 paces further up, to cut down cedars for fuel. At this place there was the narrow deep ravine of a small stream, now dry, in which we caught a pale yellow bat, and saw some snakes, and the scattered bones of buffaloes. We climbed from the bottom of the ravine up the singular 144 eminences of the prairie, and collected some interesting plants, particularly the wild turnip. Two species of cactus were not yet in blossom; they are, probably, not sufficiently known to botanists. One of them has been taken for the Cactus opuntia; and Captain Back, [258] too, says, that it is found on an island in the Lake of the Woods; but this is certainly not the above-named plant. On the highest elevation above the river, we enjoyed a remarkably fine prospect, while the sky was darkened by black thunder clouds. Around us was the amphitheatre of singularly-formed mountain-tops; at our feet lay the fine broad river, intersected by innumerable sand banks, which plainly showed us the difficulties of our navigation. On the banks, at so great a distance from the dwellings of civilized men, were two large vessels emitting volumes of steam. We were lost in the contemplation of this vast wilderness, when the bell summoned us on board. Our people had found a channel with five feet water, but it was so dark and foggy, that we were obliged to lie to early.

On the following morning, the 16th of May, having passed a village of the prairie dogs, we reached, at nine o'clock, the Cedar Island, which is said to be 1,075 miles from the mouth of the Missouri. [259] On the steep banks of this long narrow island, which lies near the south-west bank, there were thickets of poplars, willows, and buffalo berry; the rest of the island is covered with a dark forest of red cedars, of which we immediately felled a good number. Their beautiful violetcoloured wood is traversed towards the edge by white veins, and is found very fit for shipbuilding. We crossed, with great pleasure, this wilderness of lofty cedars, the rough bark of which peels off of itself, and hangs down in long slips; many of them were withered, others broken and thrown down, or lying on the ground, covered with moss and lichens. The notes of numerous birds were heard in the gloom of this cedar forest, into which no ray of the sun could penetrate. Here, too, we found everywhere traces of the elks and stags, and saw where they had rubbed off the bark with their antlers. This may be considered as the limit to which the wild turkey extends on the Missouri. It is true that this bird is, now and then, found higher up, even on the Yellow Stone River; but these are exceptions, for beyond this place the woods are too open and exposed. The Indians, on the Upper Missouri, very readily barter for the tails of these fine birds, to use them as fans and ornaments, and Mr. Mc Kenzie, accordingly, took a good supply

On account of the high wind we were obliged to stop longer than we intended at Cedar Island, and took advantage of the delay to send out our hunters with their fowling-pieces. They brought back some birds, and a quadruped which was new to me. The wood-cutters had found, in a hollow tree, a nest of the large wood-rat, with four young ones. This fine animal has a tuft of hair at the end of its tail, and sometimes the whole tail is covered with hair. In colour and shape it resembles our Norway rat, and has not yet been mentioned as found on the Missouri, unless a couple of

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passages in Lewis and Clarke's Travels, which say, "very large rats were found here," refer to it.

145 On the morning of the 17th we saw the first antelopes, or cabris, half a dozen of which fled over the hills, but at so great a distance that we could not well distinguish them; we, however, subsequently had the pleasure of seeing one of these animals stop so long on the summit of the bank that we could very plainly observe it nearer at hand. It gazed for a long time at the steamer, appeared to be alarmed, trotted away, then stopped again, and disappeared behind the hills. The antelope becomes more and more common in this part of the country, and we saw several to-day, but the wishes of our hunters were disappointed. The Indians use the skin of these animals for clothing, but they are not very eager in the chase of the antelope, except where the buffalo is scarce. As, on sounding the channel, only four feet of water were found, the steamer was moored to the bank, and we took our fowling-pieces. With difficulty we penetrated through the thickets of poplar and willow on the bank, where the large tracks of the elks and of the Virginian deer were everywhere deeply imprinted in the soft soil. We then reached the prairie, which is perfectly level, and extends for 300 or 400 paces to the hills. It was covered with high grass, and clusters of many different plants. Our people traversed the prairies in all directions, looking for the pomme blanche, which was very common. Near the thickets we saw the pretty Carolina pigeon, seeking its food on the ground, but, when we approached, all the birds immediately flew out of the prairie, and sought refuge in the recesses of the thickets. We had a fine, starlight, cool evening.

On the 18th we saw the first buffaloes that we had met with on this voyage. Several of our hunters were immediately landed to pursue them. They ascended into a ravine, and disappeared behind the hills. We also landed, at noon, when the thermometer was at 68°. Beyond the thickets on the bank, there were some old isolated trees in the prairie, in which, as well as in the tall plants, bushes, and grass, there were numerous birds. During the day, the mosquitoes (Tipula) were so troublesome in the wood, that we could scarcely load our pieces; it is said that, in the height of summer, this nuisance is still more intolerable. The buffalo hunters returned to the vessel at the same time with us; they had, indeed, missed their object, but had killed a large buck antelope, as well as a great many prairie dogs, the heads of which were all mutilated by the rifle balls. As these little animals retreat to their burrows, on the approach of any strange object, and only put out their heads, the Americans, with their long rifles, generally hit them in this part: they are a favourite food among them. Our men brought back the skin and the head, as well as the flesh of the antelope which they had killed: they likewise brought me a fine grey eagle and a serpent (Col. eximus). The river being so shallow, we were not able to proceed on the following day, and continued our excursions on shore. I often passed my time in the lofty and shady forest which extended beyond the willow thickets on the banks, at the border of the open prairie. Sitting on an old trunk, in the cool shade, I could observe at leisure the surrounding scene. I saw the turkey buzzards, that hovered above the hills, contending against the high wind, while a couple of falcons frequently made a stoop at them, doubtless to defend 146 their nest. A couple of ravens likewise flew about them. The red-eyed finch, the beautiful Sylvia æstiva, the Sylvia striata, and the wren, flew around me, the latter singing very prettily. If I passed beyond the prairie hills, I found the ground, on the long-extended ridge, covered with the blue flowers of the Oxitropis Lamberti (Pursh.), which grew in tufts about a foot high. There, too, I saw dens of the foxes and wolves. I saw a fine bird which we had not before met with, namely, the prairie hen (Tetrao phasianellus), a pair of which rose before me, and of which I first shot the cock. These birds are found in considerable numbers from this place up to the Rocky Mountains. In the daytime we suffered great heat in these excursions, while there was also a high wind, and the ground was hard and dry; the soles of our shoes became so polished on this ground and the hard dry grass, that it was difficult and fatiguing to walk on the slopes. We were forced to remain here many days, because the water was very shallow, and, during this time, we had several violent thunder-storms. It is a peculiarity of this part of the country that, in spring, rain, storms, and tempests prevail, while the summer and autumn are, in general, very dry. All the small streams in the extensive prairies then dry up, and there is a general want of water, except in the vicinity of the large rivers.

On the 21st of May it was so cool that we were obliged to have fires in the cabins; the river had risen a little, and we endeavoured to proceed. Captain Pratte, of the Assiniboin, came on board with a man named May, a beaver hunter, who had left Fort Union, on the Yellow Stone, in March. He confirmed the account of the murder of the three men by the Arikkaras, and added the still more alarming intelligence, that thirteen of the Company's engagés had been killed by the Blackfoot Indians. He said that the herds of buffaloes had left the Missouri, and had been followed by the Sioux Indians, so that we must expect to see only a few of them on the river. The keel-boat of the Assiniboin had taken part of our cargo on board on the 22nd, and, as there was rather more depth of water, the Yellow Stone had been got afloat, after a delay of five days in this shallow place. We happened to be on the hills when the bell summoned us on board, and hastened as quickly as possible to the bank, but came too late, and were compelled to follow the vessel for a couple of hours, clambering over fragments of stone, pieces of rock, to creep through thickets full of thorns and burrs, or to wade through morasses; and not till eleven o'clock did we get on board. The hills on both sides of the river were of singular forms; some of them were crowned with rocks resembling ancient towers and ruins. The eminences had some dark spots, caused by black shining strata of coal. Many of these strata had been on fire, and one of them was extinguished only last year, after having burnt more than three years. Such a thick stratum of bituminous coal ran in a well-defined stripe on both sides of the river, at an equal elevation, along all the hills, as far as the eye could reach; and it is not difficult to follow this stratum for many hundred miles; it is only interrupted, at intervals, by ravines. Some lofty hills, hereabouts,

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are called Bijoux Hills, after a person of that name, who resided here many years. [260] [147] The next morning we found the Assiniboin at the foot of these hills. Our steamer could not be moved till noon, and then did not proceed far, but lay to near a sand bank. On the morning of the 24th, Major Bean left us, accompanied by Mr. Bodmer, to go by land to Sioux Agency, or Fort Lookout, where he intended to wait for us. He had procured saddle-horses from that place. As we expected the keel-boat, to lighten the ship, we had time to go ashore and make an excursion inland. At eleven o'clock the bell summoned us to return. The vessel was made to drop about 2,000 paces down the river, and then, with much exertion, to proceed along the north-east bank, where we found the Maria keel-boat, which had likewise run aground, but had been got afloat by its crew, who laboured up to their waists in water, while the people were lightening our steamer. Mr. Mc Kenzie and myself went on shore to explore the neighbouring eminences, where we found many rare plants. The geology and mineralogy of these hills are likewise interesting. The surface consists of clay of various colours, partly resembling lithomarge; plates and fragments of foliated gypsum were scattered around, and seemed to stand out in the clay. When we reached the bare sterile heights which belong to the black burnt stratifications, I found the soil guite different from what it had appeared to me when I looked at it from below. The whole consists of a clay, which has undergone the effects of fire, and is partly burnt black on the surface. We saw no living creatures on these bare heights, except the finch (Fringilla grammaca), first described by Say. Several caves or dens of wolves, foxes, and marmots, were observed in the declivities of the hills. Between four and five o'clock, the keel-boat having been sent on before, the Yellow Stone proceeded along the northeast bank. Near the Shannon, or Dry River, the sun sank behind the poplar wood on the bank, and we lay to for the night. From the Shannon, the mouth of which is on the west side, the territory of the Sioux nations is reckoned to extend up the Missouri. On the east bank, as I have observed, it begins much sooner.

At five o'clock, on the following morning, the 25th of May, we had already reached the White River,^[261] and at noon came to a place where the Cedar Fort, a trading post of the Missouri Fur Company, had formerly stood. When the Company was dissolved, this and other settlements were abandoned, and demolished by the Indians. [262] Directly opposite, on the east bank, a stratum of earth burnt till 1823, in consequence of which a large portion of a hill fell, and now stands isolated before the bank; it is seventy or eighty feet high, and 150 feet long. In the course of the day we came to a place where an Arikkara village had formerly stood, on the ridge of the hills, which was destroyed by the Sioux, and the inhabitants expelled. Opposite to this was Fort Lookout, where the French Fur Trading Company had a post. A little further up the river we saw, on the hills, some burying-places of the Sioux Indians; most of them were formed of a high platform, on four stakes, on which the corpse, sewn up in skins, lies at full length; others consisted of stakes and brushwood, like a kind of hedge, in the middle of which the deceased is buried in the ground. We were told that the son of a chief was buried in one of the latter, in a 148 standing posture. On a point of land, at the left hand, round which the Missouri turns to the west, we saw the buildings of Sioux Agency; the Yellow Stone saluted the post with several guns, and was welcomed to the fort by the hoisting of a flag, while the whole population, about fifty in number, chiefly consisting of Sioux Indians, were assembled on the beach. We greeted our friends Major Bean and Mr. Bodmer, and proceeded a mile further, to an extensive forest, where we took in wood, and stopped for the night. In order to get acquainted with the Sioux, in whom I took so much interest, I returned, in a heavy rain, through the bushes and high grass, to the agency, where Major Bean received me very kindly, though his dwelling, according to the fashion of the place, was rudely constructed, and he was incommoded by too many visitors.

Sioux Agency, or, as it is now usually called, Fort Lookout, is a square, of about sixty paces, surrounded by pickets, twenty or thirty feet high, made of squared trunks of trees, placed close to each other, within which the dwellings are built close to the palisades. These dwellings consisted of only three block-houses, with several apartments. Close to the fort, in a northern direction, the Fur Company of Mr. Soublette had a dwelling-house, with a store; and, in the opposite direction, was a similar post of the American Fur Company. [263] The fort is agreeably situated on a green spot, near the river, partly covered with bushes, and partly open, bounded by hills, beyond which the prairie extends, first, with a few old trees, and some wooded spots, but soon assuming its peculiar bare character. About ten leather tents or huts of the Sioux, of the branch of the Yanktons or Yanktoans, were set up near the fort. [264]

The Dacotas, as they call themselves, or the Sioux of the French, called by the Ojibuas or Chippeways, Nandoesi (which has been corrupted into Nadowassis), are still one of the most numerous Indian tribes in North America. Pike stated their number at 21,575 souls, and they are still reckoned at 20,000; nay, some even affirm, that they are still able to furnish 15,000 warriors, which seems rather too high an estimate. Major Long, who gives much information respecting this people, calculates their number at 28,100, of which 7,055 are warriors, the nation possessing 2,330 tents, which agrees pretty nearly with the statements we received on the Missouri. If we add the Assiniboins, who are of the same origin, and who are estimated at 28,000, we shall have for all the Dacotas, 56,100 souls, of whom 14,055 are warriors, and the number of their tents 5,330. Major Long is of opinion that they cannot be calculated at less than 25,000 souls, and 6,000 warriors; 20,000 is, therefore, not too high an estimate.

The territory which they inhabit extends from Big Sioux River, between the Missouri and the Mississippi, down the latter to Rock River, and northwards to Elk River; then westwards, in a line which includes the sources of St. Peter's River, and reaches the Missouri below the Mandan villages, stretches down it, crosses it near Heart River, and includes the whole country on the

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western bank, to the Black Hills about Teton River, as far as Shannon River. The Sioux are divided into several branches, which all speak the same language, with some deviations. 149 Three principal branches live on the Missouri, viz., the Yanktons, or Yanktoans, the Tetons, or Titoans, and the Yanktonans, or Yanktoanons. The Mende-Wakan-Toann, or the people of the Spirit Lake, and some others, live on the Mississippi. All these branches together are, as Major Long says, divided by the traders into two great classes—the Gens du Lac and the Gens du Large; *i.e.*, those who live near the Spirit Lake, and are now chiefly found on the banks of the Mississippi, and those who roam about in the prairies. The Yanktoanons are said to constitute one-fifth of all the Dacotas, and the Tetons the half of the whole nation. [265]

The Dacotas roam as far as the territory of the Puncas, over the Black Hills, to the Arkansa, and westwards to the Rocky Mountains, into the territory of the Crows, on the Yellow Stone River, &c. Pike makes them, as well as the Pawnees, descend from the Tartars; but many objections may be made to this notion, as the affinity of the North Americans and the people of Asia is not proved, and the resemblance between them appears to be very limited. In general, these Indians have more strongly-marked countenances and higher cheek-bones than many other tribes on the Missouri, nor are their features so regular or pleasing, yet there is no considerable difference in their physiognomy. Bradbury says they are much inferior in stature to the Osages, Mandans, and Puncas, and by no means so robust; but this assertion must be very much restricted, because there are many tall men among the Dacotas. The Yanktons live in Sioux Agency, or the furthest down the Missouri, among which tribe we now were. All these Dacotas of the Missouri, as well as most of those of the Mississippi, are only hunters, and, in their excursions, always live in portable leather tents. Only two branches of them are exceptions to this rule, especially the Wahch-Pe-Kutch, on the Mississippi, who cultivate maize and other plants, and therefore live in fixed villages. All these Indians have great numbers of horses and dogs, the latter of which often serve them as food. The Dacotas, on the Missouri, were formerly dangerous enemies to the Whites. Bradbury calls them blood-thirsty savages; whereas now, with the exception of the Yanktonans, they bear a very good character, and constantly keep peace with the Whites. Pike seems to have too high an idea of their valour; at least, this is the opinion now entertained on the Missouri. Such of these Indians as reside near the Whites, are frequently connected with them by marriages, and depend on them for support. They then become negligent hunters, indolent, and, consequently, poor. This was partly the case at Sioux Agency, where they rarely possessed more than two horses. One of the most considerable men among them, wholly devoted to the Whites, was Wahktageli, called the Big Soldier, a tall, good-looking man, about sixty years of age, with a high aguiline nose, and large animated eyes. Besides him, there were several elderly, and some slender young men of this nation, here. They had, in general, a rather narrow, oval countenance, narrow, long eyes, and aquiline, or straight, well-formed noses; their colour was a dark brown. They wore their hair hanging down long over the shoulders, and often plaited en queue; the older men, however, let it hang loosely, cut off a little below the 150 neck, and turned back from the forehead. Younger people generally wore it parted, a large lock hanging down on the nose; young men had the upper part of the body only wrapped in their large white or painted buffalo hides. They had long strings of blue and white wampum shells in their ears; some of them wore one, two, or three feathers, which were partly stripped till towards the point. [266]



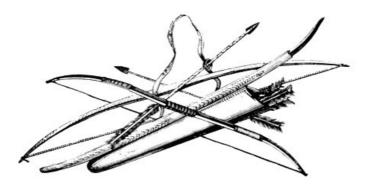
Method of wearing hair

Mr. Bodmer having expressed a wish, immediately on the arrival of the Big Soldier, to paint his portrait at full length, he appeared in his complete state dress. His face was painted red with vermilion, and with short, black, parallel, transverse stripes on the cheeks. On his head he wore long feathers of birds of prey, which were tokens of his warlike exploits, particularly of the enemies he had slain. They were fastened in a horizontal position with strips of red cloth. In his ears he wore long strings of blue glass beads, and, on his breast, suspended from his neck, the great silver medal of the United States. His leather leggins, painted with dark crosses and stripes, were very neatly ornamented with a broad embroidered stripe of yellow, red, and skyblue figures, consisting of dyed porcupine quills, and his shoes were adorned in the same manner. His buffalo robe was tanned white, and he had his tomahawk or battle-axe in his hand.

[267] He appeared to stand very willingly as a 151 model for Mr. Bodmer, and remained the whole day in the position required, which, in general, the Indians find it difficult to do. The remainder of

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these people were now entirely without ornaments, naked, and the upper parts of their bodies not at all painted, but only wrapped in their buffalo robes. On their backs they carried their quivers, which were made of leather, in which their arrows are kept; they carry their bows in their hands.^[268]



Bows, arrows, and guiver

The features of the women resembled, on the whole, those we have already described, yet their faces, for the most part, were not so broad and flat as those of the Saukies, or Musquake women, and some were even pretty. The tents of the Sioux are high pointed cones, made of strong poles, covered with buffalo skins, closely sewed together. These skins are scraped on both sides, so that they become as transparent as parchment, and give free admission to the light. At the top, where the poles meet, or cross each other, there is an opening, to let out the smoke, which they endeavour to close by a piece of the skin covering of the tent, fixed to a separate pole standing upright, and fastened to the upper part of the covering on the side from which the wind blows. The door is a slit, in the front of the tent, which is generally closed by another piece of buffalo hide, stretched upon a frame. [269] A small fire is kept up in the centre of the tent. Poles are stuck in the ground, near the tent, and utensils of various kinds are suspended from them. There are, likewise, stages, on which to hang the newly-tanned hides; others, with gaily-painted parchment pouches and bags, [270] on some of which they hang their bows, arrows, quivers, leather shields, spears, and war clubs.



Tents of the Sioux

We paid a visit to Wahktageli in his tent, and had some difficulty in creeping into the narrow, low entrance, after pulling aside the skin that covered it. The inside of this tent was 152 light, and it was about ten paces in diameter. Buffalo skins were spread on the ground, upon which we sat down. Between us and the side of the tent were a variety of articles, such as pouches, boxes, saddles, arms, &c. A relation of the chief was employed in making arrows, which were finished very neatly, and with great care. Wahktageli immediately, with much gravity, handed the tobacco-pipe round, and seemed to inhale the precious smoke with great delight. His wife was present; their children were married. The conversation was carried on by Cephier, the interpreter kept by the Agency, who accompanied us on this visit. It is the custom with all the North American Indians, on paying a visit, to enter in perfect silence, to shake hands with the host, and unceremoniously sit down beside him. Refreshments are then presented, which the Big Soldier could not do, as he himself stood in need of food. After this the pipe circulates. The owner of a neighbouring tent had killed a large elk, the skin of which the women were then busily employed in dressing. They had stretched it out, by means of leather straps, on the ground near the tent, and the women were scraping off the particles of flesh and fat with a very well-contrived instrument. It is made of bone, sharpened at one end, and furnished with little teeth like a saw, and, at the other end, a strap, which is fastened round the wrist. The skin is scraped with the sharp side of this instrument till it is perfectly clean. [271] Several Indians have iron teeth fixed to this bone. Besides this operation, we took particular notice of the harness of the dogs and horses,

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hanging up near the tent, both these animals being indispensable to the Indians to transport their baggage on their journeys. Even the great tent, with many long, heavy poles, is carried by horses, as well as the semi-globular, transparent wicker panniers, under which the little children are protected against sun and rain, by spreading blankets and skins over them. Smaller articles are conveyed by the dogs, as we shall relate in the sequel. Many of the Sioux are rich, and have twenty or more horses, which they obtained originally from the Spaniards on the Mississippi, and the frontier of New Mexico on the Oregon, but which are now found in great numbers among the several Indian nations. One of their most important employments is to steal horses, and the theft of one of these animals, from another nation, is considered as an exploit, and as much, nay more honoured than the killing of an enemy. The dogs, whose flesh is eaten by the Sioux, are equally valuable to the Indians. In shape they differ very little from the wolf, and are equally large and strong. Some are of the real wolf colour; others black, white, or spotted with black and white, and differing only by the tail being rather more turned up. Their voice is not a proper barking, but a howl, like that of the wolf, and they partly descend from wolves, which approach the Indian huts, even in the daytime, and mix with the dogs.

Among the peculiar customs of the Sioux is their treatment of the dead. Those who die 153 at home are sewed up, as I have before stated, in blankets and skins, in their complete dress, painted, and laid with their arms and other effects on a high stage, supported by four poles, till they are decomposed, when they are sometimes buried. Those who have been killed in battle are immediately interred on the spot. Sometimes, too, in times of peace, they bury their dead in the ground, and protect them against the wolves by a fence of wood and thorns. There were many such graves in the vicinity of the Sioux Agency, among which was that of the celebrated chief, Tschpunka, who was buried with his full dress and arms, and his face painted red. Very often, however, they lay their dead in trees; and we saw, in the neighbourhood of this place, an oak, in which there were three bodies wrapped in skins. At the foot of the tree there was a small arbour, or shed, made of branches of poplar, which the relations had built for the purpose of coming to lament and weep over the dead, which they frequently do for several days successively. As a sign of mourning, they cut off their hair with the first knife that comes to hand, daub themselves with white clay, and give away all their best clothes and valuable effects, as well as those of the deceased, to the persons who happen to be present. The corpse of a young woman had been enveloped in skins about a week before, and placed between the branches of the oak, with six pieces of wood under it; and a little higher in the tree there was a child. Guided by the obliging interpreter, we viewed everything remarkable in the Sioux agency, which, indeed, is confined to the Indians and their mode of life. Major Bean had the kindness to accommodate us for the night.

We passed the 26th of May here, when Mr. Bodmer finished his very capital likeness of Wahktageli. The elk, killed by the Indians, furnished us with fresh meat, and we considered ourselves very well off. In the afternoon, Messrs. Mc Kenzie and Sandford came from the Yellow Stone to visit us, and we returned on board in the evening.

The following morning (27th) was cool, windy, and cloudy, and, at half-past seven, the thermometer at only 54°. It was so cold that we had fires in our cabins the whole day. Major Bean had the courtesy to present me with the complete dress of the Big Soldier, an interesting souvenir of the friendly reception we had met with in his house. The Assiniboin passed us rapidly in the afternoon, and we followed. A well-known Sioux chief, called Tukan Haton, and, by the Americans, the Little Soldier, was on board with his family, intending to accompany us to Fort Pièrre, on the Teton River. These Indians were in mourning for some of their relations lately deceased; their dress was, therefore, as bad as possible, and their faces daubed with white clay. The Big Soldier also paid us a visit previous to our departure. He had no feathers on his head, but only a piece of red cloth. After receiving some food he took leave, and we saw the grotesque, tall figure stand for a long time motionless on the beach. As the vessel proceeded very quickly, our Indians laid down their heads as a sign that they were giddy, but they were soon relieved, as the water became shallow. We lay to not far above the stream which 154 Lewis and Clarke call the Three Rivers.^[272] Here we again had leisure to make an excursion in the wood, where the ground was covered with pea vine (*Apios tuberosa*), [273] and a plant resembling convallaria. The Carolina pigeon was frequent here, and was sought after by our people for their dinner, to which the river contributed some cat-fish, of the usual olive-brown kind. Our Indians kindled their fire in the neighbouring wood, and lay around it, but soon returned to the vessel.

Early on the 28th, part of the goods had been put into the keel-boat, to lighten the steamer, which was accomplished by eight o'clock. From this place to the Big Bend of the Missouri is fifteen miles, before reaching which we came to an island, which has been formed since Lewis and Clarke were there. The same stratum of coal, which I have before mentioned, ran along the hills, and was visible at a great distance. We soon overtook the Assiniboin, and reached the Big Bend which the Missouri takes round a flat point of land; following the course of the river, it is twenty-five miles round, while the isthmus is only one mile and a half across. [274] The large peninsula, round which the Missouri turns, is flat, and bordered with poplars and willows; the opposite bank is higher, steep, and bare. A couple of antelopes were, in this place, frightened by the noise of our steamer; these animals are said to be very numerous here in the winter time. The Little Soldier sat by the fireside, smoking his pipe, in doing which, like all the Indians, he inhaled the smoke, a custom which is, doubtless, the cause of many pectoral diseases. The tobacco, which the Indians of this part of the country smoke, is called kini-kenick, and consists of the inner green bark of the red willow, dried, and powdered, and mixed with the tobacco of the American traders. According to Say, they also smoke the leaves of the arrow-wood (Viburnum), when they have

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none of the bark.

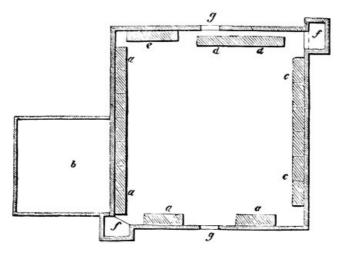
On the 29th, we were nearly at the end of the Big Bend, and stopped, at seven o'clock in the morning, to cut down cedars. Here we ascended the lofty, steep hills, which were partly bare, and burnt black, and from which we had a view of the whole bend of the river. To the south, we saw the tops of the Medicine Hills, which are about eight miles from the Medicine Creek, on the west bank. [275] Towards noon there appeared, on the western bank, steep, rocky walls, and, behind them, singularly-formed hills, some resembling pyramids, others, round towers, &c. At this place we suddenly espied a canoe, with four men in it, which touched at a sand bank; a boat was put out, and brought back two of the strangers, who proved to be Mr. Lamont, a member of the Fur Company, and Major Mitchell, one of their officers, and Director of Fort Mc Kenzie, which is situated near the falls of the Missouri.^[276] They came last from Fort Pièrre, and were on their way to St. Louis, but we persuaded them to return with us. Having taken in 155 wood on the morning of the 30th, we came to a leather tent on the bank, in which three of the Company's engagés and some Indians lived, to take care of 100 horses, belonging to Fort Pièrre. They had lately killed three antelopes, and gave us some of the fresh meat. At seven o'clock we had, on the right hand, Simoneau's Island, which, in Lewis and Clarke's map, is called Elk Island; it was covered with lofty, green poplars.^[277] Soon after twelve o'clock we came to a plantation, made by the inhabitants of Fort Pièrre, where we found about ten men, who had got ready a great quantity of fine stack wood for our vessel. At this place, which is only three miles from the fort, we observed hills, of a singular form, often cleft perpendicularly, and, in the river, several islands, all of which have now different names from those given to them by Lewis and Clarke. Before six, in the evening, we reached the mouth of the Teton River, or the Little Missouri, which the Sioux call the Bad River. It rises in the Black Hills, and has a long course, with many windings; but is said, however, to be straight for 150 miles from the mouth. In this part of the Missouri are vast sand banks, on which we saw a numerous flock of pelicans. These birds, however, only stop here on their passage, and do not build their nests. The river is very wide at the mouth of the Teton, and has extensive low prairies, with a border of poplars and willows. The French Fur Company had formerly a fort just above the mouth of the Teton, which was abandoned when the Companies joined, and another built further up, which was called Fort Teton; this, too, was abandoned;^[278] and Fort Pièrre (so called after Mr. Pièrre Chouteau) was erected higher up, on the west bank, opposite an island. [279]

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The steamer had proceeded a little further, when we came in sight of the Fort, to the great joy of all on board: the colours were hoisted, both on the steamer and on the fort, which produced a very good effect between the trees on the bank; a small village, consisting of thirteen Sioux tents, lay on the left hand. Our steamer first began to salute with its cannon, which was returned from the shore by a running fire of musketry, and this was answered from our deck by a similar very brisk fire. Before we reached the landing-place, we perceived an isolated, decayed old house, the only remains of Fort Tecumseh, [280] and, ten minutes afterwards, landed at Fort Pièrre, on the fifty-first day of our voyage from St. Louis. A great crowd came to welcome us; we were received by the whole population, consisting of some hundred persons, with the white inhabitants at their head, the chief of whom was Mr. Laidlow, a proprietor of the Fur Company, who has the management at this place. [281] There were many Indians among them, who had done their part to welcome us by firing their muskets, which they carried in their hands. There seemed to be no end of shaking hands; a thousand questions were asked, and the latest news, on both sides, was eagerly sought for. Mr. Fontenelle, who was to undertake a journey to the Rocky Mountains, was already here, having performed the journey, on horseback, in eleven days. As soon as we set foot on land, we proceeded, accompanied by numbers of persons, to the Fort, to which there is a straight road of about a quarter of a mile. We put up at Mr. Laidlow's house, where we rested beside a good fire.

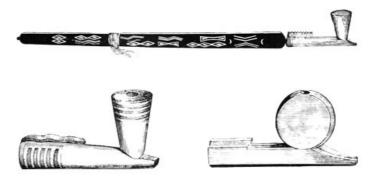


Plan of Fort Pierre

Fort Pièrre is one of the most considerable settlements of the Fur Company on the Missouri, and forms a large quadrangle, surrounded by high pickets, [282] round which the buildings stand

in the manner already described. At the north-east and south-west corners there are blockhouses, with embrasures, f, f, the fire of which commands the curtain; the upper story is adapted for small arms, and the lower for some cannon; each side of the quadrangle is 108 paces in length; the front and back, g, g, each 114 paces; the inner space eighty-seven paces in diameter. From the roof of the block-houses, which is surrounded with a gallery, there is a fine prospect over the prairie; and there is a flag-staff on the roof, on which the colours are hoisted. The timber for this fort was felled from forty to sixty miles up the river, and floated down, because none fit for the purpose was to be had in the neighbourhood. Mr. Laidlow's dwelling-house, d, d, consisted of one story only, but was very conveniently arranged, with large rooms, fire-places, and glass windows. Next this house was a smaller building, e, for the office and the residence of a clerk. The other clerks, the interpreters for the different Indian nations, the engagés and their families, altogether above 100 persons, lived in the other buildings, a, a, a, a. Opposite, in c, c, were the stores, at that time of the value of 80,000 dollars; and in other rooms, the furs obtained from the Indians by barter. The fort has two large doors, g, g, opposite each other, which are shut in the evening; in b there was an enclosed piece of garden ground. The situation of the settlement is agreeable; the verdant prairie is very extensive, animated by herds of cattle and horses; of the latter, Fort Pièrre possessed 150, and of the former, thirty-six, which afforded a sufficient supply of milk and fresh butter. Indians, on foot and on horseback, were scattered all over the plain, and their singular stages for the dead were in great numbers near the Fort; immediately behind which, the leather tents of the Sioux Indians, of the branches of the Tetons and the Yanktons, stood, like a little village; among them the most distinguished was the tent of the old interpreter, Dorion, a half Sioux, who is mentioned by many travellers, and resides here with his Indian family. [283] This tent was large, and painted red; at the top of the poles composing 157 it some scalps fluttered in the wind. A great number of Indian dogs surrounded this village, which did not differ from those we have already described. Many of them were perfectly similar to the wolf in form, size, and colour; they did not bark, but showed their teeth when any one approached them.

Near the fort we roused, in the thickets, a Virginian deer, and saw wolves, in the middle of the day, prowling about in the prairies; but we could not get near them, and fired at them in vain with our rifles. Round an isolated tree in the prairie I observed a circle of holes in the ground, in which thick poles had stood. A number of buffalo skulls were piled up there; and we were told that this was a medicine, or charm, contrived by the Indians in order to entice the herds of buffaloes. Everywhere in the plain we saw circles of clods of earth, with a small circular ditch, where the tents of many Indians had stood. This time we visited the Indian tents uninvited; in that which we first entered there were several tall, good-looking men assembled; the owner of the tent was a man of middle-size; his complexion very light, and his features agreeable. His wives were dressed very neatly, and were remarkably clean, especially the one who appeared to be the principal; she wore a very elegant leather dress, with stripes and borders of azure and white beads, and polished metal buttons, and trimmed as usual at the bottom with fringes, round the ends of which lead is twisted, so that they tinkle at every motion. Her summer robe, which was dressed smooth on both sides, was painted red and black, on a yellowish white ground. [284] She estimated all these articles of dress very highly. Among the effects piled up inside the tent, there were several interesting things, such as cradles for the infants, viz., ornamented boards, to which they are fastened with broad leathern straps, one passing over the head, and the other over the middle of the body. The workmanship of these leathern straps was remarkably neat and curious; for instance, they were entirely covered with a ground of milk-white porcupine quills, on which figures of men, of a vermilion colour, and black figures of dogs, and other similar patterns, were most tastefully embroidered, and all of the most lively and well-chosen colours. After we had conversed with the men, the pipe circulated. The pipes of 158 the Dacotas are very beautiful, [285] in truth the most beautiful of all the North American Indians, which they make, in various forms, of the red indurated clay, or stone. [286]



Dakota pipes

The pipe has a long, flat, broad wooden tube, which is ornamented with tufts of horse-hair, dyed red, yellow, or green, and wound round with strings of porcupine quills of divers colours. We looked at the women as they were at work. For the shoes which they made they had softened the leather in a tub of water, and stretched it in the breadth and length with their teeth. In the

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middle of the hut was a fire, over which the kettle was suspended by a wooden hook; they now all use iron kettles, which they obtain from the traders. Before most of the tents poles were placed, leaning against each other, to which gaily-painted parchment pouches were hung, and likewise the medicine-bags, as they are called, in which the medicine, or charms, are preserved, and which they open and consult only on solemn or important occasions, such as campaigns and the like. Here, too, were suspended the bow and quiver of arrows, spears, and a round shield of thick leather, with a thin cover, also of the same material. In another tent the women were dressing the skins, either with a pumice-stone, or with the before-described toothed instrument, which was here entirely of iron. They then pulled the skin over a line, in all directions, backwards and forwards, to make it pliable.

The Sioux at Fort Pièrre were in general slender, sometimes muscular-men, of middling stature, though some of them were tall. They had oval faces, with prominent cheek-bones, slightly-curved and well-formed noses; the inner angle of the eye often drawn down. Their faces were painted red, some with white rings round the eyes, and others with a black point on the forehead, or a white circle with a black point on each cheek. Some had strings of wampum in their ears, but the greater part of them strings of white or blue glass beads, and round their necks an elegant, and frequently broad necklace, embroidered with white beads. The neck and breast of several were marked with dark blue tattooed stripes, or only with some small figures. These Indians let their hair grow as long as possible, and plait it behind in a long tail, which is ornamented with round pieces of brass, and often hangs down to a great length, as among the Chinese. Many of the Dacotas have three such tails, one behind, and one at each side, for the Indians on the Upper Missouri take much pride in long hair, whereas those in the country lower 159 down the river, cut it short. Some wore feathers in their hair, which are tokens of their exploits, and are determined with great precision, according to the merit of the wearer. The annexed figure of a Dacota shows the manner in which the hair is divided into plaits. [287]



A Dakota, with plaited hair

The women wore their hair hanging down, naturally parted on the middle of the head, and the parting painted red. Their robes were coloured red and black. Their shoes are neatly ornamented with various figures made of dyed porcupine quills. I purchased several Dacota shoes; and, among them, a pair, on the upper part of which the figure of a bear's footstep was very neatly embroidered in bright colours. [288] The old women are generally very ugly and dirty, as they are obliged to do very hard work.

The Sioux, who live on Teton River, near Fort Pièrre, are mostly of the branch of the Tetons; though there are some Yanktons here. The former are divided into five branches, and the latter into three.^[289] Like all the North American Indians, they highly prize personal bravery, and, therefore, constantly wear the marks of distinction which they have received for their exploits; among these are, especially, tufts of human hair attached to their arms and legs, and feathers on their heads. He who, in the sight of the adversaries, touches a slain or a living enemy, places a feather horizontally in his hair for this exploit. They look upon this as a very distinguished act, for many are often killed in the attempt, before the object is attained. He who kills an enemy by a blow with his fist, sticks a feather upright in his hair. If the enemy is killed with a musket, a small piece of wood is put in the hair, which is intended to represent a ramrod. If a warrior is distinguished by many deeds, he has a right to wear the great feather-cap, with ox-horns, 160 which will be described in the sequel. This cap, composed of eagle's feathers, which are fastened to a long strip of red cloth, hanging down the back, is highly valued by all the tribes on the Missouri, and they never part with it except for a good horse. In a battle with the Pawnees, a Sioux chief was killed, who wore such a cap; the conqueror wore it as a trophy, and the Sioux recognized him by it in the next battle; they made great efforts to kill him, and succeeded in wounding him; but his horse was too fleet for them, and he always escaped. Whoever first discovers the enemy, and gives notice to his comrades of their approach, is allowed to wear a small feather, which is stripped, except towards the top. [290] The scalps taken in battle are drawn over small hoops, and hung on the top of the tent-poles. He who takes a prisoner wears a

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particular bracelet. These Indians frequently possess from thirty to forty horses, and are then reckoned to be rich. The tents are generally composed of fourteen skins, each worth two dollars. We were told, that wealthy people sometimes have eight or nine wives, because they are able to support them. The Sioux do not understand the treatment of diseases, but generally cure wounds very well. Before their death, they usually determine whether they will be buried, or be placed on a stage, or in a tree.

There was, among the Dacotas at this place, a young Punca Indian, whose name was Ho-Ta-Ma, a handsome, friendly man, who often amused himself with different games; frequently he was seen with his comrades playing at what was called the hoop game, at which sticks, covered with leather, are thrown through a hoop in motion. In the daytime the Indians were often seen galloping their horses, mostly riding on their bare backs: sometimes they ran races, as Mr. Bodmer has represented. [291] In the evening they drive their horses into the fort, as they are more safe from a hostile attack, and horse-stealing is universally practised by the Indians. The Indian families residing here are mostly related to the white inhabitants of the fort, and, therefore, constantly abide near them. The men lead a very indolent life; for, besides the chase and war, their only occupations are eating, smoking, sleeping, and making their weapons.

During our stay here, on board the vessel, we were continually besieged by Indians, who did not move from the spot. Our time was, therefore, divided between these visitors and our excursions into the prairie. On the 2nd of June, 7,000 buffalo skins and other furs were put on board the Yellow Stone, with which it was to return to St. Louis. We took this opportunity of sending letters to Europe: the Assiniboin was assigned us for the continuation of the voyage. The weather, at this time, was very unfavourable; it rained at a temperature of 57°, and we were obliged to have a fire in our cabin throughout the day. The Assiniboin had already taken our baggage on board, but still lay on the east bank, for an attempt to bring it over to our side had failed, because the water was too low. In the afternoon, when we visited Mr. Laidlow in the fort, six Sioux, from the prairie, arrived on horseback, whose horde, of 200 tents, was at the distance of a 161 day's journey. They brought word that, two days' march from the fort, there were numerous herds of buffaloes. Among these new comers there were some elderly men; the plaits of their hair were wound about with strips of skin, and their faces were painted red; their bodies were fleshy, which was a proof that they had suffered less from hunger than those in the fort. They paid a visit first to the Assiniboin, and then to Mr. Laidlow, who gave them food and tobacco. Mr. Lamont, who had taken leave of us to-day, to go by the steam-boat to St. Louis, embarked with some of the Company's clerks: he was saluted with several cannon shot, and before evening the Yellow Stone rapidly descended the river. While Messrs. Mc Kenzie, Sandford, and Mitchell took up their abode in the fort, we went on board the Assiniboin, from which I made, on the 4th of June, an interesting excursion into the prairie, in order to make myself acquainted with the eastern bank.

I left the vessel at half-past seven o'clock, the thermometer being at 59°, and immediately ascended the steep eminences, of which the lower were covered partly with bright green, partly with dry, yellow grass, and the higher ones bare, with the surface frequently blackened by fire. A path, trodden by the elks to the river, led me to the highest summit, from which I had a pleasing prospect of the opposite bank and the fort. It lay, clearly delineated, in the extensive verdant plain, bounded by a singular chain of hills; and I again distinguished, half way up the mountains, the black stripe of the extensive stratum of coal. At noon it was warm and I returned much heated, the thermometer being at 72°. We received a visit from six or seven newly arrived Tetons, whom the interpreter, Dorion, introduced to us. They were particularly interested by the steam-boat, and, after they had very minutely examined it, they were served with dinner and pipes. The dinner chiefly consisted of bacon, which the Indians do not like; 162 they, however, swallowed it, in order that they might not appear uncourteous. Among them was a Teton, named Wah-Menitu (the spirit, or god, in the water), and who had such a voracious appetite, that he devoured everything which the others had left; his face was painted red; he had a remarkably projecting upper lip, and an aquiline nose much bent. In his hair, which hung in disorder about his head, with a plait coming over one of his eyes or nose, the feather of a bird of prey was placed horizontally; but observe that he had a right to wear three. Mr. Bodmer, who desired to draw this man's portrait, gave him some vermilion, on which he spat, and rubbed his face with it, drawing parallel lines, in the red colour, with a wooden stick. [292] Wah-Menitu stayed on board for the night; sung, talked, laughed, and joked without ceasing; and seemed guite to enjoy himself.

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A Teton

CHAPTER XIII

VOYAGE FROM FORT PIERRE, ON THE TETON RIVER, TO FORT CLARKE, NEAR THE VILLAGES OF THE MANDANS, FROM JUNE 5TH TO JUNE 19TH

Singular conformation of the Country—Traces of Fire—Chayenne Island and River—Former abode of the Arikkaras—The Woodcutters alarmed by the Indians—Cabris or Antelopes—Wolves and other Animals—Little Chayenne River—Abundance of Game—Traces of the Beaver, and of the breaking-up of the Ice—Moreau's River—Grand or Wetarko River—Rampart River—The two abandoned Villages of the Arikkaris—La Butte au Grès—La Butte de Chayenne—Murder of Whites by the Arikkaras—Cannon-ball River, with its Sand-stone Balls—Heart River—La Butte Carrée—Interview with the Yanktonans—Fort Clarke, near the Mandan Villages—The Mandans—The Crows.

Our departure was delayed till ten o'clock on the 5th of June, when three guns were fired, and we left the fort. The Assiniboin was perfectly equipped for the voyage up the river, and had sixty men on board. Mr. Mc Kenzie had remained behind in the fort, but overtook us at noon with Mr. Laidlow, who was desirous to accompany us a little way. We had stopped at an island called, by the Canadians, Isle au Village de Terre, because, on the other side of the channel which divides it from the continent, there was formerly a village of the Sioux. This island was covered with an almost impenetrable thicket of narrow-leaved willows, which was so dense and entangled, that one of our large dogs caught an elk calf alive; we heard its moaning, but were not able to find it. The next morning the thermometer was at 66½°. We were obliged to unload some goods, and to lighten our vessel, and our hunters brought us many interesting objects, particularly several birds, among which was the grey butcher-bird (Lanius excubitoroides), of which Richardson gives a representation, and which we had not met with before. Though antelopes and a white wolf had approached very closely to them, our hunters had not been able to kill any large animals. The addition to our Flora was very considerable. The hills all consisted of clammy, greasy, sterile clay, which was burnt on the surface, and covered with pieces of stone; and in many places we observed on them round masses, which looked as if they had been 164 melted and formed by fire. We stayed here till noon on the 7th of June, when we again proceeded with an agreeable temperature of 77½°. We ran aground several times, and at last took in our goods, which we had deposited on the left bank. This delay gave us time to make an excursion. In company with Mr. Bodmer, I ascended the slippery, very steep eminences along the river, the singular shapes of which often appeared to form perfect craters. The earth and stones everywhere indicated that they had undergone change by fire. The earth was hard, friable, with many crevices—the stones brown, blackish, and often looking like scoriæ. This clay, when wet, is exceedingly clammy and tough. The conical summits, most of which were perfectly round and pyramidal, were most singularly formed. At the top there were always very regular, parallel, horizontal rings; the lower parts of the pyramid had perpendicular furrows, or clefts, as the <u>annexed woodcut</u> shows.^[293] These conical hills have been evidently elevated by fire, so that many crater-like hollows are seen between and near them. In the furrows and clefts of these singular hills, many low plants grow, and form regular net-like green stripes on the bare black clay. These lines, intersecting each other, divide the surface into regular beds. The lower part of these eminences is generally covered with plants, particularly grasses, while the upper is bare, or merely crossed with the transverse stripes of verdure, and often they are entirely bare. The climbing up these high, slippery ascents in the heat of the day was rather fatiguing. When we came into the clefts between the pyramids, we found the ground, in general, slimy, and so adhesive that we were almost compelled to leave our shoes behind. In such places, some old red cedars, groups of the bird cherry, ashes, roses, &c., were nourished by the moisture. Near the hills, and in the plain, a cactus, with roundish, flat joints, grew in abundance. It was not yet in blossom, and I cannot say

whether it is the plant taken, by Nuttall, for Cactus opuntia; probably it is Cactus ferox. We found

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many traces of antelopes and of herds of buffaloes. The latter had everywhere trodden broad paths on their way to the river to drink. No beast of the chase presented itself as an object for our rifles, and, as the sun was going down, we set out on our return. On the way we 165 found the horns of an elk, with twelve antlers, and it was late before we reached the Assiniboin. On the 8th of June, in the morning, we received a farewell visit from Mr. Laidlow, and then saw Mr. Fontenelle's party, consisting of sixty men and 185 horses, pass along over the hills. They rode in our sight through the stream called, by the Anglo-Americans, Breechcloth Creek, and, by the Sioux, Tscheh-ke-na-ka-oah-ta-pah. [294] This stream, as well as most of the small rivers of the prairie, not excepting even the Little Sioux River, have, in general, a brackish taste when the water is low. Frequently taking soundings, we proceeded but slowly in the shallow Missouri, and, early in the afternoon, reached the place where the timber for building Fort Pièrre had been felled. From this place it is fifteen miles to the mouth of the Chayenne River. Finding some cords of wood ready piled up, we took them on board. At sunset, a high wind arose, so that we could not reach the mouth of the Chavenne till about seven o'clock on the following morning, after passing Chayenne Island. The country about the mouth of this river is open, the chain of hills low, and the banks covered with forests. At its mouth, and for some way up on both sides of the Missouri, the Arikkaras formerly dwelt, till they were driven further up by the Sioux, and, at length, wholly retired from the banks of the Missouri. [295] If we follow the course of the Chavenne for a couple of hundred miles up to the Black Hills, we come to the dwellings of the Chayenne Indians, who are hostile to most of the tribes of the Missouri. They are said to be tall, slender men, with long, narrow faces, and differing in their language from all the other tribes in the country. They formerly lived at the mouth of Chayenne River. They affirm that they came to the Missouri from the north-east. [296] Dr. Morse states their number at 3,250 souls.



Hill of baked clay

We made but slow progress to-day; and at two o'clock, after our boats had taken soundings in all directions, we remained fast aground, and had burnt all our fuel, so that we had to send woodcutters into the forests on the left bank. In about half an hour the boats suddenly returned, bringing word that hostile Indians had been seen in the forest, and the wood-cutters had, therefore, refused to begin their work. To give them courage, and to protect them during their work, all hands on board, that could be spared, armed themselves with rifles and muskets, and, to the number of twenty-six persons, immediately went on shore. They formed a line of outposts behind the trees, under whose protection the wood-cutters pursued their work. But they were not disturbed, for the Indians had retired, or it had been a false alarm. We lay to for the night on the west bank; a strong wind had risen, with a pretty high temperature, which continued till the following morning, the 10th of June. Early on that day we reached an island, which appears to be that called, by Lewis and Clarke, Caution Island, where a couple of white wolves gazed at us without appearing to be at all afraid. In the afternoon, we came to the mouth of Little Chayenne River, on the east bank.^[297] Elks are very numerous in these parts; on the following morning we saw a herd of, at least, thirty of these large animals, as well as a great many wolves, often three or four together, most of them white. The wood, on the high bank, bore marks of 166 the breaking up of the ice, the bark of the trees being peeled off eight or ten feet above ground. At noon, Mr. Bodmer had shot a very large male antelope, which we despatched some of the people to bring on board; other hunters, who had gone out early to the east bank, made signs that they had killed some game; and the boat which we sent to them returned in the evening with four large elks. In the thick forest, on the left bank, were many traces of beavers, which are more numerous hereabouts than in most of the other parts on the Missouri, because the trappers (beaver catchers) did not venture to place their traps in the territory of the hostile Arikkara Indians.

Opposite to the mouth of Otter Creek, [298] in the woods and thickets of the west bank, behind which rose the green hills of the prairie, there were many elks, which were frightened by the noise of the steamer. In this forest we found an uninhabited loghouse, 180 steps from which runs a pretty river, called Moreau's River, from a man of that name who passed the night here with a Chayenne Indian woman, who had been taken by the Arikkaras and escaped. [299] She stabbed him while he slept, and fled on his horse to her own nation. This river is called the southern boundary of the territory of the Arikkaras, though they often make excursions far beyond it. We stopped at the above-mentioned loghouse to cut wood, but it was found more convenient to pull down part of the old building and take it away. On the morning of the 12th, our cannon, muskets and rifles were loaded with ball, because we were approaching the villages of the hostile Arikkaras. We came to Grand River, called in Lewis and Clarke's map Wetarko River. As we here touched the bottom, we crossed to the east bank, and in half an hour reached Rampart River, [300] which issues from a narrow chain of hills, called Les Ramparts; and soon afterwards an island

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covered with willows, which, on the large special map of Lewis and Clarke, has an Arikkara village, of which there are now no traces.^[301] From the hills we had a fine prospect over the bend of the river, on which the villages of the Arikkaras are situated, and which we reached after a short run of only two miles.

The two villages of this tribe are on the west bank, very near each other, but separated by a small stream. They consist of a great number of clay huts, round at the top, with a square entrance in front, and the whole surrounded with a fence of stakes, which were much decayed, and in many places thrown down. It is not quite a year since these villages had been wholly abandoned, because their inhabitants, who were extremely hostile to the Whites, killed so many Americans, that they themselves foresaw that they would be severely chastised by the United States, and therefore preferred to emigrate. To this cause was added, a dry, unproductive season, when the crops entirely failed; as well as the absence of the herds of buffaloes, which hastened their removal. It is said that these Indians now roam about on the road from St. Louis to Santa Fé, and the late attacks on the caravans are ascribed to them. [302] Mr. Bodmer made an accurate drawing of these deserted villages. The principal chief of the Arikkaras, when they retired from [167] the Missouri, was called Starapat [303] (the little hawk, with bloody claws), and generally La Main pleine de Sang, who will be mentioned in the sequel.

The Arikkaras, or, as they are called by the Mandans, Rikkaras or Rees, Les Ris of the Canadians, are a branch of the Pawnees, from whom they long since separated. Their language, which is very easy for a German to pronounce, is said to be a proof of this affinity. Their number is supposed to be still 4000 souls, among whom 500 or 600 are able to bear arms. The wife of La Chapelle, the interpreter for that nation, was an Arikkara; she had a round full countenance, and rather delicate small features, with a very light yellowish complexion. It is affirmed that the women of this nation are the handsomest on the Missouri. Manoel Lisa, a well-known fur trader, had formerly built a trading house in this country, of which nothing now remains; though the place is still called Manoel Lisa's Fort. [304] The prairie was to-day more verdant and pleasant than yesterday. A mountain, with some remarkable summits, called La Butte au Grès, gave it some diversity. Here we suddenly saw, on the bank, a man, who fired his musket three times, and at first took him for an Indian; but another soon appeared, in a small leathern boat, and we learnt that both were engagés or travellers of the Company, who were dispatched from the Upper Missouri, with letters for Mr. Mc Kenzie. We took them in, and the little leathern boat was left lying on the beach. In the distance, on the left, there was a chain of mountains, with numerous summits, near which Cannon-ball River flows; and, nearer to the Missouri, a chain of flat hills, level at the top, with many clefts, called La Butte de Chayenne. [305] In this neighbourhood we saw a high tree in a poplar wood, entirely covered with turkey buzzards, as in Brazil; towards evening we passed Beaver Creek (Rivière au Castor), the Warananno^[306] of Lewis and Clarke.

On the 14th, in the morning, the sky was clouded, and the wind very bleak. On the west bank of the river a ravine was shown us, where, seven or eight years before, the Arikkaras had shot seven white men, who were towing a loaded Mackinaw boat up the river.

After we had passed an island, which is not marked in Lewis and Clarke's map, we observed two isolated table mountains in the prairie, on the west bank, which are not far from Cannon-ball River; and we then came to an aperture in the chain of hills, from which this river, which was very high, issues. [308] On the north side of the mouth, there was a steep, yellow clay wall; and on the southern, a flat, covered with poplars and willows. This river has its name from the singular regular sand-stone balls which are found in its banks, and in those of the Missouri in its vicinity. They are of various sizes, from that of a musket ball to that of a large bomb, and lie irregularly on the bank, or in the strata, from which they often project to half their thickness 168 when the river has washed away the earth: they then fall down, and are found in great numbers on the bank. Such sand-stone balls are met with in many places on the Upper Missouri; and former travellers have spoken of them. Many of them are rather elliptical, others are more flattened, and others flat on one side, and rather convex on the other. Of the perfectly spherical balls, I observed some two feet in diameter. On the steep bank of the Missouri we saw many such balls projecting from the narrow strata of the yellow sand-stone. A mile above the mouth of the Cannon-ball River, I saw no more of them. The Missouri had risen considerably; and, during the night, our people were obliged to keep off, with long poles, the trunks of trees that came floating down the river, without being able to prevent our receiving shocks which made the whole vessel tremble.





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Antlers of deer

On the 15th, the river had risen nine inches, and brought down much wood and foam, which was expected, for it is reckoned that, in the month of June, the Missouri is twice much swollen from the melting of the snow in the Rocky Mountains. The weather was serene and warm. As early as half-past five o'clock we saw, on the eastern bank, a chain of table hills, quite flat at the top, which extends to a pretty considerable distance. The river turns, to the westward, towards this interesting chain, which is called the Mountains of the Old Mandan Village, because, at the place where it is traversed by the river, such a village is said to have formerly stood. At nine o'clock we stopped on the western bank to repair the damage the vessel had sustained, which gave our hunters time to make an excursion a few miles into the prairie. Towards eleven o'clock the bell gave the signal for departure. The current of the river was now very strong, so that we could proceed but slowly. We came to the site of the old Mandan village, which was situated, at the foot of the hills, in a fine meadow near the river; some poles, that were still standing, were the only remains of it; there was no village here at the time of Lewis and Clarke's journey. Dry, yellow grass now covered the place which had once been the scene of busy Indian life: only a colony of swallows, that had built their nests in the neighbouring hills, gave some animation to the scene. We were now in the territory of the Indian tribe of the Mandans.^[309] A little further up, we saw four of our hunters sitting on the level ground, which was covered with poplars; one of them, Ortubize, the Sioux interpreter, had killed a Virginian deer, and wounded a large elk, which had escaped; soon after, Messrs. Bodmer and Harvey^[310] arrived quite fatigued and heated; they had gone a great way, and very nearly missed the steamer. Mr. Harvey had killed a black-tailed or mule deer.[311] They had met with four of these animals, and brought the 169 head and skin, with some of the flesh of the one killed. At the next place, where we reached the hills, an isolated summit rose above the rest, which is called Bald Eagle Head; these hills were beautifully illumined with the setting sun; we saw the white wolves trotting about on them, and some swans were swimming in the river. On the eastern bank we saw the ruins of an old trading house, and many traces of beavers. Near the mouth of Apple Creek we took in wood, and saw, on the left hand, the continuation of a chain of hills, of very singular forms. [312] The night swallows flew over the river at an early hour, and a large beaver appeared among the willows, which we shot at without success. The 16th of June set in with a high northeast wind, accompanied with rain. We soon reached the mouth of Heart River, [313] but the wind drove our vessel towards the bank, and we were obliged to lay to at six o'clock; and it was not till the evening that the wind so far abated as to allow us to continue our voyage. The next morning, early, we came in sight of the Butte Carrée. [314] In the willow thickets, on the bank, a very fine buffalo bull stood within half musketshot; our people fired, but to no purpose. Soon after, we saw, in the prairie, two more very large animals of this species; and, in the course of the day, perceived a great number of them. The river brought down several dead buffalo cows. A little before the mouth of Lewis and Clarke's Hunting Creek, [315] the Missouri is half a mile broad, but soon becomes narrower. At eight o'clock we reached the place where a Mandan village had formerly stood. [316] The Sioux, from St. Peter's River, surprised it about forty years ago, killed most of the inhabitants, and destroyed the huts. The prairie hills formed, in this part, long, flat, naked ridges, perfectly resembling the walls of a fortress. The oaks and ashes, at the edge of the thickets, were but just 170 beginning to unfold their buds. It is probable, however, that they had suffered by a fire in the prairie. After we had passed, alternately, prairies, with their hills, steep clay banks, and stripes of forest, we prosecuted our voyage till dusk, and lay to near a large willow thicket, on the eastern bank, when some musket shots were suddenly heard, the flashes of which were evidently seen. Mr. Mc Kenzie immediately supposed that it was an Indian war party, which people, in general, avoid, as they do not much trust them. We consulted what was to be done. Many shots followed, which made a very loud report, it being the custom of the Indians to use a great deal of powder; and we soon perceived, among the dark thickets, the figures of the Indians in their white buffalo robes. As nobody knew the intentions of these people, we looked forward to the meeting with some anxiety. The Indians broke silence first, calling out that they were come with peaceable intentions, and wished to be taken on board. Ortubize, the interpreter, telling us that they were Sioux, of the branch of the Yanktonans, we conferred some time with them, while a kind of bridge of planks was thrown across to the shore. Twenty-three, for the most part tall men, came on board, and were made to sit down, in a row, on one side of the large cabin. They came from a camp of the Yanktonans, consisting of 300 tents, which was in the neighbourhood; they generally lived on the banks of the Chayenne, which falls into the Red River, near the Devil's Lake, and the sources of St. Peter's River. [317] They had been hunting in the neighbourhood, and shot some buffaloes. The Yanktonans are represented as the most perfidious and dangerous of all the Sioux, and are stated frequently to have killed white men, especially Englishmen, in these parts. They generally come to the Missouri in the winter, but at this season it was a mere chance that we met with them. They were mostly robust, slender, well-shaped men, with long dishevelled hair, in which some wore feathers as indications of their exploits. The upper parts of their bodies were generally naked, merely covered with the buffalo's skin, or blanket; but their whole dress was plain and indifferent, as they only came out for a hunting excursion. The chief of these people was Tatanka-Kta (the dead buffalo), a man of middling stature, with a very dark brown, expressive countenance, and his hair bound together over the forehead in a thick knot; he was dressed in a uniform of red cloth, with blue facings and collar, and ornamented with silver trimmings, such as the traders are used to give, or to sell to such chiefs as they desire to distinguish. In his hand he had the wing of an eagle for a fan.

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After we had smoked with these Yanktonans all round, the chief opened, before Mr. Mc Kenzie, a bag, with old pemmican (dry meat powdered), by way of present, and then rose to make a speech. After shaking hands, successively, with all persons present, he said, with much gesticulation, and in short sentences, between which he appeared to be reflecting, "that the whole body of the 300 huts was under the principal chief, Jawitschahka; that his people had been formerly on good terms with the Mandans, but had been at variance with them for about a year, on account of the murder of a Sioux, and now wished to make peace again; that with this view 171 they had sent three of their people to the Mandan villages, but did not know the result; and, therefore, were very desirous of the mediation of Mr. Mc Kenzie; that they happened to be near the river, when they perceived their father's ship, and were come to visit him; that to be able to supply the Fur Company with more beaver skins, they wished to have liberty to hunt on the Missouri, and on that account peace with the Mandans was of importance to them. They hoped, therefore, that Mr. Mc Kenzie would intercede for them, and allow them to accompany him." The answer was—"That if, like the other tribes of their nation, who lived constantly on the Missouri, they would, in future, conduct themselves properly, and never kill white men, he would attempt all that lay in his power; but he bade them consider what would be the best for them, whether to come on board with him, or to go alone by land to the Mandan villages, as he did not know how they might be received by the young men of the Mandan tribe." These Indians showed us a beautiful skin of a young, white, female buffalo, which they intended as a present for the Mandans, by whom such skins are highly valued. They had already sent them a white buffalo calf. Our visitors were afterwards taken into another apartment, where refreshments were set before them, and they were lodged for the night. The next morning, however, they went ashore, and proceeded to Fort Clarke on foot. During the night there was a violent tempest, and the next morning, the 18th June, was gloomy, damp, and windy. We left at an early hour the place of the meeting, from which it was twelve miles to Fort Clarke. The Yanktonans, keeping in sight of us, walked through the prairie, where they frightened a herd of ten or twelve wolves, which had long amused us by their gambols. At half-past seven we passed a roundish island covered with willows, and reached then the wood on the western bank, in which the winter dwellings of part of the Mandan Indians are situated; and saw, at a distance, the largest village of this tribe, Mih-Tutta-Hang-Kush, in the vicinity of which the whole prairie was covered with riders and pedestrians.^[318] As we drew nearer the huts of that village, Fort Clarke, lying before it, relieved by the back-ground of the blue prairie hills, came in sight, with the gay American banner waving from the flagstaff. [319] On a tongue of land on the left bank were four white men on horseback; Indians, in their buffalo robes, sat in groups upon the bank, and the discharge of cannon and musketry commenced to welcome us. The Assiniboin soon lay to before the fort, against the gently sloping shore, where above 600 Indians were waiting for us. Close to the beach, the chiefs and most distinguished warriors of the Mandan nation stood in front of the assembly of red men, among whom the most eminent were Charata-Numakschi (the wolf chief), Mato-Topé (the four bears), [320] Dipauch (the broken arm), Berock-Itainu (the ox neck), Pehriska-Ruhpa (the two ravens), and some others. They were all dressed in their finest clothes, to do us honour. As soon as the vessel was moored, they came on board, and, after having given us their hands, sat down in the stern cabin. The pipe went round, and the conversation began with the Mandans, by the assistance of Mr. Kipp, clerk to the American Fur Company, and director of 172 the trading post at Fort Clarke; [321] and with the Manitaries, by the help of the old interpreter, Charbonneau, who had lived thirty-seven years in the villages of the latter people, near this place.^[322] Mr. Mc Kenzie caused the proposal of the Yanktonans to be submitted to these Indians, but the latter, after long deliberation, replied that they could not possibly accept these proposals of peace, because the Yanktonans were much too treacherous; that, however, no harm should now be done to them, and that they might depart unmolested.

Most of the Indians in our cabin were stout, tall men, except Mato-Topé, who was of middle stature, and rather slim. I shall have occasion to say more, in the sequel, of this brave and distinguished chief. They had their weapons, such as muskets, bows, war clubs, and battle axes, in their hands, and also fans of eagles' wings, and wore buffalo robes, which, on the inner side, are painted reddish-brown, or white, and adorned with coloured figures. They let their hair hang down at length, considering it as an ornament. Sometimes it is divided into plaits, and daubed with a reddish clay. However, I refrain, at present, from describing these Indians, of whom I shall have occasion to speak more at length. The Mandans, Manitaries, and Crows, of which tribe there were now seventy tents about the fort, differ very little from each other in their appearance and dress; they are, however, taller than the Indians on the Missouri whom we had before seen, and their features more regular than those of the Sioux.

We soon went on shore, and examined the numerous assemblage of brown Indian figures, of whom the women and children, in numerous groups, were sitting on the ground; the men, some on horseback, some on foot, were collected around, and making their observations on the white strangers. Here we saw remarkably tall and handsome men, and fine dresses, for they had all done their utmost to adorn themselves. The haughty $Crows[^{323}]$ rode on beautiful panther skins, with red cloth under them, and, as they never wear spurs, had a whip of elk's horn in their hand. These mounted warriors, with their diversely painted faces, feathers in their long hair, bow and arrows slung across their backs, and with a musket or spear in their hands, the latter of which is merely for show, were a novel and highly interesting scene. This remarkable assembly gazed at the strangers with curiosity, and we conversed with them by signs, but soon proceeded to the fort, which is built on a smaller scale, on a plan similar to that of all the other trading posts or forts of the Company. It is about the size of the Sioux Agency, but more rudely constructed.

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Immediately behind the fort there were, in the prairies, seventy leather tents of the Crows, which we immediately visited.^[324]

The tents of the Crows are exactly like those of the Sioux, and are set up without any regular order. On the poles, instead of scalps, there were small pieces of coloured cloth, chiefly red, floating like streamers in the wind. We were struck with the number of wolf-like dogs of all colours, of which there were certainly from 500 to 600 running about. They all fell upon the strangers, and it was not without difficulty that we kept them off by throwing stones, in which some old Indian women assisted us. We then proceeded about 300 paces in a north-west direction from the fort, up the Missouri, to the principal village of the Mandans, Mih-Tutta-Hang-Kush. This village consisted of about sixty large hemispherical clay huts, and was surrounded with a fence of stakes, at the four corners of which conical mounds were thrown up, covered with a facing of wicker-work, and embrasures, which serve for defence, and command the river and the plain. We were told that these cones or block-houses were not erected by the Indians themselves, but by the Whites. Three miles further up the river, and on the same bank, is the second village of the Mandans, called Ruhptare, consisting of about thirty-eight clay huts, which we could not then visit for want of time. In the immediate vicinity of the principal village, the stages, on which these Indians, like the Sioux, place their dead, lay scattered. [326]



Sioux burial stages

Around them were several high poles, with skins and other things hanging on them, as offerings to the lord of life, Omahank-Numakshi, or to the first man, Numank-Machana. [327] The three villages of the Manitaries (*gros ventre*) nation, whose language is totally different from that of the Mandans, are situated about fifteen miles higher up on the same side of the river, and most of their inhabitants had come on this day to the Mandan villages. [328]

The view of the prairie around Fort Clarke was at this time highly interesting. A great number of horses were grazing all round; Indians of both sexes and all ages were in motion; we were, every moment, stopped by them, obliged to shake hands, and let them examine us on all sides. This was sometimes very troublesome. Thus, for example, a young warrior took hold of my pocket compass which I wore suspended by a ribbon, and attempted to take it by force, to hang as an ornament round his neck. I refused his request, but the more I insisted in my refusal, the more importunate he became. He offered me a handsome horse for my compass, $\boxed{174}$ and then all his handsome clothes, and arms into the bargain, and as I still refused, he became angry, and it was only by the assistance of old Charbonneau, that I escaped a disagreeable and, perhaps, violent scene. On returning to the steamer we there found a numerous company of Indians, some smoking, others wrapped in their blankets, and asleep on the floor.

Mr. Sandford, the sub-agent of the Mandans, Manitaries, and Crows, had a conference with Eripuass (the rotten belly), the distinguished chief of the latter. We accompanied Mr. Sandford to this meeting. Eripuass, a fine tall man, with a pleasing countenance, had much influence over his people; being in mourning he came to the fort in his worst dress, his hair cut close, and daubed with clay. Charbonneau acted as interpreter in the Manitari language. Mr. Sandford recommended to the chief continued good treatment of the white people who should come to his territory, hung a medal round his neck, and, in the name of the government, made him a considerable present of cloth, powder, ball, tobacco, &c., which this haughty man received without any sign of gratitude; on the contrary, these people consider such presents as a tribute due to them, and a proof of weakness. The Crows, in particular, as the proudest of the Indians, are said to despise the Whites. They do not, however, kill them, but often plunder them. At nightfall we visited Eripuass in his tent. The whole camp of the Crows was now filled with horses, some with their foals, all which had been driven in, to prevent their being stolen. This nation,

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consisting of 400 tents, is said to possess between 9,000 and 10,000 horses, some of which are very fine. The dogs were partly taken into the tents, and we were less exposed to their attacks than in the day time, yet still we had to fight our way through them. The interior of the tent itself had a striking effect. A small fire in the centre gave sufficient light; the chief sat opposite the entrance, and round him many fine tall men, placed according to their rank, all with no other covering than a breech-cloth. Places were assigned to us on buffalo hides near the chief, who then lighted his Sioux pipe, which had a long flat tube, ornamented with bright yellow nails, made each of us take a few puffs, holding the pipe in his hand, and then passed it round to the left hand. After Charbonneau had continued the conversation for some time in the Manitari language, we suddenly rose and retired, according to the Indian customs.

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The Crows are called by the Mandans, Hahderuka, by the Manitaries, Haideroka; they themselves call their own tribe Apsaruka. The territory in which they move about is bounded, to the north or north-west, by the Yellow Stone River, and extends round Bighorn River, towards the sources of Chayenne River and the Rocky Mountains. These Indians are a wandering tribe of hunters, who neither dwell in fixed villages, like the Mandans, Manitaries, and Arikkaras, nor make any plantations except of tobacco, which, however, are very small. About six years ago, the Crows are said to have had only 1,000 warriors, at present they are reckoned at 1,200. They roam about with their leather tents, hunt the buffalo, and other wild animals, and have many horses and dogs, which, however, they never use for food. They are said to possess more 175 horses than any other tribe of the Missouri, and to send them in the winter to Wind River, to feed on a certain shrub, which soon fattens them. The Crow women are very skilful in various kinds of work, and their shirts and dresses of bighorn leather, embroidered and ornamented with dyed porcupine quills, are particularly handsome, as well as their buffalo robes, which are painted and embroidered in the same manner. I shall speak, in the sequel, of their large caps of eagles' feathers, and of their shields, which are ornamented with feathers and paintings, [329] and other articles. The men make their weapons very well, and with much taste, especially their large bows, covered with the horn of the elk or bighorn, and often with the skin of the rattle-snake. I have represented a beautiful quiver of this nation, adorned with rosettes of porcupine quills.^[330] In stature and dress these Indians correspond, on the whole, with the Manitaries, both having been originally one and the same people, as the affinity of their languages proves. Long hair is considered as a great beauty, and they take great pains with it. The hair of one of their chiefs, called Long Hair, was ten feet long, some feet of which trailed on the ground when he stood upright.^[331] The enemies of the Crows are the Chayennes, the Blackfeet, and the Sioux; their allies are the Mandans and Manitaries. With the latter they bartered their good horses for European goods, but the American Fur Company has now established a separate trading post for them on the Yellow Stone River, which is called Fort Cass. [332]

Though the Crows look down with contempt upon the Whites, they treat them very hospitably in their tents, yet their pride is singularly contrasted with a great propensity to stealing and begging, which makes them very troublesome. They are said to have many more superstitious notions than the Mandans, Manitaries, and Arikkaras; for instance, they never smoke a pipe when a pair of shoes is hung up in their tent; when the pipe circulates none ever takes more than three puffs, and then passes it in a certain manner to his left-hand neighbour. They are skilful horsemen, and, in their attacks on horseback, are said to throw themselves off on one side, as is done by many Asiatic tribes. They have many bardaches, [333] or hermaphrodites, among them, and exceed all the other tribes in unnatural practices.

As among all the Missouri Indians, the Crows are divided into different bands or unions. A certain price is paid for admission into these unions and their dances, of which each has one peculiar to itself, like the other Missouri tribes; on which occasion the women are given up to the will of the seller in the same manner, as will be more particularly mentioned when speaking of the other tribes. Of the female sex, it is said of the Crows, that they, with the women of the Arikkaras, are the most dissolute of all the tribes of the Missouri.

This people have a superstitious fear of a white buffalo cow; when a Crow meets one he addresses the sun in the following words: "I will give her (i.e. the cow) to you." He then 176 endeavours to kill the animal, but leaves it untouched, and then says to the sun, "Take her; she is yours." They never use the skin of these white buffalo cows, as the Mandans do, of which I shall, by-and-by, speak at length. The most sacred objects in the eyes of this people are the sun, the moon, and tobacco, that is, the leaves of the genuine tobacco (Nicotiana); and, therefore, all their children wear a small portion of this herb, well wrapped up, round their necks, by way of amulet.

They do not bury their dead in the ground, but, like the Mandans, Manitaries, Sioux, and Assiniboins, lay them on stages in the prairie. [334] A Crow woman, who was on the point of death, was very apprehensive and uneasy in her mind lest she should be interred in the ground, according to the custom of the Whites. This was her sole concern, though she did not otherwise express any fear of death; as soon as she was made easy on this point, she died perfectly satisfied.

CHAPTER XIV

RIVER, FROM THE 19TH TO THE 24TH JUNE

Ruhptare, the second Village of the Mandans—The Villages of the Manitaries on the Knife River—Interview with the Manitaries—Winter Villages of that Nation—Remarkable Hills—Mountain L'Ours qui Danse—Little Missouri River—Territory of the Assiniboins—Kiasax and Matsokui, two Blackfeet Indians—The Grizzly Bear—Interview with the Assiniboins—The Bighorn—Muddy River, Lewis and Clarke's White Earth River—Yellow Stone River—Fort Union.

On the 19th June, the Assiniboin left Fort Clarke, with a high, cold wind, and clouded sky; the thermometer, at nine in the morning, being at 60½°. The chiefs, and other Indians, had come on board, and also Kiasax, a Blackfoot Indian, who wished to return to his own people. The country, on the south bank, appeared to us to have some resemblance with many parts on the banks of the Rhine; but, on the right bank, there soon appeared those singular hills, resembling fortifications. At ten o'clock, we came to Ruhptare, the second Mandan village, on the south bank, which is situated in a plain a little higher than the river. All the inhabitants, in their buffalo dresses, were collected on the bank, and some had taken their station on the tops of their huts to have a better view: the whole prairie was covered with people, Indians on horseback, and horses grazing. In the low willow thickets on the bank, the brown, naked children were running about; all the men had fans of eagles' feathers in their hands. The village was surrounded with a fence of palisades; and, with its spherical clay huts, looked like a New Zealand Hippah. Here, too, there were high poles near the village, on which skins and other things were hung, as offerings to the lord of life, or the sun, and numerous stages for the dead were scattered about the prairie. As we proceeded, the whole population accompanied us along the steep bank on foot and on horseback, followed by many of their large wolf dogs. The 178 country was pretty open and flat. We saw before us the fine broad mirror of the river, and, at a distance on the southern bank, the red mass of the clay huts of the lower village of the Manitaries, which we reached in half an hour. The Missouri is joined by the Knife River, on which the three villages of the Manitaries are built. The largest, which is the furthest from the Missouri, is called Eláh-Sá (the village of the great willows); the middle one, Awatichay (the little village), where Charbonneau, the interpreter, lives; and the third, Awacháwi (le village des souliers), which is the smallest, consisting of only eighteen huts, situated at the mouth of Knife River. [335] While we were examining this interesting country, and receiving from Charbonneau many particulars respecting these villages, in which he had lived for more than thirty years, our Indian companions were sitting or lying about the fire, smoking their pipes. Among them was Dipauch (the broken arm), a tall, stout man, with whom I frequently came in contact in the following winter. His long, thick hair was bound together in a large queue, and on his breast he wore a silver gorget, which he had received as a present from the Whites. The expression of his countenance was agreeable, whereas that of Berock Itainú (bull's neck), a similar colossus, the inseparable companion of the former, was gloomy and less pleasing. Both were six feet high, and Berock Itainú wore his hair tied together in a knot upon his head. Mato-Topé (the four bears), the eminent Mandan chief, whom I have before mentioned, and Cháratá-Numákshi (the chief of the wolves), were also present; and I purchased from the former his painted buffalo dress, which had hitherto been his medicine (i.e. charm), which he highly valued as a souvenir of his brother, who had been shot by the enemy. Our cookery pleased them much; they were fond of coffee, and sugar was a great delicacy; but they cannot make maple sugar like the Indians in the woody country, because the trees are neither numerous nor strong enough to produce this article.

When we turned our eyes from the dark brown inhabitants to the surrounding scenery, we saw, on the banks, grey hills, with level prairies and willow thickets next the river, and the country, in general, was rather flat than mountainous. The hills were partly depressed at the top—a feature which is almost peculiar to these hills. At noon the sun burst forth, and the thermometer was at 76°, with a high wind. The south bank of the river was now animated by a crowd of Indians, both on foot and on horseback; they were the Manitaries, who had flocked from their three villages to see the steamer and to welcome us. The appearance of this vessel of the Company, which comes up, once in two years, to the Yellow Stone River, is an event of the greatest importance to the Indians; they then come from considerable distances to see this hissing machine, which they look upon as one of the most wonderful medicines (charms) of the white men. The sight of the redbrown crowd collected on the river side, for even their buffalo skins were mostly of this colour, was, in the highest degree, striking. We already saw above a hundred of them, with many dogs, some of which drew sledges, and others, wooden boards 179 fastened to their backs, and the ends trailing on the ground, to which the baggage was attached with leather straps. The Indians hastened through the willow thicket, and, altogether, stood opposite to us on the steep, low, sandy bank, where they were so crowded that we, every moment, expected to see the sand give way.

The most attractive sight which we had yet met with upon this voyage, now presented itself to our view. The steamboat lay to close to the willow thicket, and we saw, immediately before us, the numerous, motley, gaily painted, and variously ornamented crowd of the most elegant Indians on the whole course of the Missouri. The handsomest and most robust persons, of both sexes and all ages, in highly original, graceful, and characteristic costumes, appeared, thronged together, to our astonished eye; and there was, all at once, so much to see and to observe, that we anxiously profited by every moment to catch only the main features of this unique picture. The Manitaries are, in fact, the tallest and best formed Indians on the Missouri, and, in this respect, as well as in the elegance of their costume, the Crows alone approach them, whom they, perhaps,

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even surpass in the latter particular. Their faces were, in general, painted red, in which the North Americans agree with the Brazilians, and many other South Americans; their long hair hung in broad flat braids down their backs; on the side of each eye, they had hanging, from the forehead, a string of white and blue beads, alternating with tooth shells, and their heads were adorned with feathers, stuck in the hair.

The expression of their remarkable countenances, as they gazed at us, was very various; in some, it was cold and disdainful; in others, intense curiosity; in others, again, good-nature and simplicity. The upper parts of their bodies were, in general, naked, and the fine brown skin of their arms adorned with broad, bright bracelets of a white metal. In their hands they carried their musket, bow and battle-axe; their quivers, of otter skin, elegantly decorated, were slung over their backs; their leggins were trimmed with tufts of the hair of the enemies whom they had killed, with dyed horse-hair of different colours, and with a profusion of leather fringe, and beautifully embroidered with stripes of dyed porcupine quills, or glass beads, of the most brilliant colours. These handsome, robust men, showing their remarkably fine white teeth as they smiled, gave free expression to their feelings; and the unnatural and ugly fashions, as well as the different costumes of the white people, probably afforded ample matter for satirical observations, for which these children of nature have a peculiar turn. All these Indians were dressed in their very finest clothes, and they completely attained their object; for they made, at least upon us strangers, a very lively impression. Many of them were distinguished by wearing leather shirts, of exquisite workmanship, which they obtain by barter from the Crows. Several tall, athletic men were on horseback, and managed their horses, which were frightened by the noise of the steamboats, with an ease which afforded us pleasure. Urging them with their short whips in the manner of the Cossacks, with the bridle fastened to the lower jaw, they, at length, pushed the 180 light, spirited animals through the willow thicket, till they reached the river, where these fine bold horsemen, resembling the Circassians, with their red-painted countenances, were regarded with great admiration. Many of them wore the large valuable necklace, made of long bears' claws, and their handsomely-painted buffalo robe was fastened round the waist by a girdle. In general they had no stirrups, but sat very firmly on the naked backs of the horses, and several rode on a saddle resembling the Hungarian saddle. Among the young women we observed some who were very pretty, the white of whose sparkling hazel eyes formed a striking contrast with the vermilion faces. I regret that it is impossible, by any description, to give the reader a distinct idea of such a scene, and there was not sufficient time for Mr. Bodmer to make a drawing of it. The following winter, however, afforded us an opportunity, in some measure, to supply this deficiency.



A Blackfoot musical instrument

The chiefs of the Manitaries came on board for a short time; among them were old Addi-Hiddisch (the road maker), Péhriska-Rúhpa (the two ravens), Lachpizí-Sihrish (the yellow bear), and several others, and with them the Blackfoot Kiasax, in his best dress, who was to make the voyage along with us. He was accompanied by his Manitari wife, who carried a little child, wrapped in a piece of leather, fastened with straps. She wept much at parting from her husband, and the farewell scene was very interesting. While this was going on, an Indian, on the shore, was employed in keeping off the crowd with a long willow rod, which he laid about the women and children with a right hearty good will, when, by their curiosity, they hindered our engagés and crew in loosening the vessel from the shore. The vessel, however, was ready to start; Mr. Kipp, Charbonneau, the interpreter, and the Manitari chiefs, took leave, and hastened to land, on which the Assiniboin proceeded rapidly up the Missouri. The Indians followed us, for a time, along the bank; about thirty of them formed an interesting group on horseback, two sometimes sitting on the same beast. As the willow thickets on the banks ceased, we had a good view of the prairie, where many Indian horsemen were galloping about; herds of horses fled from the noise of the vessel. The friends and relations of Kiasax and Matsokui-for we had taken another Blackfoot on board—followed the vessel longer than any of the others; they frequently called to them, and nodded farewell, to which Kiasax answered with a long wooden pipe, upon which he played a wretched piece of music.^[336] This Mandan pipe, which the Indians, on the Upper Missouri, frequently use, is from two and a half to three feet long, rather wider at the lower end, and has a hole on the upper side, which is alternately opened and shut with the finger. By way of ornament, an eagle's feather is fastened [181] to the end of the instrument with a string, which is generally a medicine or talisman of the owner. Kiasax set a high value on his pipe, which he held constantly in his hand, and would not sell on any terms. A violent storm, accompanied by heavy rain, compelled us to lay to, for ten minutes, on the left bank, where the river is bounded by steep high hills. At this spot Major Pilcher had formerly established a trading post for the Crows and Assiniboins.^[337] There were, at that time, no such posts further up the Missouri, but it has since been abandoned, and no trace of it is now to be seen. Before us was a fine extensive view of romantic gradations of the tongues of land, singular mountain tops and cones; and, on the grey chain of hills, we again saw the black horizontal parallel strata of the bituminous coal, which accompany, without interruption, the course of the Missouri. This black fossil has often been examined, with the hope that it might be employed as fuel, but it is unserviceable, has a very bad

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smell, and is of no use even for blacksmiths' work. [338] These black strata have evidently undergone, in former times, the action of fire; and we everywhere observed, on the ridges of the hills, clay or clay-slate formations, either in the shape of cones, or angular, like fortifications. Many of these pyramids are perfectly regular, and stand on a broad basis, furrowed by the water; some are square, and others regularly flattened. The strata of bituminous coal extend along the base of most of them; all these singularly-formed rocks have, doubtless, been elevated by the action of subterraneous fire. The evening sun illumined the grotesque pyramidal hills, and their shadows gave us a clear idea of their forms. The northern declivity of the mountains was partly covered with bushes; the southern, almost always naked and bare. Towards nightfall we passed the winter village of the Manitaries. [339] situated in a forest, which, at this time, was without inhabitants, and then came to a tongue of land on the right hand, with a high, steep, rocky bank, on which Mr. Sandford once found, in the month of April, great numbers of serpents, which he estimated at several thousands. They appear to have consisted of two species only, which, by their description, were, doubtless, the Col. sirtalis and flaviventris of Say. All the holes and pits in the sides of the rock, and between the blocks of stone on the bank, are said to have been full of them. In one small ravine they lay coiled up in balls; several hundreds of them were killed, the Americans, in general, having an antipathy to these animals. Bradbury, too, mentions large heaps of serpents, under stones, along the Missouri, but at another season of the year. That serpents must abound in these parts, seems to be proved by the name of a small stream, which is called Snake Creek. Half a mile from this place, the Miry Creek flows, from a flat meadow; [340] on the hills beyond we saw some antelopes.

On the following morning, the 20th of June, we perceived, in a forest on the bank, fifteen Indians, and soon afterwards four large elks, which would have been a welcome prey to the hunters, had they been aware of their being so near. One of the strata of black coal on the generally flat hills of this part of the country had lately been on fire; we did not, however, perceive any smoke.

I82 After ten o'clock, having taken in fuel, we came to singular hills, flattened at the top, which are called L'Ours qui Danse, because it is said the Indians here celebrate the bear dance, a medicine feast, in order to obtain success in the chase. [341] At noon there was a high cold wind while the thermometer was at 70°. The country was rather flat, and the river was bordered by green forests; on the right bank, in particular, the wood was beautiful, lofty, and dark. Here we observed many traces of beavers, such as gnawed trees and paths leading to the water's edge. Our hunters gradually returned to the bank; they had shot two Virginian deer, an antelope, and a prairie hen. Mr. Bodmer, who returned to the vessel much fatigued and heated, brought with him a stone [342] of the shape of a battle-axe, which had been found in the prairie. [343]



Stone battle-axe

Continuing our voyage, we saw the buffaloes hasten away, and moored our vessel at twilight to some trees on the north bank. All over the plain there were deeply trodden paths of the buffaloes. On the morning following, the 21st, the river had risen considerably, and brought down trunks of trees, branches, &c., which covered the surface, and gave our vessel some violent shocks: strips of wood, and desolate hills, without any vegetation, appeared. On the southern bank we came to a green spot at the mouth of the Little Missouri. [344] which is reckoned to be 1670 miles from the mouth of the Great Missouri. The chain of blue hills, with the same singular forms as we had seen before, appeared on the other side of this river. In the forests roses in full blossom formed a thick underwood, which was traversed by the path of the buffaloes. Before noon we reached the territory of the Assiniboins, and were, at this time, at Wild Onion Creek.^[345] Kiasax (l'ours gauche—left-handed or awkward bear) had permitted Mr. Bodmer to take his portrait, without making any objection, whereas Matsokui (beautiful hair) was not to be persuaded to do so, affirming that he must then infallibly die. It turned out in the sequel that he was to die, and Kiasax to return, unhurt by the enemy. The latter had adopted the costume of the Manitaries, but at the same time wrapped himself in a Spanish blanket, striped blue, white and black, which, as well as a metal cross, which he wore suspended round his neck, was a proof of the intercourse between the Blackfoot Indians and the Spaniards near the Rocky Mountains. These two Indians appeared to be very quiet, obliging men. Thus, for instance, they never 183 returned from an excursion on shore, without bringing me some handfulls of plants, often, it is true, only common grass, because they had observed that we always brought plants home with us.

We lay to about three miles below Goose Egg Lake. A white wolf accompanied the steam-boat as it proceeded. We came to the canal which joins Goose Egg Lake to the Missouri, which I was unable to examine, as the steamer did not stop. Here the river makes a great bend, which, as well as that near Fort Lookout, is called by some Canadians Le Grand Détour. [346] Early on the following morning, the 22nd, we saw wild animals of various kinds, such as buffaloes, elks, and

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Virginian deer. The wild geese with their young suffered us to approach pretty closely, because, at this season, they moult their long wing feathers. About ten o'clock we had an alarm of fire on board: the upper deck had been set on fire by the iron pipe of the chimney of the great cabin. We immediately lay to, and, by breaking up the deck, the danger was soon over, which, however, was not inconsiderable, as we had many barrels of powder on board. We had scarcely got over this trouble, when another arose; the current of the swollen river was so strong, that we long contended against it to no purpose, in order to turn a certain point of land, while, at the same time, the high west wind was against us, and both together threw the vessel back three times on the south coast. The first shock was so violent, that the lower deck gallery was broken to pieces. Our second attempt succeeded no better; part of the paddle-box was broken, and carried away by the current. We were now obliged to land forty men to tow the vessel, for which purpose all on board voluntarily offered their services, even the two Blackfeet overcame their natural laziness. Beyond this dangerous place, we took on board the hunters whom we had sent out. They were covered from head to foot with blood, and hung about with game, having killed two elks. The effect of the current and the wind upon our vessel continued for a long time. It was often thrown against the alluvial bank, so that the deck was covered with earth, and the track of our vessel clearly marked along the clayey sand bank. After four o'clock we stopped at a narrow verdant prairie in front of the hills, to fell wood: several pretty plants, among which was a juniper with the berries still green, were found here. The cat bird, the wren and blackbird animated the thickets, and we observed also the great curlew (Numenius longirostris). A very large elk horn of twelve antlers had been found; a number of them lie about in all the forests and prairies, of which no use is made. In the afternoon we saw in the prairie of the north bank a large grizzly bear, and immediately sent Ortubize and another hunter in pursuit of him, but to no purpose. Soon after we saw two other bears, one of a whitish, the other of a dark colour, and our hunters, when they returned, affirmed that they had wounded the largest. Harvey had shot an elk, and brought the best part of it from a great distance, and with considerable exertion, to the river. From this place upwards, the grey bear became more and more common; further down the river it is still rare. Brackenridge says, it is not found below the 184 Mandan villages, but this is not quite correct. Near the prairie where we saw the bears, is the mouth of White Earth River, called by Lewis and Clarke. Goat-pen River. [347] Here we crossed the Missouri, and lay to for the night on the south coast, where some of our people landed to set traps for the beavers. Harvey had the good fortune to catch, during the night, a young beaver, which he brought on board alive, on the following morning, the 23rd. The iron trap had broken one of the legs of the little beaver, and with all our care we could not keep it alive. The surrounding country on the banks of the Missouri, which is here very broad, again showed the singularly formed angular hills flattened at the top like tables: several pretty prairies, in which the white artemisia and other beautiful plants grew, extended at the foot of the eminences, on the declivity of which the buffalo berry and the creeping juniper were common; henceforward the clay cones were partly burnt as red as bricks, which was a clear proof of their origin. Many of them had parallel horizontal stripes, projecting a little, of harder sandstone strata, which had resisted the influence of the elements more than the intermediate strata of clay and sand.

The vessel laying to, about eleven o'clock, near a wood on the south bank, we suddenly perceived on the north bank some Indians, who immediately called to us. They were the first Assiniboins that we had met with; they sat upon the bank waiting for the boat which Mr. Mc Kenzie sent to them. After a short pause they came on board the steamer, and proved to be Stassága (le brecheux), who was well known to Mr. Mc Kenzie, with seven of his people of the branch called by the French, Gens des Filles. [348] The chief, a robust, thick-set man, rather above the middle size, wore his hair tied behind in a thick queue, and cut short in front; he had bound across the crown a slip of whitish skin; in his ears he had strings of blue and white glass beads; round his neck a collar of bears' claws; the upper part of his body was wrapped in a red woollen shirt; his legs were quite bare, but he had a pair of handsomely embroidered leggins which he put on when his people left the vessel. He was wrapped in a buffalo robe, and had in his hand a musket, and an eagle's wing for a fan. Another robust man had smeared his face, about the eyes, with white clay. The rest of these Indians were neither well formed nor well dressed, but dirty and slovenly. Their hair hung in disorder about their heads; some of them had made it up into three plaits; their legs were mostly bare; only a couple of them had leggins. One of them, with a Jewish physiognomy, wore a white wolf skin cap. Some of them were marked with two parallel tattooed black stripes from the neck down the breast; the upper parts of their bodies were naked, but they were wrapped in buffalo robes. Most of them had guns, and all, without distinction, bows and arrows, the latter in a quiver or bag made of skin, to which also the case for the bow is attached, as shown in the woodcut.[349]

As the Assiniboins are a branch of the Sioux, Ortubize was able to act as interpreter. They were made to sit down round the great cabin, and the pipe circulated; they likewise [185] received abundance of food, which seemed to please them much. They said that since they came to these parts in the spring, they had suffered much from want of food, buffaloes being scarce. They intended shortly to leave this part of the country, but the chief wished to go with us to Fort Union, which we allowed him to do. After they had been shown about the vessel, the steamengine of which greatly excited their attention, though they suppressed any mark of surprise, they were landed in a lofty poplar grove on the north bank.

After dinner, we proceeded along the side of a prairie, where we heard the note of the great curlew. The valley of the river was bounded on both sides by very remarkable whitish-grey, obliquely stratified ridges, with singular spots of red clay, and bushes in the ravines; at their feet

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was the prairie, covered with pale green artemisia; and on the tongues of land, at the windings of the Missouri, there were fine poplar groves, with an undergrowth of roses in full bloom, buffaloberry bushes, and many species of plants. On the mountains we again saw naked rounded cones of earth, as if they had been thrown up by moles, and, on the tops of some of them, a little turret, or cone, while their sides were rounded by the rain water, or marked with parallel perpendicular furrows.

On our further progress up the river, we saw, for the first time, the animal known by the name of the bighorn, or the Rocky Mountain sheep, the *Ovis montana* of the zoologists. A ram and two sheep of this species stood on the summit of the highest hill, and, after looking at our steamer, slowly retired. These animals are not frequent hereabouts, but we afterwards met with them in great numbers. We here took on board some cord wood, which the different trading posts had employed their *engagés* to get ready for the steamboat.

On the 24th, in the morning, we found the banks wooded, and beyond the thickets were the chain of hills, in the middle of which were strata of the colour of red bricks. Cones of that colour, and sometimes detached grey figures, with a red base, crowned the heights. Many varied colours showed that these eminences must have undergone the action of fire. About eight o'clock we came to the mouth of Muddy River (the White Earth River of Lewis and Clarke), which issues from a thicket on the north bank.^[350] In this part we saw smoke on the bank, and, soon afterwards, some Assiniboins, one of whom fired three shots to attract our attention: others soon came up, and we took them on board. They were robust men, with high cheek-bones, well dressed, all in leather shirts, their legs mostly bare, and their hair hanging smooth about their heads; one of them took off the leather case of his bow, and wrapped it round his head like a turban, so that a little tuft of feathers, at one end of it, stood upright. Following the numerous windings of the Missouri, from one chain of hills to another, we reached, at seven o'clock in the evening, the mouth of the Yellow Stone, a fine river, hardly inferior in breadth to the Missouri at this part. It issues below the high grey chain of hills, and its mouth is bordered with a fine wood of tall poplars, with willow thickets. The two rivers unite in an obtuse angle; and there 186 is a sudden turn of the Missouri to the north-west; it is not wooded at the junction, but flows between prairies thirty or more miles in extent. Herds of buffaloes are often seen here; at this time they had left these parts: we saw, however, many antelopes. At the next turn of the river, towards the right hand, we had a fine prospect. Gentle eminences, with various rounded or flat tops, covered with bright verdure, formed the back-ground; before them, tall poplar groves, and willow thickets on the bank of the river, whose dark blue waters, splendidly illumined by the setting sun, flowed, with many windings, through the prairie. A little further on lay Fort Union, on a verdant plain, with the handsome American flag, gilded by the last rays of evening, floating in the azure sky, while a herd of horses grazing animated the peaceful scene. [351]

As the steamer approached, the cannon of Fort Union fired a salute, with a running fire of musketry, to bid us welcome, which was answered in a similar manner by our vessel. When we reached the fort, we were received by Mr. Hamilton, an Englishman, who, during the absence of Mr. Mc Kenzie, had performed the functions of director, [352] as well as by several clerks of the Company, and a number of their servants (*engagés* or *voyageurs*), of many different nations, Americans, Englishmen, Germans, Frenchmen, Russians, Spaniards, and Italians, about 100 in number, with many Indians, and half-breed women and children. It was the seventy-fifth day since our departure from St. Louis, when the Assiniboin cast anchor at Fort Union.

The Yellow Stone, being one of the principal affluents of the Missouri, receives several considerable streams, of which the following are the chief:—

- 1. The Bighorn River (La Grosse Corne).
- 2. The Little Bighorn River (*La Petite Grosse Corne*).
- 3. The Tongue River (*La Rivière à la Langue*).
- 4. The Powder River (La Rivière à la Poudre).

The Yellow Stone is called, by the Canadians, La Roche Jaune. Warden calls it Keheetsa, but I do not know where he got this name. Lewis and Clarke say it has no name. The names given it by most of the Indian nations signify Elk River.^[353]

CHAPTER XV

DESCRIPTION OF FORT UNION AND ITS NEIGHBOURHOOD

Description of the Fort and its Vicinity—Its Inhabitants, and the Fur Trade on the Upper Missouri—The Indian Branch of the Assiniboins, the original Possessors of this Spot.

The erection of Fort Union was commenced in the autumn of 1829, by Mr. Mc Kenzie, and is now completed, except that some of the edifices which were erected in haste are under repair. The fort is situated on an alluvial eminence, on the northern bank of the Missouri, in a prairie, which extends about 1,500 paces to a chain of hills, on whose summit there are other wide-spreading plains. The river runs at a distance of scarcely fifty or sixty feet from the fort, in the direction from west to east; it is here rather broad, and the opposite bank is wooded. The fort itself forms a

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quadrangle, the sides of which measure about eighty paces in length, on the exterior. The ramparts consist of strong pickets, sixteen or seventeen feet high, squared, and placed close to each other, and surmounted by a chevaux-de-frise. On the south-west and north-east ends, there are block-houses, with pointed roofs, two stories high, with embrasures and some cannon, which, though small, are fit for service. In the front of the enclosure, and towards the river, is the welldefended principal entrance, with a large folding gate. Opposite the entrance, on the other side of the quadrangle, is the house of the commandant; it is one story high, and has four handsome glass windows on each side of the door. The roof is spacious, and contains a large, light loft. This house is very commodious, and, like all the buildings of the inner quadrangle, constructed of poplar wood, the staple wood for building in this neighbourhood. In the inner quadrangle are the residences of the clerks, the interpreters, and the engagés, the powder magazine, the stores, or supplies of goods and bartered skins, various workshops for the handicraftsmen, smiths, carpenters, &c., stables for the horses and cattle, rooms for receiving and entertaining the Indians; and in the centre is the flag-staff, around which several half-breed Indian hunters had erected their leathern tents. A cannon was also placed here, with its mouth towards the principal [188] entrance. [354] The fort contains about fifty or sixty horses, some mules, and an inconsiderable number of cattle, swine, goats, fowls, and domestic animals. The cattle are very fine, and the cows yield abundance of milk. The horses are driven, in the day-time, into the prairie, quarded and exercised by armed men, and, in the evening, brought back into the quadrangle of the fort, where the greater part of them pass the night in the open air. Mr. Mc Kenzie has, however, lately had a separate place, or park, provided for them.

Fort Union is one of the principal posts of the Fur Company, because it is the central point of the two other trading stations, still higher up, towards the Rocky Mountains, and having the superintendence of the whole of the trade in the interior, and in the vicinity of the mountains. One of these two trading stations, called Fort Cass, is 200 miles up the Yellow Stone River, and is confined to the trade with the Crow tribe; the other, Fort Piekann, or, as it is now called, Fort Mc Kenzie, is 850^[355] miles up the Missouri, or about a day's journey from the falls of this river, and carries on the fur trade with the three tribes of the Blackfoot Indians. The latter station has been established about two years, and, as the steamers cannot often go up to Fort Union, they despatch keel-boats, to supply the various trading posts with goods for barter with the Indians. They then pass the winter at these stations, and in the spring carry the furs to Fort Union, whence they are transported, in the course of the summer, to St. Louis, by the steamers.

The Company maintains a number of agents at these different stations; during their stay they marry Indian women, but leave them, without scruple, when they are removed to another station, or are recalled to the United States. The lower class of these agents, who are called *engagés*, or *voyageurs*, have to act as steersmen, rowers, hunters, traders, &c., according to their several capabilities. They are often sent great distances, employed in perilous undertakings among the Indians, and are obliged to fight against the enemy, and many of them are killed every year by the arms with which the Whites themselves have furnished the Indians. Some of the agents of the Fur Company winter every year in the Rocky Mountains. [356]

The proprietors of the American Fur Company were Messrs. Astor, at New York, General Pratte, Chouteau, Cabanné, Mc Kenzie, Laidlow, and Lamont; the three latter had a share 189 in the fur trade on the Upper Missouri only. Wild beasts and other animals, whose skins are valuable in the fur trade, have already diminished greatly in number along this river, and it is said that, in another ten years, the fur trade will be very inconsiderable. As the supplies along the banks of the Missouri decreased, the Company gradually extended the circle of their trading posts, as well as enterprises, and thus increased their income. Above 500 of their agents are in the forts of the Upper Missouri, and at their various trading posts; and, besides these individuals, who receive considerable salaries (for it is said that the Company yearly expend 150,000 dollars in salaries), there are in these prairies, and the forests of the Rocky Mountains, beaver and fur trappers, who live at their own cost; but whose present wants, such as horses, guns, powder, ball, woollen cloths, articles of clothing, tobacco, &c. &c., are supplied by the Company, and the scores settled, after the hunting season is over, by the furs which they deliver at the different trading posts. Many of these, when not employed in hunting, live at the Company's forts. They are, for the most part, enterprising, robust men, capital riflemen, and, from their rude course of life, are able to endure the greatest hardships.

During the summer, the Company send out, under the direction of an experienced clerk, a number of strong, well-armed, mounted men, who convey the necessary goods and supplies, on pack-horses, to the trading stations, at a distance from the river; they always observe and enforce the required conditions of the Indians, and not unfrequently come to blows with them. These expeditions have to support themselves by the chase, consequently the men must be good hunters, as they subsist almost exclusively on what they procure by their guns. Besides the forts which I have so often named, the Company has also small winter posts, called log-houses, or block-houses, among the Indians, quickly erected, and as quickly abandoned: to these the Indians bring their furs, which are purchased, and sent, in the spring, to the trading posts. The American Fur Company has, at present, about twenty-three, large and small, trading posts. In the autumn and winter the Indian tribes generally approach nearer to these posts, to barter their skins; while in the spring and summer they devote themselves especially to catching beavers, for which they receive every encouragement from the merchants, who lend or advance them iron traps for the purpose.

The animals, whose skins are objects of this trade, and the annual average of the income derived

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from skins, may be pretty well ascertained from the following statement:

1. Beavers: about 25,000 skins. They are sold in packs of 100 lbs. weight each, put up separately, and tied together. There are, generally, about sixty large skins in a pack; if they are smaller, of course there are more skins. A large beaver skin weighs about two pounds—sometimes more. The usual price is four dollars a pound.^[357]

190 2. Otters: 200 to 300 skins.

- 3. Buffalo cow skins: 40,000 to 50,000. Ten buffalo hides go to the pack.
- 4. Canadian weasel (Musetela Canadensis): 500 to 600.
- 5. Martin (pine or beech martin): about the same quantity.
- 6. Lynx; the northern lynx (Felis Canadensis): 1,000 to 2,000.
- 7. Lynx; the southern or wild cat (Felis rufa): ditto.
- 8. Red foxes (Canis fulvus): 2,000.
- 9. Cross foxes: 200 to 300.
- 10. Silver foxes: twenty to thirty. Sixty dollars are often paid for a single skin.
- 11. Minks (Mustela vison): 2,000.
- 12. Musk-rats (*Ondathra*): from 1,000 to 100,000. [358] According to Captain Back, half a million of these skins are annually imported into London, as this animal is found in equal abundance as far as the coasts of the Frozen Ocean.
- 13. Deer (Cervus Virginianus and macrotis): from 20,000 to 30,000.

Beyond Council Bluffs, scarcely any articles are bartered by the Indians—especially the Joways, Konzas, and the Osages—except the skins of the *Cervus Virginianus*, which is found in great abundance, but is said to have fallen off there likewise very considerably.

The elk (*Cervus Canadensis*, or *major*), is not properly comprehended in the trade, as its skin is too thick and heavy, and is, therefore, used for home consumption. The buffalo skin is taken, as before observed, from the cows only, as the leather of the bulls is too heavy. The wolf skins are not at all sought by the company, that is to say, they do not send out any hunters to procure them; but, if the Indians bring any, they are bought not to create any dissatisfaction, and then they are sold at about a dollar a-piece. The Indians, however, have frequently nothing to offer for barter but their dresses, and painted buffalo robes.

The support of so large an establishment as that at Fort Union requires frequent hunting excursions into the prairie; and Mr. Mc Kenzie, therefore, maintained here several experienced hunters of a mixed race, who made weekly excursions to the distance of twenty or more miles into the prairie, sought the buffalo herds, and, after they had killed a sufficient number, returned home with their mules well laden. The flesh of the cows is very good, especially the tongues, which are smoked in great numbers, and then sent down to St. Louis. The colossal marrow-bones are considered quite a delicacy by the hunters and by the Indians. The consumption of [191] this animal is immense in North America, and is as indispensable to the Indians as the reindeer is to the Laplanders, and the seal to the Esquimaux. It is difficult to obtain an exact estimate of the consumption of this animal, which is yearly decreasing and driven further inland. In a recent year, the Fur Company sent 42,000 of these hides down the river, which were sold, in the United States, at four dollars a-piece. Fort Union alone consumes about 600 to 800 buffaloes annually, and the other forts in proportion. The numerous Indian tribes subsist almost entirely on these animals, sell their skins after retaining a sufficient supply for their clothing, tents, &c., and the agents of the Company recklessly shoot down these noble animals for their own pleasure, often not making the least use of them, except taking out the tongue. Whole herds of them are often drowned in the Missouri; nay, I have been assured that, in some rivers, 1,800 and more of their dead bodies were found in one place. Complete dams are formed of the bodies of these animals in some of the morasses of the rivers; from this we may form some idea of the decrease of the buffaloes, which are now found on the other side of the Rocky Mountains, where they were not originally met with, but whither they have been driven.

Besides the buffalo, the hunters also shoot the elk, the deer, and, occasionally, the bighorn. The former especially are very numerous on the Yellow Stone River. All other provisions, such as pork, hams, flour, sugar, coffee, wine, and other articles of luxury for the tables of the chief officers and the clerks, are sent from St. Louis by the steamer. The maize is procured from the neighbouring Indian nations. Vegetables do not thrive at Fort Union, which Mr. Mc Kenzie ascribes to the long-continued drought and high winds.

The neighbourhood around Fort Union is, as I have observed, a wide, extended prairie, intersected, in a northerly direction, by a chain of rather high, round, clay-slate, and sand-stone hills, from the summits of which we had a wide-spreading view over the country on the other side of the Missouri, and of its junction with the Yellow Stone, of which Mr. Bodmer made a very faithful drawing. [359] We observed on the highest points, and at certain intervals of this mountain chain, singular stone signals, set up by the Assiniboins, of blocks of granite, or other large stones,

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on the top of which is placed a buffalo skull, [360] which we were told the Indians place there to attract the herds of buffaloes, and thereby to ensure a successful hunt. The strata of sand-stone occurring in the above-mentioned hills are filled, at least in part, with impressions of the leaves of phanerogamic plants, resembling the species still growing in the country. [361] A whitish-grey and reddish-yellow sand-stone are found here. In all these prairies of North America, as well as in the plains of northern Europe, those remarkable blocks or fragments of red granite, are everywhere scattered, which have afforded the geologist subject for many hypotheses. Major Long's Expedition to St. Peter's River^[362] mentions blocks of granite in the prairies of Illinois; they are found in abundance in the north, about St. Peter's 192 River, in the State of Ohio, &c. Other boulders, however, of quartz, flint, slate, &c., evidently formed by water, are found everywhere in the prairies. The hills were partly bare, and very few flowers were in blossom; the whole country was covered with short, dry grass, among which there were numerous round spots with tufts of Cactus ferox, which was only partly in flower. Another cactus, resembling mammillaris, with dark red flowers, yellow on the inner side, was likewise abundant. Of the first kind it seems that two exactly similar varieties, probably species, are found everywhere here; both have fine, large, bright yellow flowers, sometimes a greenish-yellow, and, on their first expanding, are often whitish, and the outer side of the petals, with a reddish tinge; but in one species, the staminæ are bright yellow, like the flower itself, and, in the other, of a brownish blood red, with yellow anthers. The true flowering time of these plants begins at the end of June.

The scene of destruction, which has often been mentioned, namely, the whitening bones of buffaloes and stags, recurs everywhere in the prairie, and the great dogs of the fort frequently seek for such animal remains. Between the hills, there are, sometimes, in the ravines, little thickets of oak, ash, negundo maple, elm, bird-cherry, and some others, in which many kinds of birds, particularly the starling, blackbird, &c., build their nests. The king-bird and the red thrush are likewise found. Of mammalia, besides those in the river, namely, the beaver, the otter, and the muskrat, there are, about Fort Union, in the prairie, great numbers of the pretty little squirrel, the skin of which is marked with long stripes, and regular spots between them (Spermophilus Hoodii, Sab.), which have been represented by Richardson and Cuvier. The Anglo-Americans of these parts call it the ground squirrel; and the Canadians, l'écureuil Suisse. From its figure and agility, it is a genuine squirrel, and, therefore, rather different from the true marmot arctomys. The burrows, in which these animals live, are often carried to a great extent underground. The entrance is not much larger than a mouse hole, and has no mound of earth thrown up, like those of the prairie dogs. Besides these, there are several kinds of mice, particularly Mus leucopus. The flat hills of the goffer are likewise seen; this is a kind of large sand rat, living underground, of which I did not obtain a specimen.

Not far above and below the fort there were woods on the banks of the Missouri, consisting of poplars, willows, ash, elm, negundo maple, &c., with a thick underwood of hazel, roses, which were now in flower, and dog-berry, rendered almost impassable by blackberry bushes and the burdock (*Xanthium strumarium*), the thorny fruit of which stuck to the clothes. In these thickets, where we collected many plants, the mosquitos were extremely troublesome. In such places we frequently heard the deep base note of the frogs; and in those places which were not damp, there were patches of two kinds of solidago; likewise *Gaura coccinea* (Pursh.), and *Cristaria coccinea*, two extremely beautiful plants; and, on the banks of the river, the white-flowering *Bartonia ornata* (Pursh.), and the *Helianthus petiolaris* (Nutt.), which were everywhere in flower, &c. &c.

193 In the forest, a pretty small mouse was frequent, as well as the large wood rat, already mentioned. Of birds, there are some species of woodpeckers, the Carolina pigeon, numerous blackbirds (*Quiscalus ferrugineus*), thrushes, several smaller birds, the beautiful bluefinch, first described by Say, the American fly-catcher, and several others. The whip-poor-will is not found so high up the Missouri. The river does not abound in fish; it produces, however, two species of catfish, and soft shell turtles, but which are not often caught.

The climate about Fort Union is very changeable. We had often 76° Fahrenheit, and storms of thunder and lightning alternating with heavy rains. Other days in the month of June were cold, the thermometer falling to 56°. Winds prevail here the greater part of the year, and therefore the temperature is usually dry. The weather, while we were there, was uncommonly rainy. Spring is generally the wettest season; the summer is dry; autumn the finest time of the year; the winter is severe, and often of long continuance. The snow is often three, four, or six feet deep in many places, and then dog sledges are used, and the Indians wear snow shoes. The winter of 1831-1832 had been remarkably mild in these parts. The Missouri had scarcely been frozen for three days together; but the spring, however, set in very late. On the 30th of May, 1832, the forests were still without verdure; and there was, in that month, such dreadful weather, that an Indian was frozen to death in the prairie: a snow storm overtook him and a girl, who escaped with one of her feet frozen. In general, however, the climate is said to be very healthy. There are no endemic disorders, and the fine water of the Missouri, which, notwithstanding the sand mixed with it, is light and cold, does not a little contribute to make the inhabitants attain an advanced age. There are no physicians here, and the people affirm they have no need of them. Persons, whom we questioned on the subject, said, "We don't want doctors; we have no diseases." In the preceding spring, however, there had been more sickness than usual on the Missouri, and at the time of our visit, the approach of the cholera was feared. Colds are, probably, the most frequent complaints, the changes in the temperature being sudden, the dwellings slight and ill built, and the people exposing themselves without any precaution.

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Fort Union is built in the territory of the Assiniboins, of whom a certain number generally live

there. At this time they had left, because the herds of buffaloes were gone to a distant part of the country. The Assiniboins are real Dacotas, or Sioux, and form a branch which separated from the rest a considerable time ago, in consequence of a quarrel among them. They still call themselves by that name, though they seem generally to pronounce it Nacota. They parted from the rest of the tribe, after a battle which they had with each other on Devil's Lake, and removed further to the north. The tribe is said to consist of 28,000 souls, of whom 7,000 are warriors. They live in 3,000 tents; the territory which they claim as theirs, is between the Missouri and the Saskatschawan, bounded by lake Winipick on the north, extending, on the east, to Assiniboin River, and, on the west, to Milk River. The English and Americans sometimes 194 call them Stone Indians, which, however, properly speaking, is the name of only one branch.

The Assiniboins are divided into the following branches or bands:

- 1. Itscheabiné (les gens des filles).
- 2. Jatonabinè (*les gens des roches*). The Stone Indians of the English. Captain Franklin, in his first journey to the Frozen Ocean, speaks of these Indians, and observes that they are little to be depended upon.^[363] He says that they call themselves Eascab, a name with which, however, I have not met.

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- 3. Otopachgnato (les gens du large).
- 4. Otaopabinè (les gens des canots).
- 5. Tschantoga (*les gens des bois*). They live near the Fort des Prairies, not far from Saskatschawan River.^[364]
- 6. Watópachnato (les gens de l'age).
- 7. Tanintauei (les gens des osayes).[365]
- 8. Chábin (les gens des montagnes).[366]

In their personal appearance the Assiniboins differ little from the true Sioux; those whom we saw were, perhaps, on the whole, not so tall and slender as the Sioux. Their faces are broad, with high cheeks, and broad maxillary bones. They frequently do not wear their hair so long as the Sioux; many of them have it scarcely hanging down to the shoulders; some, however, let it grow to a great length, and braid it in two or three tails; nay, some let it hang like a lion's mane over their faces and about their heads. Several wore round white leather caps, others feathers in their hair, or a narrow strip of skin fastened over the crown. A remarkable head-dress is that with two horns, of which I shall have to speak in the sequel. They paint their faces red, or reddish-brown, and, when they have killed an enemy, quite black: the hair in front is often daubed with clay; the upper part of the body is seldom naked in winter time, when they wear leather shirts, with a large round rosette on the breast, which is embroidered with dyed porcupine quills, of the most vivid colours; and they have often another exactly similar ornament on their back. The sleeves of these leather shirts are adorned with tufts of their enemies' hair. The outer seam of the leggins, as among all the other tribes, has an embroidered stripe of coloured porcupine quills, and trimmed in the same manner with human or dyed horsehair. In the summer time the upper part of the body is often naked, and the feet bare, but they are never without the large buffalo robe, which is often curiously painted. Their necklaces and other ornaments are similar to those of the other nations which have already been described. They, however, very frequently wear the collar of the bears' claws, but not the long strings of beads 195 and dentalium shells, which are used by the Manitaries. Most of the Assiniboins have guns, [367] the stocks of which they ornament with bright yellow nails, and with small pieces of red cloth on the ferrels for the ramrod. Like all the Indians, they carry, besides, a separate ramrod in their hand, a large powder-horn, which they obtain from the Fur Company, and a leather pouch for the balls, which is made by themselves, and often neatly ornamented, or hung with rattling pieces of lead, and trimmed with coloured cloth. All have bows and arrows; many have these only, and no gun. The case for the bow and the quiver are of the skin of some animal, often of the otter, fastened to each other; and to the latter the tail of the animal, at full length, is appended. The bow is partly covered with elk horn, has a very strong string of twisted sinews of animals, and is wound round in different places with the same, to strengthen it. The bow is often adorned with coloured cloth, porcupine quills, and white strips of ermine, but, on the whole, this weapon does not differ from that of the Sioux. Most of them carry clubs in their hands, of various shapes, and the fan of eagles' or swans' wings is indispensable to an elegant dandy.

The Assiniboins being hunters, live in movable leather tents, with which they roam about, and never cultivate the ground. Their chief subsistence they derive from the herds of buffaloes, which they follow in the summer, generally from the rivers, to a distance in the prairie; in the winter, to the woods on the banks of the rivers, because these herds, at that time, seek for shelter and food

among the thickets. They are particularly dexterous in making what are called buffalo parks, when a tract is surrounded with scarecrows, made of stones, branches of trees, &c., and the terrified animals are driven into a narrow gorge, in which the hunters lie concealed, as represented and described by Franklin, in his first journey to the Frozen Ocean. There was such a park ten miles from Fort Union, where I was told there were great numbers of the bones of those animals. On such occasions the Indians sometimes kill 700 or 800 buffaloes. Of the dried

and powdered flesh, mixed with tallow, the women prepare the well-known pemmican, which is

an important article of food for these people in their wanderings. These Indians frequently suffer hunger, when the chase or other circumstances are unfavourable; this is particularly the case of the northern nations, the Crees, the Assiniboins, the Chippeways, and others, as may be seen in Tanner, [369] Captain Franklin, and other writers, when they consider dead dogs as a delicacy. In the north, entire families perish from hunger. They eat every kind of animals, except serpents; horses and dogs are very frequently killed for food, which is the reason why they keep so many,

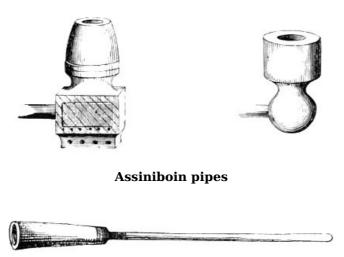
particularly of the latter.

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In comparison with the other nations, the Assiniboins have not many horses; their bridles and saddles are like those of the Manitaries. The rope of buffalo hair, which is fastened to the 196 lower jaw as a bridle, is always very long, and trails on the grass when the animal is not tied up. Many have large parchment stirrups in the shape of shoes, and all carry a short whip in their hand, generally made of the end of an elk's horn, and gaily ornamented. Their dogs are of great help to the women in their heavy work; and they are loaded with the baggage in the same manner as among the Manitaries.

In general, the Assiniboins have the customs as well as the superstitious notions of the Sioux; for an account of which, Major Long's "Expedition to St. Peter's River," may be consulted. They keep on good terms with the Fur Company, for their own interest; they are, however, horse-stealers, and not to be trusted; and when one meets them alone in the prairie, there is great danger of being robbed. Smoking is a favourite enjoyment with them, but, as they live at a distance from the red pipe clay, the bowls of their pipes are generally made of a blackish stone, or black clay, and are different in shape from those of the Dacotas. [370] The pipe tube is ornamented like those of the other tribes. [371] They generally smoke the herb kinikenick, which we have before mentioned, or the leaves of the bear-berry (*Arbutus uva ursi*), mixed with genuine tobacco. To clean their pipes they make use of a painted stick, bound round with quills, dyed of various colours, and with a neat tassel at the end of it, [372] which is generally stuck in their hair.





Pipe for warlike expeditions

Many games are in use among these Indians; one of these is a round game, in which one holds in his hand some small stones, of which the others must guess the number, or pay a forfeit. This game is known also to the Blackfeet. Another is that in which they play with four small bones and four yellow nails, to which one of each sort is added; they are laid upon a flat 197 wooden plate, which is struck, so that they fly up and fall back into the plate, and you gain, or lose, according as they lie together on one side, and the stake is often very high.

Among the amusements and festivities are their eating feasts, when the guests must eat everything set before them, if they will not give offence. If one of the guests is not able to eat any more, he gives his neighbour a small wooden stick, and the plate with food, the meaning of which is that he will make him a present of a horse, on the next day, if he will undertake to empty the plate; and the young men do this in order to gain reputation. The Assiniboins are brave in battle, and often very daring. They frequently steal into the villages of the Mandans and Manitaries, shoot the inhabitants in or near their huts, or steal their horses.

They believe in a creator, or lord of life (Unkan-Tange), and also in an evil spirit (Unkan-Schidja), who torments people with various disorders, against which their sorcerers or physicians (medicine men) use the drum and the rattle to expel the evil spirit. Like the Crees and several other tribes, they believe that thunder is produced by an enormous bird, which some of them pretend to have seen. Some ascribe lightning to the Great Spirit, and believe that he is angry when the storm is violent. They believe that the dead go to a country in the south, where the good and brave find women and buffaloes, while the wicked or cowardly are confined to an island, where they are destitute of all the pleasures of life. Those who, during their lives, have conducted themselves bravely, are not to be deposited in trees when they die, but their corpses are to be laid on the ground, it being taken for granted that, in case of need, they will help themselves. Of course they are generally devoured by the wolves, to secure them from which, however, they are covered with wood and stones. Other corpses are usually placed on trees, as

among the Sioux, and sometimes on scaffolds. They are tied up in buffalo hides, and three or four are sometimes laid in one tree.

The language of the Assiniboins is, on the whole, the same as that of the Sioux, altered by their long separation, and the influence of time and circumstances. Like them, they have many gutturals and nasal tones; in general, however, it is an harmonious language, which a German pronounces without difficulty.

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FOOTNOTES

- [1] Montana Historical Society *Contributions*, iii, pp. 206, 207.
- [2] Smithsonian Institution Report, 1885, part ii, p. 378.
- [3] Consult James's *Long's Expedition*, in our volume xiv, p. 75, note 41.—Ed.
- [4] We reprint the account of Long's expedition in our volumes xiv-xvii.—Ed.

[5] For Edwin (not Edward) James and S. H. Long see preface to our volume xiv, pp. 10-13, 25, 26; for Thomas Say, *ibid.*, p. 40, note 1; for Washington Irving as an authority on Western history, Gregg's *Commerce of the Prairies*, our volume xix, p. 161, note 2.

Henry Rowe Schoolcraft (1793-1864) was a well-known traveller, ethnologist, and historian. Born in New York, he studied at both Middlebury and Union colleges. His first tour to the West was in 1817-18, when he made a collection of minerals in Missouri and Arkansas. In 1820 he accompanied Cass's western expedition, and the following year acted as secretary of the Indian Commissioners at Chicago. In 1822 he was made Indian agent at Mackinac, where he resided for seventeen years, having married a descendant of a Chippewa chief. In 1837 he was promoted to superintendency of the Northern department, whence he resigned (1841) to devote himself to literary work. In 1847 Congress authorized the publication of a work upon Indian tribes, to which Schoolcraft devoted the latter portion of his life. It appeared as Historical and Statistical Information respecting the History, Condition, and Prospects of the Indian Tribes of the United States (Philadelphia, 1851-57). Schoolcraft belonged to many learned and historical societies, received a medal from the French Institute, and was in his day the chief authority on American Indians. Besides the work already cited, he published much, chief of which is Personal Memoirs (Philadelphia, 1851); Summary Narrative of an Exploratory Expedition to the Source of the Mississippi River in 1820, resumed and completed by the Discovery of its Origin in Itasca Lake in 1832 (Philadelphia, 1855).

Thomas Lorraine McKenney (1785-1859) was superintendent of trade with the Indian tribes, 1816-24. In the latter year he was made head of the bureau of Indian affairs in the war department, also serving frequently as treaty commissioner. The work to which reference is here made, is *Sketches of a Tour to the Lakes* (Baltimore, 1827).

Lewis Cass (1782-1866) had unusual opportunities for contact with the tribesmen. After taking a prominent part in the War of 1812-15, he was for eighteen years governor of Michigan Territory. His contributions to Indian bibliography were a series of articles published in the *North American Review*, xxvi-xxx (1828-30).

Peter Stephen Duponceau (1760-1844) was a Frenchman who came to America during the Revolution. Settling at Philadelphia, he became a member of the American Philosophical Society, and contributed to its *Transactions* several articles on the structure and grammar of Indian languages.—Ed.

- [6] Christian Gottfried Nees von Esenbeck (1776-1858), a famous botanist and physician. He first engaged in the practice of medicine, but in 1818 went to Erlangen as professor of botany, the next year being called to Bonn, then being professor at Breslau (1831-52). The number of his published works is considerable.—ED.
- [7] Georg August Goldfuss (1782-1848) was born at Bayreuth, and became privatdocent at Erlangen, then professor of zoölogy and mineralogy at Bonn and director of the zoölogical museum.
 - Robert Göppert (1800-1884) was a botanist and palæontologist. First studying medicine at Breslau and Berlin, he was professor of botany in the university at the former place (1831-39). In 1852 he was chosen director of the botanical gardens at Breslau, where he remained until his death.—Ep.
- [8] Achille Valenciennes (1794-1864) was a French zoölogist, a friend and fellow-worker with Cuvier, and director of the Paris zoölogical museum.
 - Arend Friedrich August Wiegmann (1802-41) was for a time professor of zoölogy at Berlin. He founded (1835) *Archivs fur Naturgeschichte.*—ED.
- [9] Sir William Jackson Hooker (1785-1865) was early devoted to the study of natural history, making scientific journeys to Scotland in 1806 and to Iceland in 1809. Later (1814), Hooker prosecuted a nine months' botanical tour on the continent of Europe. The following year he married and settled on his estate where he commenced an herbarium; from 1820 to 1841 he was regius professor of botany at Glasgow, being in 1836 knighted for eminent service to science. From 1841 till his death he was director of Kew Gardens, London. Hooker's interest in American scientific development was marked, and he dispatched many pupils on botanical tours to unknown parts of the new continent.—Ed.
- [10] Reprinted in our volume xxiv.—Ed.
- George Catlin was born in Wilkesbarre, Pennsylvania, in 1796, of a New England family; his mother was a woman of artistic tastes, and had lived on the Indian border. Early in his career, Catlin heard much of the traditions of the aborigines, and thus was unconsciously prepared for his later life work. In 1817 he was sent to study law at Litchfield; returning to Pennsylvania two years later, he practiced in the rural districts until 1823, when he abandoned the law, and going to Philadelphia became an artist. For several years he was employed in painting miniatures and other portraits, going as far as Washington and Albany to execute orders. Having met at the former city a deputation of American Indians, Catlin was imbued with a desire to paint the portraits of these vanishing tribesmen, and in 1832 went west with this purpose in view. Eight years were spent in native lodges and fur-trade camps; then, with a wealth of material widely known as Catlin's Collection, he opened a museum—first in the United States (1837-39), then in London (1840-44). In 1845 he took his collection to Paris, where he remained until expelled by the Revolution of 1848. He thereupon re-opened his London museum, with additional material; but in 1852 became involved in debt, and his collection was shipped to the United States, where it remained neglected until 1879, when it was presented to the National Museum at Washington. Meanwhile Catlin visited South and Central America (1852-57), and resided thereafter in Europe, returning to the United States in 1871 only to die the following year at Jersey City. The work here referred to was *Letters* and Notes on the Manners and Customs of the North American Indians (New York and

- London, 1841), more commonly cited by the title of later editions, *Notes of Eight Years' Travels*. In an appendix are several vocabularies of the Mandan, Blackfeet, Arikara, Sioux, and Tuscarora Indians.—Ed.
- [12] This was the American Fur Company's steamer "St. Peter's," which carried the annual outfit and supplies to the Missouri River forts. Larpenteur, in charge at Fort Union, says that the vessel arrived June 24, 1837. See Elliott Coues, Forty Years a Fur-Trader on the Upper Missouri (New York, 1898), pp. 131-135.—Ed.
- [13] For the Mandan see Bradbury's *Travels*, in our volume v, pp. 113, 114, note 76. This should be Fort Clark, not Fort Leavenworth—an evident *lapsus calami*. Fort Clark, named for General William Clark, was an American fur-trade post built among the Mandan in 1831. See *post*, chapter xiii, for a detailed description.—Ed.
- [14] For Fort Union see *post*, chapter xv.—Ed.
- [15] Authorities differ as to the numbers perishing by the scourge of 1837. H. M. Chittenden, History of American Fur-Trade of the Far West (New York, 1902), p. 627, thinks fifteen thousand a large estimate.—Ed.
- Hannibal Evans Lloyd (1771-1847), a well-known linguist and translator, especially [16] interested in works of travel and science. His father had been in the Seven Years' War, of which he wrote a history. Early in life the son studied German, and published a grammar and dictionary of that language, as well as an Englisches Lesebuch (Hamburg, 1832) for the use of German students. Lloyd lived for several years in Hamburg, and was present during the French invasion in 1813, of which he afterwards wrote an account. Among his other original works were lives of George IV of England, and Alexander I of Russia. His translations were from Swedish, German, and Italian, having Englished Katzebue's Voyages, Orlich's Travels in India, and Maximilian's Brazilian travels. Under the signature "H. E. L.," Lloyd was a frequent contributor to the London Literary Gazette (1817-39). His translation of Maximilian's *Travels* is clear, simple, and straightforward; the German original sustains small loss either of style or meaning, although the translator saw fit in many cases to abbreviate the prince's prolix descriptions, and to eliminate not only the exceedingly valuable linguistic material, but much other scientific matter.—Ed.
- [17] Charles Lucien Bonaparte, prince of Canino and Musignano (1803-1857), a noted ornithologist, was the eldest son of Lucien, brother of the great Napoleon. In 1822 he married Joseph Bonaparte's daughter, came to the United States, and until 1828 resided with his father-in-law, near Philadelphia, making a careful study of the birds of that locality. Returning to Italy, he headed the republican forces at Rome in the Revolution of 1848, and from 1854 until his death, three years later, was director of the Jardin des Plantes, at Paris. In the United States, Bonaparte published a supplement to Wilson's Ornithology, entitled American Ornithology, or History of the Birds of the United States (4 volumes, Philadelphia, 1825-33), containing more than a hundred species which he had discovered. He wrote numerous articles for scientific journals both in this country and Europe.—Ed.
- [18] See Plate 1, in the accompanying atlas, our volume xxv.—Ed.
- [19] According to the census of 1830, Boston had 61,392 souls, and with Charlestown, Roxbury, and Cambridge, about 80,000.—MAXIMILIAN.
- [20] Vide Mrs. Trollope's "Domestic Manners of the Americans," page 106, where the authoress is probably right in many points.—Maximilian.
 - Comment by Ed. See Wyeth's Oregon, in our volume xxi, p. 44, note 24.
- [21] Captain Benjamin Morrell was born on Long Island (1795), entered the service of a privateer during the War of 1812-15, was captured by the British and held in prison until the declaration of peace. After his release he was made captain of a whaling vessel, and in 1832 published a book of travels entitled, A Narrative of Four Voyages to the South Sea, North and South Pacific Ocean, Chinese Sea, Ethiopic and Southern Atlantic Ocean, Indian and Arctic Oceans, Comprising Critical Surveys of Coasts and Islands with Sailing Directions (New York). A critical analysis of the book is given in American Quarterly Review, xiii, pp. 314 ff.—Ed.
- [22] The cattle in this part of the country are, in general, large and handsome: there are oxen with immense horns, almost as in the *Campagna di Roma*, in Italy; and they are also large and fat. Their colour is generally brown, as in Germany, but for the most part, a very shining yellowish, or reddish brown, often spotted with white. The horns of many are turned rather forwards, and round balls are just on their tips, that they may not gore with them.—Maximilian.
- [23] See preface to Nuttall's *Journal*, in our volume xiii.—Ed.
- [24] E. A. Greenwood having (1825) purchased the Columbian Museum, founded in Boston in 1795 by Daniel Bowen, erected a building on Court Street between Brattle and Cornhill, and started the New England Museum. The latter was purchased by Moses Kimball (1839), who seven years later constructed the Boston Museum and Gallery of Fine Arts building on Tremont Street, near Court, at a cost of a quarter of a million dollars. The stock-company theatre operated in connection with this institution was long regarded as the best in Boston.—Ed.
- [25] For the work of the Duke of Saxe-Weimar, see Wyeth's *Oregon*, in our volume xxi, p. 71, note 47.—Ed.
- [26] The first recorded death by cholera, in North America, occurred on June 8, 1832, at Quebec. The epidemic began raging in northwest India in 1827-28. It reached the shores

- of the Caspian Sea (1829), spread throughout Russia (1829-30), reached England (1831), and spread to the United States by way of Detroit the following year. Rapidly extending throughout the union, it counted its victims in nearly every state and territory.—Ed.
- [27] For a brief sketch of Astor, see Franchère's Narrative, in our volume vi, p. 186, note 8.
 —ED.
- [28] The Americans report of this pine that, if it is cut down, oaks and other trees immediately grow up in its place; and if these are cut down, the pines grow up again, and so continually alternating in the same manner!—MAXIMILIAN.
- [29] Richard Harlan (1796-1843) graduated from the medical department of the University of Pennsylvania (1818), practiced medicine in Philadelphia, and later occupied the chair of comparative anatomy in the Philadelphia Museum. He was a member of the Cholera Commission of 1832, and of many learned societies both in this country and abroad. His chief publications were: Observations on the Genus Salamandra (Philadelphia, 1824), Fauna Americana (1825), American Herpitology (1827), Medical and Physical Researches (1835), and a translation of Gaunal, History Of Embalming, with additions (1840).—Ed.
- [30] Joseph Bonaparte (1768-1844) held many positions of trust under his brother Napoleon. He negotiated the treaty of peace between this country and France in 1800, and the treaty of Amiens in 1802. He was made king of Naples (1806), and king of Spain two years later. In an interview with his brother after the battle of Waterloo, arrangements were made for a meeting in New York. In the summer of 1815 Joseph Bonaparte, under the assumed title of Comte de Survilliers, came to the United States and purchased a mansion in Philadelphia, a country seat of about a thousand acres, near Bordentown, New Jersey, six miles below Trenton, and later a summer home on the edge of the Adirondack Mountains. His favorite residence was "Point Breeze," near Bordentown, where in 1820 he built what was accounted the finest mansion in the state. In 1850, Henry Beckett, the British consul at Philadelphia, purchased "Point Breeze," and demolished its mansion. Joseph Bonaparte was in Europe from 1832 to 1837; the next two years in this country; and in 1841 went to Florence, Italy, where he died. His benevolence and hospitality won for him much admiration in the United States. See our volumes xi, p. 159, and xii, p. 79.—ED.
- [31] On February 4, 1830, the state legislature of New Jersey granted a charter for the Camden and Amboy Railroad.—Ed.
- [32] We were told that the Virginian deer were formerly very numerous here, but that it had been found necessary to shoot them, because, in the rutting season, they roamed about and did great damage to the crops.—Maximilian.
- [33] For Major Long's *Expedition*, see our volumes xiv-xvii. Short notes on the Peale family, Seymour, and Say may be found in our volume xiv, pp. 39-41, note 2.—Ed.
- [34] Bethlehem is today a post borough and summer resort in Southampton County, Pennsylvania, fifty-six miles north of Philadelphia. At times during the Revolutionary War, it was the general hospital headquarters for the Continental army and about five hundred soldiers were buried there. In 1740, under the leadership of Whitefield, a small body of Moravians who had recently migrated to Georgia settled on the Forks of the Delaware. Within a few weeks, however, doctrinal differences influenced Whitefield to expel the Moravians from his estate. Through the labors of Bishop Nitschmann, the latter purchased from William Allen five hundred acres on the banks of the Lehigh River. Count Zinzendorf, visiting the hamlet at Christmas in the same year, named it Bethlehem. It has since remained the centre of the northern division of the Moravian church in the United States.—Ed.
- [35] Lewis David von Schweinitz was born at Bethlehem (1780), and died there in 1834. Educated in Germany, he returned to the United States and won a large reputation as a botanist being made a member of various scientific societies in this country and Europe. He added fourteen hundred new species to the catalogue of American flora, wrote numerous books on botany, and at his death bequeathed to the Academy of Natural Sciences at Philadelphia his herbarium, at that time the largest in North America.
 - Before coming to Pennsylvania, John D. Anders (1771-1847) had charge of the Moravian church at Berlin, where his great ability attracted much attention among the students of the university. In 1827 he was appointed to preside over the northern district of the American Moravian church. This position he held until 1836, when he was elected to the supreme executive board of the *Unitas Fratrum*.—Ed.
- [36] See Plate 34, in the accompanying atlas, our volume xxv.—Ed.
- [37] Born and educated in Prussia, John Gottlieb Herman came to the United States in 1817, and taught and preached in Pennsylvania until 1844, when he was elected to the supreme executive board of the Moravian church. During a part of his stay in America, he was principal of Brown's boarding school for boys. After a brief mission to the West Indies, he was elected president of the synod of the entire Moravian church, held in Herrnhut, Saxony. Returning to the United States in 1849, he died (1854) in the wilds of southwest Missouri while returning from a mission to the Cherokee Indians.—Ed.
- [38] The Lehigh Navigation Company, chartered August 10, 1818, was consolidated in 1820 with the Lehigh Coal Company, and since 1821 has been known as the Lehigh Coal and Navigation Company. Temporary navigation of the Lehigh River being opened by 1820, coal was floated down to the Delaware and thence to Philadelphia, where the scows were broken up. In 1827 the company began the construction of a canal which by 1829 was completed between Mauch Chunk and Easton. A line to White Haven was opened (1835), and to Stoddartsville (1838). In 1827 there was opened the Mauch Chunk

(gravity) Railroad, the second of its kind in the United States, being in 1828 extended to Room Run and the Beaver Meadow region; in 1840 the Lehigh and Susquehanna Railroad was completed by the same company. In July, 1825, the Morris Canal and Banking Company, under a charter of the preceding year, commenced work on a twenty-mile canal between the Delaware and Newark, New Jersey, and completed it in 1831. Later the canal was extended to Jersey City, a distance of eleven miles.—Ed.

- When found by Europeans, the Delaware Indians were living in detached bands along the Delaware River. A tribe of the Algonquian family, they comprised three powerful clans—the Turtle, Turkey, and Wolf—see Post's *Journals* in our volume i, p. 220, note 57. By 1753 a portion of the tribe had migrated to the Ohio, and by 1786 all had settled west of the Allegheny Mountains. They had aided Pontiac in his attack upon Fort Pitt, and allied themselves with the English during the Revolutionary War. Defeated, they established themselves along the banks of the Huron River in Ohio and in Canada. Neutral during the War of 1812-15, they sold their lands to the United States and occupied a reservation along White River, in Indiana. By subsequent treaties the Delaware were removed to Missouri, Kansas, and Texas; and in 1867 they were incorporated among the Cherokee, and stationed with the latter in Indian Territory.—Ed.
- [40] Copious springs issuing from the white sand.—MAXIMILIAN.
- [41] The names of all these rivers, streams, and many places, are, for the most part, harmonious with many vowels, and are derived from the ancient Delaware or Lennilappe language. *Tobihanna* means alder brook. See Duponceau, in the Transactions of the American Philosophical Society, vol. iv. part iii. page 351, on the names from the Delaware languages still current in Pennsylvania, Maryland, New Jersey, and Virginia.

 —MAXIMILIAN
- [42] See Plate 4, in the accompanying atlas, our volume xxv.—Ed.
- [43] The wood of this shrub is extremely solid and hard.—MAXIMILIAN.
- [44] See p. 107, for illustration of bear-trap.—Ed.
- [45] Wilkes-Barre, seat of Luzerne County, Pennsylvania, and eighteen miles southwest of Scranton, was laid out in 1769 and named jointly for John Wilkes and Colonel Barre, members of the British parliament. The town is near the famous "mammoth vein," of anthracite coal, nineteen million tons of which were mined in the vicinity of Wilkes-Barre in 1900. The census report for that year exhibited a population of 51,721.—Ed.
- [46] The Susquehanna and Tide Water Canal Company was a consolidation of the Susquehanna Canal Company of Pennsylvania, and the Tide Water Canal Company of Maryland. It was encouraged by both states, Maryland lending it credit to the amount of a million dollars. It was opened in 1840. See Henry V. Poor, *History of the Railroads and Canals of the United States* (New York, 1860), p. 552.
 - In 1840 the total mileage of canals in Pennsylvania was twelve hundred and eighty; of which four hundred and thirty-two were owned by private companies; the total mileage of railroads in the same year was seven hundred and ninety-five. See Henry F. Walling and O. W. Gray, *New Topographical Atlas of the State of Pennsylvania* (Philadelphia, 1872), p. 30.—Ed.
- [47] The executive council of Philadelphia presented General William Ross with a costly sword for his "gallant services of July 4, 1788," in rescuing Colonel Pickering from kidnappers. Ross was later made general of the militia, and in 1812 elected to the state senate from the district of Northumberland and Luzerne; he died (1842) at the age of eighty-two.—Ed.
- [48] Tomaqua lies in the coal district at the end of the little Schuylkill Valley, near Tuscarora. In this country the discovery of the coal has caused agriculture to be neglected, and thousands of people are said to have been ruined by unsuccessful speculations.

 —MAXIMILIAN.
- [49] See Plate 5, in accompanying atlas, our volume xxv.—Ed.
- [50] Josiah White, early interested in mechanics, purchased an estate on the Schuylkill, five miles above Philadelphia, constructed a dam across the river, and erected there a wire mill. Later, he sought a contract for furnishing Philadelphia with water by means of power generated at this dam. After long negotiations the city purchased the plant, belonging to White and Gillingham, his partner, and constructed the Fairmount water works. White, together with Erskine Hazard, then directed his activities to the Lehigh coal fields, and became the active promoter of the Lehigh Coal and Navigation Company. White resided at Mauch Chunk from 1818 to 1831, and then moved to Philadelphia where he died (1850) at the age of seventy. His name is inseparably connected with the canal system of Pennsylvania; see *History of the Counties of Lehigh and Carbon* (Philadelphia, 1884), p. 670.—Ed.
- [51] Lehighton—a corruption of the Delaware, Lechauwekink, "where there are forks"—is a post borough in Carbon County, Pennsylvania, on the west bank of the Lehigh, twenty-five miles above Allentown. It was laid out in 1794 on the lands of Jacob Weiss and William Henry, and the population in 1900 is reported as 4,269.—Ed.
- [52] Loskiel, in his history of the Indian Missions (pp. 415 and 416), gives the following account of this affair. "On the 24th of November, 1755, the house of the Indian Missionaries in Gnadenhütten, on the Mahony, was attacked in the evening by hostile Indians, and burnt. Eleven persons perished: *viz.*, nine in the flames, one of the brethren was shot, and another cruelly butchered, and then scalped. Three brethren, and one sister (the wife of one of them), and a boy, escaped by flight; the woman and the boy, by a fortunate leap from the burning roof. One of those who escaped, the Missionary

Sensemann, who, at the beginning of the attack, had gone out of the back door to see what might be the cause of the violent barking of the dogs, and who of course was not able to return to those whom he had left in the house, had the affliction to see his wife perish in the flames."—MAXIMILIAN.

Comment by Ed. Gnadenhütten was a mission established (1746) by the Moravians for their converts among the Delaware Indians; it was placed under the charge of Martin Mack.

- [53] Weissport is today a village of more than six hundred inhabitants, four miles southeast of Mauch Chunk. It was laid out by Colonel Jacob Weiss and his brother Francis.—Ed.
- [54] Allentown, the seat of Lehigh County, sixteen miles southwest of Easton, was laid out (1752) by William Allen, chief justice of Pennsylvania. In 1811 it was incorporated with the borough of Northampton, but in 1838 reverted to its old name. Allentown is today one of the chief seats of furniture-making in the United States, and second only to Paterson in production of American silk. Its population in 1900 was 35,416.—Ed.
- [55] This plant, called by the Americans the poke plant, is used, in many parts, as a vegetable for the table. When the plant is young, and not above six inches high, of a whitish, and not dark green colour, the leaves are tender, and very delicate. It is thought that it might be very advisable to cultivate it in the kitchen gardens.—MAXIMILIAN.
- [56] Huntingdon, seat of the county of the same name, was settled about 1760 on the site of a famous Indian council ground, and named for Selena, Countess of Huntingdon. It was incorporated in 1760, and had a population at the last federal census of 6,053.—Ed.
- [57] New Alexandria is a small village in Westmoreland County, on Loyalhanna Creek, thirtythree miles east of Pittsburg.
 - New Salem (or Salem), in the same county, twenty-five miles east of Pittsburg, was laid out in 1833.
 - Many early western travellers give descriptions and historical accounts of Pittsburg. See particularly Cuming's *Tour*, in our volume iv, pp. 242-255.—Ed.
- [58] James R. Lambdin was born in Pittsburg (1807), studied under Thomas Sully, of Philadelphia (1823-25), and began painting in his native town. Later he made professional visits to the chief towns between Pittsburg and Mobile, and started a museum of art and antiquities at Louisville, Kentucky, where he lived several years. From 1837 until his death in 1889 he resided principally in Philadelphia, but painted much at Washington, executing portraits of all the presidents from John Q. Adams to James A. Garfield. Lambdin was appointed by President Buchanan (May 15, 1859) as one of the three members of the Art Commission provided for by acts of Congress on June 12, 1858, and March 3, 1859, for the purpose of a survey of the public buildings at Washington and submitting a report on the system of decorations hitherto used, and recommending plans to secure a harmonious effect in the future. For this report, dated February 22, 1860, see Executive Documents, 36 Cong., 1 sess., No. 43.—Ed.
- [59] See Plate 6 in the accompanying atlas, our volume xxv.—Ed.
- [60] Maximilian is here referring to Duke Bernard, *Travels through North America during the Years 1825-26* (2 vols., Philadelphia, 1828). For a short statement of George Rapp and his enterprises, see Hulme's *Journal*, in our volume x, pp. 50 and 54, notes 22 and 25 respectively.
 - Economy, an Ohio River town, in Beaver County, Pennsylvania, seventeen miles northwest of Pittsburg, was settled by the Harmonites in 1825. The property of the community is now quite valuable, but in 1902 the membership was only eight. Celibacy has been encouraged and new members have not been solicited, and the property is now in the hands of a single trustee.—Ed.
- [61] For the early history of Wheeling, see A. Michaux's *Travels*, in our volume iii, p. 33, note 15.—Ep.
- [62] For notes on Canonsburg, Washington, and Alexandria, see Harris's *Journal*, in our volume iii, pp. 347, 348, notes 31, 32, 33 respectively. The Associate Presbyterian Theological Seminary was organized at Canonsburg in 1794, with Rev. John Anderson as the first instructor.—Ed.
- [63] For Elizabeth Town, New Town, and Sistersville, see, respectively, Cuming's *Tour*, in our volume iv, p. 34, note 7; A. Michaux's *Travels*, in our volume iii, p. 49, note 66; and Woods's *English Prairie*, in our volume x, p. 223, note 25.
 - Henry S. Tanner (1786-1858), a resident of Philadelphia, engraved and published atlases and separate maps. Worthy of mention are the *New American Atlas* (Philadelphia, 1817-23), *The World* (1825), *Map of the United States of Mexico* (1825), *Map of the United States of America* (1829). Tanner was a member of the geographical societies of London and Paris, made numerous contributions to periodicals, and published the *American Traveller* (Philadelphia, 1836), *Central Traveller* (New York, 1840), *New Picture of Philadelphia* (Philadelphia, 1840), *Description of the Canals and Railroads of the United States* (New York, 1840), and *View of the Valley of the Mississippi* (Philadelphia, 1832). —ED.
- [64] Maximilian is probably here referring to the hamlet Newport, in Washington County, instead of to Newark. Newport was not laid out as a village until 1839. For an account of Marietta see A. Michaux's *Travels*, in our volume iii, p. 34, note 16.—Ed.
- [65] Benjamin Smith Barton (1766-1815) studied in Philadelphia, Edinburgh, London, and Göttingen, practiced medicine in Philadelphia, and for a number of years taught in the

college of that city and its successor, the University of Pennsylvania. He made numerous contributions to scientific journals, and published *Observations on Some Parts of Natural History* (London, 1787), *New Views on the Origin of the Tribes of America* (1797), etc.

Caleb Atwater (1778-1867) went to Ohio in 1811, served several years in the legislature of that state, and was appointed Indian commissioner under Jackson. He published A Tour to Prairie du Chien (1831), Western Antiquities (1833), Writings of Caleb Atwater (1833), and History of Ohio (1838).

Christian Schultz, Travels on an Inland Voyage through the States of New York, Pennsylvania, Virginia, Ohio, Kentucky, Tennessee and through the territories of Indiana, Louisiana, Mississippi and New Orleans: performed in the years 1807-1808 (New York, 1810).

David Baillie Warden (1778-1845) was for many years United States consul at Paris. He was much interested in antiquities and published *Recherches sur les Antiquités de l'Amérique Septentrionale* (Paris, 1827); also earlier *A Statistical, Political, and Historical Account of the United States of North America* (Edinburgh, 1819).—Ed.

- [66] Audubon (see "Ornithological Biography," vol. i. p. 156) mentions an instance of a cow that swam in to the window of a house which was seven feet above the ground, and sixty feet above low-watermark.—Maximilian.
- [67] For Parkersburg, see Woods's *English Prairie*, in our volume x, p. 224, note 27. The other settlement should be Belpré, for which see our volume iv, p. 127, note 87.—Ed.
- [68] For points of historic interest connected with the Little Hockhocking (Hocking) River, see Croghan's *Journals*, in our volume i, p. 131, note 99.
 - Shade Creek rises in Atkins County, flows southeast through Meigs County, and enters the Ohio about twenty-one miles below Blennerhassett's Island.—Ed.
- [69] For Point Pleasant and Gallipolis, see respectively Croghan's *Journals*, in our volume i, p. 132, note 101, and F. A. Michaux's *Travels*, volume iii, p. 185, note 34.—Ed.
- [70] Racoon Creek, ninety miles in length, drains Vinton County, Ohio, flows through Gallia County, and joins the Ohio River seven miles below Gallipolis.
 - For Guyandotte River, see Woods's English Prairie, in our volume x, p. 229, note 33.—Ed.
- [71] Symmes Creek, which enters the Ohio five miles above Burlington, probably derived its name, like the village Symmes, from John Cleves Symmes, appointed judge in the Northwest Territory in 1787. In 1788 Judge Symmes received a federal grant of a million acres of public land, upon which was founded Cincinnati and North Bend.

Burlington, in the southwestern extremity of Ohio, was once the seat of Lawrence County.

Catlettsburg, here incorrectly written Cadetsburg, is the seat of Boyd County, Kentucky. See Cuming's *Tour*, in our volume iv, p. 155, note 103.

The Sandy, or the Big Sandy, River (not creek), formed by the junction of Tug and Levisa forks, flows north to the Ohio River, separating the states of Kentucky and West Virginia. It drains an area of four thousand square miles, and is navigable for small steamboats to a distance of a hundred miles.

Hanging Rock, named for a high sandstone escarpment, is on the right bank of the river, three miles below Ironton.

For Greenupsburg and Governor Greenup, see Woods's *English Prairie*, in our volume x, p. 229, note 34.

Concerning the historic importance of the Scioto River, see Croghan's *Journals*, in our volume i, p. 134, note 102; and for the Ohio Canal, see Flint's *Letters* in our volume ix, p. 96, note 44.

Rockville, Adams County, Ohio, was laid out in 1830.—Ed.

[72] Adamsville, Muskingum County, Ohio, was laid out in 1832 by M. Adams.

For the early history of Manchester, Ohio, and its founder, General Nathaniel Massie, see Cuming's *Tour*, in our volume iv, p. 160, note 107.

Aberdeen, Brown County, Ohio, was laid out by Nathan Ellis in 1816.

For Ripley, see Woods's *English Prairie*, in our volume x, p. 233, note 41; for Vanceburg, see Cuming's *Tour*, in our volume iv, p. 165, note 111; for Maysville, see A. Michaux's *Travels*, in our volume iii, p. 35, note 23; and for Augusta, see Flint's *Letters*, in our volume ix, p. 148, note 69.

Neville, in Clermont County, Ohio, was settled by John Gregg in 1795.

The "Helen Mar" steamboat (88 tons) was built at Cincinnati in 1832; it was reported as being out of commission in 1837.

Moscow, Clermont County, Ohio, was laid out by Owen Davis (1816); and Point Pleasant, five miles farther down the river, in the same county, was platted in the same year by Joseph Jackson for its proprietor, Henry Ludlow.

For New Richmond, see Flint's Letters, in our volume ix, p. 148, note 70.—Ed.

[73] For the founding of Cincinnati, see Cuming's *Tour*, in our volume iv, p. 256, note 166.

- [74] For Big Bone Lick and the remains of the mammoth found there, see Croghan's *Journals*, in our volume i, p. 135, note 104.—Ed.
- [75] In Ferussac's "Bulletin des Sciences," 1831, there is a notice of a colossal animal, sixty feet long, lately discovered there, and the whole story was invented, merely to attract visitors. In Silliman's American Journal (Vol. xx. No. 2, July, 1831, page 370), there is a correct description of these bones, in refutation of the preceding statement.—Maximilian.
- [76] On the early history of Louisville and the Falls of the Ohio, see Croghan's *Journals* in our volume i, p. 136, note 106.—Ed.
- [77] Portland was laid out in 1814 for the proprietor, William Lytle; it was incorporated in 1834, and annexed to Louisville in 1837.
 - The "Water Witch" (120 tons) was built at Nashville in 1831, being sunk near Plaquemine, Louisiana, two years later.—Ed.
- [78] For New Albany, see Hulme's *Journal*, in our volume x, p. 44, note 15.—Ed.
- [79] Brandenburg is the seat of Meade County, Kentucky, forty miles below Louisville. It was incorporated in 1825, and named after Colonel Solomon Brandenburg, the proprietor.

Leavenworth, named for Messrs. S. M. and J. Leavenworth, is the seat of justice in Crawford County, Indiana. It was located in 1818.

Rome, Perry County, Indiana, was laid out (May, 1818) by one Cummings, and named Washington; in the fall of the same year the name was changed to Franklin; when it was made the county seat in 1819, it was given its present name. See *History of Warrick, Spencer, and Perry Counties, Indiana* (Chicago, 1885).

Stevensport was incorporated in 1825. Cloverport, originally Jossville, was established in 1828.—Ed.

[80] For Rockport, see Woods's *English Prairie*, in our volume x, p. 251, note 58.

Owensboro (incorrectly written Owenburg) is the seat of justice for Daviess County, Kentucky. Originally called Rossborough, the name was later changed to that now used, being given in honor of Colonel Abraham Owen, killed in the battle of Tippecanoe. The town was incorporated February 3, 1817.—Ed.

- [81] An account of the founding of Evansville is given in Hulme's *Journal*, in our volume x, p. 45, note 16.
 - For Henderson, see Cuming's *Tour*, in our volume iv, p. 267, note 175.—Ed.
- [82] For Mount Vernon, see Flint's Letters, in our volume ix, p. 306, note 154. A short account of New Harmony is given in Hulme's Journal, in our volume x, p. 50, note 22.

 —ED.
- [83] Robert Owen (1771-1858) was a prominent English socialist and propagandist. Rising from the ranks of workingmen, by shrewd business capacity he acquired a fortune, which he devoted to the improvement of the conditions of working people, and to the spread of principles of co-operation and education. His factory and schools at New Lanark, Scotland, became famous, and were visited by eminent reformers. He was also instrumental in securing the first Factory Act, protecting the rights of children. In 1825 he purchased New Harmony, Indiana, for the purpose of establishing a co-operative community. Owen's connection with this experiment was dissolved about 1828, although his sons remained on the property many years. The latter years of his life were entirely devoted to theoretical discussion, erratic journalism, and socialistic experimentation. He is considered the founder of the co-operative movement in England.

William Maclure (1763-1840), a wealthy merchant, geologist, and philanthropist, made an unsuccessful attempt (1819) to found an agricultural school at Alicaut, Spain, for the benefit of the poorer classes. In 1824 he went with Robert Owen to New Harmony and took charge of the educational department. The following year, however, together with a hundred and fifty followers, he withdrew to found Macluria. Later, they purchased the New Harmony establishment, and for a short time conducted a school of industry destined to early failure. In 1827, because of failing health, he went to Mexico, where he died (1840).—Ed.

- [84] Jean Baptiste Audebert (1759-1800), an eminent French painter, engraver, and naturalist, published *A Natural History of Apes, Lemurs, and Galeopitheci*, with numerous plates (1800), and *A History of Humming Birds, Fly Catchers, Jacamars and Promerap* (1 vol., 1802). Audebert at his death left unfinished several works on birds, subsequently edited by Vieillot and Destray.—Ed.
- [85] See Plate 8, in the accompanying atlas, our volume xxv.—Ed.
- [86] See Plate 25, in the accompanying atlas, our volume xxv.—Ed.
- [87] Cervus major, or Canadensis. I have retained the American name of elk for this animal, but it must not be confounded with the elendthier (Cervus alces), which is sometimes called elk, in Prussia. The name wapiti, given to it by the English, which is derived from one of the Indian languages, ought never to be used, because it is scarcely known to anybody, even in America.—Maximilian.
- [88] Edward Pöppig (1798-1868) was educated as a naturalist at Leipzig. He travelled in Cuba and the United States (1822-24), and subsequently went to South America, returning to Germany in 1832. In 1845 he was elected professor of zoölogy at the University of Leipzig and died in 1868. He wrote Reise in Chila, Peru und auf dem Amazonenstromer (Leipzig, 1835-36), and Landschaftliche Ansichten und erläuterude

Darstellungen aus dem Gebiete der Erdbunde (Leipzig, 1838).

For Mrs. Trollope, see Wyeth's *Oregon*, in our volume xxi, p. 44, note 24; for Doctor Drake, see Flint's *Letters*, in our volume ix, p. 121, note 61.—Ed.

[89] For a brief sketch of Lesueur, see our volume xvi, p. 138, note 60.

Johann Friedrich Blumenbach (1752-1840) was a distinguished professor in the University of Göttingen. As a recognition of his ability, he was in 1812 elected secretary of the Royal Society of Sciences.—Ed.

- [90] Mr. Lesueur sketched these from memory, having parted with the originals.—Maximilian.

 Comment by Ed. See opposite page for illustration of Indian pipes.
- See the "Disseminator" for 1831. Say writes—"Some arrow-heads and knives made of flint were found in the same tumulus, which are perfectly like those often found on the surface. These arrow-heads are generally known, but the instrument which probably served as a knife, deserves more particular consideration. It is from an inch and a half to two inches and a quarter long, from three-tenths to seven-tenths broad, and has two edges; in shape it resembles the obsidian knives of the ancient Aztecks, or, perhaps, of the Tultecks, of which we found a great many near the Mexican city of Chalco, and of which there are engravings in one of the last numbers of 'Silliman's Journal.' We have compared several specimens of flint and obsidian knives, and found them as perfectly alike as if they had been made by the same artist, and as the difference of the material allows. If we cannot decide how far this fact may serve to confirm the hieroglyphic accounts of the emigration of the Aztecks and Tultecks from north to south, it seems, however, to strengthen the conjecture that the remote ancestors of the present Mexicans erected the tumuli and walls which are spread in such numbers over this country, and of the origin of which the present race of red men have no tradition." These obsidian knives are likewise represented in one of the early volumes of the French Academy, but Warden does not mention them in his "Antiquités Mexicaines." He puts the question, whether the people of the Ohio Valley may not have been a colony of the ancient inhabitants of Palenque? The old tumuli of Harmony appear, at least, to belong to a kindred race. On this obscure but highly interesting subject, see Alex. V. Humboldt, "Voy. au Nouv. Cont." t. iii. p. 155, &c.—MAXIMILIAN.
- [92] This must have been a wandering band either of Sauk and Foxes (the latter of whom often were entitled "Musquake") or of Mascoutin. The Indian title to this region had been extinguished in 1804; see note 92, *post*. Possibly they were Potawatomi, several of whose chiefs bore names resembling these.
 - An account of the battle of Tippecanoe is given in Evans's *Tour*, in our volume viii, p. 286, note 131.—Ed.
- [93] Some of the southern tribes of the North American Indians still use such wooden pipes. I have seen such belonging to the Cherokees, which were in the shape of a bear. The opening for the tobacco was on the back, and the tube fixed near the tail.—Maximilian.
- [94] For the Kickapoo and Mascoutin (Masquiton) Indians, see Croghan's *Journals*, in our volume i, p. 139, note 111; for the Potawatomi (Potanons), *ibid.*, p. 115, note 84. The Piankeshaw and Miami are respectively noted in our volume i, p. 142, note 115; p. 27, note 24. The Wyandot (Viandots) were the Huron; see our volume i, p. 29, note 26.
 - Two treaties—the first with the Delawares, signed August 18, 1804; the second with the Piankeshaw, August 27, 1804—were concluded by William Henry Harrison at Vincennes. By these treaties all the southwestern portion of Indiana below the Vincennes tract already ceded, became the property of the United States. See W. H. Smith, *History of Indiana* (Indianapolis, 1897), pp. 230-233.—Ed.
- [95] Bloomington, the seat of Monroe County, Indiana, was laid out by Benjamin Park, July 12, 1818.
 - By the two acts of March 26, 1804, and April 16, 1816, Congress granted two townships of land, subsequently located in Gibson and Monroe counties "for the use of a seminary of learning." The territorial legislature on November 9, 1806, established in the borough of Vincennes "an university to be known by the name and style of the Vincennes University." The attempt proved a failure, and the land was transferred to the Indiana Seminary created on January 20, 1820. The latter was, on January 24, 1828, raised to the dignity of Indiana College, and on February 15, 1838, to Indiana University.—Ed.
- [96] The other taxes were at this time the following:—1. Poll-tax, thirty-seven and a half cents per head, per annum. 2. Land-tax, according to the quality of the land; in Illinois, one and a half cents per acre on land of the best quality. 3. Watch-tax, twenty-five cents on a silver watch, and half a dollar on a gold watch. 4. Horse-tax, thirty-five cents on every horse above three years old. Twenty-five cents on every pair of draught oxen. This was the case in Indiana; in Illinois, a tax of half a dollar, on the value of 100 dollars for every head of cattle above three years old. All grocers who sell sugar, coffee, and spirituous liquors, pay a tax in Indiana, as well as publicans. The landlord of the inn at which we lodged, paid a tax of ten dollars per annum. All these taxes are levied by the Government of the State, and are liable to be changed.—Maximilian.
- [97] See p. 175, for illustration of neck-yoke and plow.—Ed.
- [98] In the splendid work, "Genus Pinus," by my lamented friend, A. B. Lambert, Esq., Vice-President of the Linnean Society, lately deceased, there is a plate and an interesting account of this tree. Mr. Lambert states that "it was introduced into England by Lord Bagot, from seeds received from the celebrated naturalist, Mr. Correa de Serra, then ambassador of Portugal to the United States. Lord Bagot has two fine trees in his

- conservatory, and was so good as to give me plants of it, which are now growing in my conservatory at Boyton."—H. Evans Lloyd.
- [99] Fox River, a bayou of the Big Wabash River, in the eastern portion of Philip Township, White County, Illinois, cuts off about six miles of territory, known as Fox Island.—Ed.
- [100] See Bodmer's view of this junction, Plate 38, in the accompanying atlas, our volume xxv. $-E_D$
- [101] See Evans's *Pedestrious Tour*, in our volume viii, p. 192, note 45.—Ed.
- [102] This *Nymphæa* had, in January, thrown out short pedunculi, near to its tuberculous root, at some depth below the water, from which thick, round, yellow flower-buds had sprouted. The arrow-shaped leaves were green, but, at this time, at a great depth under water.—Maximilian.
- [103] The parroquet (or parrakeet), a diminution of the Spanish *perico*, meaning parrot, is the term applied to many small varieties of parrots, especially to the long-tailed East Indian and Australian species of the genus *Palæorius*. At the opening of the nineteenth century they were quite numerous in the southern portion of the United States; but they have now disappeared, save in the wilder portions of Indian Territory and Florida. See Cuming's *Tour*, in our volume iv, p. 161, note 108.—Ed.
- [104] See Plate 38, in the accompanying atlas, our volume xxv.—Ed.
- [105] The "Napoleon" (100 tons) was built at Pittsburg in 1831, and the "Conveyance" (90 tons) at Cincinnati in the same year.—Ed.
- [106] For the Shawnee Indians and Shawneetown, see Croghan's *Journals*, in our volume i, p. 138, note 108.
 - The reference is to Dr. Jedidiah Morse (1761-1826), Report to Secretary of War on Indian Affairs (New Haven, 1822), the result of a tour among the Western tribes in 1820.

 —Ep.
- [107] Saline Creek (or River), formed by the union of the North and South Forks in Gallatin County, Illinois, flows southeast and enters the Ohio River about ten miles below Shawneetown. For a short statement on salt deposits, see James's *Long's Expedition*, in our volume xiv, p. 58, note 11.—Ed.
- [108] The "Paragon" (90 tons) was constructed at Cincinnati in 1829.—Ed.
- [109] Battery Rock is twelve miles below Shawneetown.—Ed.
- [110] See Plate 7, in the accompanying atlas, our volume xxv. See also Cuming's *Tour*, in our volume iv, p. 273, note 180.—Ed.
- [111] For Golconda consult Woods's *English Prairie*, in our volume x, p. 327, note 77. Sister's Island, a narrow strip a mile in length, lies twenty miles below Elizabethtown, Illinois. Smithland is the county seat of Livingston County, Kentucky, immediately below the mouth of the Cumberland.—ED.
- [112] Paducah, the seat of McCracken County, Kentucky, and forty-eight miles above Cairo, was laid out in 1827 and named from a well-known Indian chief. It is a large shipping place and in 1900 had a population of 12,797. It is the seat of Paducah University.
 - The book here referred to is Samuel Cumings' Western Pilot, containing Charts of the Ohio River and of the Mississippi from the Mouth of the Missouri to the Gulf of Mexico, accompanied with Directions for navigating the same, and a Gazetteer or Description of Towns on their Banks, Tributary Streams, etc., also a variety of Matter interesting to Travelers and all concerned in the Navigation of these Rivers (Cincinnati, 1828, 1829, 1834).
 - For a brief sketch of Fort Massac, see A. Michaux's *Travels*, in our volume iii, p. 73, note 139.—ED.
- Several fruitless attempts were made to establish a city at the confluence of the two [113] rivers. Trinity, long time a rival of Cairo, was first settled in 1817 at Cache River. Shortly afterwards Shadrach Bond, John Comyges, and others entered a land claim for eighteen hundred acres between the Ohio and Mississippi rivers and incorporated it as the City and Bank of Cairo. At Comyges's death, however, the claim was allowed to lapse. In the same year William Bird occupied three hundred and sixty acres at the extreme point of the peninsula, and named his proposed city Bird's Point. A few houses were built; but during the War of Secession were removed to the Missouri side. In 1828 John and Thompson Bird built the first houses on the present site of Cairo. Here boats were long accustomed to stop for supplies. In 1835, Sidney Breeze, Baker Gilbert, and others reentered the forfeited land of the City and Bank of Cairo, and two years later obtained its incorporation as Cairo City and Canal Company. Speculation followed; the company purchased at a high price ten thousand acres, comprising all the territory between the Ohio, Mississippi, and Cache rivers, including Bird's Point. Plans for extensive improvements were made. D. B. Holbrook, one of the leading promoters, sold in Europe two million dollars in bonds. Sharp reverses followed and Cairo was not incorporated as a city until 1858.—Ed.
- [114] The steamboat "O'Connell" was built at Pittsburg in 1833.—Ed.
- [115] Commerce, on the Missouri side thirty miles above Cairo, was a trading post, as early as 1803. It was laid out in 1822, incorporated in 1857, and made the seat of Scott County in 1864. See Campbell, *Gazetteer of Missouri* (St. Louis, 1875).—Ed.
- [116] For the early history of Cape Girardeau, see A. Michaux's *Travels*, in our volume iii, p.

80, note 154. Devil's Island, less than three miles in length, is near the Illinois side four miles above Cape Girardeau. Bainbridge, Missouri, twelve miles above the town of Cape Girardeau, was on the road from Kentucky and Illinois to the White River and Arkansas. Hamburg (not Harrisburg), in Calhoun County, Illinois, is directly across the river from Bainbridge, and at the time of Maximilian's visit was a new landing. The Devil's Tea Table is on the Missouri side eighteen miles above Cape Girardeau. For more particulars concerning the places between St. Louis and the mouth of the Ohio, see Flagg's Far West, in our volume xxvi, pp. 50-83 (original pagination), and footnotes to the same.—Ed.

- [117] See Plate 9, in the accompanying atlas, our volume xxv.—Ed.
- [118] It is well known that the whole tract contains shell limestone. Mr. Lesueur has made important collections of this kind on the Tower Rock at Vicksburg, Natchez, and other places on the banks of the Mississippi, of part of which he has made descriptions and drawings. He has accurately stated the several strata, with the shells of animals and fishbones occurring in them. The shells are very friable when taken out of the rock—afterwards, and especially if washed in water, they are firmer. Mr. Lesueur has sent large collections of these things to France.—MAXIMILIAN.
- [119] St. Mary's River rises in Perry County, Illinois, and enters the Mississippi six miles below the mouth of the Kaskaskia. Chester is the seat of Randolph County, seventy-six miles below St. Louis. Large quantities of bituminous coal and building stone are in the vicinity. For the early history of Kaskaskia, see A. Michaux's *Travels*, in our volume iii, p. 69, note 132.—Ed.
- [120] An account of the founding of Ste. Geneviève is given in Cuming's *Tour* in our volume iv, p. 266, note 174.—Ed.
- [121] The mines here referred to are the *Mine La Mothe* and the *Mine á Burton*; a more extended account of these will be given in Flagg's *Far West*, in our volume xxvi.—Ed.
- [122] For the history of Fort Chartres, see A. Michaux's *Travels*, in our volume iii, p. 71, note 136.—Ed.
- [123] See opposite page for formations of limestone rocks.—Ed.
- [124] Herculaneum is a small village in Jefferson County, Missouri, at the mouth of Joachim Creek, about twenty-eight miles below St. Louis, and a few miles above the hamlet of Selena. Herculaneum was laid out in 1808 by Moses Austin and S. Hammond, and subsequently was made the seat of Jefferson County.—Ed.
- [125] Platteen (commonly spelled Plattin) Creek is a small stream rising in the southern part of Jefferson County, flowing north, and emptying into the Mississippi at the northern extremity of the county, four and a half miles below Herculaneum.
 - The Maramec (often pronounced and written Merrimac) River finds its source in Dent County, Missouri, and flowing northeast joins the Mississippi nineteen miles below St. Louis. Its estimated length is a hundred and fifty miles, draining a territory rich in mines of copper, iron, and lead.—Ed.
- [126] For an account of Jefferson Barracks, see Townsend's *Narrative*, in our volume xxi, p. 122, note 2.
 - Carondelet, named for Baron Carondelet, Spanish governor of Louisiana in 1791, was formerly a village in St. Louis County, Missouri; but in 1860 it was merged with the First Ward of St. Louis, under the name of South St. Louis.
 - For Cahokia, see A. Michaux's Travels, in our volume iii, p. 70, note 135.—Ed.
- [127] For the early history of St. Louis, see A. Michaux's *Travels*, in our volume iii, p. 71, note 138. Probably the author here intends Auguste Chouteau, stepson of Laclède, founder of the city—for the former consult our volume xvi, p. 275, note 127.—Ed.
- [128] For a brief sketch of General William Clark, see Bradbury's *Travels*, in our volume v, p. 254, note 143; for a more extended notice, consult Thwaites, *Original Journals of the Lewis and Clark Expedition* (New York, 1905), introduction. This is an interesting glimpse of General Clark in the professional duties of his later life.—Ed.
- [129] For the early history and the alliance of the Sauk and Foxes, see J. Long's *Voyages*, in our volume ii, p. 185, note 85. Black Hawk and his fellow prisoners were being kept as hostages for the good behavior of the remainder of the tribe, after the war of 1832. See Thwaites, "Black Hawk War," in *How George Rogers Clark won the Northwest* (Chicago, 1903), pp. 116-200; and *Treaties between the United States of America and the several Indian Tribes* (Washington, 1837), pp. 508-510. Soon after Maximilian's visit, Black Hawk was sent on a tour to the East, in order that he might appreciate the resources and power of the American people.—Ed.
- [130] Keokuk (Watchful Fox) was not a chieftain by birth, but by his address and eloquence raised himself to a prominent place in the allied Sauk and Fox tribes. Born at Saukenuk about 1780, he was younger than Black Hawk, and early took opposition to his policy. Keokuk was for peace and the American alliance, and about 1826 removed his division of the tribe across the Mississippi to a village southwest of the present Muscatine, Iowa. During the Black Hawk War he kept a large portion of the tribe neutral, and at its close was recognized by the federal government as head-chief of the tribe. In 1836 a large tract of Iowa land was ceded by the Indians to the federal government, whereupon the tribesmen removed to Kansas. Keokuk visited Washington several times, notably in 1837, when he made addresses from the platform of Catlin's museum. Catlin painted his portrait in the full garb of an Indian councillor, and daguerreotypes of him also exist. His features were of a Caucasian type, for his father was part French. Keokuk died in Kansas in 1848; in 1883 his remains were removed to Keokuk, Iowa. It is not true that in person

- Keokuk surrendered Black Hawk to the American authorities. Consult on the capture of the latter, *Wisconsin Historical Collections*, v, p. 293; viii, p. 316.—Ed.
- [131] In confirmation of the similarity of the Americans to each other, we may quote the authority of Humboldt, and other travellers. (See Essay on the Political State of New Spain, vol. i. p. 115). Dr. Meyen gives a figure of a Peruvian Mummy (N. Acta Acad. Caes. Leop. Car. I. xvi. Suppl. 1. Tab. 1), which perfectly expresses the character of the North American Indians.—Maximilian.
- [132] See Meyen, Loc. cit. p. 45.—MAXIMILIAN.
- [133] There are numerous tribes in North America, also, among whom the aquiline nose is very rare. This is certified, with respect to the Chippeways, in Major Long's account of his journey to St. Peter's River; and Captain Bonneville says that the people to the east of the Rocky Mountains have, in general, aquiline noses, but that the tribes to the west of those mountains, mostly straight or flat noses. (See Washington Irving's Adventures of Captain Bonneville, p. 221.)—MAXIMILIAN.
- [134] N. Bossu, a French officer who in 1750 came with troops to Louisiana. He remained about twelve years in the country, and published *Nouveaux Voyages aux Indes occidentales* (Paris, 1768), an English translation of which appeared in 1771.
 - For the fate of the Natchez, consult Nuttall's Journal, in our volume xiii, p. 303, note 226.
 - The Botocudo are a Tapuyan tribe of southeastern Brazil.—Ed.
- [135] For Baron von Humboldt, see our volume xviii, p. 345, note 136.
 - Franz Julius Ferdinand Meyen was a German botanist who voyaged around the world in 1830-32. Upon his return he was called to a chair at Berlin, but died prematurely in 1840 at the age of thirty-eight. He published many memoirs in scientific journals, and in 1834-35 an account of his world-wide voyage.—Ed.
- [136] Louis Isidore Duperrey, a French naval officer (1786-1865), entered the navy in 1802. Soon afterwards he made two long voyages around the world, and published much hydrographic and scientific matter. In 1842 he was chosen member of the French Academy of Sciences.—Ed.
- [137] Loc. cit. p. 18.—MAXIMILIAN.
- [138] Loc. cit. p. 117.—MAXIMILIAN.
- [139] For Zebulon M. Pike, see Evans's *Pedestrious Tour*, in our volume viii, p. 280, note 122.

 —Fp.
- [140] Loc. cit., vol. i. p. 3.—MAXIMILIAN.
- [141] Warden, Loc. cit., part ii. plate x. fig. 4.—MAXIMILIAN.
 - Comment by Ed. Referring to D. B. Warden, Recherches sur les Antiquities de l'Amérique Septentrionale. The stream where the antique vase was found, was Caney Fork of Cumberland, in central Tennessee.
- [142] The Foxes call this ornament kateüikunn. I have given a figure of it, in the Plate of utensils and arms.—Maximilian.
 - Comment by Ed. See Plate 81, in the accompanying atlas, our volume xxv.
- [143] See Plate 36, in the accompanying atlas, our volume xxv.—Ed.
 - Watapinat, a Fox Indian, is cited as being here portrayed. This drawing could not, however, be engraved; and so another Musquake (Fox) Indian, Wakassasse was pictured.

 —Maximilian (in German edition).
- These small shell cylinders are known to be cut out of the shells of the *Venus mercenaria*, and strung on threads; they are arranged blue and white alternately. All the northern and eastern nations, in the neighbourhood of the great lakes, and even the tribes on the Lower Missouri, use this ornament, but not those on the Upper Missouri. On this subject see Blumenbach, Handbuch der Naturgeschichte, 12 ed., p. 359, 385.

 —MAXIMILIAN.
- [145] An iron battle-axe, made by the whites, which has a pipe bowl at the back, the handle being bored through, to serve as tube to the pipe.—MAXIMILIAN.
- [146] This instrument is the only weapon of the Indians which has lost something of its original character, since the merchants have had them manufactured with a steel point, as an article of trade with the Indians. A specimen of the original form is found in Pennant's "Arctic Zoology," Plate VI., the middle figure.—MAXIMILIAN.
- [147] See Plate 81, figure 4, in the accompanying atlas, our volume xxv.—Ed.
- [148] See the same Plate, figure 3.—Ed.
- [149] In 1816, in order to control the neighboring territory, Fort Armstrong was erected on Rock Island. For many years Thomas Forsyth was Indian agent to the Sauk and Fox tribe at this place, and by many it was thought that had he not been removed the Black Hawk War might have been prevented. Felix St. Vrain, his successor, was slain at the outset of that uprising (1832). At the time of Maximilian's journey, W. S. Davenport was agent at Fort Armstrong.

This treaty referred to was made in 1804 at St. Louis, by Governor William H. Harrison. It was not ratified, however, until January, 1805. It was the inciting cause of the Black Hawk War. See Thwaites, *op. cit.* in note 127, *ante*, pp. 116-126.—Ed.

- [150] For this reference see note 104, ante, p. 201.—Ed.
- [151] See Thwaites, "Early Lead Mining on the Mississippi," in *How George Rogers Clark won the Northwest*, pp. 299-332.—Ed.
- [152] Portions of this collection are still in possession of Clark's descendants; see Thwaites, "Newly Discovered Records of Lewis and Clark," in *Scribner's Magazine*, xxxv, pp. 685-700.—ED.
- [153] The "Warrior," built at Pittsburg in 1832, was rated at 110 tons. It was used during the Black Hawk War to convey federal supplies, and took effective part in the battle of Bad Axe, by which Black Hawk's band was nearly annihilated. See J. H. Fonda's "Reminiscences," in *Wisconsin Historical Collections*, v, pp. 261-264.—Ed.
- [154] General Henry Atkinson was born in North Carolina in 1782. In 1808 he entered the regular army as captain, mounting through various grades to that of brigadier-general (1821). He was connected with the Yellowstone expeditions of 1819 and 1825, but perhaps his most important service was as leader of the federal troops in the Black Hawk War, wherein he was called "White Beaver" by the Indians. At its close he took command of Jefferson Barracks, where he died in 1842.—Ed.
- [155] See Townsend's *Narrative*, in our volume xxi, p. 123, note 3, for a brief sketch of Black Hawk. His portrait was painted by Catlin at Jefferson Barracks, and again by R. M. Sully at Fortress Monroe. The latter canvas is in the museum of the Wisconsin Historical Society.—Ed.
- [156] Winnebago Prophet, more commonly known as White Cloud (a translation of his Indian name Wabokieshiek), was the "medicine man" of Black Hawk's revolt. He was Winnebago on his mother's side, and had a village on Rock River, forty miles above Rock Island—the present Prophetstown, Illinois. After the war he was captured, and shared Black Hawk's imprisonment, dying among the Winnebago about 1841. His portrait was painted by Catlin at Jefferson Barracks, and again at Fortress Monroe by R. M. Sully—the latter, in the museum of the Wisconsin Historical Society, portrays a cunning, rather low type of face, stronger and more subtle than that of Black Hawk.—Ed.
- [157] For Captain Stewart, see Townsend's Narrative, in our volume xxi, p. 197, note 42.—Ed.
- [158] For the building and first voyages of the "Yellowstone" see our volume xxi, p. 46, note 26 (Wyeth).—Ed.
- [159] For the Mackinac Company see Ross's Oregon Settlers, our volume vii, pp. 34, 35—Ed.
- [160] See Washington Irving's Astoria.—Maximilian.
- [161] Astor's company had originally been organized in 1808. After absorbing the Mackinac Company it was until 1816 known as the South West Company, when a re-organization occurred, resulting in the American Fur Company. See Chittenden, *Fur-Trade*, i, pp. 309-311. The Columbia River enterprise is narrated in our volumes vi and vii.—Ed.
- [162] The Missouri Fur Company was organized (1808) soon after the return of the Lewis and Clark expedition, with Clark, a brother of Lewis, and several well-known merchants of Illinois and St. Louis as members. Its chief trader, later the president, was Manuel Lisa. After his death in 1820 the fortunes of the company declined.
 - By the French Company Maximilian intends a firm composed of Papin, Cerré, and Picotte, which in 1830 sold out to the American Fur Company. Its career was but about three years long.—Ed.
- The Columbia Fur Company was organized after the consolidation of the British companies (1821) had thrown a number of enterprising Scotch and Canadian traders out of employment. Its leading spirits were Kenneth McKenzie, William Laidlaw, and Daniel Lamont. Organized to trade within the boundaries of the United States, it was technically known as Tilton and Company, of New York. The chief outfitting post was built upon Lake Traverse, Minnesota, whence passage to the upper Missouri was quickly secured. The operations of this company harassed the American Fur Company, which in 1827 entered into a combination with the Columbia, thus securing control of the upper Missouri trade. See Chittenden, Fur-Trade, i, pp. 323-327.—Ed.
- [164] For Ramsay Crooks, see our volume v, p. 36, note 3.—Ed.
- [165] The Rocky Mountain Fur Company—first under General William H. Ashley, later under the Sublettes, Thomas Fitzpatrick, etc.—absorbed a large proportion of the Western furtrade in the decade before Maximilian arrived in St. Louis. It was one of their caravans that Captain Stewart urged the prince to accompany. Consult our volume xxi, for the operations of this corporation.—Ed.
- [166] Mr. Schoolcraft, in his latest journey to Itasca Lake (page 35), gives a short history of the fur trade, which, in many places, has already fallen into entire decay; for instance, on Lake St. Croix (page 141), if the inhabitants of those parts do not take to agriculture, they must emigrate or starve.—Maximilian.
- [167] For the early history of the Hudson's Bay and North West companies see preface to J. Long's *Voyages*, in our volume ii.—Ed.
- [168] The "Upper Missouri Outfit" branch of the American Fur Company controlled the upper Missouri and its tributaries, from the date of consolidation with the Columbia Company (1827) until the advance of emigration and settlement made fur-trapping unprofitable.

 —ED.
- [169] For Major Benjamin O'Fallon and John Dougherty, see Faux's *Journal* in our volume xii, p. 49, note 127, and James's *Long's Expedition*, in our volume xiv, p. 126, note 92.—Ed.

Pierre Chouteau, jr., son of the elder of that name (for whom see our volume xvi, p. 275, note 127), was born at St. Louis, January 19, 1789; among his family he was known as "Cadet." Early evincing unusual talents as a trader, he entered his father's business at the age of sixteen. The years 1806-08 he spent at the lead mines with Julien Dubuque, and in 1809 made his first fur-trade voyage to the upper Missouri, whose commercial destinies he was so long to control. In 1813 he formed a partnership on his own account with Bartholomew Berthold, which operated independently until they were bought out by the American Fur Company, for whom Chouteau became local manager. Later he extended his financial operations to New York, and became one of the moneyed princes of that city, although dying in St. Louis in 1865. His public services were chiefly local, but he served in the state constitutional convention of 1820. He was interested in scientific pursuits, and ready to assist travellers bound on such errands.

For Kenneth McKenzie see Wyeth's *Oregon*, in our volume xxi, p. 45, note 25. The winter of 1834-35 McKenzie paid a visit to Prince Maximilian in his German home, where he was received with much hospitality and brought news to his host of recent affairs on the Missouri, which the latter reports in the appendix to the German edition of his work, ii, p. 616.—Ed.

- [171] Especially provisions, coffee, sugar, brandy, candles, fine gunpowder, shot of every kind, colours, paper, some books, &c.—Maximilian.
- [172] For Joshua Pilcher, see our volume xiv, p. 269, note 193.—Ed.
- [173] Major John F. A. Sanford was a native of Winchester, Virginia. Upon appointment to an Indian sub-agency, he came west, and (1827-34) lived among the Mandans; later (1837), he was agent at Fort Gibson. He married Emilie Chouteau, daughter of Pierre, jr. Subsequently becoming interested in American Fur Company affairs, he (about 1838) removed to New York as its representative.
 - Jonathan L. Bean, of Pennsylvania, was government sub-agent (1827-34) for the Sioux. — ${\rm E_D}$.
- [174] Major Benjamin O'Fallon was a nephew of William Clark, and the map of the upper Missouri, which he furnished to Maximilian, was a manuscript copy of an original map by the hand of the famous explorer. Inquiry of the reigning prince of Wied-Neuwied elicits the following information: "Major O'Fallon made a present to the prince in the year 1833, at the beginning of his journey of that year, of a copy of this chart, which the prince [Maximilian] during his journey completed and supplied its deficiencies. This copy, a little atlas of thirty-seven leaves, is in the archives here. Upon one leaf, in the handwriting of Prince Max, is the following inscription: 'I received this exact copy of the original by the goodness of the late Indian agent, Major O'Fallon.'" See Thwaites' Original Journals of the Lewis and Clark Expedition, introduction, concerning Clark's maps and the extant originals.—Ed.
- [175] Other travellers of our series made their way up the Missouri—Bradbury (volume v), and Brackenridge (volume vi), in 1811, in a barge; Long's party (our volumes xiv-xvii) in 1819, 1820 in a steamboat; Townsend (our volume xxi), in 1834, partly by land and partly by river. Such places as they mention will not here be specifically noticed, a general reference to these earlier volumes being considered sufficient.—Ed.
- [176] See Plate 10, in the accompanying atlas, our volume xxv. The Kickapoo are briefly noticed in Croghan's *Journals*, in our volume i, p. 139, note 111. They removed to the west of the Mississippi after the treaty at Edwardsville, Illinois, in 1819.—Ed.
- [177] Schoolcraft justly observes that the course of the Missouri is much more considerable than that of the Mississippi, and that it would have been more proper to leave the name Missouri to the river, and not call it the Mississippi.—Maximilian.
- [178] Still called Ramrod Eddy, about five miles above St. Charles. See Missouri River Commissioners' map, made by United States engineers in 1878-79, and published 1883-84.—Ed.
- [179] See our volume xviii, p. 25, note 1.—Ed.
- [180] The stream is now called Buffalo Creek, in Warren County, with the town of Dundee at its mouth
 - Pinckney was a small village, the seat of Montgomery County (1818-24), but now in Warren County, where a township still retains the name, the site of the town having long since been washed away.—Ed.
- [181] The success of the steamboat "Yellowstone," in the fur-trade business, was so great that the company ordered a somewhat larger craft, which was built at Cincinnati in the winter of 1832-33, and christened the "Assiniboine." This was its initial voyage. The next year it ventured too far above the Yellowstone River, was caught by low water and obliged to winter near Poplar River. The "Assiniboine" was lost by fire near Bismarck, North Dakota, June 1, 1835, having on board a large cargo of furs, the year's supply, as well as all of Maximilian's collection. See preface, ante p. 17.—Ed.
- [182] Otter is more commonly known as Loutre Island; see Bradbury's *Travels*, our volume v, p. 47, note 18.—Ed.
- [183] Au Vase (now Auxvasse) Creek took its name from the miring of a party under charge of Lilburn W. Boggs. It is in Callaway County; and Portland, a hamlet on the north side of the stream, was laid off therein in 1831.—Ed.
- [184] The defense of this place is detailed in our volume xiv, pp. 139, 140. For Brackenridge, see our volume vi.—Ed.

- [185] In 1820 a commission was chosen to select a site for the state capital, somewhere near the centre of the state. The place selected was in Cole County, but it did not actually become the capital until about 1826. On Long's map it is marked as "Missouriopolis."—ED.
- [186] These two places are noticed in our volume xxi, p. 133, note 8 (Townsend.)—Ed.
- [187] For Boonville see our volume xxi, p. 89, note 59 (Wyeth). For Franklin, volume xix, p. 188, note 33 (Gregg).—Ed.
- [188] Probably the settlement now known as Arrow Rock, in Saline County.—Ed.
- [189] The treaty of cession was signed in 1824, whereby the Iowa Indians relinquished all lands in Missouri, agreeing not to hunt therein after January 1, 1826. See *Indian Treaties* (Washington, 1837), p. 316.—Ed.
- [190] None of the Indian languages of these parts, of which Major Dougherty spoke thirteen or fourteen, have any general plural; thus, for instance, they never say, in general, *horses*, but always mention a number, as expressive of many horses; nor is there any real article.

 —MAXIMILIAN.
- [191] Wakenda Creek, the largest stream in Carroll County, is named from an Indian term meaning "divinity" or "worshipped."—Ed.
- [192] Some accounts say that the Osages were the assailants, but I believe the above statement to be correct, because it was given me by Major Dougherty.—MAXIMILIAN.
- [193] This defeat of the Missouri, once the most powerful tribe on the lower reaches of the river, occurred toward the close of the eighteenth century. Small-pox completed the destruction of the tribe. See Bradbury's *Travels*, in our volume v, p. 56, note 26.—Ed.
- [194] Fire Prairie is on the south bank of the Missouri, in the present Lafayette County, a creek of the same name entering the river at this point. It is said to take its name from the death there of several Indians in a prairie fire.—Ed.
- [195] See Plate 37, in the accompanying atlas, our volume xxv.—ED.
- [196] Fishing Creek (or River) rises in Clinton County and flows south and southeast into the Missouri through Clay and Ray counties.—Ed.
- [197] An historical notice of old Fort Osage is given in Bradbury's *Travels*, our volume v, p. 60, note 31. The Osage Indians, *ibid*, p. 50, note 22. The cession by which the Osage were forced back was made at St. Louis in June, 1825, under General William Clark's superintendency.—Ed.
- [198] Now known as Little Blue Creek, rising on the southern borders of Jackson County and flowing nearly north into the Missouri.—*Ed.*
- [199] Liberty, the county seat of Clay, was settled in 1822, but up to 1826 had only about a dozen houses; it was incorporated in 1829. During the Mormon troubles of the fourth decade of the nineteenth century, Liberty rose into prominence. The town is set back about six miles from the river, on the high, salubrious uplands. Liberty Landing, on the river, was in the days of the Santa Fé trade of some commercial importance.—Ed.
- [200] Maximilian's remarks are misleading in regard to the operations of these traders. Ashley began his fur-trading ventures in 1822; four years later he sold out to Smith, Jackson, and Sublette; they in turn relinquished their business to younger traders in 1830. So the Rocky Mountain Fur Company had for about eleven years been an efficient rival to the American.

For a brief sketch of Sublette see our volume xix, p. 221, note 55 (Gregg).

General William Henry Ashley was born in Virginia in 1778. Soon after the beginning of the nineteenth century he went to Missouri, settling first at Ste. Geneviève, later in St. Louis, and embarking in various mercantile enterprises. In 1816-17 he surveyed in the state, and the knowledge thus obtained permitted him to make heavy investments for some English capitalists, which laid the foundation of his fortune. In 1820 he was elected lieutenant-governor, and during his term (1820-24) began his fur-trading exploits, from which he derived profit and fame. His title came as leader of the state militia, in whose development he was much interested. In 1831 he was appointed to a vacant seat in Congress, being re-elected thereto two successive terms. He died at St. Louis in 1838. —Ed.

- [201] The Big Blue rises in Johnson County, Kansas, and flows northeast and north through Jackson County, Missouri, until it joins the Missouri six miles below Kansas City.—Ed.
- [202] This trading post was on the south side of the Kansas, opposite Muncie, in what is now Wyandotte County, built about 1828. It was for many years in charge of Cyprian Chouteau (1802-79), half brother of Pierre, jr. Frémont set out thence on his journey (1842).—Ed.
- [203] See our volume xiv, pp. 183-198.—Ed.
- [204] These villages of the Iowa, on the Little Platte, appear to have been temporary. Probably the tribe had fled in this direction after the troubles of the Black Hawk War (1832). In 1836 they ceded this strip—which was added to Missouri as the "Platte Purchase"—and removed to Kansas. The author cannot intend that the language of the Iowa resembled that of the Ottawa; the former is of Dakota stock, the latter of Algonquian. The Sauk and Foxes, at this time intimately commingled with the Iowa, spoke Algonquian.—Ed.
- [205] For these islands, see our volume xiv, p. 174, note 141.—Ed.

Fort Leavenworth was founded to supersede two smaller posts—Forts Osage and Atkinson—the latter near Council Bluffs. The site was chosen because of the increasing interest in the Santa Fé trade, and because of the removal of large tribes of Indians west of the Missouri border. On March 7, 1827, Colonel Henry Leavenworth was ordered to proceed from Jefferson Barracks and choose the site for an establishment on the left bank of the Missouri, within twenty miles of the mouth of Little Platte. He selected instead Rattlesnake Hills on the right bank, a site later approved by the government. Fort Leavenworth has been an important military post throughout the history of the West. It was called Leavenworth Cantonment until the name was officially changed to "Fort," about 1832.

For Major Bennett Riley see our volume xix, p. 185, note 25 (Gregg).—Ed.

- [207] This law was passed in the first session of the twenty-second congress, and was merely a portion of an act to create an Indian commissioner. It caused but little debate, and apparently was fathered by General Ashley and others cognizant of conditions in the furtrade. For the consternation it created among the traders consult Chittenden, *Fur-Trade*, index.—Ed.
- [208] According to the treaty held at St. Louis in 1832, with the Kickapoo chiefs, a deputation was to visit the new territory in Kansas and agree to the lands chosen. This was accordingly done in November, and this would appear to be among the arrivals early in the spring of 1833 to take possession of the new reservation.—Ed.
- [209] Lewis and Clark apply this term with different orthography (Waucarba, wacandda) to the island above Fort Leavenworth now known as Kickapoo. The river is here compressed into a narrow space, above which it widens considerably. See Thwaites, *Original Journals of the Lewis and Clark Expedition*, i, p. 64.—Ed.
- [210] For this detachment under Captain Martin, see our volume xiv, p. 175.—Ed.
- [211] The creek was so named by Lewis and Clark because its mouth was passed by them on July 4, 1804. It is a small stream entering the Missouri near the boundaries of Doniphan and Atchison counties, Kansas. According to Lewis and Clark this was the second old Kansa village, the first being just above Kickapoo Island. If the Spanish ever had a post in this vicinity, it must have been in the capacity of succeeding (after 1764) to the possession of the old French post among the Kansa Indians. See on this subject, *Original Journals of the Lewis and Clark Expedition*, i, pp. 64-68, and notes.—Ed.
- [212] Joseph Robidoux, whose trading post was on the site of the future city of St. Joseph, which took its name from its founder. The Robidoux were a family of fur-traders. The father, Joseph, came from Montreal to Kaskaskia, and having won a competence removed to St. Louis, where at his house the first territorial legislature of Missouri met in 1812. Joseph, jr., was born in 1783, and early entered the fur-trade. Lewis and Clark met "young Mr. Robidoux" on their return journey (1806), and scrutinized his license with some suspicion. Lewis also complained of the loyalty of the elder trader, saying that he enticed the Indians from their allegiance to the United States. The younger Robidoux lived for many years at the post where Maximilian met him—in 1868 dying at this place, where the city had already sprung up around him. See sketch in Joseph Tasse, Canadiens du Nord-Ouest (Montreal, 1878), ii, p. 131.—Ed.
- [213] The Joways had exchanged their blankets and other effects for brandy. White settlers have already established themselves fifteen or sixteen miles within the Indian territory, who make whisky, and sell it excessively cheap to the Indians, by which these people are ruined. The distance is only eight miles from Roubedoux trading house to the Little Platte River; and between these two rivers and the high land, is the village of the Joways.

 —MAXIMILIAN.
- [214] This is, doubtless, the same river which Bradbury, in his *Travels*, calls Naduet River.
 —MAXIMILIAN.
- [215] For Captain Martin see James's *Long's Expedition*, in our volume xiv, p. 175, note 142. Maximilian would here appear to be confused. Martin passed the winter of 1818 to 1819 on Cow Island (see note 208, *ante*, p. 256). He had, however, a hunting camp in this vicinity.—Ed.
- [216] For the Oto, see Bradbury's *Travels*, our volume v, p. 74, note 42.—Ed.
- [217] Morgan's Island is just below Nemaha City, in the Nebraska county of the same name. Probably it took its title from Colonel Willoughby Morgan, for whom see our volume xiv, p. 178, note 146. The trading post has not been identified, unless it were that of Crooks and McClellan, who once (1810-11) wintered in this region. See Brackenridge's *Journal*, volume vi of our series, p. 71.—Ed.
- [218] Lewis and Clark found the passage across the narrows at this point but 300 yards. Changes have since occurred in the beds of both rivers. See our volume xiv, p. 217, note 166. The range of hills was aptly designated by the explorers as Bald Pated Prairie.—Ed.
- [219] Weeping Water Creek is a small stream paralleling the Platte in Cass County, Nebraska. The French form was "l'eau qui pleure."
 - Five Barrel Islands are laid down on early maps; with changes in the river's bed, they are now swept away.—Ed.
- [220] For a brief sketch of Fontenelle, see our volume xiv, p. 275, note 196.—Ed.
- [221] See Brackenridge's *Journal*, in our volume vi, p. 76, for the origin of this name. The Indian name of the chief—an Oto—is given by Lewis and Clark as "Sarnanona."—Ed.
- [222] In the Appendix there is an account of this purchase.—Maximilian. Comment by Ed. See

our volume xxiv.

- The first trading post in this locality (with possible exceptions for the Spanish régime) was that of Crooks and McClellan, who in 1810 built a "wintering establishment" here, which was abandoned the following spring—see Bradbury and Brackenridge (1811). Shortly after, Manuel Lisa built his well-known Fort Lisa, some sixteen miles above Bellevue, which continued to be the prominent post of the vicinity (see James's Long's Expedition, our volume xiv, p. 221), near which the Yellowstone Expedition built Engineer Cantonment for the winter of 1819-20. The Missouri Fur Company, under Joshua Pilcher, who succeeded Lisa as president, removed from Fort Lisa to the site of Bellevue about 1823. It was this post that Fontenelle bought out, and turned over to the American Fur Company when he became their agent. The post was for many years in command of Peter Sarpy. The Indian agency was officially entitled "Council Bluffs at Bellevue." In 1849 a postoffice was established here, and the village incorporated in 1854; some of the post buildings remained until 1870. Bellevue is now a village in Sarpy County, of which it was the capital until 1875.—Ed.
- [224] Mackinaw boats are strong, open vessels, made of a light wood, in which goods are conveyed on the rivers of the Northern and Western States.—MAXIMILIAN.
- [225] See opposite page for illustration of Omaha Indians.—Ed.
- [226] See our volume xv, pp. 27-33. This woman was the Indian wife of Manuel Lisa. See Chittenden, *Fur-Trade*, i, pp. 133-135. Judge Walter B. Douglas, of St. Louis, furnishes the following facts concerning Lisa's daughter, who was educated among the whites. She married a Baptist minister named Ely, and reared a considerable family, dying recently at Trenton, Illinois, a small town not far from St. Louis.—Ed.
- [227] For the Omaha Indians see our volume v, p. 86, note 49.—Ed.
- [228] Jean Pierre Cabanné was born in Pau, France, in 1773. After receiving good education he came to America—first to New Orleans, later to St. Louis, where he married (1797) Julie Gratiot, whose sister was the wife of Pierre Chouteau. For many years he was member of the firm of Chouteau and Pratte, thus acquiring an interest in the American Fur Company. The family home at St. Louis was the seat of a pleasant hospitality; but like many of the chief fur-traders, Cabanné spent part of each year in the Indian country, where he was head of the department centering near Council Bluffs. He left this post about the time of Maximilian's visit, owing to difficulty with a rival trader, Le Clerc, who had appealed to the courts. Cabanné died in St. Louis in 1841. His post was nine or ten miles by land above the present site of Omaha.—Ed.
- [229] See p. 269, for illustration of an Omaha boy.—Ed.
- [230] Not only these feather caps are pretty similar to those in Brazil, but also the chief instrument of the conjurors, or physicians (medicine men)—schischikue, as it is called—a calabash with a handle, in which there are small stones to rattle. The Omahas, and all the other North American tribes, use it exactly in the same manner as the Brazilians.

 —MAXIMILIAN.
- [231] See p. 269, for illustration of an Omaha war-club.—Ed.
- [232] See our volume xiv, pp. 288-321; and xv, pp. 11-136.—Ed.
- [233] For Boyer River, see our volume xiv, p. 221, note 174.

This fort at Council Bluffs was not on the site of the Iowa town of that name, but some miles higher up the river, on the Nebraska bank, near the village now known as Fort Calhoun, in Washington County. The name was first applied to the bluffs by Lewis and Clark, who held here (1804) an important council with chiefs of neighboring tribes. The United States post was built by a detachment under Colonel Henry Atkinson, when embarked on the famous Yellowstone expedition of 1819. The means of transportation proving inadequate, the troops never reached the Yellowstone, but formed at this point Camp Missouri, where during the winter of 1819-20 much sickness prevailed. The fort was finally christened Atkinson, for its founder, and was so known to the government. The local name was Fort Calhoun—whether in honor of the then secretary of war, or for a soldier who was the first to be here buried, is disputed. On the building of Fort Leavenworth, the troops were removed thither. See note 204, ante, p. 253.—Ed.

- [234] For Blackbird, see Bradbury's *Travels*, in our volume v, p. 86; Brackenridge's *Journal*, in our volume vi, pp. 81, 82; and James's *Long's Expedition*, in our volume xiv, pp. 315-320.

 —Ed.
- [235] For Big Elk, see our volume v, p. 90, note 52; also xv, p. 320.

Dr. John D. Godman (1794-1830) was a Marylander who in 1814 participated in the defense of Fort McHenry. Later studying medicine, he was a professor of anatomy at several colleges, retiring finally to Germantown, Pennsylvania, where he devoted himself to scientific pursuits. His best known work was *American Natural History* (Philadelphia, 1828).

By Horn River our author intends Elkhorn, for which see our volume xiv, p. 240, note $182 - F_D$

- [236] For Floyd, see our volume v, p. 91, note 56; also *Original Journals of the Lewis and Clark Expedition*, i, p. 114.—Ed.
- [237] For the Big Sioux River, see our volume vi, p. 85, note 30. This branch of the Dakota (or Sioux), mentioned by Maximilian, is known as the Wahpekute, one of the two components of the Santee band of the Sioux. Together with the Mdewakantonwan or Spirit Lake band, they were the Sioux first known to Europeans, being designated by

Hennepin as Issati. Their habitat was the upper waters of the Mississippi, and the St. Peter's (Minnesota) River. They wandered toward the Big Sioux River, which was made the boundary by the treaty of 1825 at Prairie du Chien—William Clark and Lewis Cass, commissioners. In this treaty the Big Sioux River is designated as the Calumet, probably because of the proximity of its source to the red pipestone quarries of southwestern Minnesota.—Ep.

- [238] Iowa Creek, a small stream running nearly parallel to the Missouri in Dixon County, Nebraska. Lewis and Clark speak of the peculiar appearance of the bluff at this place, calling the creek "Rologe."—Ed.
- [239] Wigwam is the name given to the Indian huts. The word comes from the Ojibua language, in which uikiuam signifies hut. This word has been corrupted, and applied by the whites to the habitations of all the Indian tribes.—MAXIMILIAN.
- [240] The James (or Dakota) River rises just south of Devil's Lake in Wells and Fargo counties, North Dakota, and flows nearly south into the Missouri. Its French name was Rivière à Jacques. Calumet Bluff is just above its mouth, nearly opposite Yankton, South Dakota. The term "Sego Island" does not occur in the Lewis and Clark text, nor has the name been preserved to the present day. They named White Bear Cliff for an animal of that kind killed in one of its holes. It was on the north bank, three or four miles above Yankton.—Ed.
- [241] For Bernard Pratte, sr., see our volume xv, p. 193, note 71. In addition, these facts of his life may be stated. Born at Ste. Geneviève in 1772, he went to St. Louis when twenty-one years of age, and entered the fur-trade, marrying (1794) Emilie Labbadie, niece of Pierre Chouteau, sr. During the War of 1812-15, he was in command of an expedition which proceeded against Fort Madison; later was appointed territorial judge, and in Monroe's administration receiver of public moneys at St. Louis. He died April 1, 1836, respected by the entire community.

Bernard Pratte, jr., was born in upper Louisiana, December 17, 1803. He was sent to Kentucky to be educated, and upon his return embarked in the fur-trade with his father. Being particularly interested in navigation, he went on the "Yellowstone's" early voyages, in this instance taking command of the "Assiniboine;" see his recollections in J. T. Scharf, *History of St. Louis* (Philadelphia, 1883), i, p. 675. He was a member of the Missouri assembly in 1838, and mayor of St. Louis for two terms (1844-46). In 1850 he retired to a farm near Jonesboro', Montgomery County, where he died in 1887.—Ed.

- [242] This name signifies "the smoker." The French Canadians generally call this chief Le Boucan, because smoke has that name among them.—MAXIMILIAN.
 - Comment by Ed. This Indian was also painted by Catlin. See Smithsonian Institution Report, 1885, ii, p. 64.
- [243] The word Passitopa signifies the number "four." This brother of the chief is known from the circumstance of his having shot an Indian, who sought the life of a white man, who was his friend. Mr. Bodmer drew the portraits of the two brothers, which are very like. He has succeeded particularly in that of Shudegacheh.—Maximilian.
- [244] For this portrait which Maximilian calls "a good resemblance" see Plate 40, in the accompanying atlas, our volume xxv.—ED.
- [245] For the Ponca, and their present numbers, see our volume v, p. 96, note 63.—Ed.
- [246] Now known as Bazile Creek, in Knox County, Nebraska. It flows into the Missouri just east of Niobrara. Lewis and Clark called it White Paint Creek.—Ed.
- [247] See Plate 11, in the accompanying atlas, our volume xxv.—ED.
- [248] In the portrait referred to in note 242, *ante*, the chief wears this medal on his breast. Similar medals were carried by Lewis and Clark; see Townsend's *Narrative*, in our volume xxi, p. 363, note 133.—Ed.
- [249] See p. <u>269</u> for illustration of Ponca war-club.—Ed.
- [250] Probably Charles Primeau, a fur-trader in the employ of the American Fur Company—later (1845), setting up in opposition to the company. Consult *Larpenteur's Journal*, i, p. 227.—Ed.
- [251] See opposite page for illustration of Ponca Indians in buffalo robes.—Ed.
- [252] The children of the North Americans resemble, in all respects, those of the Brazilians; I have mentioned the same circumstance of the Tapuyas of eastern Brazil, in the account of my travels in that country.—Maximilian.
- [253] For Manuel Lisa, see our volume v, p. 97, note 64. This creek, now called Emanuel, is in Bonhomme County, South Dakota, just above Springfield.—Ed.
- [254] This river rises in the Black Hills, near the sources of Tongue River, and discharges itself into the Missouri, about 1,000 miles from its mouth. The mouth of this river is said to be 150 paces broad, and its current very rapid. In the American descriptions of travels, the French name of this river is generally written incorrectly; for instance, "Qui-courre River," &c. It likewise bears the name of the Rapid River. Bradbury gives the names of some plants which he gathered on its banks.—Maximilian.
- [255] Ponca Creek, a small prairie stream, rises in the eastern part of Tripp County, South Dakota, and flows east and southeast about parallel to the Niobrara. Lewis and Clark speak of mineral springs on the northern bank, but do not mention them as warm.—Ed.
- [256] A conspicuous landmark in Wheeler County, South Dakota, just below Fort Randall, at

- the 969 mile mark from the mouth of the Missouri. Lewis and Clark speak of it as the Dome.—Ed.
- [257] Hugh Glass's adventures with wild beasts and Indians formed a kind of frontier epic, and were told around many a camp-fire. All that is known of his early life is that he came from Pennsylvania, and was spoken of as "old man Glass." He was in the Ankara campaign of 1823, and seriously wounded. Nevertheless he set out with Andrew Henry for the Yellowstone, but was nearly killed by a grizzly bear, and left to die. He survived, made his way to Fort Kiowa, and later joined Henry on the Yellowstone. See Chittenden, Fur-Trade, ii, pp. 698-705. For his death, see post, volume xxiv.—Ed.
- [258] Sir George Back (1796-1878), a well-known explorer of arctic North America. He entered the navy in 1808, and in 1817 made his first northern journey in company with Sir John Franklin. Later he accompanied Franklin on several expeditions, being one of his most trusted lieutenants. In 1833 Back organized an expedition to search for Sir John Ross; his account of this latter enterprise was published as *Narrative of the Arctic Land Expedition, 1833, 1834, and 1835* (London, 1836). In 1836 Back made a final voyage in the "Terror," whose narrative was published in 1838. Upon his return he received many honors, being knighted, made rear-admiral (1857), and admiral (1867). Maximilian quotes either from his earlier book, or from some of his narratives published with those of Franklin's expeditions.—Ed.
- [259] Little Cedar Island, still so-called, is just above Wheeler, South Dakota, about 1010 miles up the river. Maximilian has confused the distance with that of an island beyond, upon which Fort Recovery stood, given by Bradbury as 1075 miles up. See note 261, *post*, p. 304, and Bradbury's *Travels*, our volume v, p. 99, note 66.—Ed.
- [260] Bijoux Hills are on the east bank of the river, not far below Chamberlain, South Dakota. Bijoux was an engagé with Long. See our volume xvi, pp. 58-59. Catlin, *North American Indians*, ii, p. 432, says Bijoux was ultimately killed by the Sioux.—Ed.
- [261] The name Shannon was given to the first creek by Lewis and Clark, for one of their men, George Shannon, who here rejoined them after an absence of sixteen days, when he had been lost on the prairies. It is now called Dry (or Rosebud) Creek, with Rosebud Landing at its mouth.
 - White, a South Dakota river, entering the Missouri in Lyman County, from the west.—Ed.
- [262] This is the post usually known as Fort Recovery; see Bradbury's *Travels*, our volume v, p. 99, note 67.—Ed.
- [263] Fort Lookout had originally been built (about 1822) by the Columbia Fur Company, and from them passed into the hands of the American Fur Company. Later, the Indian agency was established here, as Maximilian notes. It later became a military post where troops were quartered until the building of Fort Randall in 1857. The site was some ten miles above Chamberlain, on the west bank—Ed.
- [264] For the Yankton, see our volume v, p. 90, note 55.-Ed.
- [265] Maximilian's classification of the Dakota (or Sioux) is in accord with modern philological conclusions. J. W. Powell, "Indian Linguistic Families," in United States Bureau of Ethnology *Report*, 1885-86, gives six subdivisions of this great tribe—Santee, Wahpeton, Sisseton, Yankton, Yanktonnai, and Teton; the last three, or Missouri, tribes corresponding with those given by Maximilian.—Ed.
- [266] See p. 287, for illustration of method of wearing hair.—Ed.
- [267] See his portrait, which Maximilian calls "a striking likeness," Plate 41, in the accompanying atlas, our volume xxv.—Ed.
- [268] See p. 287, for illustration of bows, arrows, and quiver.—Ed.
- [269] See p. 319, for illustration of Sioux tents.—Ed.
- [270] See Plate 81, figure 8, in the accompanying atlas, our volume xxv.—Ed.
- [271] Schoolcraft (Expedition of Gov. Cass, p. 323) says, that the Dacotas, on the Mississippi, tanned their skins with oak bark, which I did not observe on the Missouri: they probably learned it from the Whites. The Aucas, in South America, seem to use such an instrument.—D'Orbigny Voyage, t. ii. p. 234.—MAXIMILIAN.
- [272] Apparently the creeks took somewhat different courses in the time of Clark's visit—at least Crow, Wolf, and Campbell are now some distance apart in the Crow Creek Indian reservation of Buffalo County, South Dakota.—Ed.
- [273] This is a climbing plant, and the leaves are a very nourishing food for horses and oxen, which are said to thrive upon it. The root has a bulb, about the size of a walnut, with a violet outer skin, and white inside, which is said to be a wholesome food for man.

 —MAXIMILIAN.
- [274] Clark describes the Big Bend as being from a mile to a mile and a quarter at its neck, with a low range of hills running across, from ninety to a hundred and eighty feet high. He himself walked across the "gouge;" but the boats were a day and a half in passing around.—Ed.
- [275] Medicine Creek was called by Lewis and Clark Tyler's River. It is a western affluent of the Missouri, and the hills mentioned are known as Medicine Butte, in Lyman County. The mouth of the creek is the site of the Red Cloud or Lower Brulé Indian agency. This creek and hills should be distinguished from Medicine Knoll and a creek of that name, eastern affluents a few miles higher up.—Ed.

[276] Daniel Lamont, supposed to be of a Scotch family, was one of the original members of the Columbia Fur Company, and became one of the three partners of the "Upper Missouri Outfit." He was for many years in the fur-trade, but little is known of his personal history.

Colonel David D. Mitchell was a Virginian by birth (1806), who early entered the furtrade—first as a clerk, later as a partner in the American Fur Company. In 1832 he built the first fort for that company among the Blackfeet (see our volume xxiii), and was for some time in charge at Fort Clark, where Larpenteur speaks of him as "very much of a gentleman." In 1841, Mitchell was chosen superintendent of Indian affairs for the Western Department, with headquarters at St. Louis—a position which he filled until 1852. Joining the volunteer service for the Mexican War, he was chosen lieutenant-colonel of Colonel Sterling Price's regiment, and advanced first to New Mexico and later to Chihuahua with Colonel Alexander Doniphan. Mitchell died in St. Louis in 1861.—Ed.

- [277] This island is now known as Fort George (or Airhart's) Island.—Ed.
- [278] The second Fort Teton was built about 1828; it has been contended by several authorities that its site was south of or below Teton River; but in the light of Maximilian's testimony, this appears improbable. The first Fort Teton was probably that built by Joseph La Framboise in 1817. Maximilian does not state that Fort Tecumseh was the successor of Fort Teton, and the predecessor of Fort Pierre, although alluding to the former—see note 278, post. On the entire subject see "Fort Pierre and its Neighbors," in South Dakota Historical Collections (Aberdeen, 1902), i, pp. 263-379.—Ed.
- Fort Pierre was built by the American Fur Company in 1831-32 to replace Fort [279] Tecumseh, which had begun to be undermined by the river. The site chosen was three miles above the mouth of the Teton, about one thousand yards back from the river. The post was christened in June, 1832, upon the visit of Pierre Chouteau, jr., in whose honor it was named. Fort Pierre continued to be the entrepôt of the upper Missouri until 1855, when the company sold the post to the United States, then engaged in a campaign against the hostile Sioux. General Harney wintered here (1855-56) with one thousand two hundred men. The following year (1857), Fort Pierre was abandoned for Fort Randall, a hundred miles farther down the river; the old post was demolished, the best of its fittings transferred to the new post, and the rest allowed to fall into the hands of the Indians. The same year a trader built a new post, also popularly called Fort Pierre, three miles above the old one. New Fort Pierre, a company trading post, was built in 1859 about two miles above the original stockade. This was abandoned in the Sioux outbreak of 1863, and the goods removed to the neighborhood of Fort Sully, a government post established on an island below the city of Pierre, South Dakota.—Ed.
- [280] Fort Tecumseh was the principal establishment on this part of the river for the Columbia Fur Company, being built about 1822. When this concern was consolidated with the American Fur Company, the latter made headquarters at Fort Tecumseh until the building of the original Fort Pierre (1831-32). Its site has been thought, by a misreading of authorities, to have been on the east bank; but it was probably only a short distance below old Fort Pierre, on the western bank.—Ep.
- [281] William Laidlaw was a Scotchman who had been trained in the British fur companies, and came to the Missouri with the Columbia Fur Company. He was for several years the factor of Forts Tecumseh and Pierre, and was then promoted to the charge of Fort Union, where he was as late as 1845—probably for some time after. When he finally retired, it was to settle near Liberty, Missouri, where he died a poor man. He was an able trader, but of quick, irascible temper, and unpopular with his subordinates.—Ed.
- [282] See p. 319, for plan of Fort Pierre.—Ed.
- [283] For Pierre Dorion, see our volume v, p. 38, note 7. Although Maximilian speaks of him as "old Dorion," it is probable that this was another son of Pierre, sr.; for Pierre, jr., was a grown man at the time of the Lewis and Clark expedition, and his father was a Frenchman, not a half-breed.—Ed.
- [284] See the portrait of the Dakota woman, Plate 42, in the accompanying atlas, our volume xxv.—Ed.
- The red pipe-clay is found chiefly on a lateral stream of the Big Sioux River, but also in other places, for instance, on St. Peter's River; and it is said, that the several Indian tribes behave peaceably towards each other while they are digging up the stone in that place, but again treat each other as enemies as soon as they have left it. Persons who have visited the quarries on the Big Sioux River have given me the following description of them: the red stone occurs in large beds or strata, where the perpendicular sides of the stream show divers alternating layers. The strata of red stone, which are at the most a foot thick, alternate with yellow, blue, white, and other kinds of clay. The green turf on the surface, and the upper stratum, are removed, and the red-brown colour of the stone is generally more lively and beautiful the deeper you go down. It is possible to obtain large pieces, and to make beautiful slabs of them. The Indians make not only pipe-heads of this stone, but likewise war-clubs, which, however, are only carried in their hands for show.—Maximilian.

Comment by Ed. The first white person to visit the Pipestone quarries in southwest Minnesota was the artist George Catlin, who in 1836 obtained permission from the Indians to inspect this sacred spot. The mineral has since been called "catlinite," from his name. There are, however, other quarries in Dakota, Wisconsin, and Minnesota.

- [286] See Plate 81, figure 12, in the accompanying atlas, our volume xxv, for a figure of a Dakota pipe; also illustration on opposite page of Dakota pipes.—Ed.
- [287] See p. 323, for illustration of a Dakota with plaited hair.—Ed.

- [288] See Plate 81, figure 9, in the accompanying atlas, our volume xxv.—Ed.
- [289] For the Teton, see our volume v, p. 104, note 71. The Teton bands (as at present classified) are the Brulé, Sans Arcs, Blackfeet (not to be confused with the Blackfoot tribe of Algonquian origin), Miniconjou, Two Kettle, Oglala, and Hunkpapa. The Yankton bands are not classified by Powell.—Ed.
- [290] See p. 287, for illustration of method of wearing hair.—Ed.
- [291] See Plate 30, in the accompanying atlas, our volume xxv, for an Indian horse-race.—Ed.
- [292] See p. 323, for illustration of this Teton.—Ed.
- [293] See p. 323, for illustration of hill of baked clay.—Ed.
- [294] Called "No Timber Creek," by Lewis and Clark. It is now Chantier in Stanley County, a term clipped from its Siouan name.—Ep.
- [295] For the Cheyenne River see our volume v, p. 126, note 81. Cheyenne Island, about three miles long, below the river's embouchment, was called "Pania" by Lewis and Clark. They note also an old Arikara village, of which only a circular wall remained.—Ed.
- [296] For the Cheyenne, see our volume v, p. 140, note 88. Their migration was from the northeast, the habitat of the Algonquian stock.—Ed.
- [297] Coues, in his edition of Biddle's Lewis and Clark, identifies the island called "Caution" by the explorers, as the present Plum Island. The Little Cheyenne is a prairie stream coming into the Mission from the northeast, in Potter County, South Dakota.—Ed.
- [298] Called Beaver (or Otter) Creek by Lewis and Clark; probably the present Swan Creek, in Walworth County, with the town of Lebeau at its mouth.—Ed.
- [299] For this stream, see our volume v, p. 127, note 82.—Ed.
- [300] For these rivers, see our volume v, p. 127, note 83.—Ed.
- [301] In Lewis and Clark's time there were three Arikara villages on the Missouri. The lower village on the island, headed by the chief Kakawissassa, had been abandoned by 1811. See Bradbury's *Travels*, our volume v, p. 127.—Ed.
- [302] A party returning from Santa Fé in the winter of 1832-33, was attacked January 1, on the Canadian River, lost all of their property, and had one man killed. The Arikara apparently never reoccupied their village permanently. Audubon found them in 1843 in one village with the Mandan, where they lived until removed to Fort Berthold reservation.—Ed.
- [303] Known to the traders as "Old Star" present at Fort Clark in 1847; see *Larpenteur's Journal*, ii, p. 246.—Ed.
- [304] For the Arikara and Lisa see our volume v, p. 113, note 76, and p. 97, note 64, respectively. Fort Manuel, Lisa's post, erected in 1800, was near the Arikara villages, the site not being definitely determined.—ED.
- [305] These are now called Cheyenne Hills. Lewis and Clark speak of one with a top resembling the slanting roof of a house.—Ed.
- [306] Lewis and Clark give this as Warraconne (Elk shed their horns) Creek; now Beaver (or Sand) Creek, in Emmons County, North Dakota.—Ed.
- [307] On a careful investigation, I have not been able to discover from what source Lewis and Clarke procured a part of their singular denominations for the affluents of the Missouri; for, in the languages of the neighbouring Indian nations, they have entirely different names.—Maximilian.
- [308] The French form for this river was Le Boulet. It rises somewhat north of the Black Hills, flows east in two branches across North Dakota, and empties into the Missouri in Morton County.—Ed.
- [309] For a brief sketch of the Mandan, see our volume v, pp. 113, 114, note 76. Maximilian is a chief authority for the customs of this interesting tribe. See our volume xxiii.—Ed.
- [310] Alexander Harvey was a clerk of the American Fur Company. Born and reared in St. Louis, he quarrelled with his first employers while still a minor, and ran away to join the fur company. He was for several years at Fort McKenzie, and one of the participants in the Blackfoot massacre of 1843-44. Harvey was a bold and desperate character, and tales of his atrocities are narrated by Larpenteur, a fellow employé. In 1845 he left the company's employ, and organized a rival concern, of which he was head. He was living at Fort Yates as late as 1896.—Ed.
- The black-tailed or mule deer of the Americans (*Cervus macrotis*, Say), has been described, by later zoologists, from an imperfect skin; I will, therefore, give an imperfect description from nature. It is larger than the Virginian deer, not so light, has a larger hoof, much longer ears, and does not run so swiftly—not quicker than a buffalo cow. It casts its horns in March, and throws off the rough skin of them in August. They have, generally, only one young one—sometimes two; they are marked with white spots, on a pale yellowish-red ground. One of these animals, of three or four years old, in shape nearly resembled the Virginian deer; the hair of the body was hard and scanty; the whole of a pale yellowish-red; the breast greyish-brown, and, on the belly, yellowish-white. In winter, the colour nearly resembles that of our deer in the same season. Each of the horns of this deer had four antlers, nearly as in *Cervus elaphus*. Woodcut B represents the horns of a large deer of this species.—Maximilian.

- Comment by Ed. See p. 347, for illustration of antlers of deer.
- [312] Marked on Lewis and Clark's map as Shepherd River; it is now Apple Creek, flowing from the east in Bismarck County, North Dakota.—Ed.
- [313] For Heart River, see our volume v, p. 148, note 91.—Ed.
- [314] On the west bank; Square Butte Creek takes its name therefrom.—Ed.
- [315] Lewis and Clark here met a party of Mandan on a hunting excursion. This creek has not been certainly identified, the river's bed having changed in the vicinity. It is probably Deer Creek, in Oliver County.—Ed.
- [316] Old Mandan villages had been scattered all along this reach of the river, Lewis and Clark noting the first remains below Heart River.—Ed.
- [317] The Cheyenne River of North Dakota—not to be confused with the Missour affluent in South Dakota—is the largest western tributary of Red River of the North. Devil's Lake, a large body of fresh water in Halsey County, was a favorite habitat of the Sioux. South of it is now an Indian reservation, chiefly for Sisseton and Wahpeton Sioux. St. Peter's River is the present Minnesota; its source is in Big Stone Lake, on the boundary of Minnesota and South Dakota.—Ed.
- [318] Lewis and Clark called the first Mandan village Ma-too-ton-ka. This was in a wooded bend, three miles below the site of Fort Clark.—Ed.
- [319] Fort Clark, named in honor of General William Clark, was built in 1831 as the American Fur Company's post among the Mandan. An earlier post near by, had been the company's home since 1822. Fort Clark was second in importance only to Forts Union and Pierre. A trusted employé was kept as chief factor, and the post was maintained until the close of the fur-trading era. Its site was eight miles below the mouth of Big Knife River, on the west bank, some eighty or ninety paces back from the river, and about three-quarters of a mile lower down and on the opposite side of the river from Fort Mandan, Lewis and Clark's wintering place (1804-05).—Ed.
- [320] The Wolf chief, called by the French traders Chef de Loup, and by Catlin Ha-na-ta-numauk, was head chief of the nation. Of an austere and haughty nature, he was feared rather than beloved by the tribe, whose idol was Four Bears, the second chief. Bodmer painted this chief in two ways (see Plates 46 and 47, in the accompanying atlas, our volume xxv). Catlin also secured his likeness both in full dress and in mourning. Catlin describes in detail a buffalo robe covered with paintings representing his exploits; see Catlin, *North American Indians*, i, pp. 145-154.—Ed.
- [321] James Kipp was born in Canada in 1788. When about twenty years of age he entered the fur-trade, as hunter and trapper in the Red River region. By 1818 he was on the upper Missouri, and became the agent of the Columbia Fur Company at its Mandan post. Later, he became a trusted employé of the American Fur Company, building Fort Piegan among the Blackfeet (1831). For many years he was chief factor at Fort Clark, transferring (1835) to Fort McKenzie. Audubon found him in charge of Fort Alexander, on the Yellowstone, in 1843, and two years later he was entrusted with the important post at Fort Union. He retired from the fur-trade in 1865, and settled upon his Missouri farm, which he had acquired many years before. As late as 1876 he once more visited the Mandan, whose language he was said to have been the first white man to master.—Ed.
- [322] For Toussaint Charbonneau, see Brackenridge's *Journal*, in our volume vi, p. 32, note 3. —ED.
- [323] For the Crow Indians, see our volume v, p. 226, note 121.—Ed.
- [324] See Plate 13, in the accompanying atlas, our volume xxv.—Ed.
- [325] See Plate 49, in the accompanying atlas, our volume xxv.—Ed.
- [326] See p. 347, for illustration of Sioux burial stages.—Ed.
- [327] For the traditions of the first man, Nu-mohk-muck-a-nah, consult Catlin, *North American Indians*, i, pp. 178-181.—Ed.
- [328] For the Minitaree, see our volume v, pp. 113, 114, note 76. An extended account is given by Washington Matthews, "Ethnography and Philology of the Hidatsa Indians," in United States Geological and Geographical Survey of the Territories, *Miscellaneous Publications*, No. 7 (Washington, 1877). Maximilian classes with the Minitaree villages that of the Ahnahaway, or Gens des Souliers, also called Wetersoon, whom Lewis and Clark considered a separate though allied tribe.—Ed.
- [329] See Plate 81, figures 5 and 6, in the accompanying atlas, volume xxv of our series.—ED.
- [330] *Ibid.*, figure 10.—Ed.
- [331] Catlin says that Long Hair was the head chief of the tribe, having received his office from the circumstance of having the longest hair in the tribe. Campbell and Sublette stated that they had lived in his lodge and examined his hair, which measured ten feet and seven inches of natural growth.—Ed.
- [332] Fort Cass was built by the American Fur Company in the autumn of 1832, on the right bank of the Yellowstone, two or three miles below the mouth of the Bighorn. It was intended for the Crow trade, and frequently was called Tulloch's fort from its founder, a company employé. Wyeth, on his famous voyage, passed this fort in a bull-boat, August 18, 1833. See Irving, *Rocky Mountains*, ii, pp. 159-161. About 1838 Fort Cass was abandoned in favor of Fort Van Buren farther down the Yellowstone.—Ed.

- [333] The bardaches will be spoken of when we are treating of the customs of the Mandans.

 —Maximilian.
- [334] See p. 347, for illustration of Sioux burial stages.—Ed.
- [335] Knife River, called by the French Rivière de Couteau, and by the Indians Minah Wakpa, is a prairie stream, whose course is in general east, entering the Missouri in Mercer County, North Dakota. The town of Stanton is now on the site of the third village, Awachawi—Ed.
- [336] See p. 361, for illustration of a Blackfoot musical instrument.—Ed.
- [337] This fort of Pilcher, built for the Missouri Fur Company about 1822, was about eleven miles above the mouth of Knife River, and named Fort Vanderburgh. Not proving profitable, it was maintained but a short time. See another mention in our volume xxiii, chapter xxiii.—Ed.
- [338] See article by O. D. Wheeler, in *Wonderland* (1904), on the recent development of the lignite coal area of North Dakota.—Ed.
- [339] It was a custom of the Minitaree, maintained until 1866, to leave their permanent village each winter for a spot where fuel was convenient, and there build log-cabins, very warm and secure, as winter quarters. They thus preserved both the fuel supply, and the game in the neighborhood of their summer home.—ED.
- [340] Miry Creek appears to be the present Snake Creek, in McLean County, North Dakota, the one which Maximilian designates as Snake being a small run from a cliff which was known as Snake den. See *Original Journals of the Lewis and Clark Expedition*, i, p. 291.

 —ED.
- [341] See description of bear-dance, with illustration, in Catlin, *North American Indians*, i, pp. 242-245.—Ed.
- These stones are generally granite, not sharp, but rounded in front; are used by the Indians to break the large bones of the buffaloes, of the marrow of which they are very fond. Stones closely resembling these are found among the Blackfoot Indians.

 —MAXIMILIAN.
- [343] See p. 361, for illustration of a stone battle-axe.—Ed.
- [344] The Little Missouri is the most important North Dakota affluent of the Missouri, above the Cannonball. It rises on the northwestern slopes of the Black Hills and flows north for some distance, thence turning northeast and east to enter the main river in Williams County. It is a broad but shallow stream, impregnated with alkali.—Ed.
- [345] Wild Onion Creek was so named by Lewis and Clark because of the quantity of that plant growing upon its bordering plains. Within Garfield County, North Dakota, it is now denominated Pride Creek.—Ed.
- [346] Goose Egg Lake, so named by the explorers "from the circumstance of my [Clark] shooting a goose on her nest on some sticks in the top of a high cotton wood tree in which there was one egg," is now Cold Spring Lake (*Original Journals of the Lewis and Clark Expedition*, i, pp. 304, 305). The great bend (Grand Detour) is still so named, but is much wider than the lower bend, being nearly ten miles across, and over twenty around the curve.—Ed.
- [347] Coues, Lewis and Clark Expedition, i, p. 274, identifies Goat Pen Creek with Upper Knife River. Maximilian's identification of this stream as the present White Earth River appears to accord better with the Original Journals (i, p. 313). The White Earth rises in Coteau des Prairies, and flows directly south into the Missouri. Lewis and Clark applied the name to a river farther up, near the forks of the Yellowstone. See note 348, post, p. 372.—Ed.
- [348] For the Assiniboin see our volume ii, p. 168, note 75. They separated from the Wazikute gens of the Yanktonnai Sioux before the middle of the seventeenth century. The Dakota stigmatize them as "Hohe" (rebels). Lewis and Clark name three bands of these people, of whom they heard along the Missouri—Gens de Canoe, Gens des Filles, and Gens des Grand Diables. The Gens des Filles (girl band) was composed of about sixty tents, its head chief being Les Yeux Gris (Grey Eyes). See United States Bureau of Ethnology Report, 1894-95, p. 223.—ED.
- [349] See p. 287, for illustration of bows, arrows, and quiver.—Ed.
- [350] The White Earth River of Lewis and Clark, now Muddy River, is a northern affluent of the Missouri, taking its name from the mud by which its mouth is choked. Above the mouth it is a clear and partly navigable stream, flowing through a valley nearly five miles wide, fertile although treeless. It enters the Missouri in Buford County, having the town of Williston at its mouth.—Ed.
- [351] Fort Union was the most important post of the American Fur Company on the upper Missouri. It was commenced in the autumn of 1828 (Maximilian says 1829), being at first known as Fort Floyd—another Fort Union existing higher up the river, which was abandoned, and the property transferred to the fort at the mouth of the Yellowstone. The actual site was five miles above the meeting of the rivers, on the north bank of the Missouri; see *Larpenteur's Journal*, i, pp. 50, 68. The fort was injured by fire in 1832, but substantially rebuilt, Wyeth (1833) pronouncing it superior to the Oregon forts of the British companies. Maintained until 1867, it was finally abandoned, part of its effects being transferred to the government post Fort Buford, some miles below.—Ed.
- [352] Our knowledge of Hamilton is chiefly derived from the pages of Larpenteur, who says

that the former was an English nobleman, whose real name was Archibald Palmer. Having become involved in some difficulties, he assumed the name James Archdale Hamilton, and having formed acquaintance with Kenneth McKenzie was sent by the latter as book-keeper to Fort Union, where he took full command during McKenzie's frequent absences. Hamilton was at this time about fifty years of age, punctilious in manner, particular in dress, and both respected and feared by his subordinates. Later he reverted to his own name and returned to St. Louis, becoming cashier for the American Fur Company, and dying in that city.—Ed.

[353] The French form for the name of this great river (Roche Jaune) was in early use; Chittenden (Yellowstone National Park (Cincinnati, 1895), pp. 1-7) thinks it a translation of the Indian term, derived from the predominant color of Yellowstone Cañon. The first use of the English form appears to be in the writings of David Thompson, the English explorer (1798). See Elliott Coues, New Light on the Early History of the Greater Northwest (New York, 1897), i, p. 302. The Crow Indians had a name for this stream, signifying "Elk."

The reference is to D. B. Warden, *Statistical, Political, and Historical Account of the United States of North America* (Edinburgh, 1819), i, p. 93.—Ed.

- [354] For a view of this fort see Plate 61, in the accompanying atlas, our volume xxv.—Ed.
- [355] This is the distance by water; on horseback, the journey has been accomplished in ten days.—Maximilian.
- On this subject see "Astoria," and "Adventures of Captain Bonneville," also "Ross Cox's Adventures on the Columbia River," p. 198. The dress of the white agents of the Company is made of cloth, like our own; but the hunters often wear a leather dress, ornamented, for the most part, in the Indian fashion, while the common *engagés* wear white blanket coats, such as I have described when speaking of the inhabitants of Indiana, on the Wabash. They are mostly shod in Indian mocassins, a dozen pair of which may be purchased from the Indian women for one dollar, when they are not ornamented. The hunters, here, maintain that these Indian shoes are better adapted to the prairies than our European ones, as they do not become so slippery. They are frequently soled with elk hide, or parchment. The worst is, that they are easily penetrated by the prickles of the cactus, and on this account we greatly preferred our European shoes. At Fort Union, artisans of almost every description are to be met with, such as smiths, masons, carpenters, joiners, coopers, tailors, shoemakers, hatters, &c.—Maximilian.
- [357] Some idea may be formed of the enormous quantity of beavers killed every year, from the circumstance that the Hudson's Bay Company sends to London alone 50,000, this animal being found as far as the coasts of the Frozen Ocean.—Maximilian.
- [358] At Rock River, which falls into the Mississippi, the Indians caught, in 1825, about 130,000 musk-rats; in the following year, about half the number; and, in about two years after, these animals were scarcely to be met with. Previous to this time, an Indian caught, in thirty days, as many as 1,600 of them. In South America, there is only one species of wild animal, known to me, whose skins are collected in large quantities. According to D'Orbigny, in the first six months of 1828, above 150,000 dozen Quiyaa were sold, in Corrientes, at from fifteen to eighteen francs the dozen. The Indians hunt this animal, which lives in the morasses, with dogs, and shoot it with arrows.

 —MAXIMILIAN.
- [359] See Plate 62, in the accompanying atlas, our volume xxv.—Ed.
- [360] See Plate 15, in the accompanying atlas, our volume xxv.—Ed.
- [361] Unfortunately, all these interesting specimens were destroyed in the fire on board the steam-boat.—Maximilian.
 - Comment by Ed. Reference is made to the burning of the "Assiniboine." See note 179, ante, p. 240.
- [362] William Keating, Narrative of an Expedition to the source of St. Peter's River, performed in the year 1823, under command of Stephen H. Long (Philadelphia, 1824).—Ed.
- [363] Sir John Franklin, Narrative of a Journey to the shores of the Polar Sea in the years 1819, 1820, 1821, and 1822 (London, 1823), p. 104.—Ed.
- [364] Fort des Prairies was at different periods applied to various Hudson's Bay Company posts. Apparently this was the fort on the site of Edmonton, for which see Franchère's *Narrative*, in our volume vi, p. 364, note 177.—Ed.
- [365] The word *osayes* is one of the many Canadian terms which are mixed with the French of that country, and means bones.—Maximilian.
- [366] Consult on the bands or gentes of the Assiniboin, J. O. Dorsey, "Siouan Sociology," in Bureau of Ethnology *Report*, 1893-94, pp. 222, 223.—Ed.
- [367] The common Mackinaw guns, which the Fur Company obtain from England at the rate of eight dollars a-piece, and which are sold to the Indians for the value of thirty dollars.

 —MAXIMILIAN.
- [368] Op. cit. in note 361, [ante] p. 112.—MAXIMILIAN.
- [369] The reference is to Edwin James (editor) Narrative of Captivity and Adventures during thirty years' residence among the Indians in the interior of North America by John Tanner (New York, 1830). John Tanner, a boy of nine years, was captured in Kentucky about 1790. He passed the larger part of his life in the northern woods. In 1818 he sought his relatives in Kentucky while his brother Edward was searching for him near

Mackinac. For some years he was employed as interpreter at Sault Ste. Marie, but having become an Indian in habit he shot (1836) and killed James L. Schoolcraft and fled to the wilderness where he died about 1847 (but see *Minnesota Historical Collections*, vi, p. 114). His *Narrative* was much quoted by contemporary writers.—Ed.

- [370] See p. 361, for illustration of Assiniboin pipes.—Ed.
- [371] The Indians on the Upper Missouri have another kind of tobacco pipe, the bowl of which is in the same line as the tube, and which they use only on their warlike expeditions. As the aperture of the pipe is more inclined downwards than usual, the fire can never be seen, so as to betray the smoker, who lies on the ground, and holds the pipe on one side.

 —MAXIMILIAN.

Comment by Ed. See p. 361, for illustration of pipe for warlike expeditions.

[372] See Plate 81, figure 11, in the accompanying atlas, our volume xxv.—ED.

*** END OF THE PROJECT GUTENBERG EBOOK MAXIMILIAN, PRINCE OF WIED'S, TRAVELS IN THE INTERIOR OF NORTH AMERICA, 1832-1834, PART 1 ***

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