## SMITHSONIAN MISCELLANEOUS COLLECTIONS.

# CIRCULAR IN REFERENCE TO AMERICAN ARCHÆOLOGY.

Smithsonian Institution, Washington, D. C., February 1, 1878.

For more than a quarter of a century, the Smithsonian Institution has been engaged in researches concerning the antiquities of America. As the result of its efforts many important memoirs have been prepared, and published in its Annual Reports and in the Contributions to Knowledge; and the National Museum, in charge of the Institution, has become the depository of the largest and most valuable collection of American aboriginal relics in the world.

In continuation of previous effort in the same direction, the Institution contemplates the publication of an exhaustive work on American Archæology, with numerous illustrations. This will be accompanied by a series of maps, exhibiting by appropriate signs and colors the localities and distinctive characteristics of ancient mounds and earthworks; shell-heaps; cave and cliff-dwellings; masonry; sculptured slabs or carved images; inscriptions and rock paintings; graves and cemeteries; aboriginal quarries and salt works; caches or deposits of objects in large quantities; workshops or places of ancient aboriginal industry; ancient roads or trails; and reservoirs and aqueducts.

To this end the Institution desires to collect from every available source, whatever is now known, or can be ascertained by special investigation, of the antiquities of North America; and it invites the coöperation of all into whose hands this circular may fall. If the recipient has not the time or the disposition for such inquiries, he is requested to hand it to some one in his neighborhood who is known to be, or who is likely to become, interested in such matters, with the request to correspond directly with the Smithsonian Institution upon the subject.

## SPECIAL MEMORANDA.

In giving a description of any of the objects named above, great care should be taken in defining the exact locality, the site or station, the number and manner of grouping, the shape and size, the internal structure, and the contents.

- 1. Locality.—In locating aboriginal remains, the State (or territory,) the county, the township, and the distance and direction from the nearest post office or railway station should be distinctly given. In addition to this it is advisable to name any well known stream, hill, bluff, or other remarkable natural feature in the immediate vicinity. Explorers usually refer a "find" to the land of some individual. This may answer for a secondary indication; but, inasmuch as lands are constantly changing owners, it should not be too much relied upon.
- 2. Site or Station.—Nearly all aboriginal constructions seem to have been erected with reference to some natural advantage; for example, upon a hill for observation or defense, by the water for fishing purposes, upon an alluvial plain or terrace for convenience to tillable land, &c. Again, there is reason to suppose that geological changes, such as the shifting of river bods, may have taken place since these erections were made. The site of the remains should, therefore, be described with reference to the surrounding

country, and to the natural advantages and geological history of the location.

- 3. Number and Grouping.—However abundant earthworks and other aboriginal remains may be in any locality, on careful inspection, they will generally be found in groups, having some relation to each other, to the points of the compass, or to the topographical features of the country. An accurate survey and plot, indicating each member in its place, is the most instructive method of representing the facts. Where this is impracticable the individual constituents should be carefully counted and their relative location sketched as definitely as possible.
- 4. Shape and Size. In different portions of North America the earthworks and other structures exhibit certain conventional shapes, notably the animal mounds of Wisconsin. In order to ascertain the geographical distribution of typical forms it is very desirable to obtain ground plans and sectional drawings as accurate as circumstances will allow. In several States surveys of the most celebrated works have been made, and others are in progress. The plots of Moses Strong (Smith. Rep., 1876, 424–432) may be taken as models for ground-plans. Cross-sections and elevations are important in conveying an idea of complicated works. It is well, moreover, to observe the effect of weathering and of cultivation. Notice should be taken, also, of the age of trees growing upon the work or upon lands in the vicinity supposed to have been cleared by the ancient inhabitants.
- 5. Internal Structure.—The study of the structure of an aboriginal work has reference to the nucleus or central portion, and to the enveloping mass. Leaving the former to be considered under the next heading, whatever is said here concerning structure will relate to the latter only. The internal structure of aboriginal remains depends upon their design and the material at hand, quite as much as upon the conceptions of their builders. In some the mass is homo-

geneous throughout; while in others there are layers of clay, mould, sand, and stone, varying in thickness and mode of distribution. By sinking a shaft from the centre of the apex, or by cutting a ditch on a level with the ground, from the circumference toward the centre, the structure will be revealed.

6. Contents.—The contents of earthworks and other ancient structures vary with the purpose which they were designed to subserve, with the locality, and, in the case of burial mounds, with the social standing of those interred within them. The greatest diversity of contents is found in the mounds of the Mississippi Valley, which, indeed, have been named burial, sacrificial, domiciliary, and defensive mounds, according to the end which they seem to have served. The most desirable objects among the contents of these mounds and other earthworks are the human remains. In order to preserve the crania and bones, as well as bone implements or other friable objects, they should be covered with boiled oil, or with a weak solution of warm white glue. When this has dried sufficiently, the process may be repeated until the tissue is completely hardened. Small fragments may be immersed in the liquid at once. Where it is practicable to save crania and other fragile objects entire, the glue may be applied before they are removed from the earth. Dr. Otis, of the Army Medical Museum, has succeeded in taking out a block of earth containing the skull, and by repeated washings and application of the glue has saved some very frail specimens. The Société d'Anthropologie de Paris has issued two pamphlets of instructions, indispensable to collectors of human remains, viz., "Instructions Craniologiques et Craniométriques" and "Instructions Générales pour les récherches Anthropologiques." With regard to the nucleus and to aboriginal relics contained therein, the explorer should examine every object in the position where first discovered, with reference to the original level of the ground, to the structure of the tumulus, and to the objects buried with it. He should disregard no object however insignificant it may seem, and record

with the most scrupulous accuracy whatever is observed. With reference to shell-heaps as well as to mounds there is evidence that the work of erection was abandoned and resumed at longer or shorter intervals, and that a long time elapsed between the commencement and completion of some of them. This would be indicated by a difference in the character of the deposits, by a change in the mode of burial, and by the more or less decayed condition of the bones found in each layer. Many interesting problems concerning race, migration, commerce, cannibalism, cremation, trepanning, disease, &c., are to be solved by an exhaustive comparison of the contents of these aboriginal constructions.

In addition to original records and descriptions concerning the objects enumerated above, the Smithsonian Institution desires to obtain copies of all books, memoirs, pamphlets, extracts from periodicals, and newspaper clippings having any relation whatever to American archæology. It also desires to be informed of the locality of all collections of American antiquities, however small, whether in private hands or in public museums. Special information concerning these collections, the number and character of the most perfect and choice specimens, together with photographs, tracings, or other drawings of the same, will also be valuable, and may enable the Institution to publish a directory of all the archæological collections in the United States.

In conclusion, the Smithsonian Institution respectfully and urgently invites contributions of specimens of aboriginal art and antiquities from all sources and from every part of the country, to be placed in the National Museum at Washington, and preserved permanently in a fire-proof building under careful supervision. The object in view is not merely to possess every variety of article, but also to ascertain the geographical distribution of each form. In this manner, important information may be obtained as to the migrations and commerce of the ancient races.

All specimens contributed will be duly accredited to the donor

in the reports of the Institution, in the proposed work on American Archæology, and on the labels of the specimens; so that, wherever the object may be, the source whence derived will be known. Instructions will be given by the Institution, on application, as to the best method and route of transmission of such collections, the freight on which will be paid on receipt in Washington.

JOSEPH HENRY,
Secretary Smithsonian Institution.

INFORMATION DESIRED AS MATERIAL FOR AN ILLUSTRATED WORK ON THE ARCHÆOLOGY OF NORTH AMERICA.

Name of Correspondent,

Occupation,

Post Office Address,

Date of Communication,

## GENERAL INQUIRIES.

- 1. Are there any remains of ancient aboriginal structures, such as mounds, earthworks, shell-heaps, &c., in your vicinity?
- 2. Are there any other indications of a former occupation of the region by the aborigines?
- 3. Where are they located? Give State, county, nearest post office, distance and direction from some well known natural feature, and the name of the owner of the property at the date of the report.

#### MOUNDS AND EARTHWORKS.

- 4. How are they situated with reference to streams and springs of water, elevations, tillable land, or other natural features?
- 5. What changes, if any, have taken place in the streams, forests, and other surroundings since their erection?
  - 6. Are the mounds isolated or in groups?
- 7. If the latter, what is their number and relative position? Furnish a sketch or plan, however rude it may be, with the individual mounds of the group, numbered. A topographical survey is most desirable, where it is convenient.
  - 8. What is the size and shape in ground plans, in section, of each

Answers to the accompanying questions may best be made by reference to the numbers without repeating the interrogatories.

member of the group? Of irregular and animal mounds a sketch with measurements of the different prominent parts should be given.

- 9. Of what material are they composed?
- 10. How is this material arranged, especially near the centre?
- 11. What is the construction of the centre of the work?
- 12. Where was the material used in the formation probably obtained?
- 13. Have any of the mounds been explored? Designate which ones on a plat.
  - 14. If explored, what archæological objects were found in them?
  - 15. What have become of those objects?
- 16. If any account of them or of the exploration has been published, where, and by whom?
- 17. Have the mounds or earthworks been injured by weathering or by cultivation?
- 18. Are trees growing upon any of them? If so, of what kind and dimensions?

#### SHELL-HEAPS.

- 19. What is the number of shell-heaps in your vicinity?
- 20. What is the location of the deposits with respect to the water and other natural features?
- 21. Has there been any change in the shore to submerge them, to carry a portion of them away, or to bring them above the water line and away from the beach?
  - 22. What is the length, breadth, and depth of each?
- 23. Of what are they composed? Collect specimens of each species of shells.
  - 24. What is the nature and depth of the superincumbent soil?
- 25. What vegetable substance used as food or for other purposes occur in them?
  - 26. What animal or human remains have been found in them?
  - 27. Were the bones whole, charred, or fractured?

- 28. Were any wood, bone, shell, or stone implements, or ornaments, or pottery discovered?
- 29. What were the characteristics of these objects? Make drawings or photographs if practicable.

## CAVE AND CLIFF-DWELLINGS.

- 30. Have any caves or rock-shelters in your section of the country ever been used by the aborigines for a dwelling?
- 31. What advantages do these places furnish for defense, for accessibility to water, game, and other means of living?
- 32. Are there any indications of an attempt to improve or strengthen these places?
- 33. What relies of man or of his works were found, and under what conditions?

#### MASONRY.

In the southwestern portions of our country and from thence to the Isthmus, remains of stone and adobe structures are to be seen. If any have been found in your section—

- 34. What is the material of which they were built?
- 35. What uniting substances, if any, have been used?
- 36. What is the plan and probable use of the structure?
- 37. What attempts were made at ornamentation?
- 38. Is there a central excavation or estufa?
- 39. Was the building more than one story high?
- 40. How is it situated with reference to protection and convenience?
  - 41. What relics were found in it?

#### SCULPTURED SLABS AND CARVED IMAGES.

In portions of the Mississippi Valley specimens of rude statuary have been found, and further south in Mexico and Central America large slabs occur covered with sculpture.

- 42. If sculptures occur near you, under what conditions were they found?
  - 43. With what other remains were they associated?
  - 44. If slabs, have they been injured by weathering?
  - 45. Has any account, illustrated or otherwise, been published?
  - 46. If they have been removed, in whose possession are they now?

### ROCK-PAINTINGS AND INSCRIPTIONS.

On cliffs and bowlders carved and painted inscriptions have been found.

- 47. If any occur in your neighborhood, what is the precise location?
  - 48. Is the design executed with paint or in sculpture?
- 49. What figures are represented? Give a sketch or photograph if practicable.

#### ABORIGINAL BURIAL.

- 50. Are the dead found in isolated graves, cemeteries, ossuaries, caves, or mounds?
- 51. Are the graves which are in groups arranged according to any plan?
  - 52. Are they on a level tract or on a slope?
  - 53. If the latter, what point of compass does it face?
- 54. Does each grave contain the remains of more than one individual?
- 55. Were the bodies buried in a sitting posture, stretched out, lying on the side and doubled up, or were the bones mingled indiscriminately in the grave?
- 56. Was the head or face of the dead directed to any particular point of the compass?
  - 57. Are the remains simply buried in the earth, or are they en-

closed in stone circles, in cysts, in earthen jars, or in some other receptacle?

- 58. In what state of preservation were the bones found?
- 59. Are the graves deep or shallow?
- 60. Have they been injured by weathering?
- 61. Is there any evidence of dessication, mummification, cremation, or other special treatment of the remains of the dead previously to interment?

## ABORIGINAL QUARRIES.

- 62. If any ancient quarries have been discovered, what is the material which was sought by the aborigines?
  - 63. What is the locality, depth, and form of the excavation?
- 64. What evidence exists of the manner of detaching and working the material?
  - 65. What and what kind of mining tools have been discovered?

#### CACHES.

Various kinds of aboriginal implements have been found deposited in large quantities as if designedly.

- 66. If caches have been found, what was the number, and character of the contents?
  - 67. Where and under what circumstances were they found?
- 68. Were the objects kept together by the discoverer, or scattered? If the former, in whose possession are they now?

#### WORKSHOPS.

At certain seasons of the year some of our western tribes encamp in the neighborhood of deposits of jasper, chalcedony, and other minerals valuable for arrow-making, and manufacture a sufficient quantity of points, knives, &c., to last them a long time. The ground around such places, for several acres, is covered with splinters, cores, spoiled points, and flaking tools.

- 69. Are there any traces of the manufacture of stone implements or pottery in large quantities in your vicinity?
  - 70. If so, what is the character of the refuse?
- 71. Has this refuse been subjected to the action of running water, and what is the method of its aggregation under such influence?

## ROUTES AND TRAILS.

72. What vestiges, if any, exist in your section of ancient trails, carrying places, fords, bridges, stone-heaps, land-marks, and whatever else would throw light upon ancient migration and commerce?

## RESERVOIRS AND WATER COURSES.

- 73. Have any attempts been made by the aborigines of your region to construct aqueducts or reservoirs for water?
- 74. Do the aqueducts show any especial skill in following the natural level?
  - 75. What is the length and other dimensions of the channel?
  - 76. Were any attempts made at irrigation?
  - 77. What is the size of the reservoirs, if any exist?
  - 78. How are they lined?
  - 79. How were they supplied with water?

#### BIBLIOGRAPHY.

- 80. Do you know of any original memoirs or surveys of these remains that have not been published? Please send the name and address of the individual who has them in possession.
- 81. Have any accounts of the antiquities in your neighborhood been published by your local press? Can copies be procured?

- 82. Have they been described in any other publication, such as magazines, proceedings of learned societies, &c.?
- 83. Are there any public or private collections of antiquities in your locality?
  - 84. If so, do they contain rare and valuable specimens?
- 85. Have these specimens ever been figured? Drawings or other representations of those that are rare will be gratefully received by the Institution.
- 86. What specimens can you furnish as a contribution to the National Museum?

The following symbols, most of which are taken from the international code of Mm. Mortillet and Chantre, published in the Smithsonian Report for 1875, are designed to secure uniformity of illustration and facility of reference:

000	Stone heap, cairn, landmark.
	Shell heap, kjökkenmödding.
	Mound, or tumulus; dotted, if a stone mound.
	Mardelle, pit, excavation, dug-hole.
	Mound enclosing a cist or chamber.
	Circumvallation, earthwork.
	Earthwork enclosing tumuli. See symbols for number.
	Tumulus surmounting a work and ditch.
	Longitudinal earthwork, the line beneath indicates extension.
	Cave dwelling or cliff structure.
$\stackrel{\triangle}{\boxtimes}$	Communal dwelling, pueblo.
	Masonry, wall of stone or adobe.
$\Delta$	Sculptured slabs or carved images.
1	Rock-paintings and inscriptions.
A	Hollowed stone, cup cuttings.
$\overline{\mathbf{V}}$	A row of standing stones, carved slabs, &c.
<u>.</u>	A circle or enclosure of the same, the dots may apply to other symbols.
	Burial place, method not known.
_/	Inhumation, at length.
Z	Inhumation, in a doubled up position.

