

Cambridge University Press

978-1-108-08028-6 - Lake Habitations and Pre-Historic Remains in the
Turbaries and Marl-Beds of Northern and Central Italy

Bartolomeo Gastaldi

Excerpt

[More information](#)

OBJECTS OF HIGH ANTIQUITY DISCOVERED IN ITALY.

For some years past several different geologists have occupied themselves in investigating new facts, and discovering new elements of discussion which may lead them to the resolution of the question, whether the first men lived at the same time with any of the great animals, of which the most recent fossil fauna is composed—with the *Ursus spelæus*, for instance, the *Elephas primigenius*, etc. The investigations necessary for the resolution of this question, take the study of the remains which are left to us of members of the human race who lived in epochs of which no memory is preserved either in history or tradition, out of the peculiar domain of archæology, and bring it within the sphere of geology.

Consequently most interesting in the double aspect of archæology and geology is the discovery recently made near Abbeville and Amiens, of manufactured flints, mixed up with bones of the *Elephas primigenius*, and of the *Rhinoceros tichorhinus*; and such discoveries as those, which in this case were made, must be not only of high interest, but completely conclusive, if, as appears to be the case, we may exclude every suspicion that these remains of extinct animals could have been already fossil when the waters handling them afresh stratified them in company with the rough products of the industry of the primitive races.*

* Later observations, published by the distinguished naturalist, M. Lartet, prove by evidence, that in the south-west of France the human race lived at the same time with the *Rhinoceros tichorhinus*, the *Ursus spelæus*, the *Hyæna spelæa*: see *Nouvelles Recherches sur la coexistence de l'Homme, et des grands Mammifères fossiles réputés caractéristiques de la dernière période géologique*. Now, these species of animals being no longer extant,—in other words, being

Cambridge University Press

978-1-108-08028-6 - Lake Habitations and Pre-Historic Remains in the
Turbaries and Marl-Beds of Northern and Central Italy

Bartolomeo Gastaldi

Excerpt

[More information](#)

These manufactured flints, namely, arrow-heads, lances, hatchets, saws, chips, etc., are certainly the most ancient objects of archæology that we are acquainted with, and mark, if not the appearance of man on the earth, the first results attained to by him in seeking to satisfy his wants.

In some localities of Switzerland, of Germany, of France, of Denmark, and I will say also of Italy, are found exclusively chips of fire-giving flint, and pieces of bone and horn cut into the form of arms and instruments, accompanied by coarse badly baked utensils of earth; in others are found promiscuously arms and utensils of stone and bronze: a metal, the use of which preceded by a long time, as is well known, that of iron; and, lastly, in others are found, mixed with those of stone and bronze, objects of iron.

The use of manufactured stone, that of bronze, and finally that of iron, marking three very distinct steps by which the intellectual unfolding of the human race leapt to the point at which we find ourselves, have induced some archæologists to subdivide the epoch of man into three ages, to which they have given the names of *the age of stone*, *the age of bronze*, and *the age of iron*. When man learnt how to construct arms and utensils of bronze he certainly did not think of throwing away those which were in his possession of stone, at least for a long time; and probably even after the discovery of iron he could not forget the advantage for many purposes that objects of stone had over objects of bronze; and therefore it is natural that in certain places we should find them mixed together.

The Age of Stone.—In Italy probably belong to the age of stone the many arms of flint, among which was one also of bone, found by Sig. G. Cerchiari upon the hills, which the offshoots of the Apennine form near Imola, and especially in some parts of the parish of Goccianello. Those arms have been described and very well engraved by my friend Doctor

fossil species,—it follows that the antiquity of the human race mounts not only beyond the age which we prescribe to it in general, but rises still further to the last great geological epoch; and that epoch having been one of cold, it should not appear extraordinary to us that there should have coexisted with man species of animals formed to live in regions less than temperate.

Cambridge University Press

978-1-108-08028-6 - Lake Habitations and Pre-Historic Remains in the Turbaries and Marl-Beds of Northern and Central Italy

Bartolomeo Gastaldi

Excerpt

[More information](#)

G. F. Scarabelli, a distinguished geologist, in one of his papers published in the *Annali delle Scienze Naturali di Bologna* in 1850. They consist of about thirty lance- and arrow-heads and of two axes (*couteau-hache*). Of the lance- and arrow-heads some are barely rough cast, the others are of finished execution, a circumstance which, added to another fact of one of such lance-heads being found near a heap of chips of various kinds of flint-stone, and to the greater part of the arms being manufactured from flints found in the neighbourhood, makes one believe that they were made in the country and the very locality where they were found. After the publication of the paper cited above were discovered in the same places small balls of baked clay, with a hole in the middle, little millstones of a garnet-bearing mica-schist, coming in all probability from the valley of Aosta, and some instruments and arms, namely :—

1. A small hammer of diorite of very fine grain, of a blackish blue colour, through which shoot very thin crystals of white felspar. This hammer is sharp on one side and flat on the other; towards the latter end it is perforated by a round hole, of diameter nearly constant (twenty-one millimeters on one side, nineteen on the other), and of wonderful regularity.

2. A cuneiform hatchet of the same stone.

3. A cuneiform hatchet of a stone, probably felspar, very hard and of a beautiful green.

4. Two cuneiform axes of black jasper (Lydian quartz).

These arms, although of the hardest rock, are worked with great fineness.

Arms of the same epoch have lately been discovered by Baron Anca in some caverns of Sicily, and consist of arrows, axes, knives, etc. of volcanic rocks, found mixed confusedly with bones of the stag and hog.* Before him Sig. Forel had found on our coast in similar open caverns, near Mentone, a good number of worked flints in the form of arrow-heads, axes, and disks flattened and sharpened, mixed up with bones

* Vide *Bull. de la Soc. Géol. de France*, 1860.

Cambridge University Press

978-1-108-08028-6 - Lake Habitations and Pre-Historic Remains in the Turbaries and Marl-Beds of Northern and Central Italy

Bartolomeo Gastaldi

Excerpt

[More information](#)

and teeth of the stag, roe, sheep, antelope? ox, horse, hog, bear? wolf, cat, rabbit, with shells, crustaceans, and heaps of fragments of charcoal.* Arrow-heads and chips of flint were also found by my friend Professor Capellini, on the promontories of the Gulf of Spezia. In expectation of the publication of more important discoveries made by the Marquis Carlo Strozzi in Tuscany, I shall here insert, having the permission of my friend Sig. de Mortillet, a letter on the subject by Professor Meneghini, which he received in April 1860 :—

“The human bones found in the Cave of the Saints at Monte Argentario have not formed any part of a solid deposit, nor have they been found in the condition of the ordinary accumulations of fossil bones of the caverns. They were scattered superficially in the midst of heaps, which the waters have carried there from a short distance; the arms found with them are points of arrows of the usual form and size. The silex is fire-giving (*piromaca*) light in colour, and does not seem to be of the country. The other bones found together with the human ones are those of the ox, the wild boar, and the rabbit, nor do they present any character by which they are distinguished from the common existing species.”

“In another cave in the neighbourhood of Monte Tignoso, near Livorno (Leghorn), Marquis Carlo Strozzi has also found many human bones, and many portions of cranium. The crania are of great dimensions, the parietal bones being rather thin, and in all the teeth are deeply worn, as if from the effect of long and active mastication, it may be of alimentary materials comparatively hard.† This wearing of the teeth not being in proportion with the age. Similar deep wearing away of the teeth has been observed in other human remains found in various parts of the *Maremma*, in all probability similar remains of buried corpses; and it was even noted likewise that the incisor

* Forel, *Notice sur les instruments en silex et les ossements trouvés dans les cavernes de Menton*.

† This is the character of the teeth in the crania found in the mounds in Orkney, called Picts' houses; it is also found in skulls in various parts of North and South America.—EDITOR.

Cambridge University Press

978-1-108-08028-6 - Lake Habitations and Pre-Historic Remains in the
Turbaries and Marl-Beds of Northern and Central Italy

Bartolomeo Gastaldi

Excerpt

[More information](#)

teeth both above and below presented the same deep wearing away, which, instead of being oblique, as is usually the case with our race, is perfectly horizontal, a circumstance which has also been noted in the Egyptian mummies.* Together with all the said bones of the Monte Tignoso, the Marquis Strozzi found besides arrow-heads like those mentioned above, heads of lances cut into the shape of olive leaves, and a little hatchet of diorite.”

“The fragments of terra cotta, some of them of rude form, have been found within the strata of stone and shells (*Panchina*), which are most superficial, but not of those which actually form it, except in some rare place, as at the mouth of the *Fossa Calda*, near Campiglia. The same strata of solid *Panchina* containing, together with remains of human industry, numerous spoils of marine animals of species still actually living, are certainly superficial, but raised in some measure above the level of the sea, and irregularly inclined and disconnected.”

In 1852 Signor Gabriele Rosa of Iseo, in an article published in the journal *Il Crepuscolo*, printed in Milan, gave an account of the book by M. Boucher de Perthes, *Les Antiquités celtiques et antédiluviennes*, and ended with the announcement that in September 1851, the engineer, Pietro Filippini, in the cuttings made for the construction of the railway from the gate Torre-lunga and the suburb of Santa Eufemia, near Brescia, about two meters below the vegetable soil, found in a stratum of gravel the appearance of a mortuary trench, and in it pieces of charcoal and shards of earthen vases very friable, and fragments of a knife of flint.

We may here remark that arrows of flint and hatchets of different kinds of stone have on several occasions, and at different times, been found in other parts of Lombardy, as well as in the Modenese territory and in Piedmont. These various discoveries made in several regions of northern and central Italy, as well as that of which I have spoken above, made by Signor Anca on the coast of Sicily, gave me reason

* Also among the Chinese, Tartars, Esquimaux, and Peruvians.—EDITOR.

Cambridge University Press

978-1-108-08028-6 - Lake Habitations and Pre-Historic Remains in the
Turbaries and Marl-Beds of Northern and Central Italy

Bartolomeo Gastaldi

Excerpt

[More information](#)

to suppose that objects of the same kind might be found in other southern provinces of the kingdom. With such an idea I begged the engineer, Signor de Bosis of Ancona, already known by various writings on geology and the industrial products of the Marches, to be so good as to make some researches directed to this end, and my request could not have been more promptly responded to, for a few days after I received from him a present of seven arrow-heads of flint, which he had collected from country people, "who keep them," Signor de Bosis wrote to me, "to preserve their houses from lightning, believing that the lightning comes down to strike with a similar stone," a superstition which I have found also in Piedmont among the labourers employed in extracting the turf.

The arrow-heads sent to me by Signor de Bosis are in colour white and rose-coloured (it is worth while to mention), of a variety of *piromaca* (fire flint), which presents some analogy with the *piromaca* of which are made the arrow-heads found in Tuscany. Those found in Lombardy, in Modena, and in Piedmont are of milky grey, or blackish brown flint.

I have said above that it appears probable to me that the objects above mentioned belong to the age of stone, because they have been found in considerable quantity, and without any admixture of metal; I shall now indicate much more important discoveries of arms and utensils of the Age of Bronze.

The Age of Bronze.—In a valley called Cumarola, part of the property of Sig. de Gatti, at scarce the distance of a mile from Modena, in the autumn of 1856, were brought to light, in making railway cuttings, about forty human skeletons, buried about three meters below the surface, in the bare earth; these were disposed in two parallel rows, all with their heads turned towards the south, and by their side were arms of bronze and stone. An article* by the celebrated Professor, Sig. Cavedoni, printed in the *Messaggiere di Modena*, published this discovery, and I shall make use of the words

* "Archæological account regarding the discoveries of an antique polian-drium, or sepulchral tumulus, of about forty warriors, with their arms."—*Messaggiere di Modena*, 24th December, 1856, No. 1486.

Cambridge University Press

978-1-108-08028-6 - Lake Habitations and Pre-Historic Remains in the
Turbaries and Marl-Beds of Northern and Central Italy

Bartolomeo Gastaldi

Excerpt

[More information](#)

of the Professor to give an exact description of the particulars observed, and of the objects found:—

“Each one of them (the skeletons) had, on the right side, a lance-head of copper, turned upwards, and on the left side an arrow-head of flint-stone; and besides, some of them had on the right side a cuneiform lance-head of bronze,—some a similar head of the hardest green serpentine, and some over their head a hammer of blackish serpentine, not very hard, and ending on the opposite side in the form of a hatchet; one of them was distinguished by having, on the right side, a lance-head of considerable size and elaborate workmanship, and above its head a pipe of iron,* which, having been broken, appeared full of some substance reduced to minute grains, like *semolina*.”

The author then gives the following description of the objects indicated:—

“1. Lance-head of copper (perhaps with a slight admixture of tin), with a very fine blade, with a rib in the middle; length 0·13 m., breadth 0·07 m., at the base, and these furnished with a prolongation, 0·025 m. in length, with a hole in the middle, the better to fasten it to the end of a staff of wood, of which some traces remain, and which appears to have been of considerable size, and fined down to fit the spearhead at its base.

“2. Lance-point of flint-stone, irregularly cut; length 0·06 m., breadth 0·02 m. with a socket 0·02 m. long.

“3. Cuneiform spearhead of bronze, 0·10 m. long, 0·04 m. broad towards the edge, and 0·02 m. towards the other extremity.

“4. Cuneiform spearhead of green serpentine, of the hardest kind, like the last, but a little shorter.

“5. Hammer of blackish serpentine, covered with small whitish spots, with a circular head, and ending at the other side in form of a hatchet, with an obtuse edge, with a hole in

* I have learnt from Sig. di Gatti that it is not certain that this tube is of iron, and on the contrary it is highly improbable that it was; for of all the arms and instruments by which the skeletons were accompanied, not one was found of this metal, but all were undoubtedly of bronze or stone.

Cambridge University Press

978-1-108-08028-6 - Lake Habitations and Pre-Historic Remains in the Turbaries and Marl-Beds of Northern and Central Italy

Bartolomeo Gastaldi

Excerpt

[More information](#)

it, larger at one side than the other, in which was inserted a short handle of coarse wood, a little longer than the middle finger, of which some trace remains in the earth; the length of this is 0·08 m., breadth 0·05 m., across the middle of the cutting side 0·04 m.

“The skeletons, which were accompanied by the various arms above described, are sufficiently well preserved, and had all their teeth white and entire; certain others of these skeletons must have been exhumed when, about the year 1773, the Via Nuova Giardini was opened, since it cuts across one of the two rows of skeletons now discovered, and probably it was at that time that two arms, like those mentioned above, were found, which are preserved in the museum of the Royal University.”

My friend, Professor Döderlein, director of that museum, has been so good as to communicate to me the two arms whence we have been enabled to obtain models. One of them has the form of a crescent moon, from the concave side of which a large and thin appendage proceeds, which must have served to graft the arm into the handle. It is made of green serpentine, darkened by small laminæ of diallage, which may be easily scratched, while it will itself with some difficulty scratch glass, not without, however, receiving scratches in return. The other has the form of a hatchet (*couteau hache*), and is of a felspathic substance (*saussurite* or *petro selce*), of a greenish tint with blackish spots, makes lines easily on glass, resists lime, is so transparent as to show flaws (*scheggiosa*), will melt in a retort, giving a glass of dark green, almost black. (An axe of nephrite, coming from New Zealand, and existing in the mineralogical collection of the school of practical engineering, can easily be scratched with a file.)

I shall now draw attention to one observation, which it has occurred to me to make relatively to the human race who lived in remote times in the Modenese territory,—an observation which may in time appear of little or no importance, but which may, perhaps, still lead the way to new and conclusive discoveries.

Cambridge University Press

978-1-108-08028-6 - Lake Habitations and Pre-Historic Remains in the
Turbaries and Marl-Beds of Northern and Central Italy

Bartolomeo Gastaldi

Excerpt

[More information](#)

Finding myself this summer (1860) in Modena,* and having noticed in the fine museum of anatomy two skulls (coming, if I recollect right, from some cuttings made near Reggio), one of which is, from the inscription it bore, supposed to be of the race of the Zingari, I communicated to Signor de Gatti my regret that the skulls of the forty warriors, discovered at Cumarola, had not been preserved, that we might have seen whether they, peradventure, might not have belonged to the same race.

Some time after, in last September, Signor di Gatti, moved by the generous desire of making some discovery which might prove useful to science, gave his attention to an excavation in continuation of that in which the skeletons, so often mentioned, were found, and discovered a new one; and with extreme courtesy, which I am bound here to publish, not only made a point of being present at the work, so that he might communicate the observations which it occurred to him to make, but forwarded to me all the objects recovered, comprising the skull which, unluckily wanting its facial and its occipital part, leaves it doubtful to what race it has belonged.† I have observed, nevertheless, that this skull, though that of an individual of from twenty-five to thirty

* I ought to say that on this occasion I, for the first time, made acquaintance with the works of Ramazzini, Venturi, Brignoli, Cavedoni, etc., and I owe it to the extreme courtesies of Signor Domenico Luppi, the archivist of the corporation of Modena.

† Signor di Gatti, in announcing to me the discovery made by him, wrote to me as follows: "I gave orders that the ground should be excavated with the greatest diligence until the usual indications should be recognised; as it proved after not much labour, the kind of earth was recognised which indicates the interment of a corpse, and then began to be laid bare little bones, we suppose of the feet. I diligently observed whether the bones had, at some former time, been moved; but I saw that this had not happened, from the regularity with which they were placed. The length of the skeleton appearing to me out of the common, I measured the length, and found it 1.91 m.; the bones of the skeleton continued to be taken out with the hand, and at the distance of 0.57 m. from the skull, towards the feet, we found a quantity of greenish earth; this green earth having been removed with every precaution, there was presented an object, in length 0.08 m., in breadth 0.065 m., which those standing by adjudged to be a decoration, which must have been placed on the breast of the corpse. From the investigations made we may gather that this decoration was composed of tissue, and had

Cambridge University Press

978-1-108-08028-6 - Lake Habitations and Pre-Historic Remains in the Turbaries and Marl-Beds of Northern and Central Italy

Bartolomeo Gastaldi

Excerpt

[More information](#)

years of age, has the frontal (*fronto-frontale*) suture very apparent,* it happened then that reading the "Statement of the Natural History of the extensive Estates of the Signori Brignoli and Rezzi," I saw that the authors mention two skulls (the very same which I have alluded to as in the Anatomical Museum at Modena), found about four meters deep, at Caudelbosco, near Reggio. "One of these skulls," say the authors, "appears to have belonged to a Zingaro (Cinganus), the other certainly belonged to an individual of the Caucasian race; but this last, which is that of an adult (of the age of from thirty to thirty-five years), presents the peculiarity of having throughout apparent the frontal (*fronto-frontale*) suture, and we know that they join, so that ordinarily, after the seventh year, one cannot perceive them, though there are sufficiently rare instances in which this property may have been observed by some anatomists."

Here, then, we have two skulls; one found near Reggio, the other at Cumarola, near Modena, both found at about four meters depth,—one, of the Caucasian race, the other of uncertain race, both presenting the unusual peculiarity of showing, in a marked manner, the frontal suture. It seems to me that, in the coincidence of these two facts, there is something more than accident.†

Marl Beds.—In the provinces of Parma, of Reggio, and of

the form of an oblong radius (*raggio oblungo*), with little tubular bodies (threads of copper) imprisoned in the tissue; and in the middle of the opening there was another small object still longer. We tried in every way to preserve the decoration I have described entire, but it was impossible; the tissue which kept it together was destroyed, and the earth on which it rested, under the influence of the air, became reduced into minute fragments. I have, however, carefully collected the tubes and the object which was in the centre. Proceeding with our discoveries, we found on the right side the usual lance of metal (bronze), and lower still, an object also of metal, in form of a wedge. At the time you spoke to me of the skeletons found in 1856, at Cumarola, I felt that it was a matter of regret that the skulls were not preserved; I however procured that the bones I then discovered should be collected with the greatest diligence, and carried them all to Modena, to place them at your disposal."

* *Saggio di Storia Naturale*, etc.

† Having gone expressly to Modena in the course of December (1860), I have been enabled to ascertain that the two skulls, preserved in the Anatomical Museum of that city, are in fact those which the Signori Brignoli and