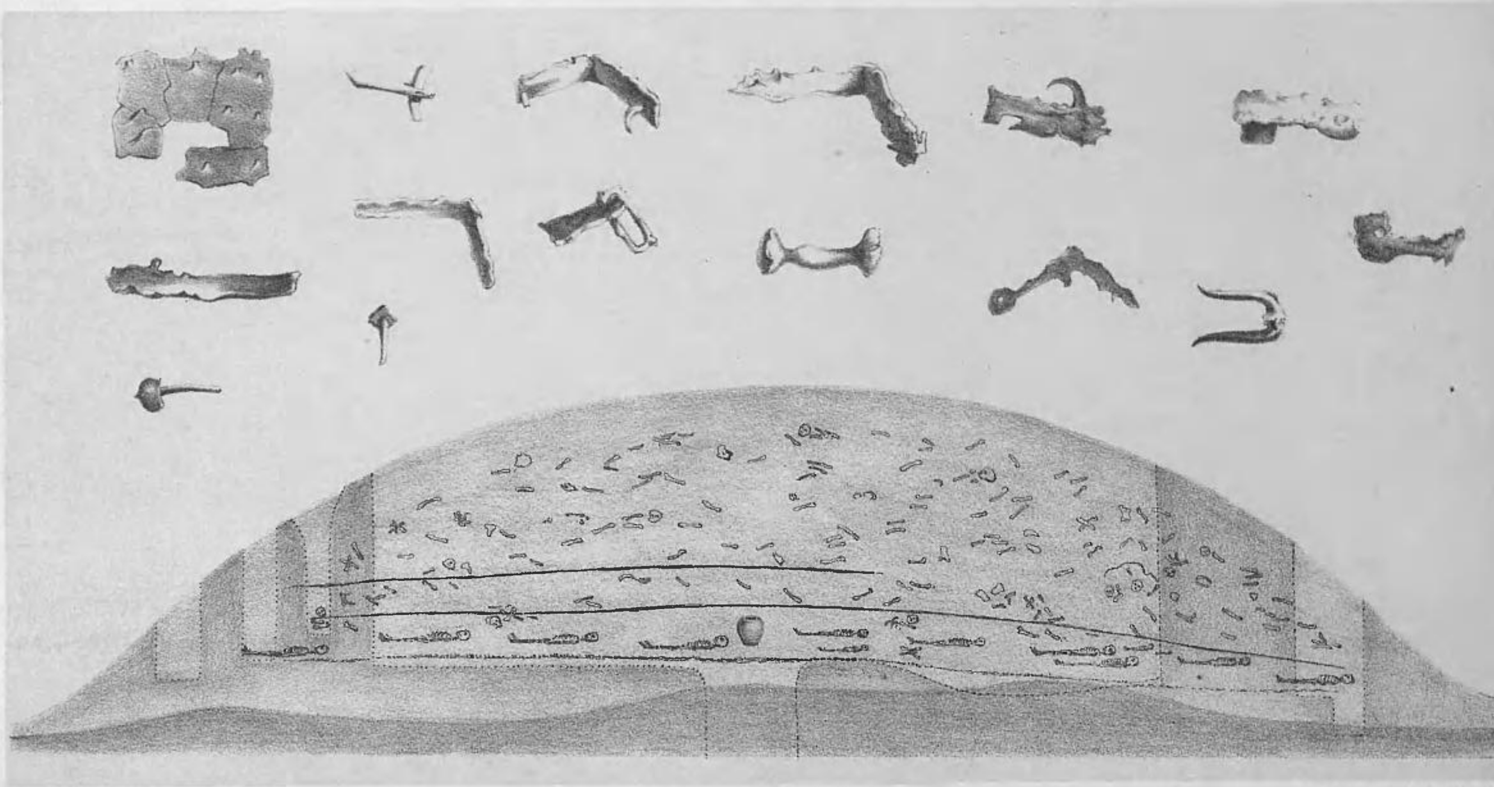


Printed by P.H. De la Motte, Delint.

Diametrical Section of Lamel Hill near York

DESCRIPTION OF AN ANCIENT TUMULAR CEMETERY, PROBABLY OF THE ANGLO-SAXON PERIOD, AT LAMEL-HILL, NEAR YORK, BY JOHN THURNAM, M.D.

Leaving York by Walmgate Bar, for Hull or Bridlington, we have on the left the marshy flat adjoining the river Foss, the country beyond which is nearly equally level to the foot of the Hambleton Hills. On the right, the surface quickly rises, and presents us with a pleasantly varied, elevated ground; which, whilst soon sloping away into the well-wooded plain to the south, extends for a distance of six miles to the east, and reaches nearly from the walls of York, and the banks of the Ouse, to the Vale of the Derwent. At a distance of less than half-a-mile from the walls of the city, on the right of the road to the village of Heslington, and on the top of the rising ground now described, is a circular mound generally known by the name of Lamel-hill. On this hill, which forms one of the boundaries of the York district under the Reform Act, a windmill long stood, but being in a dilapidated state, it was removed about fifteen years ago. The hill, for the last seven years, has formed part of the property of the Retreat, in the grounds of which, near their north-west angle, it is situated.

Passing on towards Heslington, at a distance of about half-a-mile from Lamel-hill, we may observe on the left of the road, another round hillock, somewhat resembling the former, likewise seated on the summit of the ridge, which has here attained a still higher elevation. This mound is planted around its base and sides, with elms of considerable age, and is surrounded by picturesque and undulating woodlands. It is laid down by Mr. Newton, in his map of British and Roman Yorkshire, published by the Archaeological Institute, as "Heslington Mount," by which name it is generally known at the present day. From two documents, preserved by Drake, we find that in the fourteenth and fifteenth centuries, this mound bore the name of "Siward Houe,[1]" or "Seward How."

The general character and form of the two mounds now briefly described, might perhaps alone serve to establish their

[1] See Drake's Eboracum, 1736, pp. 595, 597. This presumed identity of Siward Houe with Heslington Mount, was first pointed out by Mr. Davies.

artificial origin; but the question would still remain, with what object were they constructed? Were they formed for the purpose to which, in modern times, they have been applied, viz., as sites for the erection of windmills; or did they afford sites for beacons, and posts for such means of inspection and telegraphic communication as were formerly in use; or, lastly, were they in fact and truly, from the first, sepulchral mounds, tumuli or barrows? As respects the first suggestion, it seems hardly probable that mounds of such a size as Lamel-hill would be erected for windmills, in a district where sites sufficiently eligible for the purpose are so readily to be met with. It appears, however, to be well ascertained, that mounds were raised by the Romans, as well as by other nations, as exploratory posts or beacons, and that tumuli, really of a sepulchral origin, were thus applied. It may perhaps deserve notice, that from its situation, Lamel-hill seems well adapted to, and may, whatever its origin, have been used for, purposes such as these. Under ordinary atmospheric conditions, "Siward-houe" might be most readily communicated with by signals; and by means of beacon fires, communications might perhaps be maintained with the Roman station of Delvogitia, wherever this may have been situated on the Wolds,—a circumstance which, under the threatening of invasion, would be of no small importance. In the opposite direction too, or to the west, Lamel-hill commands a distinct view of the City, with the hills of Severus, and the mount without Micklegate Bar, on its south-west side; and, during clear weather, Otley Chevin, overlooking the neighbouring site of the Roman station of Olicana (Ilkley), is distinctly seen in the far west.

It must, however, be admitted that, in the absence of evidence to the contrary, artificial mounds like those under consideration, may be presumed to be sepulchral. Direct proof of this is, however, only to be obtained by excavation into their interior. In reference to Lamel-hill, Drake observes, "I take this hill, as several others around the city, to have been originally raised for Roman tumuli, though they afterwards served to plant windmills upon."[2] Speaking of Severus' hills, which he erroneously regarded as artificial in their origin, he says, "Such kind of *tumuli* or *cumuli*, sepulchral hills, were raised by the Romans at vast trouble and expense, over their men of highest note, in order to

[2] Drake, p. 251.

eternize their memories." And, further on, "I need say no more to prove this custom to have been a very common one amongst the Romans, as it was also used by the Pagan Britons, Saxons, and Danes. The Goths, or Anglo-Saxons, made their tombs very like the Roman tumuli."[3] As is now well known, the author of the "Eboracum" is in error when he alleges that barrow-burial was a common practice amongst the Romans; and, knowing as he did, that it was used by the ancient Britons, the Saxons, and the Danes, one feels surprised that, without direct evidence of any kind, he should have concluded that the tumuli around York are not only all sepulchral, but that they are all likewise of Roman origin.

Mr. Davies, in an interesting paper read at the Evening Conversation Meeting of the Yorkshire Philosophical Society, a few years ago, threw out the suggestion that Lamel-hill and Siward-houe are both Anglo-Saxon barrows, founding this view on etymological grounds, which, however, it hardly seems needful to reproduce here; especially as, in respect to Lamel-hill, Mr. Davies himself now concurs in regarding as untenable the etymology which he proposed.

So far as I am aware, Drake is the first author who mentions Lamel-hill under that name. The contemporary writers, to whom we are indebted for what we know of the long siege which York sustained in 1644, in describing the battery which was placed on this hill, mention it by no particular name. Rushworth calls it "a hill near Walmgate Bar;" Sir Henry Slingsby, "the windmill hill as the way lies to Heslington;" and Hildyard, "the mill hill above St. Laurence Leyes, without Walmgate Bar;" and in another place, "Heslington Hill."[4] What degree of antiquity must be assigned to the name of Lamel-hill, would thus appear very doubtful; though, from the silence of these writers, we cannot positively conclude that the name did not exist at the time they wrote. Drake's notice of this tumulus is as follows: "South of the Hospital of St. Nicholas is a round hill, known by the name of Lamel-hill, on which a windmill has stood, from whence it must have took its name; Lamel-hill being no more than *le Meul*, the Miln-hill, called so by the Normans."[5] We can hardly, I think, but concur in regarding this derivation as doubtful.

[3] Drake, p. 14.

[4] Hildyard (by Torre, 1719) appears to apply the latter designation to Lamel-hill, though it would seem to be more applicable to Siward Houe.

[5] Drake, p. 251.

Upon referring to the title-deeds of the Lamel-hill property, I find that whilst in some of the writings the name is given as we now write it, in others (1744) it is called Lamon-hill, and in others (1794) Lamb-hill. In the very document, indeed, by which this property was conveyed to the Retreat, in 1839, the mound is called Lamb-hill. In this case, at least, it must have been (as it probably was in the others) a simple clerical error. Still, however, the question arises whether the original name may not really have been Lamb-hill. Lamb is a Saxon word, and it appears at least as probable that the name of this mound should have descended to us from the Saxon as from the Norman. This etymology, however, like others which have been proposed to me, and which derive the word Lamel from *lam*, and from *lea* and *mela*, (Saxon) appears quite doubtful.

Let us now direct our attention to the tumulus itself. I have already described its situation, on the summit of the rising ground to the south of the road to Heslington. It is however really situated somewhat on the southern slope of this higher ground, and consequently has a greater elevation above the surrounding fields on the south side, than on the north. It has a diameter from east to west of about 110 feet, and of about 125 feet from north to south. Its base, which measures about 375 feet in circumference, has therefore a circular form inclining to an oval. The tumulus presents a decidedly more gradual slope on the north side than in any other direction; but this may, in part, have resulted from the road to the mill having been on this side, and from the miller's cottage having stood at the foot of the mound on the north-east. At the summit, is a tolerably level area, having a circumference of about 100 feet. The height of the tumulus above the surrounding field and garden on the west, is 14·5 feet; on the north, 15·4 feet; on the east, 15·7 feet; and, on the south, 22·5 feet. The height above the ground at Walmgate Bar is 73·5 feet. The height above the summer level of the river Ouse is 90 feet.

About seven years ago, when Lamel-hill was planted, and a walk made to its summit, a few human bones were thrown up; and during the winter of 1847-8, when a deeper walk was cut in the side of the hill, human remains, in still greater number, were discovered. At first, I concluded that these bones, which were found even within two feet of the surface, were those of soldiers of the Parliamentary army under Fairfax,

who, during the siege of York, already referred to, erected what Drake calls a "terrible battery" on this hill.[6] A closer inspection of the bones, however, soon served to convince me, that they are of much higher antiquity than the civil wars of the seventeenth century; and by further investigation into the character of the tumulus, such a view was altogether refuted. The only probable relics of the occupation of Lamel-hill by the troops of Fairfax and Lesley, consist of a few coins, and a piece of cast-iron which weighs nearly two pounds, and seems to have formed part of the bottom of a large pot or boiler. A well-known iron founder of York informs me that he has little doubt that this had formed part of a camp-kettle, of a form different from those which are made at the present day. It was found at the foot of the hill, on the south side, within about two feet of the surface. The coins found at or near the surface of the hill, and to be attributed to this period, are chiefly of the reign of Charles the First, and consist of a silver penny well preserved, and two or three farthings of the Scotch coinage of that reign. There is likewise a small copper coin of the contemporary Louis the Thirteenth of France. I am informed, by a former occupier, that, forty or fifty years ago, as many as thirty or forty silver coins were found in the garden at the foot of the hill, but of what description I am unable to learn.

I was sufficiently interested by the results already obtained, to make arrangements, in which a few friends united, for a more systematic investigation of this place of burial. Upon digging more deeply on the west side of the tumulus, it was soon ascertained that the bones existed in the shape of complete skeletons; though many of the smaller bones of the hands, feet, &c., had perished in the lapse of time. After digging several deep holes in various directions in the sides of the tumulus, and almost uniformly finding bones or skeletons, a horizontal shaft, about four feet wide, and six and a half feet high, was commenced on the south-west side, about fifteen feet from the summit. In cutting this tunnel, the bones of several complete skeletons were found. It was now observed that the skeletons were laid at pretty regular distances; not more than two or three feet of earth, more or less mixed with stones, intervening between every two skeletons. I also found that the skeletons were uniformly laid from west to east,—the feet to the east. After tunnelling, in the way

[6] Drake, p. 262.

described, for about forty feet, almost to the centre of the mound, further progress was impeded by the falling in from the summit of a considerable portion of the superincumbent soil. This cutting was now filled up, and a vertical shaft sunk from the summit to the base, which was successively enlarged, so as to extend for fifty-five feet from east to west, across the middle of the tumulus. In the centre, the excavations were carried to a depth of nearly twenty feet from the summit; and during their course, the whole of the central part of the tumulus was satisfactorily explored.

For some time, I concluded that interments had been made at two or three distinct levels, and that skeletons were consequently to be found in as many successive tiers. Bones were indeed found, in considerable number, commencing at about three feet from the surface; but further observation showed that complete skeletons only exist at a level of from ten and a half to twelve feet from the summit of the hill,—the skeletons on the west side being at the greater depth.[7] All the human remains which were found above this level, consisted of more or less scattered bones, which had evidently been disturbed since their original interment. In several instances, these bones formed small heaps, which, in some places, were almost in contact with the complete skeletons. The examination which has been made fully establishes the fact that, at this particular level, Lamel-hill had been the seat of interments arranged almost or quite as regularly as in any modern church-yard. In two instances, at least, as shown in the accompanying section, one skeleton was found lying over another; but this seems to have resulted from the same carelessness or want of method which leads to the like result at the present day. From twenty to thirty skeletons, and the detached bones of at least as many more, have been exhumed; and I think it may be concluded that this cemetery had afforded interment to from two to three hundred bodies.

The bones generally have all the appearance of great age. They are, for the most part, very light, porous, and brittle; many of them, in degree, resembling recent bones affected by the disease called *eccentric atrophy*. Those found nearest the surface, particularly on the south side of the tumulus, are much eroded, and have a peculiar worm-eaten appearance. Whilst, however, the more free action of air and water upon

[7] See the annexed Section of the Tumulus. The section is from east to west, through the centre of the tumulus. The dotted lines indicate the extent of the excavations.

the bones has produced this appearance, it seems, after a certain time, to have induced a peculiar density and hardness, somewhat resembling that of semi-fossilised bones, which has rendered them less susceptible of further change. The bones found at a greater depth, and particularly those of skeletons previously undisturbed, have less of the eroded character externally, and are generally lighter and more fragile, and of a darker colour. This difference is particularly seen in the crania, many of which are very thin and decayed, and even present large holes in the side placed most deeply in the earth, which, in several instances, had completely filled the skull. In many cases, the bones of the cranium have become curiously twisted, apparently by the pressure of the soil.

The skeletons are those of persons of both sexes, though those of males probably preponderate. Out of twenty sets of pelvic bones, which were all I obtained for examination, I was, however, induced to assign about an equal number to each sex. Generally speaking, the skeletons appear to be those of persons of middle age ; and the lower jaws of only two decidedly old persons were found. The skeletons of two children of less than two years, that of another about eight, and those of two or three young persons of from twelve to fifteen years of age, were exhumed. Many of the skeletons must have been those of men, of a stature varying from six feet to at least six feet four inches. The thigh bones in several (at least nine) instances, measure from nineteen to twenty-one inches and a half in length.[8] One broken thigh bone, of great thickness and strength, could not have measured less than twenty-two inches and a half. This thigh bone may have been that of a man of a stature of not less than six feet eight inches. I subjoin, in a note, the length of a considerable number of the principal bones of the limbs which were measured previously to their being re-interred.[9]

The teeth are almost uniformly much worn down, as if from the use of food of the coarsest and hardest kinds. This condition, which, as we shall see, is probably in some degree characteristic, is observed even in the incisor teeth.

A few of the bones present marks of disease. One thigh

[8] In the skeleton, found in the tumulus at Gristhorpe, near Scarbro', which, when articulated, measured more than 6 feet 2 inches, the thigh bone has a length of 19½ inches. Though some inferences may be drawn from the length of the thigh bone, there is no certain relation between this and the stature.

[9] Of 114 *femora*, 48 measured from 18 to 21 inches and upwards ; of 92 *tibiæ*, 24 measured from 15 to 17 inches ; of 81 *humeri*, 35 measured from 13 to 15 inches; and of 57 *ulnæ*, 12 measured from 11 to 13¼ inches in length.

bone is affected by *exostosis;* a tibia by the disease called *spina ventosa;* and two *humeri* and one *tibia* by *necrosis.* All these diseases are more or less likely to have originated in injuries or violence to the bones. The parietal bone of one skull exhibits a considerable cleft, such as may probably have been produced by a sword or other weapon. Two skulls present a peculiarly thickened and spongy condition from disease. One of these skulls has a thickness of five-eighths of an inch, and the hypertrophy, as exhibited by the prominent condition of the sutures, is very marked.

The crania are generally rather small; their prevailing shape being elongated, and, as viewed laterally, partially pyramidal, the frontal region being decidedly narrow and low, the parietal wide and often much elevated, and the occipital, though likewise small, often protuberant in the centre.[1] Other shapes however exist; thus, one of the crania is very flat and wide in the parietal region, whilst it has both a wider and higher forehead. A few of the skulls approximate more closely to the modern European standard, and are better proportioned and tolerably ample in the frontal region. Probably three out of every four of the crania examined belong to the first described class, as regards form. The cheek prominences are generally of moderate size and the *glabellæ* rather full. A measurement, according to the method of Carus,[2] of the three principal regions of the cranium, in twenty-one cases, the results of which I subjoin, gives dimensions which are almost uniformly much below the average standard.[3] On the whole, the examination of these human remains leads to the conclusion that, if they do not belong to a generally rude and imperfectly civilised people, they are at least to be ascribed to the less cultivated portion of some more advanced population.

Scattered amongst the disturbed human remains, and even within a foot of the undisturbed skeletons, were found the bones of some of the lower animals. Amongst these were the bones, including the jaws and teeth, of a small horse, and the fragments of the burr of the horn of a deer. The bones, however, are chiefly hose of the small extinct ox—the *Bos longifrons* of Owen. They consist of one horn-core, three

[1] Representations of several specimens of crania taken with the craniograph described by Dr. Morton (Crania Americana, p. 294), will be given with the sequel of this memoir.

[2] See Brit. and For. Medical Review, vol. xviii., p. 385.

[3] The table of measurements will be given in a future number of the Journal. The cases in which the dimensions are above the average, are nearly confined to the occipital region, or that of the hind-head.

or four *maxillæ*, *scapulæ*, and *sacra*, several *vertebræ*, *femora*, *humeri*, metatarsal and other bones, of two or three of these animals.[4] Professor Owen, who has particularly investigated the history of this species, (and who has kindly examined the bones from Lamel-hill,) believes it to have become extinct in England soon after the Roman invasion. The fossil bones of *Bos longifrons* are met with, in the eastern counties, associated with the remains of the elephant and rhinoceros. In the more recent alluvium, as that of the Severn at Diglis, the bones of this species are found with those of the red-deer and with Roman antiquities,—urns and Samian ware. They have likewise been found, by Wood and others, in ancient British barrows; and not long since within the remarkable entrenchments on the estates of the Duke of Northumberland, at Stanwick, in Yorkshire, associated with human remains and antiquities, probably British,[5] of the Roman period.

A few coins and counters were found at depths varying from six to ten feet. Some of these are very much worn and not to be deciphered. Two of them, however, are Nuremberg counters, of the sixteenth or seventeenth century; one of which bears the name of Hans Schultz. One of the coins is that of a Ferdinand; and there is a second brass Roman coin, perhaps of Trajan. The most interesting object found at the same level is, however, the brass seal of the keeper of a chapel dedicated to the blessed Mary at Morton Folliot. This seal is probably of the fourteenth or fifteenth century, and bears the inscription, "S.' Comune C'todi Capelle bē Marie de Mort' Folliot." It has for a device, a figure of the Virgin and Child, and beneath, that of an ecclesiastic with the hands uplifted in the attitude of prayer. It is difficult to understand how this seal can have made its way from Morton Folliot in Worcestershire to Lamel-hill.[6]

The discovery of this seal and of the counters, at the depth

[4] The metatarsal bone of *B. longifrons* as compared with that of the common English ox, measures about 6½ inches, the latter, 9¾ inches.

[5] Owen, Fossil Mammalia, pp. 475, 513. Proceedings of Archaeological Institute at York, Catalogue of Museum, p. 6. Professor Phillips informs me that the bones of this species were found some years ago, at York, in excavating into the mound on which the Norman Keep, called Clifford's Tower, stands.

[6] Castle Morton, Worcestershire, was anciently known as Morton Folliot.

at which they were found, seems to afford the proof that the upper part of this mound has been disturbed within the last three hundred years. I incline, indeed, to a conjecture that the hill was turned over and raised to a greater height by Fairfax's army in 1644, for the purpose of obtaining a more commodious site for their battery. Another indication of such a change in the upper part of the mound is, perhaps, found in the circumstance of some of the bones having been curiously cut and bored, as if merely for amusement. This is the case with one of the metatarsal bones of *Bos longifrons*. The burr of the deer's antler had been made into a kind of ring.

Near the centre of the tumulus, and at a depth of nine or ten feet, two pieces of tile, which are evidently Roman, were found. Not far from these, a fragment or two of Samian ware, and several portions of that coarse earthenware, covered with a green glaze, and ornamented with a scalloped pattern, which is now likewise generally supposed to be Roman, were also found. Fragments of pottery of other descriptions, and of more ambiguous character, were also thrown up.

In the very centre of the tumulus, and raised only a few inches above the level of the undisturbed skeletons, was found a large urn.[7] Within two or three inches of this urn on the east, was the skeleton of a man who had probably measured not less than six feet four inches in height,[8] and at no great distance on the west side were the feet of another skeleton. This urn is of simple but unusual form, and presents distinct marks of having been turned on a wheel. It measures twelve inches and a quarter in height, thirteen inches nearly in the greatest diameter, eight inches at the base, and five inches and a half at the mouth, which is surrounded by a rim of very slight elevation, and upwards of one inch in width. It has a capacity of upwards of three imperial gallons. It is formed of very hard and coarse, well-baked, unglazed ware, of a dirty brick-red colour, with here and there a patch of black, doubtless the result of fire. Part of the surface is somewhat corroded, and discloses numerous small fragments of broken pebbles, and even of granite. It was found with its mouth, which had no cover, upwards, and only contained some rather loose clayey soil, like that in which it was imbedded. The interior of the urn had a peculiar faint, but very offensive smell,

[7] Figures of this urn, and that found in Walmgate, will be given with the conclusion of this memoir.

[8] Both the *humeri* of this skeleton were slightly affected by *necrosis*. A representation of the cranium will be given hereafter (Fig. 1).

difficult to describe. The upper part of its internal surface is lined with a rather thick pellicle of dry scaly matter, of a very dark green colour, and somewhat resembling some forms of mouldiness. This is observed gradually to scale off as the urn becomes dry. Placed in water, this substance swells and assumes a gelatinous form : seen through the microscope, it presents traces of a distinct vegetable organisation, and I find that it consists of an aggregation of dead confervæ, which only require air and moisture to have their vital properties reproduced.[9] Dr. Pereira has shown that these microscopic vegetations, which are now commonly called mycoderms (*mycoderma*), are very common on, and in, decomposing organic fluids. I am not aware whether the present species has before been figured, or whether it has previously been found in sepulchral urns.

The urn now described differs much from ordinary sepulchral urns, whether British, Roman, or Saxon, both as regards its shape and the material of which it is formed. There is no urn at all similar in the collection of the Yorkshire Philosophical Society, nor yet figured in the recent "Archaeological Index" of Mr. Akerman. The urn most nearly resembling it which I have seen, is in the collection of Mr. James Cook of York, and was found in digging a drain in the neighbourhood of Walmgate Bar, at a distance of less than half a mile from Lamel-hill. This latter urn, however, presents several points of difference ; it has a less regular shape, and is constructed of a more fragile material, in which broken pebbles are not visible. The two urns, however, as the woodcuts will show, belong to a common type as regards form. In size, also, they correspond very closely, there not being a difference of more than half an inch in their respective heights. The urn from the neighbourhood of Walmgate Bar had likewise, in all probability, been used for a sepulchral purpose, being found at a depth of some feet below the surface, with its mouth downwards, immersed in a dark boggy kind of earth. Its contents were not carefully examined, but were reported by the workman, by whose pickaxe it was cracked, to consist of the same kind of earth as that in which it was imbedded.

During the excavations, numerous iron nails and rivets of various sizes, and a still greater number of pieces of iron bar bent at a right angle and perforated by nails or pins of iron, were found.[1] These appear to be of rather rude workmanship,

[9] A microscopic figure of this plant will be given with the conclusion of the memoir, in the next number of the Journal.

[1] A few of these are figured in the illus-

and some of the iron is of unusual hardness. They are uniformly covered with a very thick rust, and many of them are almost entirely oxidised, and thickly encrusted with pebbles. Many of these nails and pieces of iron present distinct traces of wood adhering to them. A few fragments of decayed wood, apparently oak, were also found.[2] The pieces of iron were scattered throughout the tumulus, but in several instances, it was remarked that three or four such pieces were found by the side of, and around, undisturbed skeletons. Although it must be admitted that among the fragments of iron there are some which can hardly have been used in this way, I still think it may be pretty confidently inferred that the bodies had been deposited in wooden coffins, of which these nails, cramps, and plates of iron, were fastenings.

There is considerable variety in the soil of which the mound consists. Beneath the external loam, it has a more clayey character, and is mixed with stones, often of considerable size, which are found in greatest number immediately above and around the skeletons. In other parts, it is more mixed with sand, whilst in others it is almost unctuous in appearance. That the tumulus, even at its base, is of artificial character, appears to be proved by the clay, stones, and gravel, which are found for upwards of two feet below the undisturbed skeletons, being very generally and extensively mottled with a white calcareous matter. Chalk or lime would indeed appear to have been mixed with the soil, which effervesces briskly on the addition of dilute muriatic acid. At a depth varying from thirteen or fourteen feet from the summit, the natural subsoil of the district appeared, in the form of a bed of moist sand and gravel of a greyish colour, such as is often found in the beds of rivers. This must have been deposited on this elevated ground at the time when, as we learn from geology, the vale of York was traversed by an estuary which connected the mouth of the Tees with that of the Humber. This bed of gravel was explored to a depth of between six or seven feet, in the centre of the tumulus, without any indications of its having been previously disturbed being detected.

A remarkable seam of a moist black matter, from one to two inches in thickness, was observed to stretch with little interruption through the centre of the mound at a level of

trations accompanying this memoir. Altogether about nine pounds weight of this iron was collected.

[2] A microscopic examination of this wood, as well as of that adhering to the iron nails, &c., confirmed the view of its being oak.

between ten and eleven feet from the summit, and from one to two feet above the undisturbed skeletons. Examination with the naked eye was sufficient to establish the presence of wood charcoal, in more or less minute fragments. This was made still more evident by examination under the microscope; by the aid of which no trace of bone ashes could be detected, though numerous granules of a calcareous matter and of sand were mixed with the charcoal; which, as I am informed by a friend, who has had much experience in the microscopic examination of wood, is most probably that of the birch or alder and willow. Chemical examination served to confirm the conclusions derived from observation with the microscope. In three places, however, in or near this seam, large portions of human bones which have been burnt were found. There is some reason to think that these bones, which consist of parts of the cranium, the femur, and some other bone, had been originally deposited in the urn. Additional traces of cremation were afforded by a few small black and moist deposits, observed here and there in the central part of the tumulus, amongst the charcoal of which, distinct and abundant traces of burnt bone were observed under the microscope.

In another place, about two feet above the black seam just described, to the west of the centre of the tumulus, an irregular layer of limited extent, of a dry friable black matter, was found, which is obviously a vegetable charcoal of some kind. Viewed under the microscope, this substance exhibits a distinctly fibrous character, and the fibres are marked transversely by delicate cross lines. The most probable inference is that it is the charcoal left after the combustion of the twigs of some tree or shrub.

About eighteen inches above the black seam, in the centre and on the west side of the mound, another seam of a reddish-brown, earthy matter, from one to two inches in thickness, was observed. This substance has all the appearance of being earth, containing a very large proportion of rust of iron; and, being examined chemically, was proved to contain a very large amount of that metal. A doubt indeed can hardly remain that this red seam has originated in the gradual decay and oxidation of portions of the old iron already described, and which, at some period, had been deposited at this level.[3]

(To be continued.)

[3] In the accompanying Section of the Tumulus, the upper line indicates the seam of iron-rust; the lower line, that of charcoal and ashes; and the white stratum beneath the skeletons, the earth mixed with chalk or lime.

cemented so strongly as to destroy all ordinary tools; and all the remains thus discovered tend to corroborate local tradition that these buildings were raised by the Romans. Mr. Parker reports that he has seen thousands of Roman coins found there, but two only which seemed Flemish. The foundations of the tower have been broken up, as far as practicable, and the excavation filled in: this building Mr. Parker considers to have stood on the southern side of the work, and to have been used for the purpose of observation. It must have commanded, if the structure were of considerable elevation, a great extent of country, as far as Cæsar's camp and other distant stations. An ancient way passed near it, leading, probably, from London through Coln Brook, Feens in White Waltham, where Roman remains have been found, and towards Reading by Streetly. On the north side of the octagonal building appeared a break in the foundation wall, possibly where the access to the staircase from the castle had been formed.

DESCRIPTION OF AN ANCIENT TUMULAR CEMETERY, PROBABLY OF THE ANGLO-SAXON PERIOD, AT LAMEL-HILL, NEAR YORK, BY JOHN THURNAM, M.D.

(*Continued from page* 39.)

THE sepulchral mound now described is of a very remarkable character, and does not, so far as I am aware, correspond with any of the numerous tumuli or other ancient cemeteries which have hitherto been examined. It differs from the ordinary tumuli of this country, of whatever period or people, in respect of the great number of persons who have been interred in it. It has, indeed, been a cemetery rather than a barrow, and we may perhaps properly speak of it as a *tumular cemetery*. Some may be disposed to question whether it had originally a tumular character at all. The level, however, at which the undisturbed skeletons were found, is raised about three feet above the surrounding fields; and, from the greater slope of the ground in that direction, the skeletons on the south side have an elevation of seven or eight feet. The presence of lime or other calcareous matter amongst the clay, gravel, and stones, below the entire skeletons, appears also to indicate that the base of the mound is artificial, and that the tumulus has not been formed merely by the removal of the surface of the surrounding fields and garden. Down to a very recent period, however, gravel has been obtained from these fields, and it is very possible that part of the existing elevation of Lamel-hill may be due to the abstraction of gravel and subsequent levelling round the base of the mound. Whether there were not originally two or more distinct tiers of interments, of which all but the lowest have

been disturbed, must remain doubtful. It seems more probable that the cemetery had formerly a much greater superficial extent, and that its outskirts were, for some reason, dug up and piled on the central part, which was allowed to remain undisturbed. The black seam of charcoal and ashes, described as running through the mound, appears to indicate what has at one period been the surface of this cemetery. If we reject as improbable the conclusion that the human remains interred were originally covered by no greater depth of earth than that which now intervenes between the undisturbed skeletons and this black seam (though the depth is not greater in some Anglo-Saxon tumuli of considerable extent), we must suppose that the superincumbent soil was so far removed. Fires would at least appear to have been made on this level, and to have left behind them their traces in the form of a seam of wood-ashes. These fires may possibly have been made for the purpose of beacons, during the wars between the Saxons and Danes, or even at a period subsequent to the Norman conquest. As already pointed out, the situation is one well adapted for such a purpose. That they were fires connected with cremation and urn-burial—though at first sight the most probable conclusion—appears very doubtful, from the circumstance that bone-ashes do not seem to constitute an essential constituent of this seam.

Although, then, these views of the original construction of the cemetery at Lamel-hill, and of the changes which have subsequently been made in it, are more or less conjectural, they appear to be those by which the appearances which have been described are most satisfactorily explained.

The inquiry remains as to what period and people this cemetery must be ascribed. This is a question the solution of which is attended with some difficulty. In endeavouring to determine it, there are several points which require our consideration. And the first of these which I will mention, is the mode of interment. We find in Lamel-hill the remains of a cemetery bearing the marks of unquestionable antiquity, in which persons of both sexes, and of nearly all ages, have been interred. We have, I believe, no ground for supposing that general cemeteries, of such a description as this has been, were used by any tribe of the early Britons, who appear to have generally practised the more isolated

form of barrow-burial. The Romans, again, of all classes but the lowest, had their separate tombs and mausolea, which, although congregated outside their cities, were as separate and distinct in themselves, as the abodes for the living were within the walls. Burning the body, too, was a common practice of the Romans of all classes, including even the poorer, which ceased only with the general adoption of Christianity.

The lowest class in Rome had their general cemetery on the Esquiline; such also have been discovered in this country;[1] and it appears not improbable that, excepting the higher class, the Britons themselves under the Roman sway used common cemeteries. This period of our history appears at least the most remote to which this cemetery can with any probability be ascribed.

From the absence of ornaments and weapons, and of all implements and utensils connected with heathen superstitions, such as are constantly found in Roman tombs and burial-places, as well as in the barrows of the Pagan Saxons, and particularly from the direction in which the bodies were deposited from west to east, I think we may further infer that those who were here interred were a Christian people.

In what manner the early British Christians deposited their dead, we have little or no evidence.[2] It is probable that in part the old methods for some time obtained, and that separate Christian cemeteries were not until still later, if at all, introduced before the Saxon period. We know, however, that nearly a century and a half elapsed, after the second introduction of Christianity into this island under the Saxons, before burial-places were made around the churches within towns. This was done under the authority of Cuthbert, Archbishop of Canterbury, in 742; though, perhaps, in Northumbria, not until a somewhat later period. During this time, the more healthful practice of burying the dead at some distance from the habitations of the living prevailed; no interments within the limits of towns having before this been allowed by the Saxons, any more than they previously had been by the Romans. With these facts before us, I am then

[1] See description of a Roman *ustrinum*, at Litlington, Archaeologia, vol. xxvi., p. 368. For descriptions of what also appear to have been Roman-British general cemeteries, see Archaeologia, vol. xviii., p. 421; vol. xxvi., pp. 368, 466; vol. xxix., p. 217; vol. xxxi., p. 312.

[2] An early British Christian cemetery has, it is thought, been discovered at Pytchley, in Northamptonshire, but its character, as a British cemetery, appears doubtful. Archaeological Journal, vol. iii., p. 105; and Journal of the British Archaeological Association, vol. ii., p. 202.

inclined to place the date of the cemetery at Lamel-hill between the first introduction of Christianity in the second or third century under the Romans, and the establishment of ecclesiastical cemeteries in the middle or latter part of the eighth century. If the correctness of this inference be allowed, we may now inquire whether this cemetery is to be ascribed to the early Christians of the Roman-British, or to those of the Saxon, period;—whether to the inhabitants of Eburacum or to those of Eoforwic.

Many of those antiquarians who have investigated the tumuli and cemeteries of the Romanised Britons and Anglo-Saxons, have, with great probability, concluded that the old methods of interment, more or less modified, were continued for some time after the introduction of Christianity. The habits of a people are only entirely changed with the gradual lapse of time. Thus, in the eighth century, many years after the nominal conversion of the continental Saxons, we find Charlemagne publishing an edict, in which he orders their dead to be taken to the cemeteries of the church and not to the tumuli of the Pagans.[3] Douglas, who investigated the Saxon tumuli of Kent with great accuracy, observes, "that many of the relics in the small tumuli might incline an antiquary to consider them with an eye to Pagan ceremonies, particularly when vessels have been found in them; but as many Christian rites were founded on those of the Gentiles, and in the early ages of Christianity seem to be blended with each other, it is difficult sometimes to say whether the people inhumed were Christian or Pagan."[4] I would suggest that we have an example, to some extent, of this blending of Christian and Pagan methods of burial in the cemetery at Lamel-hill. The probably tumular character of the burial-place and its position on the highest ground of the district, savour, perhaps, rather of heathen than of Christian views. The discovery, too, of a sepulchral urn, tends still more to this conclusion.

The burial-places of the Romans and Romanised Britons are, we well know, to be looked for in the neighbourhood, and by the side, of the roads leading from their cities and stations; and hence it has been sometimes too hastily con-

[3] "Jubemus ut corpora Christianorum Saxonum ad cæmiteria ecclesiæ deferantur et non ad tumulos Paganorum." Charlemagne also forbade the practice of burning the dead amongst his Saxon subjects.

[4] Nenia Britannica, 1793. As regards the tumuli referred to by Douglas, it will, I believe, be now generally allowed, that these are really of Pagan origin.

cluded that the tumuli on eminences near the sites of Roman roads in this country, are all Roman, or have been constructed over the bodies of British chieftains engaged in the Roman service. Lamel-hill must certainly have been very near, and distinctly visible from, the Roman road between Eburacum and the nearest station to the east—Derventio. Indeed, as Mr. Wellbeloved, with great probability, concludes, this road must have crossed what is now called Heslington field, not far from the place where the Roman coffins were found a few years ago.[5] In this case, the road would probably have been carried along the north side of the ridge on which Lamel-hill stands, and perhaps between the existing roads to Hull and Heslington. Such a conjectural Roman road is laid down in Mr. Newton's recent map, having Heslington Mount (Siward houe) on its south side. The position, then, of Lamel-hill, so far as it goes, is favourable to the view, expressed by Drake, that it is a Roman tumulus. In the neighbourhood of York much cannot be insisted on the discovery of such fragments of Roman tile and pottery as were found in Lamel-hill, more particularly as they were not discovered in immediate connexion with the undisturbed skeletons. The presence of the bones of *Bos longifrons*, in considerable numbers, seems a more important circumstance. Hitherto, I believe, the remains of this animal have not been found with antiquities which can be assigned to a later period than that of the Romans. Still it can hardly be thought an improbable opinion, that, in this more northern part of the island, the species may have lingered down to the time of the Saxons.

Having, then, noticed those circumstances which are favourable to the view of Lamel-hill being a cemetery of the Roman-British period, let us examine whether other particulars ought equally to incline us to this opinion.

The size and form of the skull, and the condition of other parts of the skeleton, are circumstances from which we may perhaps look for some aid in determining the question before us. Professors Eschricht, Nillson, and Retzius, have found a remarkable difference in the crania from the tumuli of Sweden and Denmark, of different epochs, and which they have made the subject of observations of great interest to ethnological science.

In the very numerous accounts which we possess of the

[5] Eburacum, 1842, p. 158.

examination of English tumuli, we must regret that so little attention has been paid to the size and form of the skull, and in general to the characteristics of the skeleton. For the most part, no notice whatever has been taken of them, or, if alluded to at all, it has been in the most meagre and unsatisfactory manner. England is perhaps of all countries that in which the most valuable conclusions might be deduced from a collection of crania, such as Dr. Prichard has suggested should be formed from its different barrows.[6] It is, no doubt, in part, the consequence of this neglect, that, in the present state of ethnological science, we are so little able, from the form of the skull, to decide as to the race to which human remains found in the tumuli of this country are to be attributed.

Some explanation may be thought due for dwelling so much at length on a subject not usually recognised as coming within the scope of archaeological inquiry. The double light, however, which this inquiry,—which falls under the head of the *palætaphia* of Dr. Prichard,—is calculated to throw upon archaeology and ethnography, ought, I think, to be accepted as sufficient apology; and I shall proceed to examine whether, in the instance before us, we can derive any aid from the forms of the skulls, towards determining the race to which this cemetery is to be attributed. The accompanying plate of crania[7] shows, as has been already pointed out, that the skulls from Lamel-hill are of an elongated, rather than round, form; that they are, for the most part, small; and that in the forehead they are low and narrow; whilst they are fuller in the middle-head, where, in many cases, they exhibit a peculiar pyramidal conformation. The main features of these crania are their rather small size and their lengthened oval or dolicocephalic form. Whilst their development must be admitted, for the most part, to be poor, they still fall under the first class and first order of Professor Retzius' arrangement, viz.: *Dolichocephalæ orthognathæ*.[8]

[6] Natural History of Man, 1843, p. 192. Physical History of Mankind, 3rd edition, 1841, vol. iii., pp. xxi., 199, 393.

[7] In this plate the sketches of the crania, which I owe to the kindness of a friend, and which are taken with Morton's craniograph, are drawn to the same scale, of rather less than one fourth the diameter. Two sketches of ten of the crania, and one of each of two others, are given. These comprise,—*a*, the side or profile view; and *b*, that of the summit of the skull as seen from above, and taken so as to embrace as complete a view of the entire calvaria as possible. This latter mode of viewing the cranium is of the first importance in reference to Professor Retzius' classification.

[8] Retzius divides the different nations of men into two classes. The *Dolichocephalæ*,

Under this head, Retzius includes the crania of people of both Celtic and Germanic race. The opinion, however, of Professor Nillson, that the type of the old Celtic cranium is intermediate to the true dolichocephalic and brachycephalic forms, is, I think, well founded; the oval of the Celtic cranium, according to this view, being usually shorter than in the skulls of a decidedly lengthened oval form, and longer than in those of an obviously shortened oval form.[9] A more extended comparison of crania may be required to establish these views satisfactorily; but, so far as they go, it will be seen that they are in favour of the human remains from Lamel-hill being those of a Teutonic rather than a Celtic people.

In alluding to the conformation of the head in the Celtic races, Dr. Prichard observes that he has seen about half a dozen skulls found in different parts of England in situations which rendered it highly probable that they belonged to ancient Britons. All these partook of one striking characteristic, viz., a remarkable narrowness of the forehead compared with the occiput, giving a very small space for the anterior lobes of the brain, and allowing room for a large development of the posterior lobes. The few crania which I have myself seen from early British tumuli correspond very much with Dr. Prichard's description. They had, for the most part, a shortened oval form; ample behind, and somewhat narrow and receding in the forehead. The cranium from the undoubtedly British tumulus at Gristhorpe, near Scarborough, has this general form; it is, however, unusually large, and not deficient in frontal development; its form, too, is in some respects fine, particularly as regards the full *supra-orbital* region, and the high and fully developed middle head. Sir R. C. Hoare, who made very extensive examinations of the British tumuli of Wiltshire, in describing a chambered tumulus at Stony Littleton, in Somersetshire, observes that the two skulls found in this barrow were totally different in their formation from those from any other barrow he had examined, with one exception, in being characterised by a remarkable

or those with a lengthened oval form of cranium; and the *Brachycephalæ*, or those with crania of a shortened oval form. Each of these classes he subdivides into two orders: the *orthognathæ*, or those with upright jaws, and the *prognathæ*, or those with prominent jaws. The brachycephalic crania of Retzius nearly correspond with the pyramidal division of Dr. Prichard, and embrace the skulls of the Lappes, Finns, Tartars, and Mongols,—people of the Turanian, or Ugro-Tartarian family.

[9] Report of British Association, 1847, p. 31.

flatness of the forehead—"*fronte valde depressâ.*"[1] Many at least of the so-called Roman skulls which have been exhumed at York are no doubt those of Britons who had adopted the Roman customs, and were buried in the Roman manner. So far as I have seen, these crania have, in general, a rather shortened oval form, though in many cases the forehead is full and moderately wide.[2]

With regard to the form of the head in the ancient Germans, we have, as Dr. Prichard observes, no information in classical writers; and the only record, so far as I am aware, of the cranial development in the remains found in Anglo-Saxon tumuli in this country, is that by Lord Albert Conyngham. This nobleman, in 1841, opened between sixty and seventy barrows at Breach Downs, in Kent, and, in describing their contents, he makes the "passing observation, that the skulls found in these graves are, with one exception, of inferior organisation."[3] This "inferior organisation" of crania from tumuli which are undoubtedly Saxon is important in connexion with the generally inferior frontal development and small size of the skulls from Lamel-hill. The modern Germans, as is well known, have large heads, with the anterior part of the cranium elevated and fully developed; but this, there can be little doubt, is in some degree the result of modern civilisation. On the other hand, too, there seem reasons for thinking that those buried at Lamel-hill were for the most part persons from the lower and less cultivated ranks of society,—of ceorl, rather than of eorl, kind,—in whom the frontal development would probably be less marked.

Another peculiar feature in the human remains from Lamel-hill is the almost uniformly flat and worn condition of the crowns of the teeth. In the Roman-British skulls found at York, the teeth, so far as I have seen, are mostly very perfect, and their crowns not worn down. The same appears to have been the case in the remains from British tumuli examined by Sir R. C. Hoare, who observes: "The singular beauty of the teeth has often attracted our attention; we have seldom found one unsound or one missing, except in

[1] Archaeologia, vol. xix., p. 43. In this description of Sir R. C. Hoare, we must regret the absence of more accurate anatomical details.

[2] Some of these crania are, no doubt, those of Roman soldiers; as, for example, the skull of Aurelius Superus, centurion of the sixth legion, which was found in an inscribed coffin in the castle-yard at York. See Wellbeloved's Eburacum, p. 110.

[3] Archaeologia, vol. xxx., p. 47.

the cases of apparent old age. This peculiarity may be easily accounted for. The Britons led a pastoral life, feeding upon the milk of their flocks and the venison of their forests, and the sweets of the West Indies were to them totally unknown."[4]

In the Anglo-Saxon barrows at Breach Downs, already referred to, the same condition of the teeth with that observed in the remains from Lamel-hill appears to have existed. Thus, we are informed that the "state of the teeth in these barrows indicate that the people had lived chiefly on grain and roots."[5] Animal food, amongst the Anglo-Saxons, appears to have been very much restricted to the more wealthy; and barley-bread, pulse, and other vegetable food to have constituted the principal fare of the poorer class, which frequently included even the inhabitants of monasteries. If there be reason, as some suppose, for thinking that parched peas were a staple article of their food, we cannot be surprised that their teeth should be worn down in this way. In the very interesting account of the discovery of the early conventual Saxon cemetery at Hartlepool, belonging probably to the latter half of the seventh century, the teeth are also described as being worn quite smooth, as if they had been filed down. As the skeletons were chiefly those of females, many of them probably of the upper class, such a condition of the teeth is the more remarkable, and seems to prove that the early Saxon Christians of the North lived on the same kind of food as their Pagan brethren in Kent had previously done.[6]

The condition of the teeth now described cannot, however, be regarded as positively distinctive of Anglo-Saxon skeletons. It is certainly sometimes observed in early British, and Roman-British, skulls.[7] Depending, as it does, on the character of the food, it is met with amongst various barbarous tribes, and even in certain classes of modern Europeans (e. g. sailors), down to the present day. It is, however, a condition which appears to have been more prevalent amongst the Anglo-Saxons than their immediate predecessors;

[4] For notices of the state of the teeth in British and Roman-British places of sepulture, see Archaeologia, vol. xviii., p. 421; Archaeological Journal, vol. iii., pp. 114, 223.

[5] See Archaeological Journal, vol. i., p. 272.

[6] Archaeologia, vol. xxvi., p. 479; Journal of British Archaeological Association, vol. i., p. 185.

[7] See Medical Gazette, 1838-9, vol. i., p. 288, N. S.; vol. i., pp. 867, 949, 1043, 1170. Journal of British Archaeological Association, vol. ii., p. 171; vol. iv., p. 65, 69. I find, from personal inspection, that in the British skeleton from Gristhorpe,

and, taken in connexion with other circumstances, it seems, I think, to point to the inference that the skeletons from Lamel-hill are really those of the people in question. Amongst these confirming circumstances may perhaps be included the large size of many of the skeletons, agreeing, as this does, with the well-known large stature of the early Anglo-Saxons.

The presumed mode of interment, in wooden coffins, fastened with iron nails, cramps, and rivets, of rather clumsy workmanship, is perhaps to be reconciled with the conclusion of the cemetery in Lamel-hill having belonged either to the Roman-British or to the Saxon period. More or less similar portions of rusty iron, with traces of decayed wood attached to them, have been repeatedly found in the barrows and cemeteries of both periods, though still more frequently perhaps in those of the Saxons.[8] The general description, indeed, of the iron remains found in this instance, very much accords with those found in the Kentish tumuli opened by Lord Albert Conyngham. The stratum of calcareous matter found below the skeletons is also in favour of this cemetery being referred to the Saxon period;—this being a circumstance which has before been observed in tumuli and cemeteries which are doubtless Anglo-Saxon.[9]

The structure and description of the urn found in the centre of the cemetery, though exceptional, are, in the main, such as we are in the habit of ascribing to the Roman-British period.[1] There can, I think, be little doubt of its having been made by those who had been instructed in the art of fictile manufacture as practised by the Romans. The Saxons, however, not only seem frequently to have made their sepulchral urns and other pottery on Roman models, but probably often likewise employed vessels which were really of Roman or Roman-British manufacture. Conjectures can only be offered as to the purpose for which this urn was deposited in the place where it was found, and these need not detain us long. Burning the dead,

the teeth are worn down to a considerable extent.

[8] Compare Stowe's Survey of London, Book ii., ch. 6. Bloxam, Monumental Architecture, pp. 39, 54. Archaeologia, vol. xviii., p. 421; vol. xxix., p. 217; vol. xxx., p. 47.

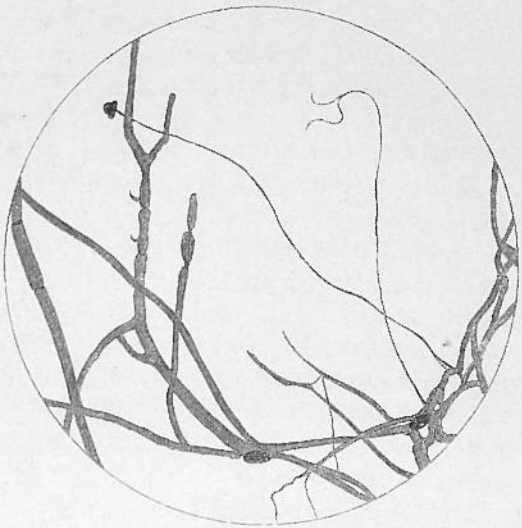
[9] As in the tumulus near Driffield, E. R. Yorkshire, described by Mr. Wellbeloved. Journal of British Archaeological Association, vol. ii., p. 54.

[1] See the accompanying illustrations, fig. 1, for a representation of this urn, described at page 36. Fig. 2 represents the analogous urn found in the same neighbourhood outside Walmgate Bar, and also described in the first part of the paper, p. 37.

Urn found near Walmgate Bar-Without.

Urn found in Lamel Hill.

MICROSCOPIC VIEW OF MYCODERMA.



Found in the Urn discovered in Lamel Hill.

Magnified 250 diameters.

and urn-burial, are practices which appear already to have been on the decline amongst the Teutonic people when Christianity began to be embraced by the Anglo-Saxons; and it is evident that they did not very long survive their conversion. Like other long-established customs, repugnant rather to a Christian sentiment than to Christian doctrine, they would probably continue to be followed by a few of the earlier converts. It is, therefore, not improbable that this urn may have contained the ashes of some Northumbrian Saxon, whose body had been burnt. In this case we must suppose that the urn had been disturbed, and the ashes scattered, in the course of those changes to which the upper part of the mound has been subjected. Some may think it more probable that this urn was deposited empty. In connexion with this view, it may be observed that, in like manner as the Romans, when the body could not be recovered on the field of battle, still held the *exequiæ*, and built an empty tomb or cenotaph, so there is reason for thinking that the Saxons, as well as the early Britons, under similar circumstances, deposited an empty urn and erected a barrow over it.[2] In the case before us, however, I am rather inclined to the conclusion of the urn having really contained a deposit of burnt bones, which were subsequently disturbed and scattered. This is a conclusion which is perhaps supported by the kind of dead vegetations which were found in the interior of the urn.[3] Whatever view we adopt respecting it, the position of a single urn in the centre of the cemetery, surrounded by so considerable a number of skeletons, is a remarkable circumstance, of which I do not venture to offer any explanation.

As regards the bones of the animals which were found, the most probable conjecture appears to be that they were the remains of animals which had been provided for funeral festivals. The German antiquarian, Keller, in alluding to the fragments of pottery so commonly found in tumuli in Germany, says :—"All the archæologists who have examined these antiquities agree in thinking them relics of the lyke-wake held at the funeral of the deceased person. 'The body of the deceased,' observes Klemm,[4] 'was brought to the place of burial in

[2] Archaeological Journal, vol. i., p. 255. Archaeologia, vol. xxx., p. 327.

[3] See woodcut, Microscopic view.

[4] Handbook of German Antiquities. Dresden, 1836, p. 94. Archaeologia, vol. xxxi., p. 502.

solemn procession, and there once more shown to his friends; songs in his praise were then perhaps recited, and a festive banquet commenced, a share of which was offered to the corpse. The revelry must have been of a very lively character, from the quantity of broken pottery which we find in these tombs, and which was then committed to the earth.'" Funeral feasts and customs of this kind, more or less modified by a purer faith, may very likely have continued long after the introduction of Christianity. Even at the close of the tenth century, the clergy were forbidden, by a canon of Aelfric, to allow the recitation of "heathenish songs and obstreperous ejulations" at the funerals at which they officiated; and it is added:—"Do not yourselves eat or drink where the corpse lies, lest ye become imitators of the heathen superstition which they there practise."

The attention of antiquarians does not appear to have been directed to the question whether the funeral festivities of the ancient Germans were usually held in the open air at or near the place of interment. This would seem to be implied in the passage just quoted from Klemm; and, unless we suppose some building specially appropriated to this purpose, is also suggested by the *extra urbem* position of the burial-place. Possibly, some light may be thrown on this question by a passage in the well-known letter of Gregory the First, in regard to the most expedient measures for securing the conversion of the Anglo-Saxons. Recommending Augustine not to destroy the heathen temples, but, after the destruction of the idols, to consecrate them as Christian churches, he proceeds:—"And because they have been used to slaughter many oxen in the sacrifices to demons, some solemnity must be exchanged for them on this account, as that on the day of the dedication, or the nativities of the holy martyrs, whose relics are there deposited, they may build themselves *booths of the boughs of trees* about those churches which have been turned to that use from temples, and celebrate the solemnity with religious feasting; and no more offer beasts to the devil, but kill cattle to the praise of God in their eating, and return thanks to the Giver of all things for their sustenance; to the end that, whilst some gratifications are outwardly permitted them, they may the more easily be attached to those joys which are of the spirit."

We have seen that some of the bones and teeth of horses,

along with those of animals commonly used for food, were found. The flesh of the horse was, however, eaten by the Anglo-Saxons and other northern nations long after their conversion to Christianity. In an ecclesiastical council held before Alfwood, King of Northumbria, in 785, the following prohibition on this subject was made :—"Many among you eat horse-flesh, which is not done by any Christians in the East. Avoid this."

The evidence, then, if not perfectly decisive, is, I think, very strong in favour of the opinion that the cemetery of Lamel-hill is to be attributed to the Anglo-Saxons of the seventh or eighth century. The conversion of the Northumbrian Saxons, as is well known, took place under Edwin, in the year 627, and more permanently in 635 ; and it is therefore between this period and 742, or a date not much subsequent, when the first appropriation of burial-places adjoining churches was made within towns, and before which we may presume that there was no churchyard within the walls of York, that I think we must look for the date of this cemetery.

In the early Christian cemetery of the Saxon period, at Hartlepool,[5] already referred to, it is a remarkable circumstance that the bodies were deposited south and north.[6] In one case only was the skeleton found placed from west to east. The almost uniform practice, amongst Christians, of depositing the body with the face to the east, seems to have been unknown to these early Northumbrian Christians, or, in an age when a partiality for symbolism was so general, it would hardly have been disregarded. At Lamel-hill, as we have

[5] That this cemetery was really of the Christian period, is proved by the headstones with Christian symbols and inscriptions, in Runic and Roman characters.

[6] Both the early Britons and Anglo-Saxons, in pagan times, appear to have had the custom of interring the dead from south to north ; the feet, and consequently the face, being to the north. Amongst the Anglo-Saxons this practice appears to have been a general one ; it was not, however, without exceptions, as tumuli have been examined, in which no rule whatever seems to have been followed, and others have been found, covering several skeletons,—probably those of persons who had fallen together in battle—in which the bodies had been arranged in a radiating manner, with the feet directed towards the centre of the tumulus. Further observations are to be desired in reference to the custom both of the early and Romanised Britons in this particular. In two early British tumuli examined a few years ago, the one at Scarborough, and the other at Gristhorpe, also on the east coast of Yorkshire, the skeleton, in addition to being placed from south to north, had in both instances been laid on the right side, so that the face was directed to the east. In the Romano-British interments discovered at York, I do not find that any fixed rule had been followed. It may have been a casual circumstance that in the large stone tomb of this period, lately deposited in the York collection, and figured in the proceedings of the Yorkshire Philosophical Society, the head had been deposited to the north, and the feet to the south.

seen, the direction of the skeletons from west to east is uniform. This circumstance may perhaps induce us to place the date of this cemetery at a period subsequent to that of the one at Hartlepool, and may lead us to assign it to the eighth rather than the seventh century.

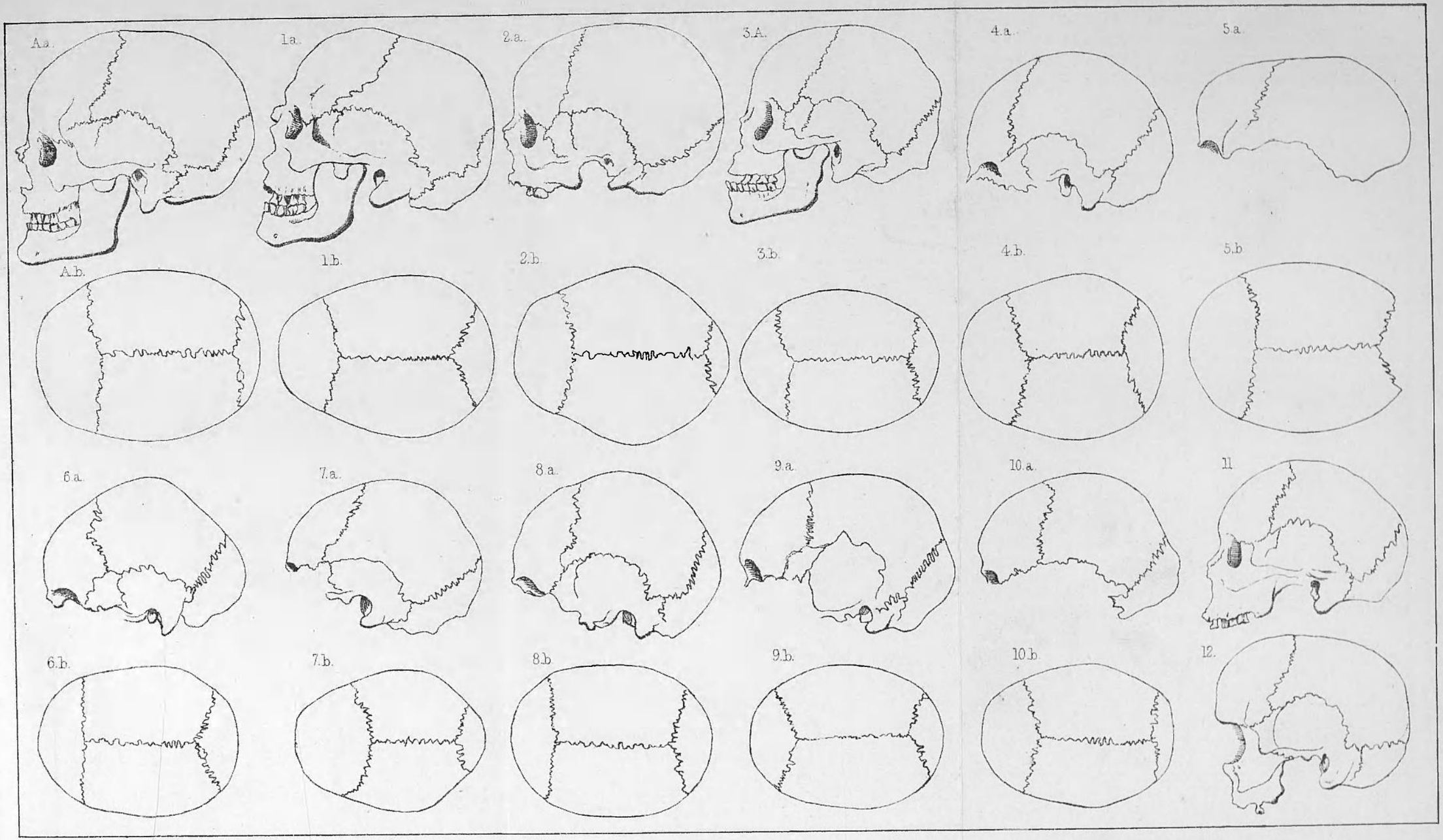
TABLE,

SHEWING THE MEASUREMENTS OF 21 CRANIA, FROM THE CEMETERY AT LAMEL-HILL

Reference to Skulls.	Circumference.	Frontal Region, or Fore-head.			Parietal Region, or Middle-head.			Occipital Region, or Hind-head.		
		Length	Breadth	Height.	Length	Breadth	Height.	Length.	Breadth	Height
A. {[From Tanner Row, York.?]}	21¾	5	5	5¼	5¾	5½	5⅝	4½	4⅞	4⅝
1 [From 1 to 12	20¼	5	4¾	5¼	4½	5¼	5¼	5	4½	4¾
2 the numbers	20¼	5¼	4¾	5	5¼	5¾	5⅛	4¼	4⅛	4½
3 correspond with	19	4	4½	4½	5	5	4¾	4½	4	4
4 those in the	20½	5	4¾	5	4½	5½	5¼	5	4¼	4¼
5 plate.]	21 ?	5	4¾	—	5	5¼	—	—	—	—
6	19½	4⅜	4	4⅜	4½	5	5	4⅛	3¾	4
7	18½	4⅜	4¼	4⅛	4⅛	5	4⅛	4¼	4	4¼
8	20½	5	4¾	5¼	5	5¼	5	4½	4½	4½
9	20	4¾	4½	5	5¼	5	5⅛	4⅛	4⅜	4⅛
10	19½	4⅜	4⅛	—	5	5⅛	—	4⅜	4	—
11	19	4½	4⅜	5	4¾	5	5	4⅛	4⅛	4⅛
12	—?	5	—	5⅛	5¾	—	5	4¼	—	3¾
13 {[In Museum of the College of Surgeons, London.]}	21	5	4½	5¼	5	5¾	5½	5	4⅛	4¾
14	20¾	4⅜	4⅜	—	5	5⅓	—	4¾	4⅝	—
15	20	4½	4½	—	5½	5¼	—	4⅛	4¼	—
16	21 ?	5	4⅝	—	5	5¾	—	—	—	—
17	20¾	5	4¾	—	5	5¼	—	5	4¼	—
18	20	4½	4⅜	—	4½	5¼	—	5	4¼	—
19	20½	4¼	4½	—	5½	5	—	4	4	—
20	21 ?	5	4½	—	5	5¼	—	—	—	—
21	—?	4½	—	4¾	4¾	—	5	—	—	4

[7] The measurements and figures of the skull (A.) are introduced as standards for comparison. This cranium is of rather more than average size, and well-proportioned, being almost equally removed from the lengthened and shortened oval forms, but approaching the latter rather than the former. It was found in digging on the site of the railway station in Tanner Row, York. The locality was very near that where the Roman baths were found, and not far from that of several Roman burial-places; but, as it was subsequently the site of the monastery of the Friars Preachers, the period and race to which the skull is to be attributed are quite doubtful.

Of the first twelve crania, six, viz. 1, 2, 4, 5, 8, and 12, are probably those of males, the other six those of females.



Crania from the tumular Cemetery of Lamel Hill near York.