

Ancient rock-tombs at Ghain Tiffiha and Tal Horr, Malta, and the human remains contained therein : two memoirs communicated to the Society of Antiquaries / by J.S. Swann and John Thurnam.

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XI

ANCIENT ROCK-TOMBS

AT

GHAIN TIFFIHA AND TAL HORR, MALTA,

AND

THE HUMAN REMAINS CONTAINED THEREIN.



TWO MEMOIRS

PRESENTED
by the
AUTHOR.

COMMUNICATED TO THE SOCIETY OF ANTIQUARIES

BY

CAPTAIN J. S. SWANN, F.G.S.

AND

JOHN THURNAM, ESQ., M.D., F.S.A.

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1871.

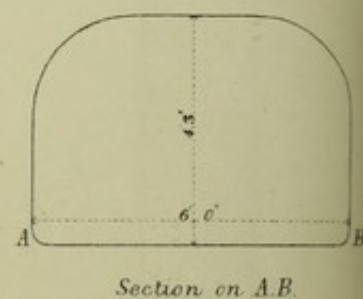
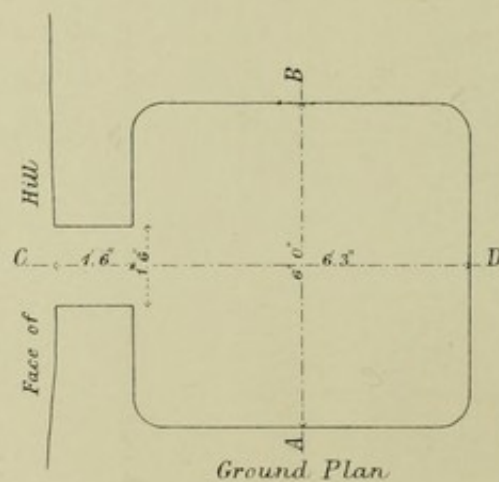
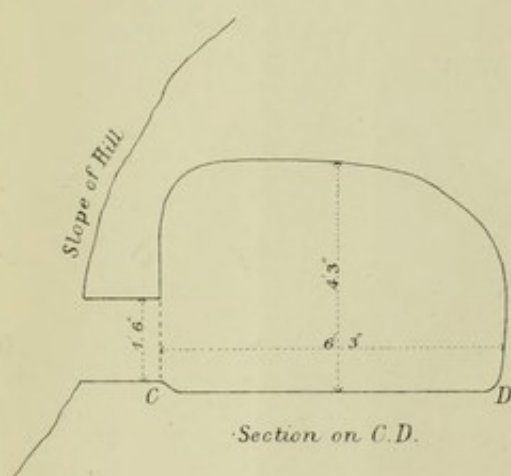
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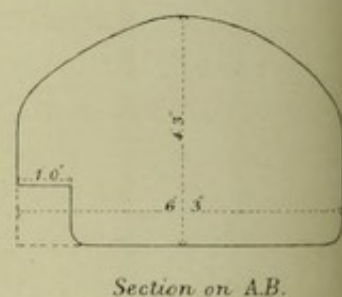
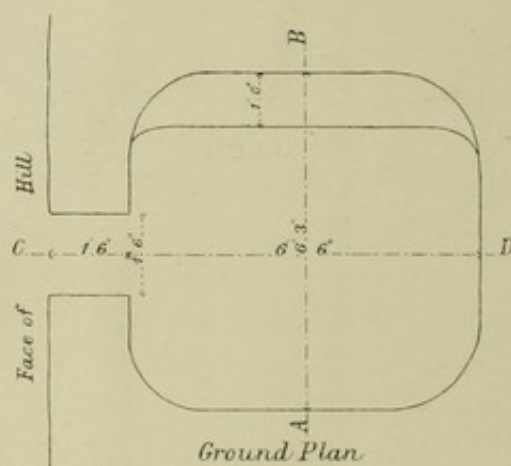
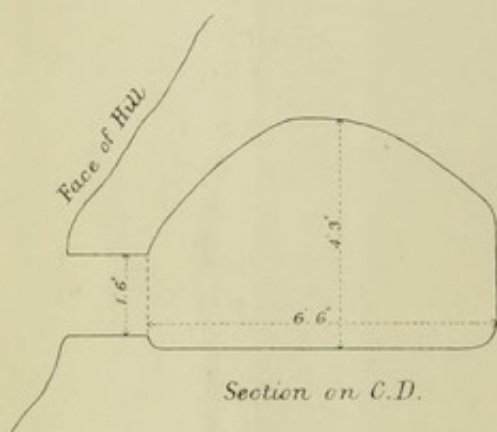
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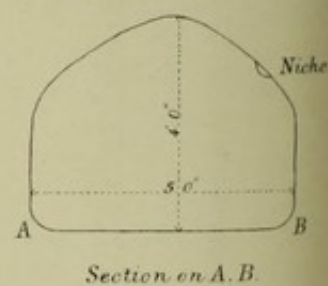
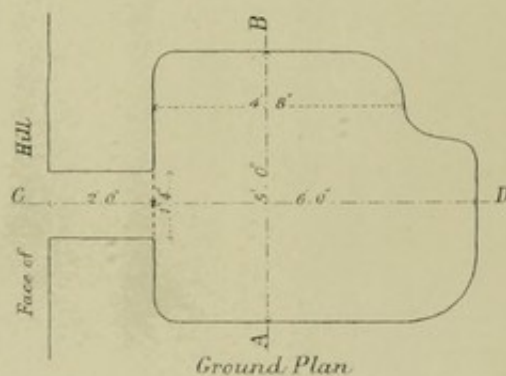
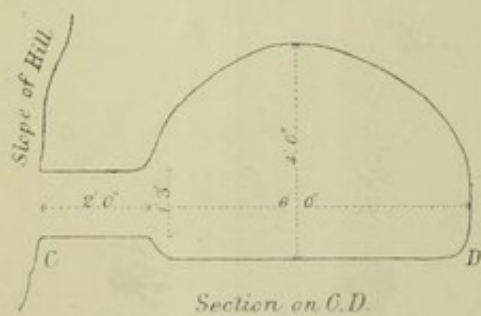
TOMB N° 1.



TOMB N° 2.



TOMB N° 3.

Scale $\frac{1}{4}$ inch to a foot

ANCIENT ROCK-TOMBS

AT GHAIN TIFFIHA AND TAL HORR.

I. TOMBS AT GHAIN TIFFIHA.

THE tombs at Ghain Tiffiha,^a which is situated on the west or Gozo side of Malta, three or four miles to the south of St. Paul's Bay, are all cut in the rock, and, though differing slightly in form and dimensions, have a general resemblance, as will be seen by the following descriptions.

Tomb No. 1.—The first tomb examined was nearly square, but with the corners slightly rounded (see the ground plan, Pl. XXVIII. fig. 1). The dimensions of this tomb are about 6 feet in length, and about 6 feet 3 inches in width,^b and the greatest height 4 feet 3 inches, which is probably somewhat in excess of the original height, as a portion of the roof appears to have fallen in. The roof is slightly arched, as will be seen by the accompanying sections.

The entrance to the tomb is by a square opening cut into the rock to a depth of 1 foot 3 inches to 1 foot 6 inches; it appears to have been much more carefully cut than the interior of the tomb, and is certainly the work of people well acquainted with the art of stone cutting, and possessed of suitable tools. There is not the slightest trace of inscriptions of any kind. The bottom of the entrance is very nearly on a level with the bottom of the interior of the tomb, and the entrance faces nearly NNW.

^a *Gh* is the aspirate, and the name is often written Ain Tiffiha, Taffiha, or Toffiha. [By an accidental error the name is misspelt Tiffika in the accompanying plate.]

^b There was room in the chamber for the bodies to have been laid in the extended position, and I believe them to have been so deposited, from observing the position of the fragments of skulls at one end of the chamber, and of the phalanges and tarsal bones at the other. I was not able to inspect a tomb entirely undisturbed, the workman having pulled about the contents immediately they were opened, in search of coins or other objects of value, which however do not appear to have been found.

In this tomb two skulls and a quantity of bones were found, apparently those of two individuals. The latter were very fragile, and required most careful handling, and they were unfortunately much broken by the violent treatment they received, from which cause also much damage was done to the lower jaws.

Quantities of fragments of pottery were also found; but in most cases the fragments were so small that it is quite impossible to conjecture the shape of the vessels of which they formed part. The following articles, however, were found in a very good state of preservation, viz. a two-handled vase of pale coarse pottery, $10\frac{3}{4}$ inches high (see woodcut, fig. 2), two jugs, of which one has a trifoliated mouth, and two small saucers, $5\frac{3}{4}$ inches and $7\frac{1}{4}$ inches in diameter; the latter has a spiral brown line on the outside, and is represented in the woodcut, fig. 9. These vessels do not show any trace of pattern, excepting a few stripes round them of darker colour than the general colour of the vessels themselves. The two small saucers are of a coarser material than the vase and jugs.

Tomb No. 2 is situated about three-quarters of a mile from Tomb No. 1. The entrance, which faces nearly SW., is precisely similar to that of No. 1, but the shape of the cutting differs slightly, as will be shown from the accompanying plan and sections (Pl. XXVIII. fig. 2). This tomb presents the peculiarity of having a kind of ledge or shelf, about one foot high and one foot wide, on the side to the left of the entrance. Its greatest height is about 4 feet 3 inches, length 6 feet 3 inches, including the shelf, and width 6 feet 6 inches.

In this tomb large quantities of bones were found, but in such a state as scarcely to permit of being handled or moved. No whole skulls were obtained, but many fragments: from the broken state of the bones it is quite impossible to guess at the number of individuals who may have been interred here. The state of the bones in this tomb, and also in No. 3, is partially accounted for by the fact that the tenant of the land has made a terrace field in front of the entrances to these tombs, the soil of which rises to between two and three feet above the level of the entrance, through which water and the finer portions of the marl of which the field is composed have percolated, and rendered the bones, already much decayed, quite rotten.

Quantities of pottery, both whole and in a broken state, were found in this tomb, differing slightly in quality from that found in Tomb No. 1. The following is a list of articles found in a good state of preservation, viz. a large globular

amphora, 2 feet 1 inch high, of red pottery, apparently washed with a lighter colour, and with two painted lines across the body (see woodcut, fig. 1); a large round plate or saucer of finer ware than the others, $1\frac{1}{4}$ inch high, and 9 inches in diameter; a red two-handled bowl of pale red ware, $7\frac{1}{4}$ inches in diameter (woodcut, fig. 6); two small bowls, $5\frac{3}{4}$ inches in diameter; two small plates, $3\frac{3}{4}$ inches in diameter; a one-handled jug, of thin dull red ware, 4 inches high (woodcut, fig. 5); three bottle-shaped vases with one handle each; and two open lamps with projections for two wicks, and which show marks of burning (woodcut, fig. 7), each about 5 inches long.

Tomb No. 3.—This tomb is in the immediate vicinity of No. 2, and the entrance also faces the south-west.

The only peculiarity presented in this tomb is that a portion of it, about one-third, differs in width from the remaining portion. The dimensions differ slightly from those of Nos. 1 and 2, and the annexed rough ground-plan and sections (Pl. XXVIII. fig. 3) show the dimensions and the peculiarity above mentioned. In the wall at the furthest extremity, on the right-hand side, there is a small niche about 3 feet 4 inches from the floor of the tomb. This is the only instance in the tombs at Ghain Tiffiha of there being any trace of a niche of this kind.

As in Tomb No. 2, bones were found in great abundance, but in a very rotten state, owing to the damp and to being mixed with wet clay—indeed it was almost impossible to handle or remove them without their falling to pieces. From the very large number of small vertebræ it would seem probable that one or more young persons had been buried in this tomb. The pottery was here also in a very broken state, but some tolerably perfect vessels were obtained, viz. a two-handled vase or amphora of pale pottery 12 inches high (woodcut, fig. 3), a small bottle of pale terra cotta 6 inches high (woodcut, fig. 8), a small lamp of the same form as those found in Tomb No. 2, a small bowl, and a broken cup.

In this tomb also was found a vase of very coarse material, which could not be handled in consequence of its extreme rottenness, with the debris of which were found quantities of fragments of calcined bones which appear to have been deposited in the vase. The dimensions of this vase appear to have been from 1 foot 4 inches to 1 foot 6 inches in height, about 1 foot in diameter at the top, and 1 foot 3 inches in diameter in its widest part about two-thirds from the top.

Tomb No. 4.—This tomb did not differ in character from those already mentioned, and contained fragments of bones and pottery, but no whole skulls or complete articles of pottery were obtained.

None of the above excavations present the smallest trace of any inscriptions, but this may arise from the nature of the stone (coralline limestone) in which they are cut.



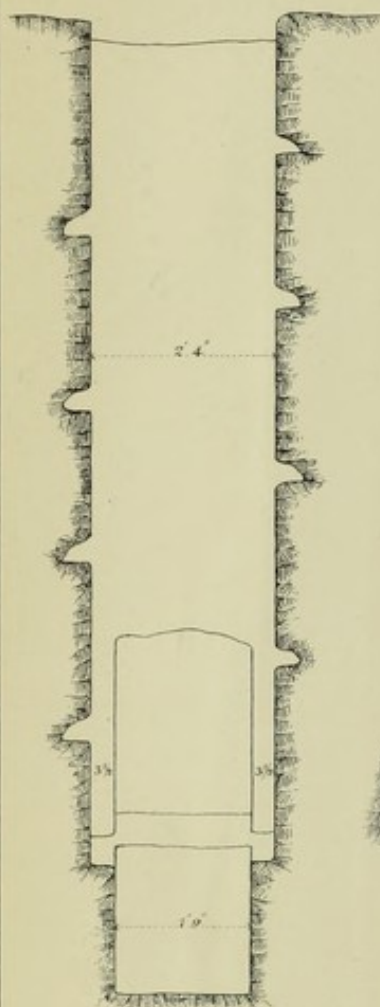
GROUP OF POTTERY FROM TOMBS AT GHAIN TIFFIHA.

II. TOMB AT TAL HERR.

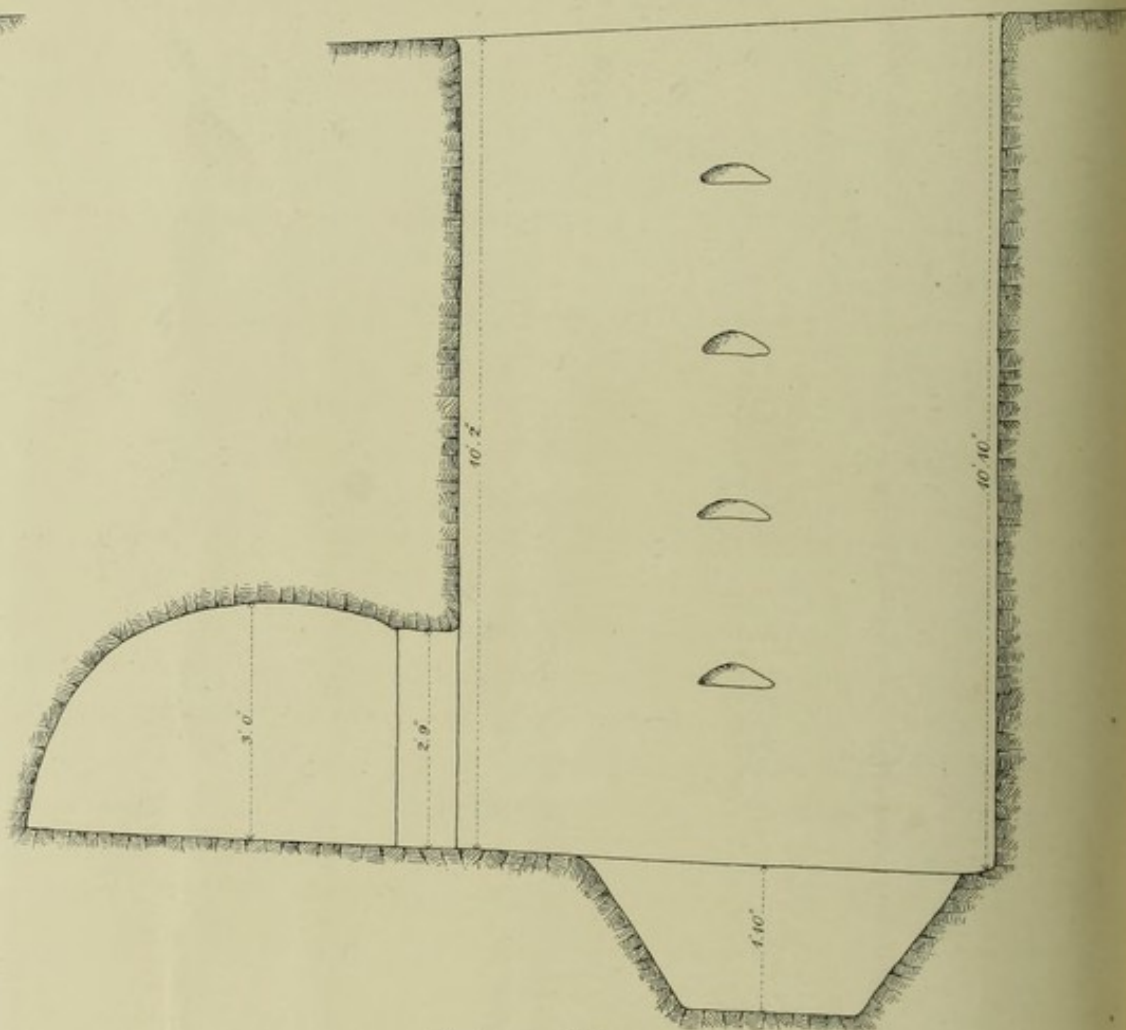
Having heard that, during the progress of the works at the new cemetery at Tal Herr, an ancient tomb had been discovered, I visited the spot in November 1865, and examined the tomb, of which the following is a description.

This tomb consists of a vertical shaft cut in the solid rock, at the bottom and on one side of which is a horizontal chamber very nearly circular in shape, and

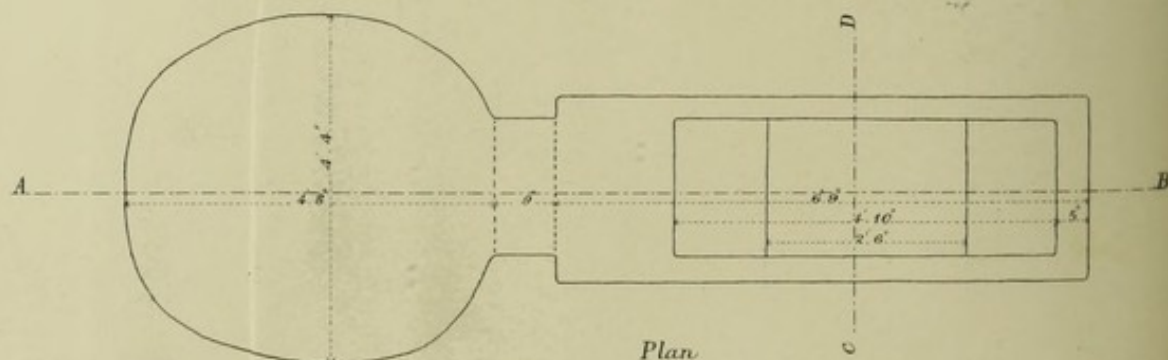




Section on C.D.



Section on A.B.



Plan

Scale $\frac{1}{8}$ inch to a foot.

Kell Bro^s lith. London

TOMB AT TAL HORR, MALTA.

to which admission is gained from the shaft by a small rectangular opening, in front of which is a small trench.

The dimensions of the shaft, chamber, and trench will be seen from the annexed plan and section (Plate XXIX.) which is roughly copied from a more finished plan kindly lent me by the Hon. G. Vella, Collector of Land Revenues.

On the sides of the shaft four notches are cut, apparently to facilitate descent and ascent.

The shaft appears to have been carefully cut by a people possessed of good tools as well as an aptitude for using them.

At the bottom of the shaft were found the skull and bones of apparently a young person, and in the chamber the bones and skulls of two individuals, together with a few articles of pottery.

Having expressed a wish to submit one or both of these skulls to the inspection of my friend Dr. Thurnam, one of them was kindly supplied me by the Hon. G. Vella, to whose courtesy I am much indebted for the facilities afforded me in inspecting both the tomb and the human remains; and I am also indebted to Dr. Cesare Vassallo, the Librarian of the Public Library, for the facilities afforded me for examining the pottery.

With regard to the articles of pottery found in this tomb, they appear to be of the same kind as those obtained by me at Ghain Tiffika, with one exception, however, viz. an amphora with two long handles. Its height was about 29 inches and greatest diameter about 9 inches; the extremity of the pointed base was broken off.

Besides the articles of pottery a small bright blue nodule was found, about the size of a small walnut. Its colour is most beautiful; but what it is or may have been is most difficult to conjecture.

A notice of the discovery at Tal Horr appeared lately in the Malta Observer, the writer of which supposes that the nodule may be a "decomposed sapphire!" but the grounds on which he has arrived at such a conclusion seem to be open to considerable doubt.

HUMAN REMAINS

FROM THE

ROCK-TOMBS AT GHAIN TIFFIHA AND TAL HERR.

THE human remains from Tomb 1 at Ghain Tiffiha comprise the more important bones of two skeletons. They are generally well preserved, though very light and brittle, as would appear from the almost entire destruction of the animal matter. They are uniformly stained of a dark reddish-brown hue, and here and there incrustated with a tufaceous or stalagmitic deposit of the same colour. The bones from Tombs 2 and 3 are, on the contrary, of a pale or drab clay colour. The dark colour of the former is attributed by Captain Swann to the percolation through cracks in the limestone rock of water tinged with the highly-coloured soil with which many fissures in the upper limestone of Malta are filled. The Tombs 2 and 3, on the contrary, had become filled with clay from "Clay-bed No. 3," and hence the difference.

The skeletons from Tomb 1 are those of two persons of less than middle stature. One (A) I take to be that of a man with a stature of about 5 feet 1 inch, the other (B) to have been perhaps one inch less. The difference in the length of the bones of the leg and thigh in the two skeletons is very trifling. There is a greater difference in the length of the bones of the arm, which are at least an inch longer in A than in B. The length of the bones is as follows:—

	A.		B.	
	Eng. Inches.	Millimetres.	Eng. Inches.	Millimetres.
Femur . . .	16 $\frac{1}{4}$	413	16 $\frac{1}{4}$	413
Tibia . . .	14	355	13 $\frac{3}{4}$	349
Fibula . . .	—	—	13 $\frac{1}{2}$	343
Humerus . . .	12 $\frac{1}{8}$	308	—	—
Radius . . .	9 $\frac{1}{2}$	241	8 $\frac{1}{2}$	216
Ulna . . .	10 $\frac{1}{4}$	260	9 $\frac{1}{4}$	235

All the long bones of A are thicker than those of B, and have the processes and ridges for the attachment of muscles much stronger. The small size of the

scapulæ of B, and the form and size of the respective *ossa innominata*, are all in favour of the one being the skeleton of a man and the other of a woman. The skulls, as received by me, were not lettered to correspond with the other bones of the skeleton. I have ventured, however, to assume that the larger and more dolichocephalic, which is also distinguished by more marked facial characters, really belongs to the larger and doubtless male skeleton A. The lesser and sub-brachycephalous skull attributed to skeleton B has not the sexual characters so strikingly marked, but that if found alone it might have been taken for that of a man. I have ventured to regard it as female. The special description of these two skulls follows that of the less perfect human remains from Tombs 2 and 3.

Tomb 2.—The bones from this tomb are much more fragmentary than those from Tomb 1. They seem to indicate three skeletons; there are portions of at least five *humeri*. The principal bones appear to have been those of a man, woman, and child. Those which can be measured are a *humerus* and a *radius*.

	Eng. Inches.	Millimetres.
Humerus	12½	317
Radius	9½	237

There are the entire occipital and a considerable part of both temporal and parietal bones of the woman's skull, which was clearly of ovoid or even dolichocephalic form. The fragment of another skull presents some post-coronal depression.

Tomb 3.—The fragmentary bones from this tomb, among which are portions of five *humeri*, and three lower jaws, show that in it likewise not less than three bodies had been interred. The length of two *tibiæ*, and of two *radii*, seem to imply a somewhat higher stature than for the skeletons from Tomb 1.

	Eng. Inches.	Millimetres.		Eng. Inches.	Millimetres.
Tibia	15	381	Radius	9¾	247
Tibia	14¾	374	Radius	9½	241

Here also it is probable that one of the occupants of the tomb was a man and another a woman. The sex and age of the third is doubtful. Among the bones was the *sacrum* of a small ruminant animal, probably a female goat or antelope.

We will now return to the description of the two tolerably perfect skulls from Tomb 1.

Skull A appears to be that of a man of seventy or seventy-five years of age.

Almost all the teeth have been lost during life. The coronal, sagittal, and lambdoid sutures are almost entirely obliterated. It is a moderately dolichocephalous, or, more strictly, an ovoid or orthocephalic skull, the breadth being in the proportion of $\cdot 74$ to the length taken as $1\cdot 00$. The frontal region is narrow and rather flat and receding; the parietals, broad in proportion to the frontal, have the tuberosities moderately well expressed, and slope away gradually to a tolerably broad, rounded, and prominent occiput. The mastoids are of moderate size and taper in form, the digastric grooves deep. Turning to the face we find a full glabella, the prominence of which extends to the inner thirds only of the supraciliaries; the jugal bones are but slightly prominent. The most remarkable feature in this skull is perhaps the great prominence of the nasals, which are directed outwards and forwards at an almost right angle with the glabella. The superior maxillaries are of medium size and have never been deep, though the senile atrophy and posthumous decay of the dental arcade prevent the exact determination of the depth of the bone. The same circumstances interfere with any conclusions as to the degree of prognathism of which the alveolar portion of this bone has been the seat. The lower jaw, which appears to belong to this skull, is long and much thrown forward, with the ascending ramus square and broad, but not very deep. On placing it in position it becomes obvious that the prognathic prominence of the intermaxillaries and their contained incisor teeth has been somewhat considerable. The chin is narrow and rather prominent. Two only of the teeth remain in the upper jaw; in the lower the left canine is now alone present, and is the seat of much jagged erosion.

Skull B is of smaller size, and is less massive than the former (A). Its facial characters are more feminine in appearance, though the mastoids are large, short, and tumid, and the transverse occipital spine and *inion* are large enough for those of a man. The sex may be doubtful. I take the skull to be that of a person of about sixty-five years of age. The obliteration of all the principal sutures is much advanced. The proportions are sub-brachycephalous, the breadth being as $\cdot 78$ to the length taken as $1\cdot 00$. The forehead is narrow, but less receding than in A. The parietals are broad and somewhat short, and present a considerable expansion at the temporo-occipital angles. Some degree of parieto-occipital flatness is visible, particularly on the right side. The occiput and base of the skull are distinguished by much ruggedness. The face presents a slightly prominent glabella; the nasals, not at all remarkable for prominence, are implanted into the glabella at a very acute angle. The superior maxillaries are short and small, with the alveolar margins slightly everted; when the incisor teeth were in

place, a certain degree of prognathism was no doubt apparent. The teeth remaining in the lower jaw are very considerably eroded.

These two crania may be compared with three other ancient Maltese skulls, already known to anthropologists.

The first (No. 3 of our Table) is the celebrated skull sent to the late Dr. Morton by the distinguished traveller M. Fresnel, in 1847, with the following memorandum: "Cranium from the sepulchral caves of Ben-Djemma, in the island of Malta. It appears to have belonged to an individual of the race which, in times of the highest antiquity, occupied the northern shores of Africa and the isles adjacent." Morton, it is said, even before he knew where it came from, divined it to be Phœnician, from its great peculiarities and want of resemblance to any skulls known to him. He thus describes it: "In a profile view, the eye quickly notices the remarkable length of the occipito-mental diameter. This feature gives to the whole head an elongated appearance, which is much heightened by the general narrowness of the calvaria, the backward slope of the occipital region, and the strong prognathous tendency of the maxillæ. . . . The lower jaw is large and much thrown forwards. The slope of the superior maxillæ forms an angle of about 45° with the horizon. Notwithstanding the inclination of the maxillæ, the incisor teeth are so curved as to be nearly vertical. Hence the prognathism is quite peculiar, differing both from that of the Eskimo and true African skulls."^a

In the winter of 1862-63 the Ben-Djemma^b skull was carefully examined by Professor Dr. D. Wilson of Toronto, by whom some measurements of it were

^a Meigs, *Catalogue of Crania*, 1857, p. 28, No. 1352; Nott and Gliddon, *Types of Mankind*, p. xl.; *Indigenous Races*, p. 314.

^b Ben-Djemma, otherwise Bingenna. Mr. Vance mentions a mummy case, "from a tomb in the Bingenna mountains," resembling those found in Egypt, and which is preserved in the Library at Valetta. *Archæologia*, xxix. 235. The sepulchral caves of Ben-Djemma are a series of galleries with lateral chambers or catacombs hewn in the face of the cliffs, in the south-west of the island of Malta. There are other traces, besides the rock-hewn tombs, of the existence of an ancient town, though no record of its name or history survives. In his *Malte et le Goze*, p. 21, M. Frederick la Croix remarks: "Whoever the inhabitants of this city may have been, it is manifest, from what remains of their works, that they were not strangers to the processes of art. The sepulchral caves, amounting to a hundred in number, receive light by means of little apertures, some of which are decorated like a finished doorway. In others, time and the action of the humid atmosphere have obliterated all traces of such ornament and left only the weathered rock. . . . The chambers set apart for sepulture are excavated at a considerable distance from the entrance in the inmost recesses of the galleries and are of admirable design."

taken. Dr. Wilson says, "The skull is no doubt that of a woman;^a it is narrow throughout, with its greatest breadth a little behind the coronal suture, from whence it narrows gradually towards front and rear. The lower jaw is large and massive, but with less of the prognathous development than in the superior maxillary. The nose has been prominent; but the zygomatic arches are delicate, and the whole face is long, narrow, and tapering towards the chin. The parietals meet at an angle, with a bulging of the sagittal suture, and a slight but distinctly defined pyramidal form running into the frontal bone. The occiput is full, round, and projecting a little more on the left side than the right." I have added to the Table a few of Dr. Wilson's measurements of this skull. From these we learn that its length is 7·4, and its parietal diameter 5·1 inches; the breadth thus being as ·69 to the length taken as 1·00.

Another ancient Maltese skull (No. 4), for a photograph of which I am indebted to the kindness of Dr. A. Leith Adams, Surgeon of the 22nd Regiment, is preserved in the museum of the Public Library at Valetta.^b It was dug up in the ruins of the celebrated temple of Hagiar Kim, near Crendi, during the excavations conducted by Governor Sir Henry Bouverie in the year 1839.^c Un-

^a I substitute "woman" for "man," as printed in the *Canadian Journal* for March 1863, on the authority of Dr. D. Wilson himself, in a letter with which he has favoured me. The description of this skull is contained in his interesting and useful memoir *On the Significance of Certain Ancient British Skull-forms*, p. 8—12.

^b I have to thank my friend R. T. Gore, Esq. of Bath, for copies of drawings showing both the face and the profile of a skull said to be derived from "a tomb of very ancient date at Malta in 1838," but which, on comparison with Dr. Adams's photograph, I cannot doubt to be, with it, representations of one and the same skull. I have briefly referred to both the Ben-Djemma and the Hagiar Kim skull, in *Memoirs Anthropol. Soc. of London*, vol. i. p. 164.

^c These excavations are described by Mr. J. G. Vance in the *Archæologia*, vol. xxix. p. 227. The only notice of human remains in Mr. Vance's memoir is that in the following passage: "On examining the bones, which during the process of excavation were dug up in great quantities amongst the rubbish, we were led to suppose that the victims offered generally consisted of small animals, such as sheep, lambs, or even birds: there are, nevertheless, some which belong to a larger species of carnivorous quadruped, as also a few human remains; from which we may infer that the life of man was on peculiar occasions required to form a part in a mysterious and barbarous ceremony." (p. 230.) Some additional diggings were made in the interior of Hagiar Kim, in 1852, by Charles Newton, Esq. of the British Museum, as briefly referred to in the *Archæological Journal*, vol. ix. p. 299. The objects seem to have consisted exclusively of fragments of ancient pottery, specimens of which are preserved in the British Museum.

Mr. Rhind's observations on Hagiar Kim are given in the *Archæological Journal*, vol. xiii. p. 397. In the memoir of this lamented antiquary by John Stuart, Esq. (Edin. 1864, p. 21) there is a brief reference to

fortunately there is no precise statement as to how it was placed when found, beyond the fact that it was "imbedded in the detritus within the chief circle" of the temple. In the *Malta Penny Magazine*, No. 34 (May 2nd, 1840, p. 138), we are, however, told that "a quantity of quadruped and a few human bones were found interred in chamber 12, the most remarkable of which is a human skull, found buried two feet above the floor." A figure of the skull is given (fig. 4), upon which the writer adds, "it will be seen that it belongs to the Ethiopian family." It is thus open to considerable doubt whether the skull is of contemporary date with the structure in which it was found. Though not such, it may still be the skull of an ancient Maltese. Several indeed have conjectured that it is that of a negro, not differing from existing varieties of that race. It would be rash to deny the possibility of the cranium being that of an intertropical African; but a comparison of the photograph with the sketch of that of the skull from the Ben-Djemma caves shows, that its marked prognathism is only an exaggeration of that seen in the latter. The small horizontal circumference makes it probable that it likewise is the skull of a woman. Though so much more prognathic, it is of much less elongate proportions than that from Ben-Djemma.

Since this was written, the skull from Hagiar Kim has been forwarded to England for examination by Professor G. Busk, F.R.S., by whom it has been figured for his as yet unpublished *Crania Typica*.^a Through Mr. Busk's kindness I have had the opportunity of examining and measuring the skull, which is no doubt that of a woman of less than middle age. The frontal is low and narrow, the superoccipital full and rounded, theinion not very strongly marked, the parietal tubers round and quite prominent, so that the skull is less dolichocephalous than it would otherwise have been; the relative breadth being represented by .78. This is by many understood as a dolichocephalic proportion, though in a more precise technical scale of skull-forms it would be termed sub-brachycephalous. The skull is thin, light, and porous, and there is nothing beyond its prognathism to warrant any suspicion of a negro origin. In connection with the produced alveoli and maxillæ, the great depth of the chin is its most remarkable character, measuring, exclusive of the incisor teeth, 1.6 inch. The depth here is as great as that of the ascending ramus of the lower jaw, measured to the

this skull and the circumstances of its discovery. It is difficult to reconcile with the notice in *The Malta Magazine* the statement of Mr. Rhind, that "it was found with crumbling bones in a species of crypt in the megalithic remains at Hagiar Kim;" unless he intends by the name of *crypt* the oval chamber No. 12, which is "31 feet long by 12 wide."

^a Mr. Busk has also figured the skull from Tal Horr described below.

lower edge of the sigmoid notch. The sagittal and coronal sutures are considerably obliterated, perhaps, as Mr. Busk suggested to me, the effect of carrying weights on the head. The usure of the crowns of the teeth is horizontal and moderate.

An ancient Maltese skull (No. 5), in the museum at Lund, is known to me from photographs of the profile, face, and vertex, kindly sent to me by the venerable Professor Nilsson, by whom I am informed that it was obtained from a catacomb in the island of Malta. The skull was found in a niche in a side chamber of one of these tombs, by a young physician, a pupil of Dr. Nilsson's, during his visit to Malta.* It appears to be that of a man, the frontal region being broad and well arched. Though, like the other skulls I have described, it is slightly prognathic, it differs from them in being of a much more round and broad form. According to the measurements of the photograph of the vertex, its breadth is as .80 to the length taken as 1.00, a proportion which just comes within the brachycephalous category.

Another ancient Maltese skull (No. 6 of the Table), from the rock-tomb discovered in the new cemetery at Tal Horr, has also been placed in my hands by my friend Captain Swann. This is the very fine cranium of a man of not more than fifty years of age, perhaps considerably younger. It is much larger than any other of the skulls here described, unless possibly the last, which I only know through photographs. It has a horizontal circumference of 21.3 inches (541 millimetres), and a cubic capacity of 100 cubic inches (1,638 cubic centimetres). The forehead is of medium breadth, but well arched and elevated; the parietals are well expanded, and the occipital still more so. The *norma verticalis*, or upper aspect of the skull, is a very regular oval, and the measurements show that it has a relative breadth of .75. This is precisely the true oval or orthocephalic proportion, equally removed from the oblong or dolichocephalic and from the round or brachycephalic form of skull. All the great sutures are very much obliterated internally, and the sagittal externally likewise. The glabella and supraciliaries are not very prominent. The facial bones are rather narrow and of moderate size. There is a slight tendency to prognathism shown in the eversion of the short dental arcade of the intermaxillaries. In the lower jaw is to be observed the prominent and somewhat pointed chin, and also the oblique position of the ascending branches. An unusual number of the teeth, especially

* The skull is briefly referred to by Professor Nilsson in *Die Ureinwohner des Scandinavischen Nordens*, 1863. p. 20. "Ich selbst habe einen Menschenschädel erhalten, welcher in einer Nische der einen (Maltesischen) Seitenkammer gefunden wurde."

those of the lower jaw, appear to have been lost at an early period of life, so that the crowns of those which remain have been protected against the attrition to which they might otherwise have been subjected.

The historical ethnology of the islands of Malta and Gozo is by no means free from doubt. That they were settled by the ancient Phœnicians at a very early period, and long before the time when they fell under the influence of the Carthaginians, is an opinion probable in itself and entertained by the best modern historians. The only ancient testimony, however, in favour of it is that of Diodorus Siculus, by whom Malta is termed "a colony of the Phœnicians."^a It has been supposed that these islands had an earlier population of North African or Libyan stock, but of this, though not unlikely, there is no evidence. The late Admiral W. H. Smyth, F.R.S. and S.A., referring chiefly to the people of the lesser island of Gozo, says: "The present inhabitants are of athletic form, with a physiognomy especially marked by the nose and lips approaching to that of the Africans." The existing population of Malta is usually regarded as for the most part derived from the Arabs or Saracens, who overran the islands of the Mediterranean in the ninth and subsequent centuries of our era; but this is by no means certain, and there are those who with Admiral Smyth conclude, that, "although Malta was frequently subjugated by other powers, the Phœnicians and Carthaginians became so identified with the supposed aborigines of the island that the subsequent intercourse with Greeks, Romans, Saracens, Normans, and Spaniards appears to have had but little comparative effect on the language, habits, or customs of the Maltese."^b

There can be little doubt that the ancient rock-tombs of Malta are in many cases those of Phœnicians or their descendants, but that all are such is not probable, and, in the absence of inscriptions in the Phœnician character, we must proceed with caution in the attribution of any particular tomb to this people.^c Within a recent period important evidence has been obtained as to the form of

^a Lib. v. c. 12. See Kenrick's *Phœnicia*, p. 108; and articles "Melita" and "Gaulos" in Smith's *Dictionary of Geography*.

^b *Archæologia*, xxii. 295.

^c An antiquary as cautious as the late Mr. Rhind attributes to the Phœnicians "some at least of the very numerous rock catacombs" of Malta. *Archæologia*, xxxviii. 268. He refers to Vassallo's brochure, *Monumenti Antichi nel Gruppo di Malta*. See *Art Journal*, N. S. vol. v. Phœnician inscriptions are not quite unknown in Malta, though I am not able to refer to any from or connected directly with tombs. In the *Malta Penny Magazine*, vol. i. one is figured, and a translation is attempted by Prof. Marmora.

the Phœnician or Carthaginian skull from the exploration of tombs near Tharros in Sardinia, the identity of which is attested by inscriptions in the Phœnician character. For our knowledge of these tombs we are indebted to Dr. G. Nicolucci:^a they seem, though on a larger scale, to have much analogy with the rock-tombs of Ben Djemma and Ghain Tiffiha in Malta. They are described as “dug in a soft calcareous sandstone, and present a series of sepulchral chambers of different sizes of an oblong quadrate or cubic form, which are approached by a narrow passage, mostly occupied by stairs cut in the rock. The opening to them is not so much as five feet in height, and is closed by a large rough stone, upon which at times sculptured figures are seen. The doors of the tombs are always turned to the east, and the bodies also look in that direction. The number of skeletons they contain are one, two, three, and sometimes four, constantly turned to the rising sun, with arms at their sides, or female ornaments and urns of varied forms, some of which present inscriptions in Punic or Phœnician.” Near the entrance of the tomb in which the three skulls which were first obtained were found, was a *stele* or pillar-stone inscribed in Phœnician characters of the form used in later times, and perhaps of the second or third century B.C. The inscription has been read by the celebrated orientalist the Abbé Lanci as signifying “The place of repose of Jaghtam the son of Jubal.” It thus appears probable that this tomb belongs to the period of Punic ascendancy in Sardinia if not to the time when the Romans had made themselves masters of great part of that island. On the other hand, there can be but little doubt that those buried in it, though not perhaps properly speaking ancient Phœnicians, were of direct Phœnician descent.

In his last “note” Dr. Nicolucci gives us the measurements of five crania from the Tharros tombs, with wood-cuts of three of the number engraved from photographs. All the skulls are shown to be of a long oval or dolichocephalous form, with a breadth of $\cdot 70$ to $\cdot 75$ to the length taken as $1\cdot 00$. They are, moreover, remarkable for the projection of the nasal bones; and for the great prominence of the tuberosity (upper scale) of the occipital. These peculiarities induced

^a *Mem. della Reale Accad. di Torino*, t. xxi. ser. ii^o, 1863. See the abstract of this memoir by Dr. J. Barnard Davis, in the *Anthropol. Review*, London, 1864, vol. ii. p. 30; also Dr. Nicolucci's later “Note sur quelques crânes Phéniciens trouvés dans la nécropole de Tharros, île de Sardaigne.” *Bull. de la Soc. d'Anthrop.* t. v. 1864, p. 703; t. vi. p. 103. In the original memoir are three full-sized plates of the skull. Our Maltese skulls may likewise be advantageously compared with another series of ancient crania from the Mediterranean coasts, viz. with those of the Japyges of Southern Italy, also described by Prof. Nicolucci, *Sulla Stirpe Japigica, e sopra tre Crani, &c. Atti del' Accad. delle Scienze, &c.* vol. ii. No. 20. 1866.

Dr. Nicolucci to class these Phœnician skulls in the same series with the skulls of the other Semites, especially the Arabs and Jews; an opinion which he supports by a comparison of the measurements of the skulls of Arabs in the collection of Professor Van der Hoeven. The Phœnician type of skulls, we are told by Dr. Nicolucci, is still very prevalent in Sardinia; a testimony, he adds, the most eloquent to the numerical predominance of the Phœnicians over the other populations of this island in ancient times.*

If we turn to the Table of Measurements of the six ancient Maltese skulls described in this paper, we shall find them uniformly less dolichocephalous than the Phœnician skulls from Tharros. Of the six skulls, one is decidedly dolichocephalic (No. 3), two are ovoid or orthocephalic (No. 1, No. 6), two are sub-brachycephalic (No. 2, No. 4), and one is perhaps brachycephalic (No. 5). Though the variety is considerable, it is not greater than is often met with in people whose prevailing cranial type is indisputably dolichocephalic. The mean relative breadth of the entire series is .74, as is also that of the five Tharros skulls. The projection of the nasals, moreover, is even more striking in one of the Maltese (Ghain Tiffiha A) than in the Tharros skulls; and the occipital prominence is a marked feature in at least three: viz. Ghain Tiffiha A, Ben Djemma, and Hagiar Kim; though it must be noted that the two last are probably female. One or two of the Maltese skulls may be thought to be distinguished from those of the Phœnicians of Tharros by their prognathism. Slighter grades of alveolar or maxillary prominence are, however, by no means rare in series of skulls which are normally orthognathic; and the presence of prognathism is itself noted by Dr. Nicolucci in one of the Tharros skulls (No. 3): "Les arcs alvéolaires des deux mâchoires, projetés en avant, forment un léger prognathisme, qui devient encore plus évident par la direction oblique en dehors des alvéoles et des dents incisives et canines." On the whole, the somewhat considerable prognathism which exists in the Hagiar Kim and Ben Djemma skulls, especially the former, does not seem sufficient to exclude them from all claim to be regarded as Phœnician. They may be Phœnician with an exceptional degree of prominence of the

* I have added to the table of measurements those of a sixth skull, supposed to be Phœnician, derived from a cemetery at Pinita in Sicily. The age of the tombs was proved by objects found in them bearing inscriptions in Phœnician characters. The skull was obtained by Signor Italia-Nicastro. The measurements are those of the distinguished anthropologist Signor Nicolucci, who has minutely described it. *Bull. de la Soc. d'Anthrop.* 1865. t. vi. p. 701—707; t. vii. pp. 341, 537. Three other skulls from this Phœnician cemetery are named, but are, I believe, too fragmentary for measurement.

maxillary and dental apparatus, or they may be of a mixed Phœnician and Libyan or North African stock.

It is to be hoped that further researches in the rock-tombs or catacombs of Malta may disclose interments which will aid in the more precise determination of the question as to the cranial form of the ancient Maltese; and, by the discovery or otherwise of inscriptions in the Phœnician character, may enable us to pronounce positively on the claim of that people to a Phœnician origin. Other means must not be neglected; and the comparison of the fictile and other relics from the tombs may afford important aid. The fragments of pottery found by Mr. Newton in his excavations within the inclosures of Hagiar Kim, and which may be seen in the British Museum, are of a different and much ruder character^a than is that of the vessels obtained by Captain Swann from the tombs of Ghain Tiffiha, the type of which is much more classical, and, I believe, Greek.^b If of the Roman epoch, the portions sent to me with the skulls differ considerably from the Roman pottery of this country. Captain Swann inclines to believe the tombs he excavated to be Roman. We may perhaps assign them to a later date than that of the skull found in the Hagiar Kim; but the cranial configuration does not lead to the inference of any mixture of Roman blood. Indeed, the skull-form, so far as not presumably Phœnician, is more readily connected with the idea of ancient Greek rather than with that of Roman admixture.

P.S. (Sept. 13, 1870.)—Since the above was written, I have seen the interesting account, by Dr. E. Charlton, of the fictile vases from rock and pit tombs in Malta, presented by him to the Society of Antiquaries of Newcastle-upon-Tyne. (*Archæologia Æliana*, N. S. 1861, v. 131.) Dr. Charlton attributes these vases “to a period not later than two or three centuries before the Christian era,” and thinks it probable they may be “of very early date, coeval with Phœnician rule in the Mediterranean.”

^a Considering their rudeness and barbaric form, they are remarkable for smoothness of surface. Had Dr. Birch's suggestion (*History of Ancient Pottery*, i. 155), that travellers should collect fragments of pottery from Phœnician sites and deposit them in European museums, been complied with, we should be better acquainted than we are with the character of the fictile productions of that people.

^b There is a strong resemblance in the form of the three-lobed mouths of the jug from the Ghain Tiffiha tomb No. 1 and that of the mouths of many of the pitcher-shaped painted Greek vases in the British Museum. Mr. Franks assures me that the Ghain Tiffiha pottery is Greek, *circa* 200 B.C.

TABLE OF MEASUREMENTS OF SIX ANCIENT MALTESE SKULLS, COMPARED WITH OTHERS OF ANCIENT PHOENICIANS FROM THARROS, SARDINIA, AND PINITA, SICILY.

Ghain-Tiffiha and Tal Horr.

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DERIVATION OF SKULLS.		Probable		I.	II.	III.	IV.	V.	VI.		VII.	A.	B.	COLLECTION.
		Sex.	Age.	CubicCapacity.	Circumference.	Length.	Breadth.	Height.	Length.	Face.	Breadth.	Breadth: Length, = 100.	Height: Length, = 100.	
MALTESE.														
1	Ghain Tiffiha A	M.	75	98	20.8	7.4	5.5 ^p	5.7	4.2		5.3	.74	.77	J. Thurnam, No. 226.
2	Ghain Tiffiha B	F.?	65	75	20	6.9	5.4 ^t	5.4	4.1		5.3	.78	.78	" " No. 227.
3	Ben-Djemna	F.	...	...	20.2	7.4	5.1	5.3	...		...	.69	.71	Morton, No. 1352.
4	Hagiar Kim	F.	35	...	20.1	7	5.5	5.4	4.6		5.2	.78	.77	Library at Valetta.
5	Rock Tomb, Malta	M.	...	...	...	...	...	...	...		...	.80	...	Museum at Lund.
6	Tal Horr.....	M.	50	100	21.3	7.5	5.65 ^p	5.9	4.1		5.2	.75	.78	J. Thurnam, No. 275.
	Averages in Inches English ...	...	...	91	20.5	7.24	5.43	5.5	4.25		5.25	.74	.76	
	" " Millimetres .....	...	...	1491	520	184	138	139	108		133			
SARDINIAN.														
1	Tharros	M.	70	...	21	7.3	5.5	5.5	...		...	.75	.75	Museum at Cagliari, 1854.
2	"	M.	65	...	20.3	7.1	5.3	5.3	...		...	.75	.75	" " "
3	"	M.	35	...	20.3	7.3	5.1	5.1	...		...	.70	.70	" " 1856.
4	"	M.	40?	...	21.3	7.4	5.5	...	...		...	.73	...	Museum at Pavia, No. 78.
5	"	M.	60	96	20.6	7.3	5.6	5.6	...		5.3	.76	.76	J. Barnard Davis, No. 1174.
	Averages in Inches English ...	...	...	96	20.7	7.2	5.4	5.4	...		5.3	.74	.74	
	" " Millimetres .....	...	...	1294	528	184	137	137	...		134			
SICILIAN.														
1	Pinita	M.	75	...	20.8	7.3	5.4	5.7	...		...	.74	.77	
	.....(Inches)	...	...	...	530	186	139	145	...		...
	(Millimetres)	...	...	...							

