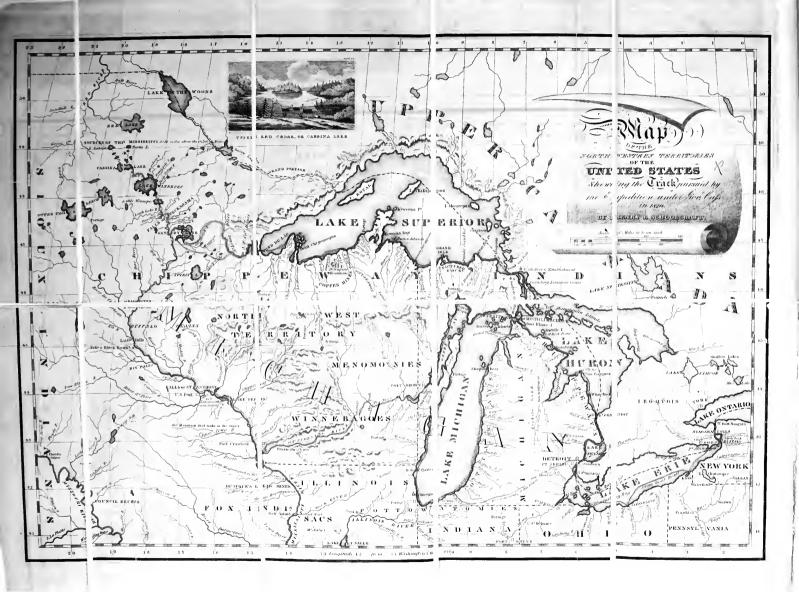
TAIB BALLITUNE JO OR MAL FROM DETROIT NORTHWEST through the Great Chain AMERICAN LAKES to the sources of the Nississippi River . (. 65) IN THIE YEAR 1820 HELENERY IR. SCHOOLGRAPPP.

DORIC ROCK, LAKE SUPERIOR

ALBANY, FUBLISHED BY E.& E.HOSFORD 1821.



V. DAY .- (May 28th.)-We left Fort Gratiot, at eight o'clock in the morning. For the first half mile, a strong rapid is encountered, on reaching the head of which, we find ourselves on the level of Lake Huron. at an elevation of twenty-nine feet above Lake Erie, and five hundred and eighty-nine feet above the ocean.\* Here the lake spreads amply before us, and we shortly find the prospect, on the right, bounded by an expanse of water, terminated on the line of the horizon, and on the left by an alluvial shore, covered chiefly with a growth of white pine, poplar, and birch, and skirted on the water's edge, by a broad beach of gravel and sand. In coasting along this, there is little to interest. The view of the lake, which, at first, pleases by its novelty, soon becomes tiresome by its uniformity, and the eye seeks in vain to relieve itself, by some rock bluff, or commanding elevation, upon the shore. One or two species of duck, the plover, and a small kind of gull, with white feathers and sharp pointed wings, have

* These facts are deduced from the followi Fall of Detroit river, twenty miles, at six	ng estimates :
inches per mile	10 feet.
four inches per mile	10 feet.
miles	9 feet.
	- 29 above L. Erie.
Elevation of Lake Erie, above the tide waters of the Hudson, according to	
the survey of the New-York Canal	
Commissioners	560 feet.
	589

appeared, to variegate the scene. In landing, at one or two places along the shore, we found the pebbles and loose stones to consist, principally, of hornblende, granite, sienite, and limestone. Among the latter, are several large masses, containing numerous species of petrified remains-(concholites and erismatolites.) The soil, after leaving the head of St. Clair river, appears to degenerate, grows sandy and sterile, and in some places marshy, and a marked difference in the forest trees is observable. Maples, and the beech, and elm, become rare, and, in their stead, we perceive pines, poplars, the birch, and the hemlock We have passed several considerable indentations in the shore, and other places which have names known to the voyageurs, or to the Indians, but as most of them are trifling or ludicrous, and I cannot conceive the bare enumeration of the names of unimportant points and places, either useful or interesting, I have omitted to record them, a practice, which I purpose to adhere to, during the future progress of the expedition. The Canadian voyageurs, have passed the greatest part of their lives along these coasts, and in scenes of hardship and danger. These people are continually pointing out to us places where they have formerly encampedbroke their canoes—encountered difficulties with the natives, or met with some other occurrence, either pleasant or disagreeable, which has served to imprint the scene upon their memories. There is, perhaps, not two miles along the whole southwestern shore of Lake Huron, which is not the scene of some such It is by no means certain, however, occurrence. that such points are designated by names in universal use, even among themselves; and in a country,

where there are no permanent settlements, local appellations are necessarily subject to be changed, or fall into disuse. There are, however, certain prominent points and features, in the topography of every savage country, which are universally known by established names among themselves, and deserve to be perpetuated in the permanent geography of the country. Such are the names of all rivers, streams, bays, promontories, and mountains, which are proper subjects to enrich our maps, and to employ the pen of the tourist.

We progressed thirty-five miles during this day, in a general course northwest, and encamped upon the open beach of the lake. The wind has been lightly ahead. The greatest observed heat of the atmosphere, has been 55°; the water of Lake Huron standing, at the same time, at 58°.

VI.  $D_{AY}$ .—(May 29th.)—In passing along the margin of the lake, for a distance of thirty miles, little diversity in the natural appearances of the country, has been presented. At the distance of about fifteen miles beyond our encampment of the twentyeighth, the shore of the lake assumes an elevation of thirty or forty feet, terminating in a perpendicular bank at the water's edge, which continues six or eight miles. While passing along this coast, at the distance of one or two miles, it was difficult to determine, even with the aid of an excellent magnifying glass. whether this bank consised of a ledge of 10cks, or a stratum of compact clay. Its dark colour led us to suppose it was bituminous slate, fragments of which had been observed upon the shore, at no great distance beyond the point of its termination; but this doubt was satisfactorily solved upon our return, when that part of the shore was found to consist of a stratum of dark tenacious blue clay, the colour of which was rendered more intense, by the dashing of the waves against the foot of the bank, and which thus kept it continually wetted, for eight or ten feet above the common level of the water. A few miles beyond the termination of this clay bank, (about fifty-five miles above Fort Gratiot,) we passed the White Rock, an enormous detached mass of transition\* limestone, standing in the lake, at the distance of half a mile from the shore. This is an

\* Notwithstanding the objections which have been urged against this class of rocks, by Greenough, Maccullough, and other late geological writers, I find it necessary to employ the term " transition," as a generic for those rocks, which possess characters intermediate between the floetz and the primary strata. Of this intermediate character, the White Rock of Lake Huron, presents an example, which is the more worthy of remark, as the entire mass appears to be unconnected with any continuous stratum, and with respect to original position, is out of place. I shall not here stop to enquire, by what means it has been transported into a region, to which it appears foreign. The limits of this note will barely permit me to mention the fact of its apparent translation from its original and parent bed A glympse of the recent fracture is sufficient to satisfy us, that it is not a secondary rock, while the crystalline and granular structure, and the absence of organic reliqua, appear equally conclusive of its primary character. In the haste of the moment, we had, therefore, referred it to the class of primitive limestone; but a recent examination of the specimens we procured, shews, that the crystallization is not perfect, and the fracture discloses numerous small cavities, which have not been observed in the alpine limestone. It will not bear a comparison with any specimens of well characterized granular limestone in my possession; but the most conclusive circumstance, is a petrified madrepore, recently noticed in one of the specimens. What, therefore, is neither decidedly primordial, or floetzose, we must be permitted still to consider, " transition."

object looked upon as a kind of mile-stone by the voyageurs, and is known to all canoe and boat travellers of the region. It has already found a place upon some maps. The White Rock is an object which had attracted the early notice of the Indians, who are the first to observe the non-conformities in the appearances of a country; and it continues to be one of the places at which offerings are made. How far these offerings are to be considered as partaking of the nature of religious worship, will admit of great diversity of opinion. We have heard much speculation concerning the religion of the Indians, and the subject has recently called forth the talents and research of a very interesting writer,\* but the want of opportunities of personal observation, has led him into some conclusions, which we do not think warranted by the existing state of society among the northern Indians. In the true acceptation of the term, the Indians have no religion ; but they believe in the existence of a great invisible spirit, who resides in the region of the clouds, and by means of inferior spirits, throughout every part of the earth. It is not ascertained, however, that they acknowledge the gift of life from this spirit, or pay him the homage of religious adoration. Manito, † in the Indian lan-

\* Dr. Jarvis. See the Annual Discourse before the New-York Historical Society, 1819.

<sup>†</sup> This word is employed to signify the same thing, by all the tribes extending from the Arkansaw to the sources of the Mississippi; and, according to Mackenzie, throughout the arctic regions. It may, with many others, (the collection of which would form the subject of a very interesting work,) be quoted to strengthen an opinion, for which there appears ample grounds, that the erratic tribes, of the northwestern region, and of the valley

guage, signifies " spirit." They have good and bad manitoes; great and small manitoes; a manito for every cave, water-fall. or other commanding object in nature, and generally make offerings at such places. These tributary acknowledgments, however, we have observed, are such things as, in their nature, are perfectly useless to the savages ;-a broken gun barrel, a pair of old mockasins or leggins, a broken paddle, or other useless or trifling article. Small bits of carrot tobacco are the only valuable offering we have observed, but they never leave a silver arm band, a beaver skin, a knife, a hatchet. or other substance of utility. Neither is there that solemnity observed in making these deposites which has been represented;-nor does there appear to be any obligation upon individuals to make them, or to renew them, at any regular periods. The thing ap-

of the Mississippi, are all descendants from one stock, which is presumed to have progressed from the north towards the south, scattering into different tribes, and falling from the purity of a language, that may have originally been rich and copious. Among those who are disposed to make great allowances, for the corruptions that have crept into the languages of the aborigines of America, we find the most celebrated traveller of the age. " What some learned writers have asserted. from abstract theories, respecting the pretended poverty of the American languages, and the extreme imperfection of their numerical system, is as doubtful as the assertions which have been made respecting the weakness and stupidity of the human race, throughout the new continent-the stunted growth of animated nature, and the degeneration of those animals, which have been transported from one hemisphere to the other. Several idioms, which now form the language of barbarous nations only. seem to be wrecks of languages, once rich, flexible, and belonging to a more cultivated state."-Humboldt's Researches, vol. I. p. 20.

pears entirely optional, and is often accidental. Offerings are made when they happen to pass by any scene capable of exciting wonder; but they seldom, if ever, undertake journies to perform them. Their bad manitoes answer to our Devil, but I have not learned, that their bad manitoes are considered to be subservient to one great bad manito. Neither do I know, that the connexion existing between the good manitoes, from the most inferior up to the great spirit, is precisely what I have stated it to be, or that there is any fixed and uniform understan ing among them respecting it; but my impression is, that an understanding of this kind is universal.

All are more or less superstitious, and believe in miraculous transformations, ghosts, and witchcraft. They have jugglers and prophets, who predict events, who interpret dreams, and who perform incantations and mummerics. Great solemnity is observed on occasions of this kind, when men and women are ceremoniously arranged around the walls of a cabin appropriated to these mysteries, and while they alternately assist in the performance of a round of unintelligible ceremonies, the spectator finds a difficulty in restraining his laughter. A magic rod suddenly darted at the person who is the subject of operation, causes him to fall as if struck dead. A whiff from a tobacco pipe communicates new spirit to him, and he arises reinstated in his former health of body or mind. The most remarkable of these ceremonies, is called the medicine dance, where all sorts of bodily ailments, are affected to be cured; and persons in the last stages of existence are sometimes brought out to undergo these ceremonies, who

die while they are performing. Yet their faith is not destroyed; it is considered the signal interposition of some bad spirit who has prevented the operation of the medicine, that is, the ceremony, for physical aids are not relied upon in these cases; and if one in ten who have been subjects of operation, recover, the success in that case is alone dwelt upon, and the nine unsuccessful ones disregarded. Such is the religion, -the superstition, and the knowledge of medicine of the lake savages, blended as they appear. It is difficult to separate them, and to say how much may be considered religious, or mere mummery. Much allowance, however, is to be made on account of our ignorance of their languages,-on account of bad interpretation, and the unfavourable sentiments we may entertain from early prejudices, or from other causes, which are apt to influence our opinions and views

As to the success which has attended the attempts to introduce christianity among them, it is difficult to perceive, that any material change has been worked among the tribes so remote. The French Missionaries were the most successful, particularly with the Hurons, and many of the Indians still retain some of the signs and symbols of the Catholic religion. Silver crosses delivered to them a century ago by Jesuit priests are still preserved and worn, and they profess a great veneration for them. This religion, striking as it has always appeared to the illiterate and vulgar, by its splendid ceremonies and external signs, appears to have presented great attractions for the Indians. They do not appear, however, to retain any notions of the doctrines taught,

and so far as I have been able to learn, do not wish to be disturbed by the introduction of any religion, prefering, in their emphatic language "to follow the religion of their fathers." They may not, however, be the proper judges in this case, and it requires the attention and perseverance of christians and religious societies to effect a moral reform among them. Of the feasibility of well directed efforts, there can be no doubt: but hitherto the little attention which has been bestowed upon them, seems to have reached them through missionaries badly selected for the task. The savage mind, habituated to sloth, is not easily roused into a state of moral activity, and is not at once capable of embracing and understanding the sublime truths and doctrines of the evangelical law. It is necessary that letters, arts, and religion should go hand in hand. It is probable, also, that a plainer and more familiar mode of explanation than that commonly practised in refined society, would be found productive of its advantages, at least, in the commencement of moral and religious instruction.

On embarking this morning we had the wind lightly ahead, which continued during the forenoon, but changed so that we were able to make use of our sails in the afternoon. About four o'clock the weather became cloudy and hazy, and the wind increased in violence, attended by thunder. A storm was hastily gathering, and the lake became so much agitated that it was thought prudent to land and encamp. We effected a landing, with some difficulty, on a very shallow shore, and dangerous from the number of detached stones projecting above the water, or merely hid beneath it; and pitched our tents on a narrow neck of land nearly separated from the main shore, and covered with a beautiful growth of forest trees. Shortly after our arrival at this place a vessel hove in sight, and afterwards came to anchor within half a mile of the land, the wind blowing a gale ashore. We were apprehensive the vessel would be driven from her mooring, but the night passed without accident. In the course of the day we passed several canoes of Indians, and uniformly found them in want of provisions.

VII.  $D_{AY}$ —(May 30th.)—Detained by unfavourable winds. The shore of the lake is strewed with water worn masses of rocks of the same kinds already mentioned, and we still find granite and hornblende to predominate. No rock has, however, yet appeared *in situ*. The lands adjoining our encampment, are generally low and swampy, and the forest consists of hemlock. birch, ash. oak, and some maple. Among the plants the convallaria augustifolia, and a species of Indian Brassica, have been noticed. The margin of the lake is skirted with bull-rushes, quake grass, (briza canadensis,) and other aquatic plants. The greatest observed heat of the air has been 53°, wind N. E.

VIII. DAY.—(May 31st.)—Still detained by head winds. In loitering along the shore of the lake, examining the loose stones, I discovered in a detached block of mica slate, several large and well defined crystals of staurotide,\* of a dark reddish brown colour, moderate

\* To prevent a misapprehension arising from the variety of names which have been applied by mineralogists to the same sub-

to the United States government, and will shortly be thrown into market. From the terms of high admiration of which all continue to speak of the riches of the soil, and the natural beauty of the country, and its central and advantageous position for business, we are led to suppose that it presents uncommon incitements to enterprising and industrious farmers and mechanics.

X. DAY-(June 2d.)-In order to cross Saganaw Bay with safety in a canoe, it is necessary to pass up the eastern shore from Point aux Barques to Point aux Chenes, a distance of eighteen miles. Here, if the lake be calm, the voyageur crosses by a stretch of twenty miles to the opposite shore, with the advantage of landing on the island of Shawangunk, should a storm overtake him in the centre of the Bay, which is frequently the case. On gaining the opposite shore, it is necessary to pass down the bay about the same distance that was formerly ascended, before the open lake is again reached. The entire crossing can easily be performed in one day if the weather is favourable, but this does not always happen, and the fatal accidents that have formerly befallen those who were too venturesome, have operated as a severe caution to voyageurs and canoe-travellers of the present day. so that it is difficult to induce the former to attempt it, unless the weather be perfectly clear and the bay calm. Fortunately, we were not detained by these causes, and effected the crossing and re-entry of the lake at so seasonable an hour, that we were allowed time to proceed two leagues beyond, and encamped at the mouth of the

river aux Sablés, making an entire distance of fifty-six miles. In crossing the bay we landed a few moments upon Shawangunk island which is found to be based . upon compact limestone, and contains imbedded masses of Chalcedony, and calcareous spar. I also picked up, during the short period we remained, a lump of the argillaceous oxyd of iron, and some detached fragments of a coarse striped jasper. These discoveries created a strong desire to make a geological survey of the island, but we were prevented from attempting it, by the necessity of an expeditious progress across the bay while the weather favoured. On reaching the river aux Sablés, we found a number of Chippeway indians upon the shore, and a permanent village at the distance of two miles above its discharge. They appeared friendly, and as soon as our tents were pitched came formally to the Governor's marque. A chief of the Chippeways then addressed the Governor in a speech in which he told him that he was glad to see him there-that he had heard of his coming-and hoped he would see, and relieve their wants, &c. The pipe of peace was then smoked in the usual style of Indian ceremony, by handing it to all present, each one taking a whiff, which is all that is required : when this ceremony was ended, they commenced that of shaking hands,\*

\* The practice of shaking hands we afterwards found universal among the northwestern tribes, but were unable to ascertain whether it is an ancient custom, or has been introduced by their intercourse with Europeans. To ascertain that a custom so ancient and so universal in the Old World, and which is one of the most striking characteristics of civilized nations, was also prevalent among the aborigines of America, at the period of its discov-

beginning with the Governor, and passing round in a circle to each individual composing his suite. They afterwards presented some fresh sturgeon (accipenser) which are caught in abundance in that river, and received in return some tobacco and whiskey, and then departed to their villages. We were auxious to witness how our Indians, on first landing, would conduct themselves towards those of the river aux Sablés. and whether they would demonstrate any feeling of joy or satisfaction upon the interview, and were somewhat disappointed to see a total indifference, or reserve, maintained. They appeared neither to see, or know each other, nor could we learn that any familiarity ensued between them during our stay at that place. Nothing appeared to give them so much satisfaction as the whiskey they received, and when it was drank they presented a request for more. We have since observed, that the passion for drinking spirits is as common to the tribes of this region, as it is to the remnants of the Iroquois, inhabiting the western parts of New-York. To procure it they will part with any thing at their disposal, and it they have no furs or dried venison to exchange, they will sell their silver ornaments, their guns, and even parts of their dress. They generally become intoxicated whenever an opportunity is presented, and a trader or traveller can present nothing which is of half so much value in their estimation. We have generally

ery, would establish a coincidence of the most important nature. But the period for making this observation has long gone by.— There are probably, no tribes now in America, who have not some knowledge of Europeans, or their American descendants. found it the *first*, and the *last* thing enquired for. It appears this habit was contracted at an early period by the lake Indians, and the anecdote\* that Charlevoix relates of an intoxicated Indian, is a proof that it was common in his time. It is due, however, to the tribes of Lake Superior, and the heads of the Mississippi, to say, that we found them far less eager for whiskey than the more contiguous tribes, and that cases were presented, in which it was not relished.

XI. DAV.-(June 3d.)-The distance from the river aux Sablés to Thunder Bay,\* is forty miles, reckoning to the island,--thence to Flat Rock Point, called by he Chippeways, Sho-she-ko-naw-be-ko-king, eight These form the extreme points of our jourmiles. ney during this day. After leaving the aux Sablés five or six miles, a ridge of highland appears visible from the lake, at some distance back, and continues in a general direction north northwest, which is that of the lake coast, to Thunder Bay, and then bears further west, and becomes invisible. In crossing Thunder Bay, we halted at an island which lies in the track of the usual traverse, for a short time, and while there, observed a kind of Indian altar crected beneath a tree near the water's edge. This consists

\*" An Ottaway, called John Le Blanc, who was a bad christian and a great drunkard, on being asked by the Count De Frontenac, what he thought the brandy of which he was so fond, was made of, he said of tongues and hearts, for, added he, after I have drank of it I fear nothing, and I talk like an angel."—*Charlevoix's Journal*, vol. 11, p. 83.

\* L'Anse du Tunnere, of the old French writers.

French and English families, exclusive of the Northwest Company's establishment, which is seated immediately at the foot of the Falls, and consists of a number of store and dwelling houses, a saw mill, and a boat yard. These are represented on the right side of the View of the Sault de St. Marie. Plate No. 3. This company have also constructed a canal, with a lock at its lower entrance, and a towing path for drawing up barges and canoes. At the head of the rapid they have built a pier from one of the islands, forming a harbour, and here a schooner is generally lying to receive the goods destined for the Grand Portage, and the regions northwest of Lake Superior.

XXIV. DAX.-(June 16th.) The commanding position of the Sault de St. Marie, on the outlet of Lake Superior, and at the head of ship navigation, had early pointed it out to the French as an advantageous site for a military and a trading post, and we accordingly find that it was occupied as such at an early period of the settlement of Canada. By this place all the fur trade of the northwest is compelled to pass, and it is the grand thoroughfare of Indian communication for the upper countries, as far as the arctic circle. Independent of these circumstances, the advantages of taking the white-fish, at the foot of the Rapids, have always rendered it a place of resort to the Indian tribes of the region, particularly during the summer season, when the hunting is most precarious. No place could, therefore, be better adapted to acquire an influence over the savage tribes, to monopolize their commerce, and to guard the frontier settlements against their incursions. It is, indeed, surprising to reflect upon the early enterprize and sound judgment of the French in seizing upon the points, commanding all the natural avenues and passes of the lakes, particularly when it is considered that these selections must necessarily have been the result of an intimate acquaintance with the geographical features of the country. This is yearly proved by the re-occupation of posts and places long neglected, but the importance of which has become apparent in proportion as we have set a just value upon the Indian trade, and the natural advantages of the country. Perhaps in no instance is this more strikingly exemplified than in the Sault, the commanding position of which, although always known to the traders, has but lately been perceived by our government. The advantages which a rival nation has taken of this neglect, could not fail to excite attention at a period when such laudable exertions are making in all parts of the Union to explore the geography, and to call into action the hidden resources of the country; and it appears to have been among the primary objects of the expedition to prepare the way for the introduction of an American garrison at this place. To attain this object, a council of the chiefs of the Chippeway tribe was this morning summoned at the Governor's marque, and the views of the government explained to them. By the treaty of Greenville, of 1795, a saving clause had been inserted by Gen. Wayne, covering any gifts or grants of land in the Northwest Territories, which the Indians had formerly made to the French or English governments,\* and this clause has been renewed or

\* In the third article of this treaty, after reciting a number of particular cessions of lands, posts and carrying places, number-

confirmed by treaties with the same tribes since the conclusion of the late war.\* Under this treaty, the United States claimed the concession formerly made at the Sault, to the French, by virtue of which it had been occupied as a military post. It was now proposed to treat for settling the boundaries of the grant, and in this way obtain an acknowledgment and renewal of it. These things were distinctly stated through the interpreter. The Indians, seated in their usual ceremonious manner, listened with attention, and several of the chiefs spoke in reply. They were evidently opposed to the proposition, and first endeavoured to evade it, by pretending to know nothing of the former grant, but this point being pressed home, was afterwards given up.still they continued to speak in an evasive and desultory manner, which amounted to a negative refusal. It was also observable that there was no great unanimity of opinion among them, and some animated discussion, between themselves, took place. Some appeared in favour of settling the boundary, provided it was not intended to be occupied by a garrison, saying, that they were afraid in that case, their

ed from one to eleven, it also cedes, "12th. The post of Detroit, and all the land to the north, the west, and the south of it, of which the Indian title has been extinguished by gifts or grants to the French or Euglish governments," &c. Treaty with the Wyandot, Delaware, Shawanee, Ottaway, Chippeway, Pottawatami, Miamie, Eel-river, Weea, Kickapoo, Piankashaw. and Kaskaskia nations. Greenville, 3d August, 1795.—Land Laws of the United States, p. 56.

\* By the treaty of Detroit, or Spring Wells, of the 5th September. 1815, and by the treaty of Fort Harrison, of the 4th June; 1816. young men might prove unruly, and kill the cattle and hogs that should stray away from the garrison. This was intended as an insidious threat, and I was particularly struck with the reply of Gov. Cass, to the chief who had thrown it out, in which he said,that as to the establishment of a garrison at the Sault, they might give themselves no uneasiness, for that point was already settled, and so sure as the sun, which was then rising, would set, so sure would there be an American garrison sent to that place, whether they renewed the grant or not. Such decision has always great weight with the Indians, and in the present instance was particularly so, as a casual, but indiscreet and unauthorised conversation which had been held by some officers of our party with one of the chiefs, before the council assembled, had given them to understand that the United States did not wish to occupy the Sault as a military post. They were, however, determined not to accede to our wishes, and in seeing ourselves surrounded by a brilliant assembly of chiefs, dressed in costly broadcloths, feathers, epaulets, medals, and silver wares, of British fabric, and armed from the manufactories of Birmingham, all gratuitously given, we could not mistake the influence by which they were actuated in this negociation. When, therefore, several hours had been spent, during the latter part of which the Indians employed a very animated language, and strong gesticulation, the council broke up, somewhat abruptly, without coming to any final decision, at least, without assenting to the proposition. The last chief who spoke, called "the Count,"(a brigadier in the British service,) in the course of his speech, drew his war-lance and stuck it furiously in the ground before him, and assumed a

look of savage wildness, which appeared to produce a corresponding effect upon the other Indians, for there was an evident agitation among them, during the latter part of the council; and when he left the marque kicked away the presents which had been laid before him. On breaking up, they proceeded directly to their encampment, and we dispersed to our tents. A few moments only had, however, elapsed, before it was discovered that the Indians had hoisted the British flag in the midst of their encampment. On being informed of this, Gov. Cass immediately ordered the expedition under arms, and calling the interpreter, proceeded, with no other escort, to the lodge of the chief, before whose door it had been erected, took down the insulting flag, and carried it back to our camp. Upon this occasion he entered the lodge of the chief who had raised it, (the same who had before drawn his war-lance in council.) and told him it was an indignity they were not permitted to offer upon the American territories,-that we were their natural guardians and friends, and were always studious to render them strict justice, and to promote their peace and happiness; but the flag was the distinguishing token of national power, connected with our honour and independence,-that two national standards could not fly in peace upon the same territory,-and that they were forbid to raise any but our own, and if they should again presume to attempt it, the United States would set a strong foot upon their necks, and crush them to the earth.\* This intrepid

\* I do not pretend to quote the exact language of the Governor, or to be positive as to every centiment uttered, not having heard bim, but rely upon my recollection of the account given by the

conduct struck the Indians with astonishment, and produced an effect,-which we were not at the moment sensible, was all that prevented an open rupture. In ten minutes from the Governor's return to our camp, the Indians cleared their lodges of every woman and child, covering the river with canoes, and expecting so decisive a step to be followed by a general attack of their camp. In the mean time it was looked upon by the expedition, as a preparatory movement to the savage war whoop, and we stood prepared to encounter the shock. Our number, at this time, including Lieut. Pierce's command, was sixty-six men, well armed and prepared ; about thirty of whom were United States soldiers. The number of Indian warriors then upon the ground was between seventy and eighty, being also well armed in the Indian manner. Our encampment was regularly formed upon the green, near the banks of the river. The Indians occupied an eminence which was formerly the site of the French fort, at the distance of five or six hundred yards, and separated from us by a small ravine. We were kept in this state of alarm for some time, when the Indians having ceased to hold themselves in a hostile attitude, the soldiers were dismissed to their tents. In the mean time, an overture was proposed by some of the older chiefs, who had not been present at the council in the morning, and about seven o'clock in the evening a treaty was concluded and signed, by

interpreter, (the only person with him,) on his return to camp. I should not take the liberty of quoting it at all, were it not necessary to shew the feeling of resentment with which the insult was received, and to explain our critical situation upon that occasion. which they cede to the United States a tract of land four miles square, commencing at the Sault, and extending two miles up, and the same distance down the river, with a depth of four miles, including the portage, and the site of the village and old fort, but reserving the right of fishing at the falls, and of encampment upon the shore. When the agreement was concluded, the Indian ceremony of smoking the pipe of peace, and shaking hands, as mentioned in DAY X. was performed, and their signatures by mark, were afterwards obtained. For this cession of land they were paid on the spot, in blankets, knives, silver wares, broadcloths, and other Indian goods. Indians of the region, and appears to have been known to them from the earliest times, and has been constantly resorted to without any apparent diminution in the quantity taken. Henry says in 1765, "that a months subsistence for a regiment, could have been taken in a few hours time." There is a rapid at the spot fixed upon for the fishery, so that the water is not over four feet deep. We encamped two miles above on a sand bar. The musquitoes here gave us great annoyance.

XXXVI. DAY-(June 28th.)-We embarked at four o'clock in the morning. 'The river is bordered with a rich alluvion covered with a heavy forest of maple, elm, and walnut, and with a luxuriant growth of vines and underbrush. At the distance of ten or twelve miles from the lake, a chain of highlands shuts in upon each side of the river, cutting off the bottom lands of the lake, and increasing in altitude as we ascend. Here also the river becomes narrower and has many rapids. At seven o'clock our guides stopped the canoes, and told us that the river above that place, had a great many bad rapids which it would be very difficult to ascend with all the men in the canoes, and that by landing there, we might proceed by a near route through the woods, and reach the mines much sooner than the canoes could by water. Accordingly eight of the party, including myself, determined to proceed that way, while the Governor with the canoes, now lightened of half their burden, went up the river to meet us at the mines. We were accompanied by two Indians as guides, who led us over lofty ridges, gulfs, and ravines, covered with brush or shattered rocks, for a

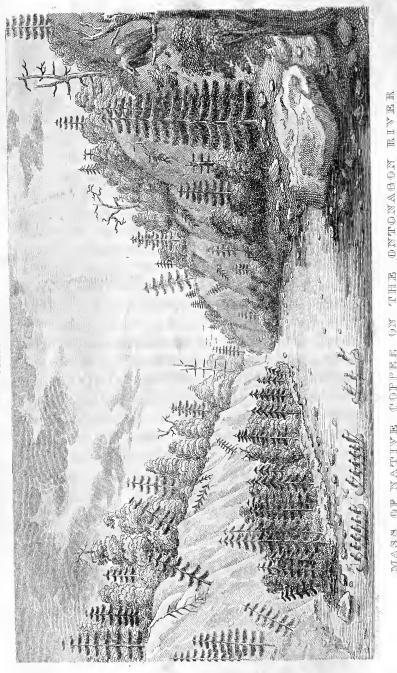
distance of fifteen miles, when we fell into an Indian path leading to the copper. Here our guides sat down to await the arrival of the Governor and party, who were to pass that way. We had thus far followed them with incredible fatigue, owing to the swiftness of their travelling, the roughness of the way, and the extreme heat of the weather.

- " Straining each sinew to ascend,
- " Foot, hand, and knee, their aid must lend ;
- " Now to the oak's warp'd roots we cling,
- "Now trust our weight to the curl'd vine's string,
- " Then like the wild goat must we dare
- "An unsupported leap in air."-SCOTT.

It was one o'clock in the afternoon when we arrived at this path, and the thermometer stood at 90° under the da.k shade of the forest. We had not been seated a great while, when the other party approached, and we continued our way to the mines; but the Governor was so much exhausted by clambering up the hills, which skirt the river, that he was compelled to return to the canoes. We found the remainder of the way, (about six miles,) no less sterile, mountainous, or fatiguing; and reached the great mass of copper, the chief object of our excursion, at an early hour in the afternoon. It lies on the edge of the river directly opposite an island, and at the foot a lefty clay bluff, the face of which appears, at a former period, to have slipped into the river, carrying with it detached blocks and rounded masses of granite, hornblende, and other rock, and with them, the mass of copper in question. The first feeling was that of disappointment. It has been greatly overrated by former travellers, both as to size and mineralogical character, but is nevertheless, a remarkable mass

of copper, and well worthy a visit from the traveller who is passing through the region. " The copper, which is in a pure and malleable state, lies in connexion with a body of serpentine rock, the face of which it almost completely overlays, and is also disseminated in masses, and grains, throughout the substance of the rock. The surface of the metal, unlike most oxydable metals, which have suffered a long exposure to the atmosphere, presents a metallic brilliancy; which is attributable either to an alloy of the precious metals, or to the action of the river, which during its semi-annual floods, carries down large quantities of sand and other alluvial matter, that may serve to abrade its surface, and keep it The shape of the rock is very irregularbright. its greatest length is three feet eight inches-its greatest breadth three feet four inches, and it may altogether contain eleven cubic feet. In size, it considerably exceeds the great mass of native iron found some years ago upon the banks of Red River, in Louisiana. and now deposited among the collections of the New-York Historical Society, " but on account of the admixture of rocky matter, is inferior in weight. Henry, who visited it in 1766, estimates its weight at five tons; but after examining it with scrupulous attention, I do not think the weight of metallic copper in the rock exceeds tuenty-two hundred pounds. The quantity may, however, have been much diminished since its first discovery, and the marks of chisels and axes upon it, with the broken tools lying around, prove that portions have been cut off, and carried away. The author just quoted observes, 'that such was its pure and malleable state that with an axe he

<sup>\*</sup> See Bruce's Mineralogical Journal.



ONTONAGON TI HI II. NO COFFER R MASS OF NATIVE

was able to cut off a portion weighing a hundred pounds." Notwithstanding this reduction it may still be considered one of the largest and most remarkable bodies of native copper upon the globe, and is, so far as my reading extends, only exceeded by a specimen found in a valley in Brazil, weighing 2666 Portuguese pounds.\* Viewed merely as a subject for scientific speculation, it presents the most interesting considerations and must be regarded by the geologist as affording illustrative proofs of an important character. Its connexion with a rock which is foreign to the immediate section of country where it lies, indicates a removal from its original bed, while the intimate connexion of the metal and matrix, and the complete envelopement of individual masses of the copper by the rock, point to a common and contemporaneous origin, whether that be reterable to the agency of caloric or water. This conclusion admits of an obvious and important application to the extensive strata of serpentine, and other magnesian rocks, found in various parts of the globe !" "†

The accompanying view, (Plate V1,) is taken from a point below the mass of copper, looking up the river On each side appear a lofty range of earthy bluffs, which have caved into the river, throwing down their trees and imbedded rocks into heaps of ruins along the margin of the stream, and exposing their bare surfaces to view. These bluffs may be considered a hundred and fifty feet in perpendicular height, and are capped by a forest of pine, hemlock, cedar, and oak. On the right hand,

\* Philips' Mineralogy.

<sup>†</sup> Extract from my Report to the Secretary at War, on the copper mines of Lake Superior. See the American Journal of Science and the Arts, Edited by Professor Silliman. H.R. S. partly immersed in water, reposes the copper rock; on the left the little island of cedars divides the river into two channels, and the small depth and rapidity of the water is shewn by the innumerable rocks which project above its surface, from shore to shore. The masses of fallen earth,—the blasted trees, which either lie prostrate at the foot of the bluffs, or hang in a threatening posture above,—the elevation of the banks,—the rapidity and noise of the stream, present such a mixed character of wildness, ruin, and sterility, as to render it one of the most rugged views in nature.

" It seem'd the mountain, rent and riven,
" A channel for the stream had given ;
" So high the cliff of sandstone gray,
" Hung beetling o'er the torrents way,
" Where he who winds 'twixt rock and wave.
" May hear the headlong torrent rave;
" May view her chafe her waves to spray,
" O'er every rock that bars her way,
" Till foam globes o'er her eddies glide,
" Thick as the schemes of human pride
" That down life's current drive amain,
" As frail, as frothy, and as vain." Scott.

One cannot help fancying that he has gone to the ends of the earth, and beyond the boundaries appointed for the residence of man. Every object tells us that it is a region alike unfavourable to the productions of the animal and vegetable kingdom; and we shudder in casting our eyes over the frightful wreck of trees, and the confused groups of falling-in banks and shattered stones. Yet we have only to ascend these bluffs to behold hills more rugged and elevated; and dark hemlock forests, and yawning gulfs more dreary, and more forbidding to the eye. Such is the frightful region through which, for a

distance of twenty miles, we followed our Indian guides to reach this unfrequented spot, in which there is nothing to compensate the toil of the journey but its geological character, and mineral productions. Indeed these are traits which are generally found to increase in interest, in proportion to the increased sterility of the soil, and the impoverished growth of vegetable life. And here also the effect of climate upon the productions of nature, presents a remarkable exception. Trees and plants of particular species, are only found to vegetate in certain latitudes, and to be confined to particular soils, whose chemical constituents are congenial to their growth. Every modification of climate has its peculiar plants and predominating trees. Animals also, particularly the herbiferous species, have, in all countries, more or less confined themselves within the cycle of certain species of vegetable productions,-to the grasses and buds of trees to which they are particularly attached,-or, they are impelled in the search of herbs necessary to their health and vigour. But the inorganic masses of the earth are confined to no particular latitudes, and are uniform in their composition. The granites, the limestones, the spars, and the metals, exhibit the same characters, whether picked up within the arctic circle, or under the torrid zone. The mineralogist discovers the same external signs and appearances, and the chemist finds the same mineral constituents combined in the same proportions. It has, indeed, been asserted, that metals are confined to particular latitudes,-that gold and silver, and precious stones, are productions peculiar to the southern hemisphere; but there is

nothing in the theories of the formation of mineral strata, the laws of crystallization, or in the known influence of climates upon mineral bodies, to justify such a conclusion;-there is no reason that can be drawn from philosophical investigations to prove that these substances may not be abundantly found in the climates of the north, even upon the banks of the frozen ocean. The fact that these productions are more abundantly found within the higher latitudes, does not appear capable of explanation, on a supposed effect of climate, but is probably wholly independent of that circumstance. On the contrary, there is reason to presume that the precious metals may be found in the northern regions of the American continent. Nothing appears more improbable than that the veins of silver ore, which are so abundant in Mexico, and the province of Texas, are checked in their progress northward into Arkansaw and Missouri, by the effect of climate. This metal is known to be found in association only with certain limestones, schists, and other rocks, and where these cease, is in vain to be sought. Other metals and minerals have their particular associations, serving as a geognostic matrix, and hence rock strata may be considered as indexes to particular metals, minerals, and ores; and the geologist is thus enabled to predict, with considerable certainty, from the examination of the exterior of a country, whether it is metalliferous, or not. Until such examinations are made, we must be permitted to say, that there does not appear any thing to forbid the hope of finding the precions metals in the regions of the northwest, while there are several facts to prove that it is highly probable. It is here that the stinted growth of vegeta-

tion, and the rocky and elevated nature of the country, leads us to look for those treasures in the mineral kingdom which nature has denied in soil and climate. In various places have lead, iron, and cop. per already been discovered, and the beauty of the carnelian, the agates, and the chalcedonies, picked up along the shores of Lake Superior, prove that the hardy regions of the north are not unfavourable to the production of mineral gems. But it is chiefly, so far as actually known, in the abundance of copper that the mineralogy of this region claims particular attention, and the more so, as it is found in the native form. Pieces of this metal have been discovered in various parts of the region, from the banks of Muddy river, in Illinois, to the mouth of the Copper-Mine river, which enters the Frozen ocean. At the latter place, Mr. Hearne found it in his visit to the Copper-Mine river, in 1771, and represents it as in common use for knives, trinkets, &c. among the Esquimaux, the Dog-ribbed, and the Copper-Mine tribes, who inhabit that inclement region.\* It has also been found in various parts of Illinois, as at Harrison, and old Piora,-at Dubuques mines,-Winnebago lake,-on the St. Peter's,-St. Croix,-Sauteur, and other rivers,-but most abundantly upon Lake Superior, and particularly upon the river Ontonagon, where the large mass which is the object of our present visit, has long attracted attention. It is, indeed, notwithstanding the exaggerated accounts, a wonderful mass, and viewed in connexion with the mineral appearances of the surrounding country, leaves little doubt that extensive mines of this metal exist in the vicinity. But to explore it with

\* See Hearne's Journey to the Northern Ocean, p. 172.

any degree of satisfaction, a week or a fortnight affords a very inadequate period, while the extent of the route to be performed, and the danger of so large a party's getting out of provisions in a country almost wholly destitute of game, forbids even the devotion of a few days to that object. Having, therefore, examined appearances, and taken such notes, and specimens of the metal, as time and circumstances would permit, we returned to our canoes, which had been left at the distance of six miles below. On reaching the canoes, we were alarmed on finding that Gov. Cass, from whom we had parted at the Indian path, at two o'clock, had not yet reached the camp, nor any of the attendants who were with him,-among whom was one of the Indian guides. Some idea of the rugged nature of the country may be formed when it is stated, that they had lost their way in attempting to reach the river, notwithstanding that they were only distant three miles, and led by an Indian acquainted with those parts generally. Night was rapidly closing around us, and after firing repeated signal guns, and sending out in all directions, nothing could be heard of them. The feelings of the party may be imagined upon this occasion, seated, as we were, in the midst of one of the most awful solitudes, and in a region which had impressed every individual with an indescribable feeling, that was manifested in a general anxiety to depart from it. I was perhaps alone in the wish to continue our examinations. At length the lost party were discovered by a canoe sent up the river, setting upon the shore, and exhausted with fatigue, and their arrival restored tranquillity to our comp.