The Paleo-Anthropology of the Early Eskimos

(Ipiutak and Tigara)

by

G. F. Debets



Translated by Richard L. Bland

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1999

United States Department of the Interior

NATIONAL PARK SERVICE
2525 Gambell Street, Room 107
Anchorage, Alaska 99503-2892

IN REPLY REFER TO:

APR 27 1999

K38(AKSO-RCR)

Dear Colleague:

Enclosed is a copy of the late G.F. Debets' *The Paleo-Anthropology of the Early Eskimos (Ipiutak and Tigara).* This important work on the physical anthropology of northwest Alaska has only enjoyed limited availability among scholars to date, and only to those who possessed a strong command of the Russian language.

The translation of this monograph into English was targeted as an important project that fit well within the larger purposes and aims of the National Park Services' Shared Beringian Heritage Program. The Shared Beringian Heritage Program was established as an international program to promote scholarly and cultural exchange between Russia and the United States as a preamble to the eventual establishment of the Beringian Heritage International Park.

Mark Georgievich Debets, Professor G. F. Debets' son, kindly gave the National Park Service permission to proceed with the translation and publication of the monograph. Dr. Richard L. Bland of Heritage Research Associates accomplished the difficult job of translating this work with devotion and diligence.

We hope that you will find the volume a useful addition to your library. If you have need of additional copies or have any questions about the Shared Beringian Heritage Program, please contact Peter Richter at (907)257-2617.

Sincerely,

Robert Gerhard
Coordinator, Shared Beringian Heritage Program

Enclosure

Translator's Note

The late Georgii Frantsevich Debets, an eminent Russian scholar in the field of physical anthropology, came to the United States in 1957-1958 as an exchange scholar. While here he spent two months at the American Museum of Natural History studying human remains collected from Point Hope by Froelich Rainey and Helge Larsen. Debets's work is the only in-depth study made on the Point Hope remains and has never (until now) been published in English.

A great number of people helped with details of the translation. First, I would like to thank Nan Coppock-Bland for editing the manuscript. Anna Gokhman proofread the text, for which I am extremely grateful. Joan Dale read and commented on the text and tables from a physical anthropological perspective, an invaluable contribution. Katerina Wessels was the fountain of information that made this all possible. I would also like to thank Paul Simonds, Diane Sotak, and Tammy Iddings for providing me with much needed information. Olga Romanenko assisted in identifying anatomical terms. I would like to thank Bob Gerhard and Peter Richter for guidance and the Beringia Program for funding this translation. Finally, and most important, I am deeply indebted to Mark Georgievich Debets for permission to publish the translation.

R. L. B.

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Editing - Nan Coppock-Bland

The Paleo-Anthropology of the Early Eskimos (Ipiutak and Tigara)[1]

by G. F. Debets

Editors' Introduction (M. S. Velikanova and I. M. Zolotareva)

The present work is the uncompleted labor of the last years of Georgii Frantsevich Debets's life. The textual part includes several sections written at different times and added to the text of the report at the 33rd Congress of Americanists in 1959 ("Anthropology of the Ipiutak Burial Site").

The texts are published without essential changes. The single addition was the creation of the references, which were lacking in the text.[2]

The preparation of the numerical materials in the tables included the following features. Tables of individual data on skulls, available in the archives, were added along with the features missing in them but available on trait lists, so that these features might be entered in their entirety into the published tables. For economy of space, only the indexes, which correspond to Debets's recent craniological publications, were not entered into the tables.

The tables of individual measurements of long bones were created from the rough notes.

The tables of means, composed by the author on separate parts of the skull, were combined. The means and other parameters were calculated for a series of features. Also, the percent distribution of the discretely varying features was calculated and the corresponding tables composed.

Numeration of the tables and the headings were assigned by the editors. The sequence of numbers of burials--outlined by the author (in the numeration of the forms)--was preserved in the tables of individual measurements of long bones, as well as the author's sequence of the features.

The author's names of features were preserved with the exception of some discretely varying features of the skulls. Debets, the first Soviet anthropologist to begin research on these particular features of skulls, designated many of them in

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[1]This work was originally published as Paleoantropologiia drevnikh Eskimosov (Ipiutak, Tigara). In *Etnicheskie sviazi narodov Severa Azii i Ameriki*. M. S. Velikanova and I. M. Zolotareva, eds. Pp. 6-149. Moscow: Nauka. 1986.

[2]Several listings in the references are not cited in the text. These have been left as they are. Two works, pertinent to the translation, were added to the references by the translator. - *Trans.*

the lists by English abbreviations, for example, PNB (parietal notch bone). The editors considered it more beneficial in these cases to give the Latin designation that is used now. The English abbreviations of right and left direction of the sagittal sinus (R and L) were also changed to Latin (d and s). The notes to the tables and the title of the article were composed by the editors.

I

The Anthropology[3] of the Ipiutak Burial Site

Regarding the problem of the origin of the American people, it is possible to consider two positions entirely substantiated: (a) the overwhelming majority of ancestors of American Indians entered America through the region of the Bering Strait; (b) the first appearance of man in America took place several tens of thousands of years ago (in any case, the early Paleolithic is out of the question).

However, much still remains unclear and debatable regarding this problem. Included in the discussion is the question concerning the reasons for the difference in physical type between the American Indians and the Asiatic Mongoloids. In the opinion of some, these differences emanate from the fact that Mongoloids entered America at that stage of development when the features of the Mongoloid race were still not completely formed. In the opinion of others, these differences can be explained by the mixing of Mongoloids with representatives of the Ainu or some other non-Mongoloid race. Closely connected with this question is another that concerns the numbers and durations of immigrations. Some believe immigration was a long process and embraced a number of epochs. To others, immigration was, at least on the whole, a single occurrence.

All these questions have a common character, but to solve them attentive study of particulars is necessary. Included in such particulars is the question of the origin of the people to whom the sites of the so-called Ipiutak culture belonged, investigated by Froelich Rainey and Helge Larsen in 1939-1941. These sites are located, as is known, on Point Hope (the northwest-most point of Alaska north of Bering Strait).

According to some American researchers, the Ipiutak culture--the antiquity of which is determined to be about 1,500 years ago--is in that line of development that goes from the Okvik and Old Bering Sea cultures to the culture of modern coastal Eskimos. The interest in the skeletons of the Ipiutak burial site is therefore entirely understandable.

For two months at the end of 1957 and the beginning of 1958, I studied the skeletons from the Ipiutak burial site in the

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[3]The term "anthropology" is generally used in Russia to refer to the area of study identified by Americans as "physical anthropology." - *Trans.*

American Museum of Natural History in New York while visiting the University of Pennsylvania in the course of an exchange of scientific researchers between the USSR and the U.S.A. During my research I invariably received friendly attention and assistance from the director of the Anthropology Department of the Museum, Dr. G. L. Shapiro, who had personally taken part in the excavations at Point Hope.

The number of skeletons of the Ipiutak culture proper is not very large. About forty-five of the skulls of adult individuals were satisfactorily preserved. To them can be added about fifteen more skulls that either belong to a culture similar to Ipiutak or are, in general, archaeologically undated but found within the confines of this burial site and do not differ from the Ipiutak proper in type. A much greater number of skeletons was found in the Tigara burial site in this same location. The antiquity of this burial site is several hundred years, and its association with the direct ancestors of the present Eskimos is unquestionable. About 230 skeletons of adult individuals from this burial site were under my care. The skeletons of children and subadults were also studied but were not included in the present work.

No especially substantial differences were found between the two series--Ipiutak proper and Tigara. According to the most important features, which include the degree of compactness of the facial skeleton and the degree of projection of the nose, both series are related to the northern branch of the Mongoloid race. Both the Eskimos and the peoples of eastern Siberia are related to this branch. Quite evident, however, are the differences from the American Indians.

But the assignment of "Ipiutak people" and "Tigara people" to one racial branch does not mean that the two series were identical. There are quite definite, statistically real differences between them.

The Ipiutak people are primarily different from the Tigara people by having a lower brain case. In this they are generally unlike all specimens of the Eskimo type proper. Among the Ipiutak people the characteristic Eskimo distinctiveness is also not reflected: the predominance of breadth of face over breadth of brain case.

In these two features the Ipiutak people are different, however, not from all Eskimos but rather chiefly from the central and eastern groups. Differences from the western Eskimos, especially the Asiatic, as well as from the Chukchi are reflected significantly less. A small or moderate height of brain case is also characteristic, as is well known, of the Aleuts and Pre-Aleuts.

But the Aleuts, western Eskimos, and Chukchi are set off from the typical Eskimos of the central and eastern regions by another feature. Among the Aleuts, the western Eskimos, and the Chukchi an inclination toward prognathism is manifested. It is interesting that in this regard the Ipiutak people are exactly like the Tigara people.

The question arises: is there a type among the northern Mongoloids that is different from the Eskimo proper by having a lower skull height and narrower face (in relation to the breadth of the brain case) but is not inclined toward prognathism? Such a type of northern Mongoloid exists. This is the so-called Baikal type, represented at the present time by the Reindeer Tungus and their probable physical ancestors, the Yukagir.

However, there is no complete identity with this type among the Ipiutak people. Both the Yukagir and Tungus have comparatively low orbits and broad noses. In these features the western Eskimos barely differ from the eastern, and the Ipiutak people are no different from the Tigara people.

Thus: (a) by the proportions of the brain case the Ipiutak people are similar to both the Yukagir and the Pre-Aleuts; (b) by the profile of the face (orthognathism) they are similar to the Yukagir but different from the Aleuts (and Pre-Aleuts); (c) in the form of the orbit and nose they are similar to the Aleuts (and Pre-Aleuts) but different from the Yukagir.

The question arises: which features should be given preference in determining the place of the Ipiutak people in the genealogical classification?

The answer to this question can be obtained only by studying the process of formation of all the types being examined. At the present time no one disputes the fact that anthropological features are subject to changes over the course of the whole history of humankind. However, the difficulties that arise in studying these changes are still very great.

Can the Ipiutak people be viewed as the direct ancestors of the Tigara people (and, consequently, Eskimos proper)? It seems to me that this question can be answered in the negative.

First, differences in some features of the Tigara people from the Ipiutak people run in a direction that is contrary to the normal correlation of features. It is known that with the change of one feature others are also changed to some degree. For example, with an increase in the length of the body all the absolute dimensions of the head are also increased. With the increase of any one dimension of the head the remaining dimensions also increase. The connection of "neighboring" dimensions is greater than the connection of distant ones. The connection of dimensions of the "same name" (longitudinal with longitudinal, transverse with transverse) is greater than the connection of "different-named" dimensions. Accompanying an increase in massiveness of the face is the increase of the development of the superciliary arcs as well as the slope of the forehead. With an increase in the massiveness of the bones of the upper extremities, the massiveness of the bones of the lower extremities is correspondingly increased as well, and so on.

Of course, this connection never changes in function. In other words, it is never complete. Therefore, if the two groups evolve in isolation over the course of a long time, the correlation of features among them may not correspond to the usual trend of connections. The more such "discrepancies," the

farther the groups being compared are from each other. In the comparison of the Ipiutak people with the Tigara people, the number of such discrepancies turns out to be rather significant.

If it is supposed that the Tigara people are direct descendants of the Ipiutak people, then it must be conceded that: (a) with an increase in stature of the body and breadth of the base of the skull, the transverse diameter of the brain case diminished; (b) with a decrease in the transverse diameter of the brain case, the transverse dimensions of the face increased; (c) with an increase in the transverse dimensions of the face, the forehead became straighter while the degree of development of brow ridge decreased; (d) with an increase in massiveness of the femur and especially the humerus, the massiveness of the tibia diminished.

All this does not conform to the trend of the normal correlation of features. It attests to the fact that over long intervals of time the Ipiutak type and the Eskimo type proper were developed independently.

Unfortunately, we do not know how much time is required for the formation of such kinds of "discrepancies" and under the influence of what causes the features being studied are changed. Nevertheless, the impression is created that the differences of the Tigara people from the Ipiutak people were formed under the influence of various causes.

It is known (and pointed out especially well in the work of N. N. Cheboksarov on the physical type of the Chinese people of different territorial and social groups) that some features, conventionally grouped under the heading "features of physical development," undergo direct influence by the environment at any given moment. Other features, conventionally called "racial features," emerged in substantially more remote times under the influence of other causes that at present are almost untraceable and are preserved as a result of transmission through inheritance. The third group of features, mostly those in the category of "features of proportions of the body," on the whole occupy an intermediate position between the first two categories.

The Ipiutak people also differ from the Tigara people in features of physical development (perimeters of the long bones), in proportions of extremities, and in racial features (primarily by height of the brain case). The impression is created (unfortunately, no more than an impression) that, for the formation of differences between the Ipiutak people and the Tigara people, much more time was required than the three to four dozen generations that separate the two groups.

Second, it must be kept in mind that the Eskimo type proper already existed in Ipiutak times. It is found in the Old Bering Sea burials of the Uelen burial site in Chukotka, recently excavated by M. G. Levin. The Eskimo type proper existed in very pronounced form at Point Barrow in Birnirk times, that is, if later than the period of the Ipiutak burial site, then not more than about ten generations later--clearly insufficient for the formation of differences in a series of features.

The Ipiutak people are not, consequently, direct ancestors of the Tigara people. Both have, of course, common ancestors, but the probability is quite low that a direct genetic successor exists between the two types.

With this, the possibility of more or less firmly substantiated opinions ends. Moving into the region of supposition, or more correctly, the formulation of tasks for further research, it must be conceded that the common ancestors of the Ipiutak people and the Tigara people were related to the ancestors of the Aleuts. Somewhere in this stage must be sought connections with the ancestors of the present-day Yukagir, but these questions clearly need further investigation.

II

The differences in both series of skeletons examined above are quite evident and entirely real even on the basis of the strictest statistical criteria. Before us now stands the task of determining the anthropological essence of these differences, that is, of establishing the degree of relationship of the investigated groups between themselves and with other groups of North America and Northeast Asia.

It is customary to begin the resolution of such problems with the so-called "separation of types." This method of anthropological analysis is verified and justified through a multitude of concrete examples. Peoples who at first lived in unassociated regions and who differ by various combinations of physical features, and as a result of these or other historical causes are shifted sometimes to a significant distance, enter into contact with each other and form mixed populations in which one or another of the "initial components" predominates in this or another degree. Some phenomena of this kind occur, so to speak, "before our eyes," when the circumstances of mixing are preserved in the memory of the people and in numerous written sources. Such is the mixing of the Russians with the Native peoples of Siberia, the Spanish with the Indians of South and Central America, the Dutch colonists with the Khoisan peoples of South Africa, and so on. In these cases the anthropologist usually studies the results of the mixing process, the process itself being much more clearly elucidated on the basis of other data.

In other cases the historical data are less definite, giving only the most general indications that need examination and specification. Such, for example, are the phenomena connected with the great movement of peoples that resulted in the formation of anthropological features of the present-day Uzbek, Bashkir, and Nogai people. Here the historical role of anthropological data increases and at times is decisive in illuminating separate sides of the phenomena being studied.

Going still further into the depths of the centuries, we encounter such phenomena as the formation of the physical type of the peoples of Ethiopia and its neighboring countries, as well as

the Indian subcontinent and the countries of Indochina.

To this group of phenomena belongs the process of formation of the physical type of Pre-Ural peoples. In all these cases the historical data are no more definite than the anthropological, but here the discrepancy in the interpretation of the anthropological data also emerges.

The theoretical roots of this discrepancy primarily concerns the question of the division of human races into "pure" and "mixed." Some researchers go very far along the path of such division. "Pure" races are even divided on the basis of study of separate individuals. Together with the individuals being examined as representatives of "pure races," "mixed individuals" are also distinguished--sometimes even establishing precisely who the "pure" ancestors of a present "mixed" individual were.

Objections to such methods were expressed long ago. It has been fairly noted that many features being used for the characteristics of racial types are inherited independently. If, for example, brachycephalic brunettes and dolichocephalic blonds are mixed, in their descendants will appear both brachycephalic blonds and dolichocephalic brunettes. It is entirely optional in this case to discern the two latter combinations of features as special "initial components" and to look for special historical causes that led to their appearance in the composition of the population being examined.

No less justified are objections based on laws of variability. If, for example, the average size of the transverse-longitudinal index (of the head) in the present group equals 78, that is, belongs to the category mesocephalic, then about 16 percent of individuals in the most "pure" population will be characterized by a size greater than 81. Thus, it is not obligatory to look for special historical circumstances that led to the appearance of these brachycephalics.

In spite of the elementary obviousness of these objections, the method of individual determination of "racial association" is nevertheless widely used. The supporters of this method, in particular, have in mind the possibility of mechanical mixing. In the cemeteries of the Siberian peoples of the seventeenth century, both Russian working-class people (who had been born in Russia) and baptized "non-Russians" (especially the women) could be buried with equal ceremony. Similar occurrences could have taken place in different regions and at different times. It is well known, further, that the admixture of "Negro blood" among the representatives of American nationalities or the "foreign" admixture among the Russian Old Dweller population of Siberia can usually be established without special difficulty, even if it is a question of one-quarter or even one-eighth of this admixture. Mistakes, of course, occur, but in general rarely.

These considerations must always be taken into account. However, it is necessary to keep in mind that in cases of mechanical mixing, the empirical frequency of the combinations of independent features must be much more theoretical. It is possible to find an insignificant mixture of "foreign blood" in

individuals in those cases when the variability of the features of the "initial components" almost does not transgress (the lightest Negro is nevertheless darker than the darkest Europoid, and so on).

The less attention one turns toward observing these conditions, the greater the probability of making a mistake in individual determinations. More precisely, the greater will be the probability of an erroneous conclusion about the presence of a "special component."

In reality, one only very rarely has to encounter conditions necessary for successful use of the method of individual determination. Mechanical mixture usually ceases being such in the first generation. If Russian working-class people in Siberia took for themselves non-Russian wives, the features of these wives were manifested among the male children of the first generation. And a series of skeletons from old cemeteries almost always belong to several generations. The mix of sharply different physical types is encountered more rarely than a mix of groups differing comparatively little.

The region of successful application of individual determinations of "race association" is, consequently, extremely limited; it cannot be viewed either as a basic method or as any substantial method of anthropological analysis. The wide distribution of this method can be explained, evidently, by its deceptive effectiveness. The large number of "types" distinguished opens up room for different considerations on the processes and reasons for their appearance. In addition, it is always possible to find some historical hypothesis--based on archaeological, ethnographic, or linguistic data--that explains the appearance of distinct "types."

In the series from the Ipiutak and Tigara burial sites, there is no proviso for the use of the method of individual determination, though it would not take a special effort to distinguish in their array "Eskimoid," "Aleut," North Asiatic," "Americanoid," and perhaps any other "components."

The rejection of expedience of individual determinations of racial association is entirely compatible with the division of human races into "pure" and "mixed" form. Numerous observations of entirely real occurrences, similar to the examples cited above (Metis and Mulattos in America, "Coloreds" in South Africa, "Yasashnye" in Siberia, and so on), form the basis for this point of view. The farther we go into the depth of the centuries, the less historical data there are on the formation of the combinations of features being observed, and the more "pure" races are established. It must be stressed that here in the matter of historical data regarding things anthropological, the criteria for delimitation of "pure" and "mixed" races are, strictly speaking, lacking. Neither in the indexes of variability nor in the coefficients of correlation are differences found between "pure" and "mixed" groups, if, of course, the latter do not partially represent the results of mechanical mixing. The division of races into pure and mixed thus reflects only the

level of our knowledge of the history of their formation. It can be said, of course, that under the conditions of primitive social structure the isolation of some groups was significantly greater than in complex societies. However, it is necessary to keep in mind that the length of the epoch of primitive social structure exceeds by many times the length of the epoch of complex society, and that in sum the conditions for mixing in primitive society were no fewer than in complex society. It can only be a question of the fact that in small and significantly closed groups of primitive society there were more conditions for the formation of combinations of features peculiar to this group.

Observations of real combinations of features and theoretical considerations led some researchers to the negation of the reality of racial types. This conclusion is based on the so-called netted similarity, when feature A is similar to B but different from C; in another B is similar to C but different from A; in a third A is similar to C but different from B. Such correlation of features usually takes place in those cases when the differences reflect not the process of mixing of anthropological types but the process of their formation.

In comparing average sizes of the Ipiutak and Tigara series with other series of early and contemporary skulls of the far north of America and adjacent regions of Asia, we come exactly to such types of correlations. Attempts to separate combinations of features are not successful; more correctly, there are too many combinations.

The Eskimos, as is well known, are different from the Aleuts by having a narrower and longer and, chiefly, higher brain case. At the same time, the Aleuts are much more prognathic. The Ipiutak series differs from the majority of Eskimos by such correlation as the axis of the brain case, which brings the Ipiutak closer to the Aleut. However, the Ipiutak people are in no way more prognathic in comparison with the Eskimos.

Among the Aleuts, and to a lesser degree among Asiatic Eskimos and Chukchi, the increase of the transverse-longitudinal index is connected with a decrease in the height of the brain case. However, the most brachycranic Koniag are different by having a medium high skull and in addition are not prognathic.

As in other regions of the globe, the transverse-longitudinal index is, by the way, quite low in reliable features for establishing relationship. The appearance of brachycephalization is widely distributed, and northern America is not an exception. Increase of the transverse-longitudinal index occurs at Point Barrow, on Kodiak Island, in the Aleutian Islands,[4] on Cape Dezhnev, and at Point Hope in the stretch of

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[4]Division of the craniological material from the Aleutian Islands into Pre-Aleuts and Aleuts was produced artificially by Hrdlička. However, in the comparison with the contemporary population, it can be established that an increase in the index nevertheless takes place, at least on some islands.

time from the culture of Tigara to our day. However, at an earlier time at Point Hope (from Ipiutak time to Tigara), a decrease in the index is observed. This exception from the general rule permits the conclusion that the Ipiutak people were not ancestors of the Tigara people, and that the Tigara people, who are morphologically characterized by the preservation of features of an earlier type, replaced on Point Hope the Ipiutak people, who are farther from the initial prototype.

However, broader reflection brings on serious doubt about this conclusion. It is difficult to imagine that the ancestors of all Eskimos were characterized by a transverse-longitudinal index of about 70. Such an extreme size more likely attests to specialization. In Pribaikal'e during Neolithic times, the average sizes of the index cluster around 77. Strong dolichocrany is usually combined among the Eskimos with great height of the brain case and low breadth of the nose. These features also produce the impression of extreme specialization of the "Eskimo type." Of course, this impression should be examined on the basis of paleo-anthropological data. At present these are very low in number, and the possibility can never be categorically rejected that in the future--somewhere in the southern expanses of Eastern Siberia or Primor'e--a sufficiently old skull with all the characteristics of the "Eskimo type" will be found. However, this is not very probable.

One of the characteristic traits of the strongly dolichocranic Eskimo forms can be formally viewed as a very early feature. It is the matter of the position of the greatest breadth of the brain case, which for the most part is in the lower parts of the temporal lines, which sharply project as a crest. Martin's instructions, on the necessity of excluding this area from the measurement of the greatest breadth, have special significance for Eskimo skulls. On Ipiutak and Tigara series the breadth between the most lateral points of the crest of the temporal lines is measured only in those cases when it exceeds the breadth when being measured in the usual way. In the Ekven series the breadth between the crests is measured in all cases. On average it exceeds the usual breadth by 2 to 3 mm on male skulls and the equivalent in females. Thus, according to this feature the Eskimo skulls are similar to skulls of Sinanthropus!

There is very little probability that we have here a case of preservation of a feature of such early form. It is much more likely that a sharp narrowing of the breadth of the brain case in the region of the parietal bones occurred among the Eskimos in the area they occupy today.

Comparing all these data, one can formulate a hypothesis on the genetic interrelations between different Eskimo variants, which can be viewed as a basis for conclusions related to the problem of ethnogenesis. At present these problems have been more or less successfully resolved only on the basis of those morphological traits that are not changed within the boundaries of that territory or that stretch of time concerned. Data on the modification of features in the process of studying the problems

of ethnogenesis have only a negative role, that is, they serve only as a caution against direct and immediate use of these features, against establishing degrees of relationship based on degree of similarity.

Effective use of available data is needed to increase the amount of material on different groups that more fully envelop the territory and are more widely distributed in time. It is quite probable that, for a successful solution to the emerging questions, special studies of a methodological character are required. It is also possible that precisely the most essential features are lacking in the scope of study, and then the study of the Ipiutak series will have to begin anew.

III

Criteria of taxonomic significance were used successfully and are used in contact zones of large races, for example, in the zone of contact between Europoids and Mongoloids in the USSR.

In this case, however, it is not a matter of differences of such scale. Of course, at the same time it must not be said that the discovery of anthropological types in the Bering Sea zone is of no significance. The primary types of this zone have been outlined for a long time and, in general, the racial systematics of this zone are rather clear.

Regardless of how the question of the origin of the American Indians is resolved, their differences from Siberian Mongoloids are completely distinct. These differences are quite clearly manifested in the horizontal profile of the face, which was noted a half century ago (Biasutti 1910) and since then repeatedly confirmed by statistical data. The flattened face in general and nose in particular--characteristic for the Asiatic Mongoloids--is lacking among American Indians. Many groups of Indians are no different in this regard from Europoids.

The Eskimos are usually considered closer to Asiatic Mongoloids than to American Indians. This opinion is entirely confirmed by the data on horizontal profile. The results of a study of blood groups also indicate that group B, which is lacking in the majority of American Indians, is encountered among Eskimos. Blood groups also indicate that Eskimos are not as remarkably different from American Indians as morphological features suggest, but in general there is no doubt that the Eskimos are more closely related to Siberian Mongoloids than to American Indians.

The Eskimos differ, as is known, in many specific features. Primarily related to this are: (a) the great height of the brain case, often exceeding its width; (b) low nose breadth; the average sizes of this feature in some Eskimo groups is the minimum in the world.

Further along we encounter, unfortunately, a region of still unsolved problems. The primary question here concerns the anthropological type of the Aleuts. In contrast to typical Eskimos, the Aleuts differ by having a rounded form of brain

case. Still more notable are the differences in height of the brain case. Among Eskimos the average height of the skull is often the greatest in the world; among Aleuts, on the other hand, it is minimal. This fact served as the basis for placing the Aleuts close to Siberian Mongoloids and separating them from the Eskimos (Cheboksarov 1947). At the same time the Aleuts are characterized by prognathism. In this feature they occupy an extreme position among other peoples of the northern part of the Pacific Ocean.

Connected with the question of the Aleuts is the question of the territorial and chronological differences of various groups of Eskimos. In the Bering Sea region the Eskimos are characterized by a shorter and lower brain case than in Greenland. At the same time the "Greenland" type is clearly revealed in earlier burials at Point Barrow and in the region of Bering Strait, while contemporary Asiatic Eskimos are somewhat closer to the Aleuts than their predecessors were.

The most significant differences between Ipiutak people and Tigara people are manifested in the correlation of the primary axes of the brain case. In this same trend run differences between various territorial groups of Eskimos. Northern groups, in particular Asiatic, are different from Greenland groups by having a broader and lower brain case. It has been noted that skulls from early burials are characterized by more strongly expressing "Greenland" traits than modern ones. Such sequence is noted at Point Barrow (Stewart 1959) and on the Siberian shore of Bering Strait (Levin: material from the Old Bering Sea burial sites in Chukotka).[5] From these observations the entirely substantiated conclusion was made that, over time, the most characteristic Eskimo traits are smoothed out in connection with the distributed occurrence of brachycephalization (Levin 1958; Stewart 1959). It is true that among modern Eskimos, including Greenland people, there are no groups among which the average height of the malar diameter exceeds the average size of the transverse diameter of the head. Meanwhile, among the Eskimos of Point Barrow of 1,000 years ago, the face was 8 mm broader than the brain case.[6]

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[5]After the death of M. G. Levin, work on the indicated material was continued by G. F. Debets. For the results of this study, see G. F. Debets's Paleoantropologicheskie materialy iz drevneberingomorskikh mogil'nikov Uelen i Ekven [Paleo-Anthropological Materials from the Old Bering Sea Burial Sites of Uelen and Ekven]. In *Problemy etnicheskoi istorii Beringomor'ia (Ekvenskii mogil'nik)* By S. A. Arutiunov and D. A. Sergeev. Pp. 197-240. Moscow, 1975. (Editors' note.)

[6]The thickness of the tissue in the vicinity of the eurions is possibly somewhat greater than in the region of the zygions, therefore with a comparison of measurements on a living individual and on a skull it is necessary to take this difference

But is it possible from this to conclude that all groups of Eskimos, among whom traits of the "Greenland" type are not sharply defined, were formed as a result of the process of brachycephalization of the "Greenland," or "Birnirk," type? Is it possible to extend this idea to the history of the formation of the physical type of the Aleuts or our Ipiutak?

Are groups of the "Bering Sea" type more closely related to each other than to groups of the "Greenland" type? Or did the process of erasing the "Greenland" traits flow independently in various places and at different times?

These are not the only questions that arise in connection with differences found in the comparison of Ipiutak people and Tigara people. Should it be considered proven that the ancestors of the Eskimos entered America already having all the characteristic traits of the "Greenland" type? Having accepted this point of view, we will have to acknowledge that this type was formed in Asia and also at some immemorial time. However, in Asia the Eskimo type in its "Greenland" variant is unknown. Certainly, attempts have been made to find "Eskimo" features among the Yakuts (Cheboksarov 1947) or among Neolithic tribes of Pribaikal'e (Debets 1948) or among the Kama people of Tibet. In all these cases the conclusions were based not on a whole complex of features but rather on combinations of the dolichocranic form of brain case with its more or less significant height and with the large dimensions of the face. One cannot be confident in a single case that these combinations of features attest to a more or less close relation with the Eskimos, and that they did not emerge in parallel.

It is well known that by the quite specific character of the distribution of blood groups the Eskimos are not so distant from the Indians as they are according to morphological features.

IV

The origin of the Eskimos is one of the links in studying the problem of the settlement of America. In anthropological regard, the Eskimos occupy an intermediate place between the American Indians and Asiatic Mongoloids but are closer to the latter. This position of the Eskimos is revealed by the degree of flattening of the face, by the projection of the nose, and by the frequency of Mongoloid (epicanthic) fold.

By blood groups the Eskimos (including the Aleuts) are more similar to American Indians, though in this regard some peculiarities are manifested among them: group B, practically lacking among American Indians, is encountered among the Eskimos

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into consideration. Nevertheless, in Birnirk times the face of Eskimos of Point Barrow was at least 7 mm broader than the brain case. Among modern Eskimos the breadth of the face on average is always less than the width of the head by at least 2 mm (at Point Barrow, by 5 mm).

and Aleuts, though rarely. A brief summary of the data of various authors is in Table 28.

Those features by which the degree of similarity is determined between Asiatic Eskimos, Mongoloids, and American Indians do not indicate the degree of similarity and difference between the different groups of Eskimos, including the Aleuts. In this case it is necessary to draw on other features. As in regard to the majority of other groups, it is primarily a matter of basic diameters of the brain case and their correlations. According to these features the Eskimos are far from homogeneous. The most specific feature in the construction of Eskimo skulls is the low width of the brain case. In those groups that are considered the most "typical," the width of the brain case is less than its height and less than the width of the face. These traits are most clearly reflected among the Eskimos of Greenland. In Alaska and among Asiatic Eskimos, the skull is both broader and shorter. The combination of both dimensions gives a clear difference in the transverse-longitudinal index.

Later on, these combinations of features are called Greenland and western variants, which, it must be noted, are connected to each other by a continuous series of transitional forms. In antiquity the Greenland variant was represented both in Alaska and in Chukotka. The average sizes of series of skulls from the Birnirk burial site at Point Barrow show clear characteristics of the Greenland variant. The width of the face of the Birnirk skulls is on average 8 mm greater than the width of the brain case! (Stewart 1959). Skulls from the Uelen and especially the Ekven burial sites in Chukotka, which belong to the so-called Old Bering Sea culture, are also characterized by typical features of the Greenland complex. On the basis of these data, it has been stated that the western variant was formed on a base of the Greenland variant several centuries ago as a result of those changes of dimensions in the brain case, which are called the process of brachycephalization (Levin 1947, 1958; Stewart 1959).

In this respect the Aleuts are substantially different from the Eskimos. The brain case among the Aleuts is broad, and by the index they belong to the brachycephalics. The height of the skull among the Aleuts is very low, sharply differentiating them from Greenland Eskimos, among whom the size of this dimension is among the largest on earth.

The western variant in general occupies an intermediate position between the Greenland Eskimos and the Aleuts. One cannot help but acknowledge that according to the form of the brain case the Aleuts stand closer to the Siberian Mongoloids than to the Eskimos. Especially significant are the data on the height. This dimension also served as a basis for attaching the Aleuts to the continental branch of the Siberian Mongoloids and separating them from the Eskimos (Cheboksarov 1947).

The transverse-longitudinal index in this case does not play a significant role. The fact is that in the Aleutian Islands the process of brachycephalization can be clearly traced (Hrdlička

1945). True, the dating of the material that was at Hrdlička's disposal leaves much to be desired, but nevertheless it cannot be doubted that the early Aleuts were different from the modern ones by having a longer head shape. Though Hrdlička speaks of the invasion of brachycephalics, this opinion is entirely unfounded. Besides, the Aleuts are close to the Eskimos in blood groups.

The Aleuts are not the only brachycephalics among the peoples and ethnic groups of the Eskimo-Aleut family. The Kikertarmiut (Koniag) of Kodiak Island differ even more because of even rounder heads. But here as well the process of brachycephalization can be clearly traced. Thus, among the Eskimos, as among the majority of peoples of the world, differences in the transverse-longitudinal index do not have substantial significance for determining deep relationship. These differences can arise among closely related groups. In addition, the Aleuts are rather significantly different in head shape among themselves. Among Natives of Atka and Attu, the index is two to three units lower than among Natives of Umnak, Unalaska, and other eastern islands (Laughlin 1951, 1963). The drop in the index in the west is hardly connected with a large portion of Russian mixture, for the western Aleuts are at the same time of low stature and the blood groups B and N are encountered among them even more rarely than in the east.

Certainly, differences remain in the height of the brain case. This feature does not changes as quickly nor as significantly as the horizontal diameter of the head. But one has to keep in mind other features as well. The author of these lines (Debets 1951) considered it possible to attach more substantial significance to the width of the nose and inclination toward prognathism. These features bring the Aleuts close to the Eskimos and distinguish them from the Siberian Mongoloids.

Data on blood groups on the whole confirm this opinion. The matter is about not one system of blood groups but two. The Aleuts are close to the Eskimos (and the American Indians) both by the ABO system (among them B is low) and by the MN system (N is low). Finally, the similarity of the Aleuts to the Eskimos is accompanied by geographic and linguistic similarity. There is low probability that among the Aleuts such distribution of groups was formed, which is characteristic for neighboring people who are linguistically close, without the influence of their relationship with the Eskimos.

On the basis of these data we can form a hypothesis according to which craniological features, more significant in taxonomic regard in the region of the Bering Sea, are those that bring the Eskimos close to the Aleuts and do not contrast with them. The differences of the Eskimos and Aleuts in the transverse-longitudinal index and in height of the brain case, from this point of view, are secondary.

However, the question of which of the two related variants of the Arctic group--Greenland or Aleut--is the earlier remains unclear. It can also be suggested that the initial form for the whole Arctic group is the more "neutral" western variant.

The glaring originality of the "most Eskimo" of the Greenland variant is an argument in favor of the opinion that it is the most "specialized," was formed under Arctic conditions, and consequently is later. However, contradicting this are data on the chronological succession of the Greenland and western variants. The first variant is earlier in both Chukotka and Alaska.

One of the most significant results of the archaeological investigation of the early sites at Point Hope was the distinguishing of a separate Ipiutak culture (Larsen and Rainey 1948). Chronologically, the Ipiutak culture is contemporaneous with the Old Bering Sea, discovered by American archaeologists on St. Lawrence Island; this culture was also distributed on the Chukchi Peninsula (Levin 1960). Data from radiocarbon analysis reveal that both cultures, Ipiutak and Old Bering Sea, belong to the first half of the first millennium (Rainey and Ralph 1959), that is, they existed about 1,500 to 2,000 years ago.

An important aspect of the economy of the Old Bering Sea culture was whale hunting. This was a typical maritime culture. In the course of its further development, a culture of coastal Eskimos--described by modern ethnographers--spread from Bering Strait to Greenland.

The Ipiutak people were also hunters of sea mammals, except for the whale. Land hunting played a substantially greater role in the economy of the Ipiutak people. Modern ethnographers know of a culture of land hunters of caribou. Some believe that a successive connection exists between the cultures of the "Caribou Eskimos" and the Ipiutak. However, this opinion cannot be considered as proven conclusively.

There were other differences between the Ipiutak and Old Bering Sea cultures. The stone points of the Old Bering Sea culture were made predominantly of ground slate. Characteristic for the Ipiutak culture were flint points made by pressure flaking.

The Aleut culture occupies a special place. Ethnographers describe for this culture a characteristic and specific method of whale hunting with the aid of weapons coated with plant poison. However, in the technique of stone tools, the culture of the early sites in the Aleutian Islands closely resembles those of the Ipiutak.

During the excavations of the Ipiutak burial site, a rather significant number of human skeletons were discovered. Even more of them came from the Tigara burial site, which is also on Point Hope. The Tigara burial site is assigned to a time directly preceding the arrival of the Europeans. In other words, it is at least 1,000 years later than the Ipiutak. The Tigara people undoubtedly are direct ancestors of modern Eskimos of northwestern Alaska.

Between the two there are indisputable differences. The difference of the average calculations in many features is statistically real at the 0.01 level. In some features the difference is greater than standard. Among these are the height

of the brain case and the length of the lower extremity, especially the length of the lower leg (Fig. 1 and 2). Among Ipiutak men, the lower leg is almost the same length as among Tigara women.

No less significant are differences revealed by contrasting signs of inner- and intra-group correlations. Among these belong primarily the notable narrowing of the brain case in the Tigara series. Absolute sizes of the difference in transverse diameter are not very great (though entirely real statistically). But this difference is sharply manifested especially in the comparison of the transverse diameter of the brain case with other transverse dimensions, primarily with ear (biauricular) width. The transverse diameter in the Ipiutak series is somewhat greater than in the Tigara, while the biauricular, by contrast, is less. Meanwhile, the coefficient of inner-group correlation of these dimensions has a positive sign and high absolute value (0.75).

The Ipiutak people therefore are not at all "typical" Eskimos. The transverse diameter of the brain case among them is greater than both the height and the width of the face.

These traits were noted by cursory examination of the series by the American anthropologist G. Shapiro. I also turned my attention to them in 1956. The moderate height of the skull of the Ipiutak people brings them closer to Siberian Mongoloids. Most similar of all to the Ipiutak are the Yukagir. Among them and others the low height of the skull case tends toward mesocephalic. This preliminary conclusion is reflected in the scientific literature (Larsen and Rainey 1948). After the skulls from the Ipiutak burial site were measured (in 1957-1958), differences in the height of the brain case between them and those from the Tigara burial site were revealed quite clearly.

However, according to the majority of features, the Ipiutak and Tigara peoples turned out to be rather close. Therefore, the question arose about the possibility of relation of the Ipiutak people with the Aleuts who, as was said, are more closely related to the Eskimos than to Siberian Mongoloids.

In a preliminary report on the results of the anthropological study of the Ipiutak series (Debets 1959), a question was posed about the degree of its relationship with the Yukagir-Tungus type and the Aleut type. The Ipiutak people are close to both these types on the basis of the data of moderate height of the brain case. The Ipiutak people are close to the Aleuts in breadth of nose. This is an important feature that rather clearly differentiates the Siberian Mongoloids and the Eskimo-Aleut group. But a notable inclination toward prognathism, typical among the Aleuts, is not characteristic of the Ipiutak people.

Above a hypothesis was formed on the basis of which the taxonomic significance of the craniological features in the Bering Sea region should be assessed. Those features should be considered most valuable that permit joining the Eskimos and Aleuts and at the same time distinguishing them from other

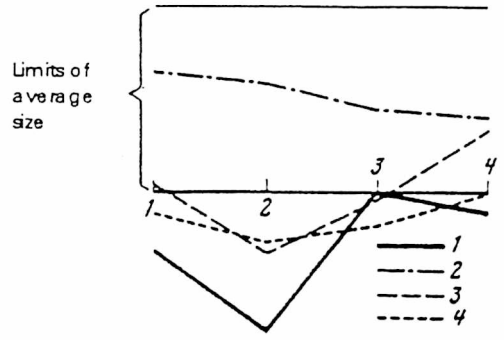


Figure 1. Greatest lengths of bones in the Old Eskimo series: 1. Ipiutak, 2. Tigara, 3. Uelen, 4. Ekven; 1. femur, 2. tibia, 3. humerus, 4. radius.

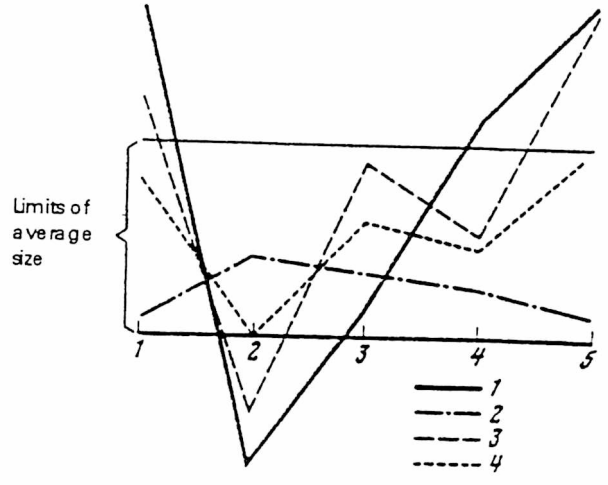


Figure 2. Indexes of proportions of the skeleton in the Old Eskimo series: 1. Ipiutak, 2. Tigara, 3. Uelen, 4. Ekven; 1. intermembral, 2. tibia-femur, 3. radius-humerus, 4. humerus-femur, 5. radius-tibia.

peoples of Siberia and America. Of all the numerous measurements taken on the Ipiutak series, the combination of three dimensions satisfies this requirement: zygomaxillary angle, relative height of alveolar appendix, and breadth of nose (Fig. 3).

Based on these features, the Ipiutak people should ultimately be considered more closely related to the Aleuts and Eskimos (and the Chukchi) than to the Yukagir and Tungus. The Ipiutak people are most similar to the Asiatic and Alaskan Eskimos who, as mentioned previously, generally occupy an intermediate position between the Aleuts and Greenland Eskimos.

Thus, a rather complex picture emerges. In Chukotka the Greenland variant preceded the western. At Point Hope the opposite picture is observed: the western (Ipiutak) type appears earlier here. At Point Barrow the direction of differences between the early and modern skulls is more similar to that observed in Chukotka. But does degree of similarity between different groups correspond to the degree of their relatedness? Are the modern western Eskimos more closely related to the Ipiutak people, to whom they are more similar, than to the "Bering Sea" people, with whom they share fewer similarities? It has to be recognized that we do not have sufficient data for resolving this question.

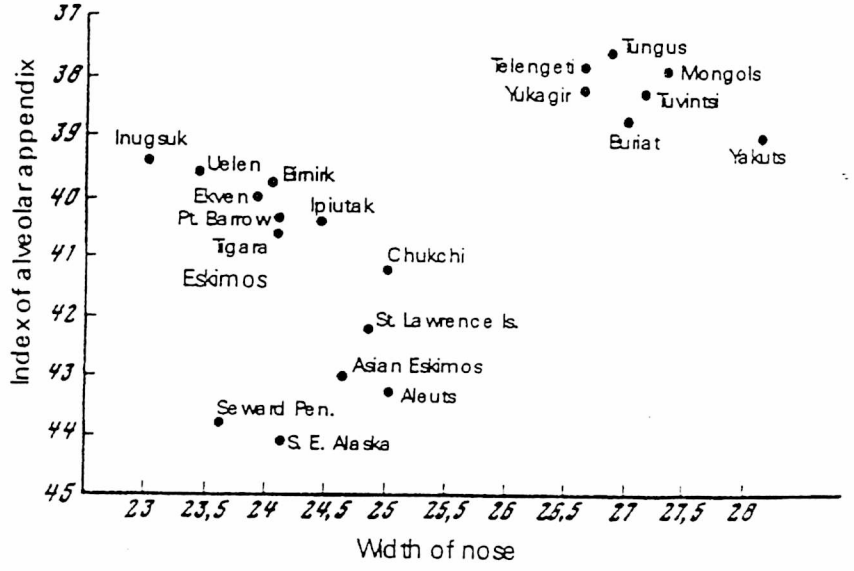


Figure 3. Index of alveolar appendix and width of nose in Siberian and Eskimo groups.

It is not out of the question that the similarity of the Ipiutak people emerged independently of the modern western Eskimos, and that the Ipiutak people represent the remains of an old, still unspecialized type, while the western Eskimos are the descendants of the Bering Sea people, who lost the most specialized features of the Eskimo race. Less probable is the supposition of independent and diachronic emergence in different groups of a specific combination of features characteristic of the Greenland variant. The Tigara people are nevertheless evidently more related to the "Bering Sea" people than to the Ipiutak people. Of course, the "specificity" of the Greenland combination is not a very substantial argument in favor of this conclusion, but nevertheless it can be made in the form of a working hypothesis.

The similarity of the Ipiutak people with the modern western Eskimos can be viewed either as the result of loss of specific traits of Bering Sea (Greenland) Eskimos, and thereby as a "return" to the original form, or as a preservation of features still not specialized. In the latter case it must be recognized that the Eskimos of Chukotka and Southwest Alaska are not descendants of the early Bering Sea people. Historically this supposition is not very probable.

Many modern anthropologists have long noted the growing discrepancy between the accumulation of material based on "classical" anthropological features and on the possibilities of scientific interpretation of collected data. It becomes ever clearer that the degree of similarity is far from corresponding to degree of relationship. This discrepancy increases the further the researcher goes from primary racial subdivisions of humanity and the more his attention is drawn by the local types and variants. But it is precisely in the study of these local types that the discovery of something new can be expected. And here the vexatious sensation of failure to find objective courses of resolution of the supplied problems emerges with special clarity.

These anthropologists try to find the way out of the blind alley created by studying those features that are characterized by alternative variability. It is a matter of blood groups, of taste reaction to phenylthiocarbamide, of colorblindness, of dermatoglyphics, and so on. These features have, of course, a series of indisputable merit. First, they are usually determined by few factors, and the character of their transfer by inheritance can be established rather precisely. Second, they are not changed under the direct influence of the external environment. Third, the technique of their determination (by the principle of presence-absence) excludes subjectivity of determination (not speaking, of course, about direct errors).

However, these features also have much missing. The latter consists of the fact that the features, being determined by a few hereditary factors, are subject to the influence of so-called genetic drift. The essence of this influence consists of the chance accumulation of this or another factor in small isolated populations. Serving as the classic example is the distribution

of the ABO blood group system among the Tajiks of Karategin and Darvaz, studied by V. V. Ginzburg (1937). The great differences between groups of populations of different mountain valleys clearly do not correspond to their rather close relationship, which is distinctly manifested in the usual anthropological features.

There can nevertheless be no doubt about the value of "genetic" features with the proper approach to their interpretation. Unfortunately, determination of these features is at present almost exclusively on living individuals. Attempts to find features with alternative variability on craniological material (Laughlin and Jorgensen 1956) have not yet been successful. Further research in this direction ought, of course, to be welcome in every way possible. But in practice, based on the modern level of development of our knowledge, similar observations have only subsidiary significance.

Now the usual anthropological program cannot but be replaced when the matter concerns early peoples whose physical type we can judge only from their skeletal remains. And the question of the degree of relationship of the Ipiutak people with other early and modern groups of the Arctic race can meanwhile be resolved chiefly on the basis of the study of those morphological traits of the skeleton that are sufficiently well studied in relation to their distribution in time and space, in relation to their variability and mutual connections.

We saw that the results of work in this direction left much to be desired, but for the attainment of better results it is necessary not to lose heart, not to stop assembling and studying early skeletons, but rather to continue these collections. The only method of determining the physical type of the early inhabitants of the Arctic is to locate and study skeletons of such cultures as the Kachemak, Dorset, and Denbigh. Even at the present, very incomplete stage of developing our knowledge, filling the gap certainly creates the possibility of making a primary choice between different hypotheses, finding the form of their agreement somehow, or constructing a new one.

The reference to insufficient facts is a rather trivial conclusion that does not bring credit to the researcher, for whom only the modest satisfaction remains of realizing that--depending on the author's strengths and understanding--he might introduce one of these facts to the scientific world in the hope that it will turn out to be useful to future researchers.

The essence of this is that the Ipiutak people, though similar to the Eskimos, nevertheless do not have the most characteristic specific features of the Eskimo race.

Appendix

1. Mandible.

Group differences of the mandible among modern people are fairly great. The minimum and maximum average sizes of the index of the ramus, for example, are out of step with each other by more than three standard deviations. From this it does not follow, however, that the degree of similarity of the morphological features of the mandible are always equivalent to the degree of relationship. Figure 4 indicates, for example, that on the basis of dimensions of the mandible, the people of southern Tibet are much more similar to the Tamil than to all the Eskimo groups.

Nevertheless, the similarity of all Eskimo groups among themselves cannot help but be noted. They are characterized by a distinctive combination of features that, as far as can be judged, are reflected nowhere else in such measure. The strongest characteristic is the combination of the very great breadth between the angles of the small ramus.

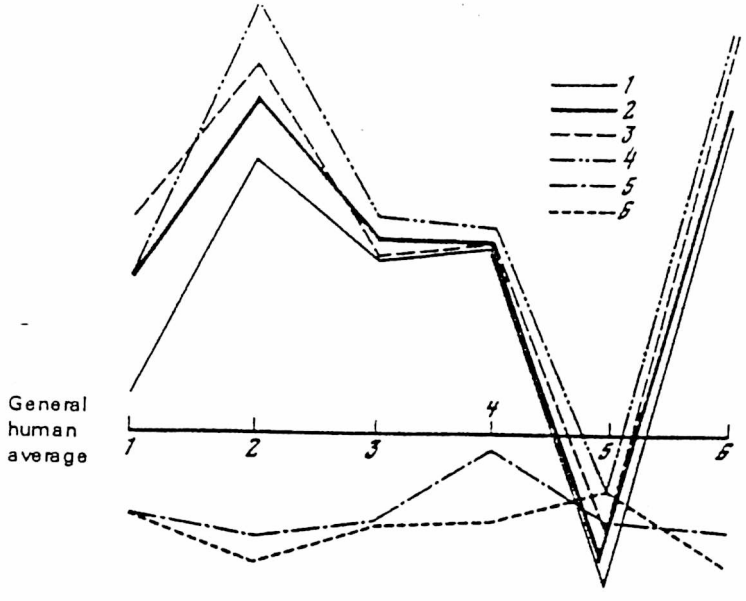


Figure 4. Dimensions of the mandible in Eskimos and comparative groups: 1. Ipiutak, 2. Tigara, 3. Ekven, 4. Greenland, 5. southern Tibetans, 6. Tamil; 1. condylar width (65), 2. angular width (66), 3. length of angles (68), 4. length of condyles (68-1), 5. height of ramus (70), 6. least width of ramus (71a).

From these data it follows that the "Eskimo combination of features" is reflected in greatest measure in the Ekven series, while the Ipiutak, being close to the remaining Eskimo groups, is somewhat less specific. Closest of all to the Eskimos are the Siberian Mongoloids, particularly the Buriat. Data on the American Indians is insufficient; however, it can be said that on the whole the Indians are not characterized by an "Eskimo combination of features." Incidentally, the Athapaskans, who are rather different by having a great width between the angles and a comparatively broad ramus, may be similar to the Eskimos in this regard.

It is possible to confirm that the "Eskimo combination of features" of the mandible is not a function of its general massiveness. On the whole, the massiveness is no less, if no more, characteristic for the remarkable series of Neolithic skulls from the Dnieper's Nadporozh'e. However, the correlation of dimensions in this series is radically different from that observed among the Eskimos. In particular, among Neolithic peoples of the Ukraine the ascending ramus is much higher and relatively narrower.

There is no doubt that such characteristic (for the Eskimos) and the quite specific correlation of dimensions of the mandible is certainly not unconnected with its mechanical properties. Special research in this direction represents one of the important problems in the anthropology of the Eskimos.

2. Age determination.

The determination of a skeleton's age is, as is well known, a rather complex task. Certainly, the work of several researchers carried out in recent years have significantly pushed forward the elaboration of this problem. Nevertheless, in practice it encounters many difficulties.

It is a relatively simple affair to determine age in infant and juvenile skeletons; it is produced, as a rule, on the basis of the number of erupted milk and permanent teeth, the knitting of the epiphyses of the long bones with their diaphyses, and the ossification of the basal-occipital junction. Much more complex is the determination of age in adult individuals. The basic criterion here still remains the condition of the sutures of the brain case. We distinguished three groups. In the first, corresponding to ages 18 to 30, included skulls with open sutures or with sutures beginning to become obliterated (usually in the lower parts of the coronal suture and in the back third of the sagittate suture). In the second group (approximately 30 to 50 years) are those among whom less than half of the three basal sutures are closed. In the third group (over 50 years) are skulls with the sagittate and coronal sutures almost completely grown over. The lambdoid suture in this group is usually noticeable over a large part of it.

The condition of the sutures was observed exclusively on their external surface. It is well known that more reliable

results are obtained on the basis of data from the conditions of sutures on the internal wall of the brain case. But in view of the complexity of observation of whole skulls this method was rejected.

The condition of the dental system (grinding and loss of teeth) in general corresponds to the condition of the sutures, but in both series some instances were observed with heavy grinding or a large number of tooth losses during life in skulls with entirely open sutures. The reverse combination (strongly knitted sutures and teeth with minimal grinding) was not noted.

Evidently the actual average age of the skeletons investigated is somewhat higher than that which is obtained based on the condition of the sutures. However, it is better to base the calculation of age exclusively on the sutures, since the determination of calendar age by tooth wear is quite problematic.

Our material is clearly insufficient for demographic purposes, that is, for judgment of average age of death in the population contained by the Ipiutak and Tigara burial sites. Many skeletons were found in completely fragmented condition and were not taken during the excavations. In particular this applies to the Ipiutak burial site. Material from the Tigara burial site is in somewhat better condition, but here the age may be determined on 356 skeletons, which comprises 88 percent of the total number of excavated graves. A large part of the skeletons that were not preserved probably belonged to infant age.

Nevertheless, age composition of the investigated series cannot be completely ignored. These data are necessary in comparing the material from both burial sites in order to have the possibility of judging how the observed differences can be ascribed to age composition. From Tables 10 to 12 it can be seen that essential differences between the two series do not exist in this regard.

3. Width of crest.

In the Ipiutak and Tigara series, the greatest width of the crests was measured only in those cases when it was greater than the transverse diameter (No. 8 Martin) or equal to it. There were more such skulls in the Tigara series than in the Ipiutak: Tigara males--45.1 percent, Ipiutak males--19.5 percent; Tigara females--7.5 percent, Ipiutak females--2.9 percent. From this it is possible to determine approximately the average size of diameters on the crests, if we concede that the distribution index: width of the crest x 100: transverse diameter--normal and that the average standard deviation of this index is 1.9. The average size of the greatest diameter on the crest with these conditions is: Tigara males--137.1 mm, Ipiutak males--136.8 mm; Tigara females--128.9 mm, Ipiutak females--131.3 mm.

In the Uelen and Ekven series the width of the crest among males is almost always greater than the transverse diameter, and among the females in approximately half the cases. This specific Eskimo feature is consequently reflected among Old Bering Sea

peoples more than among later Eskimos of Point Hope, and among the latter more than among the Ipiutak people, who by this feature are little different from Siberian Mongoloids.

Note to the Tables of Individual Measurements of Skulls

* = burial similar in culture to Ipiutak.

** = burial of undetermined culture, and surface finds (II) in the vicinity of the burial site that are not different in skull type from Ipiutak proper.

! = given with the determination of sex reinforced by data on the pelvis.

The dimensions of the right side are contained in parentheses.

In a fractional expression (without special explanation) bilateral discretely varying features--right/left (d/s)--are given. The sign + denotes the presence of a feature, 0 its lack. In the case of the presence of os postsquamosum, its greatest diameter is given in millimeters (without its determined fixation).

Further explanation is needed regarding the translation. Some of the abbreviations in the tables were changed to correspond to those of Howells (1970), whose abbreviations are reproduced below. In one case the abbreviation, which is marked by an asterisk, is from Martin and Saller (1958). Since the points of measurement have changed over time, I give the literal translation of those that were replaced.

R. L. B.

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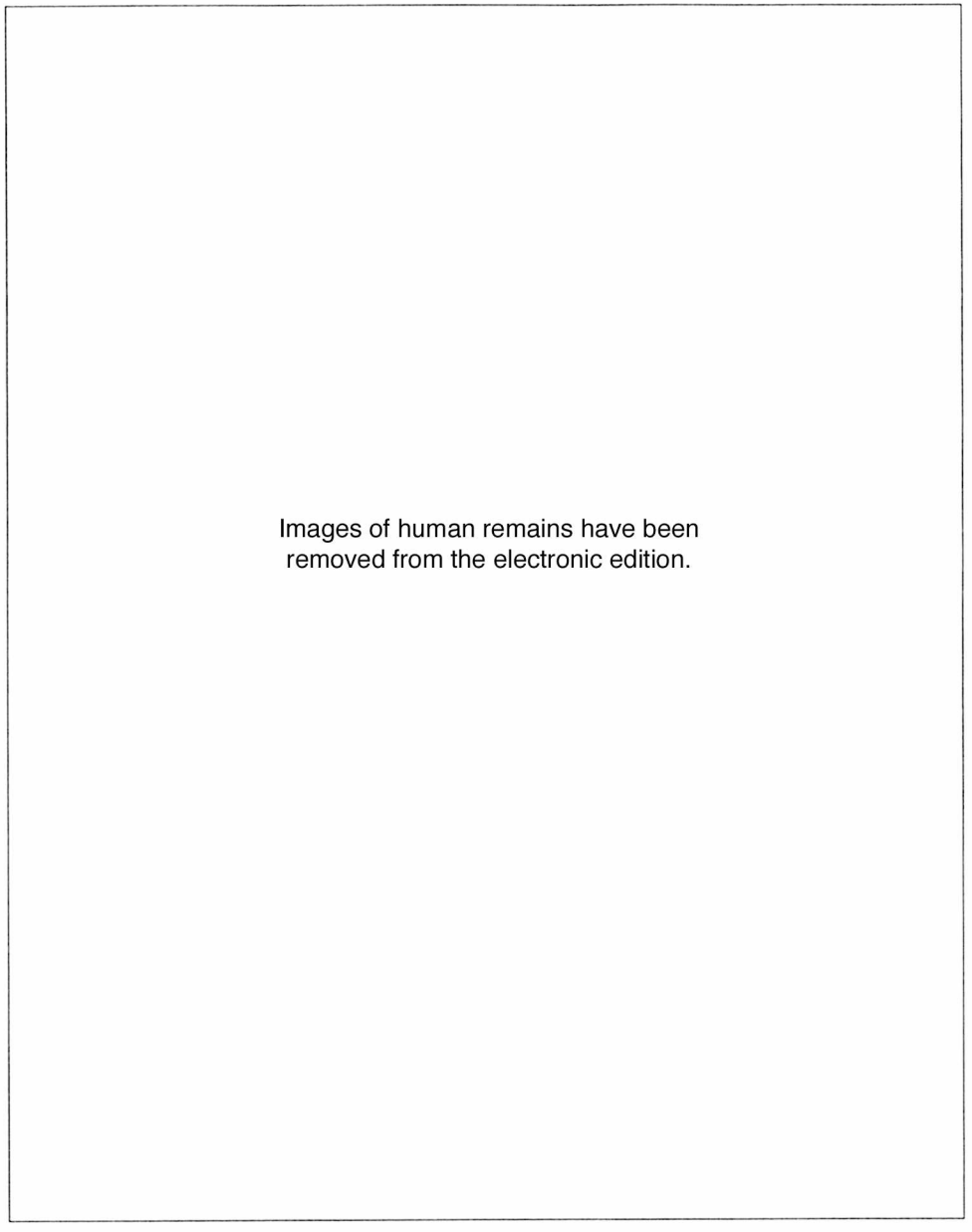


Figure 5

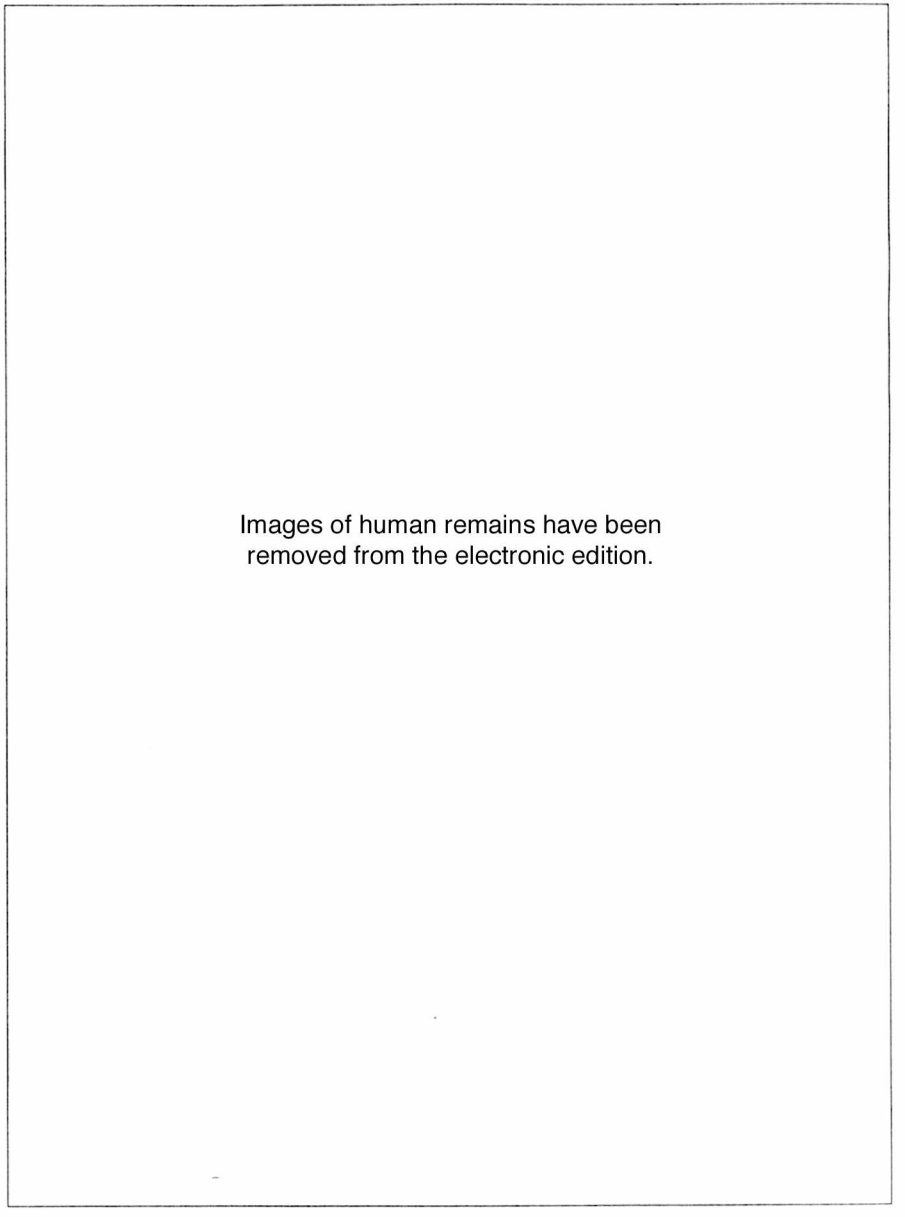


Figure 6

Figures 5-14. Ipiutak, male. Skulls from burials 21, 38A, 41A, 46, 49, 68, 78, 89B, 108, 114.

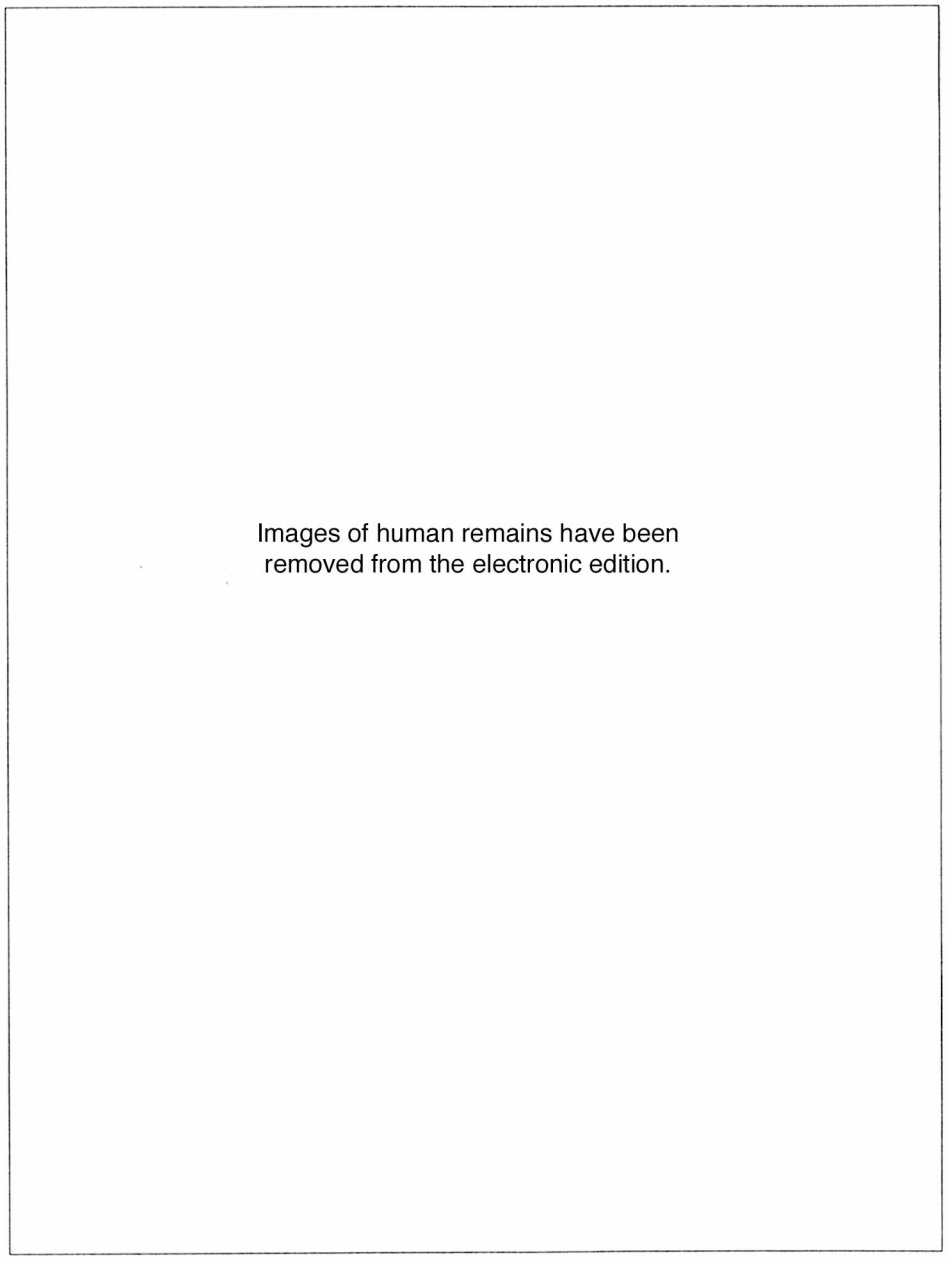


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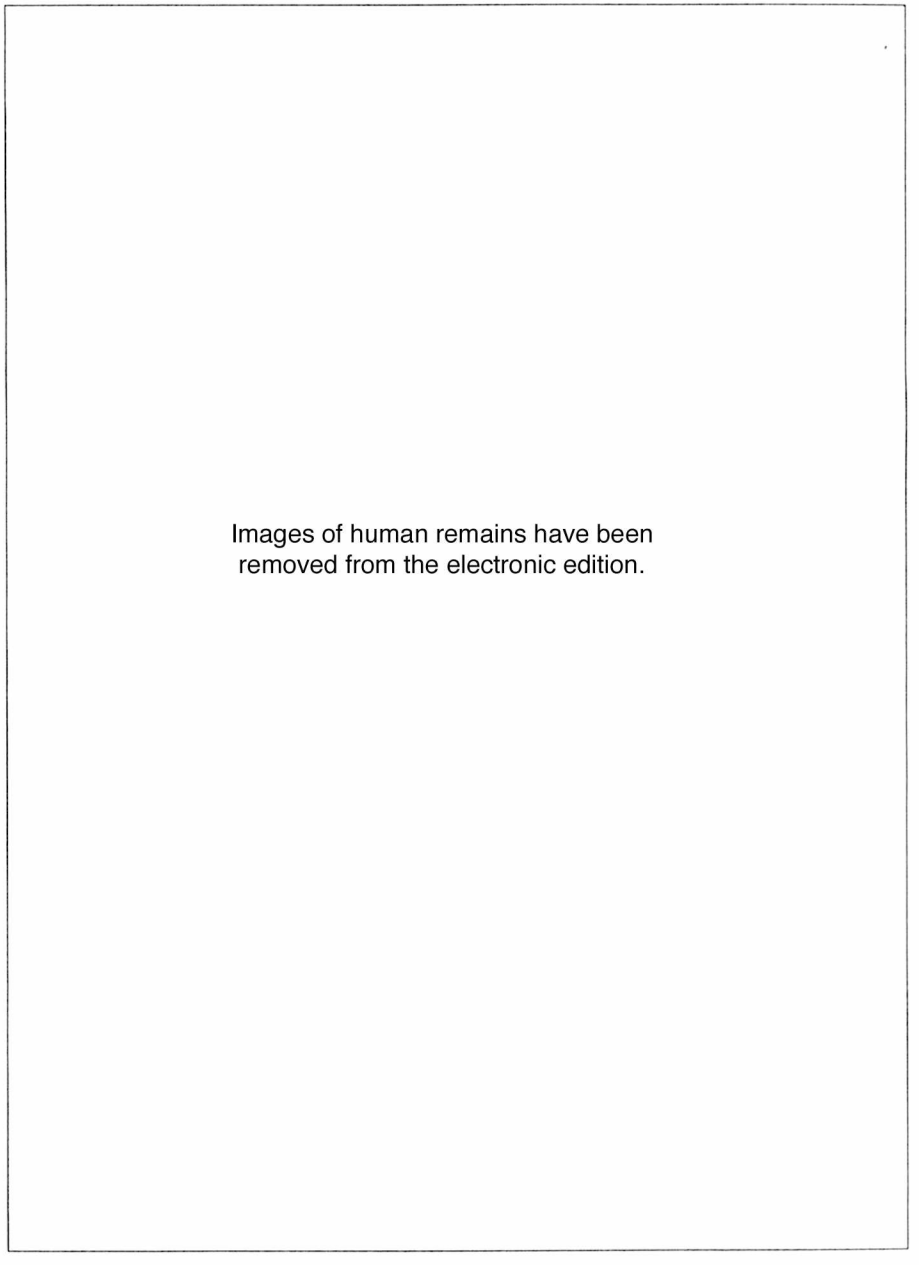


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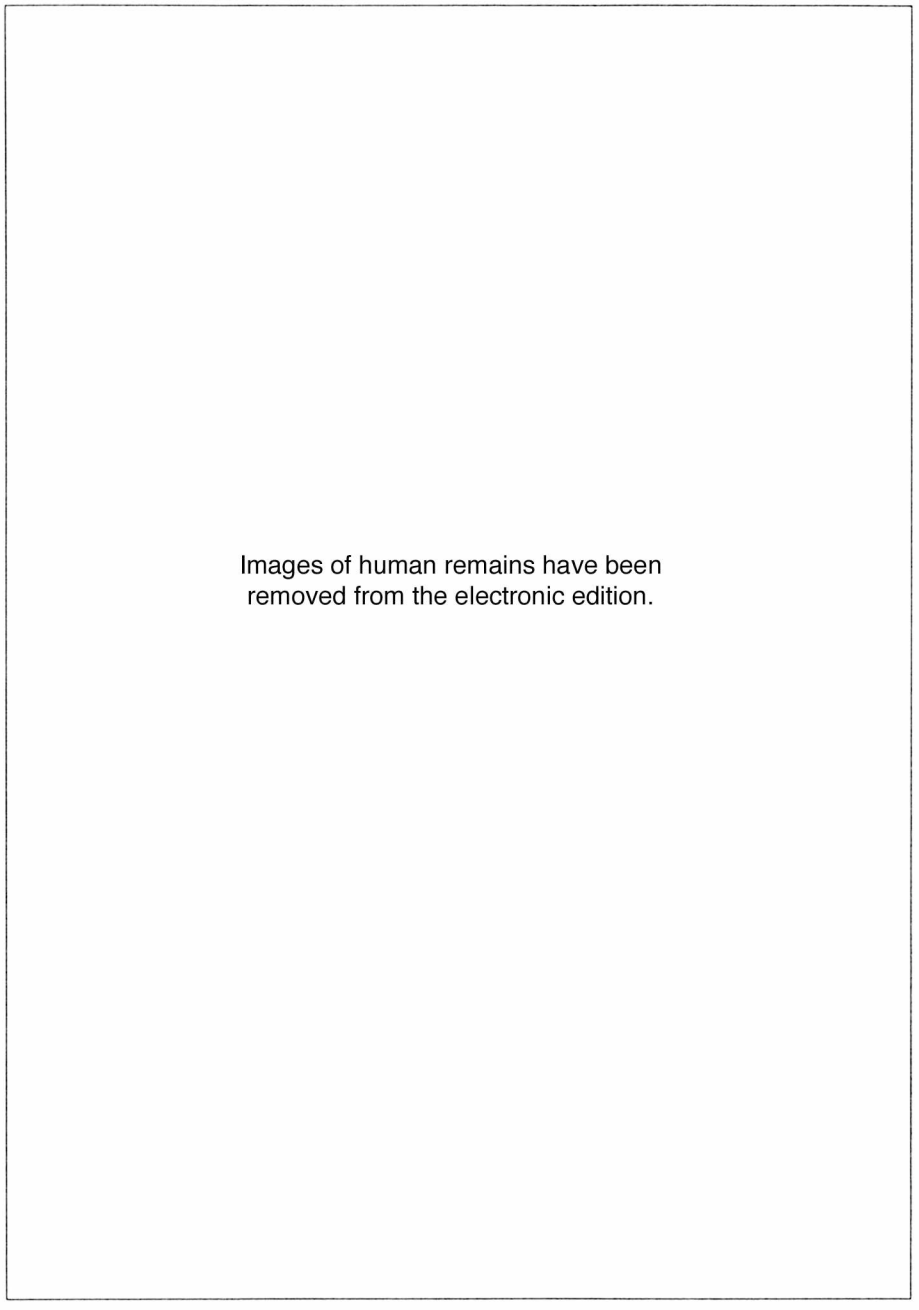


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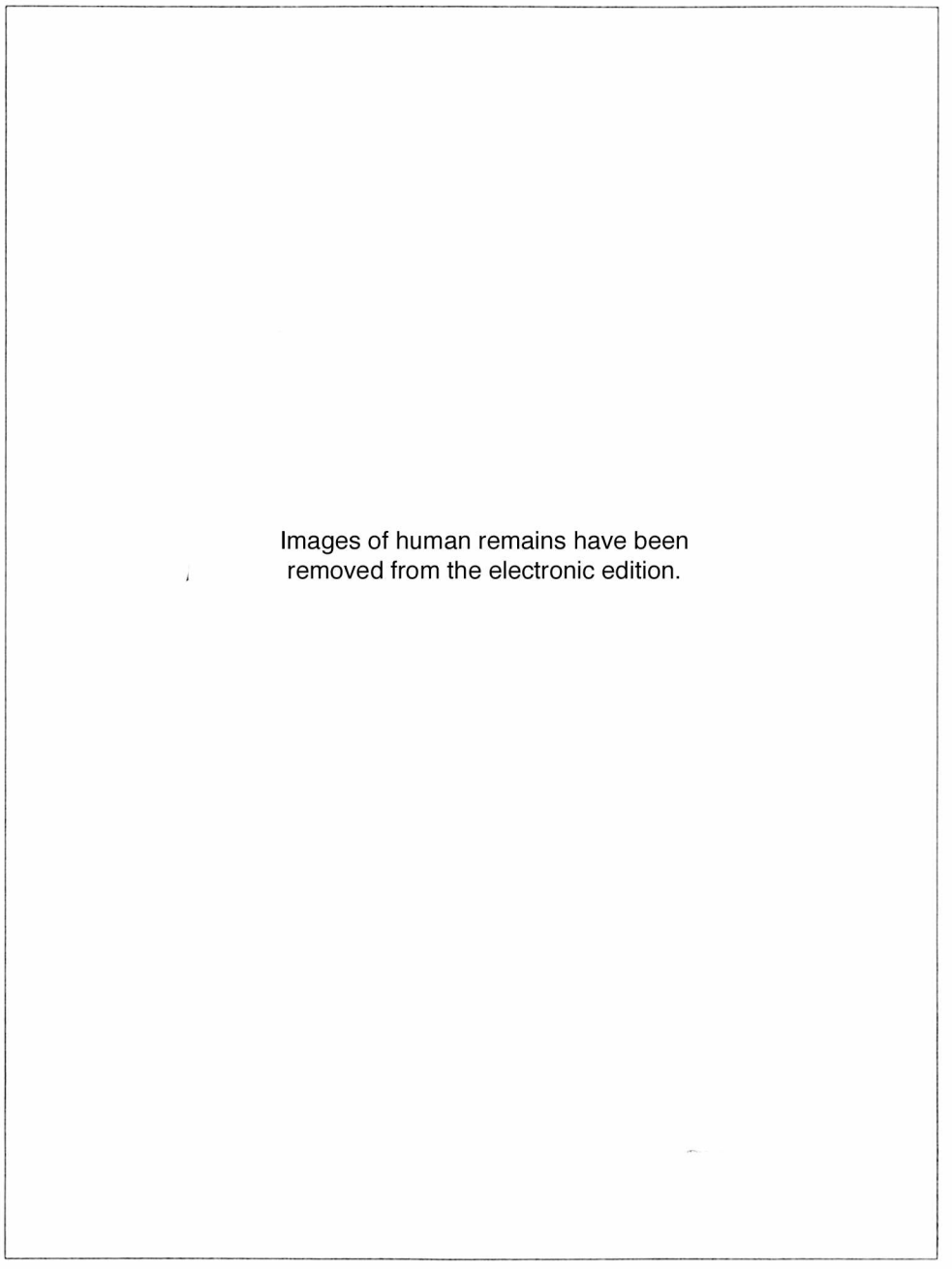


Figure 10

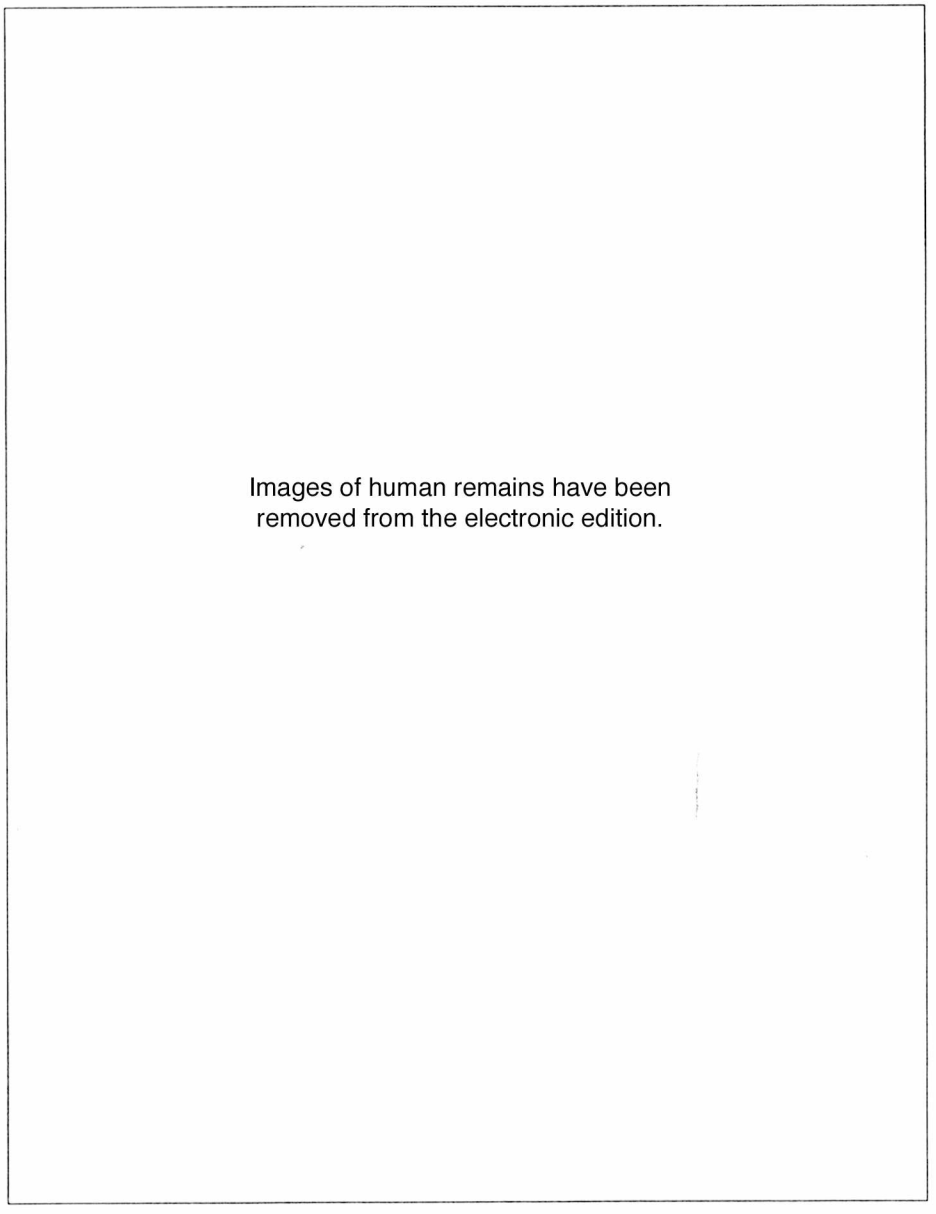


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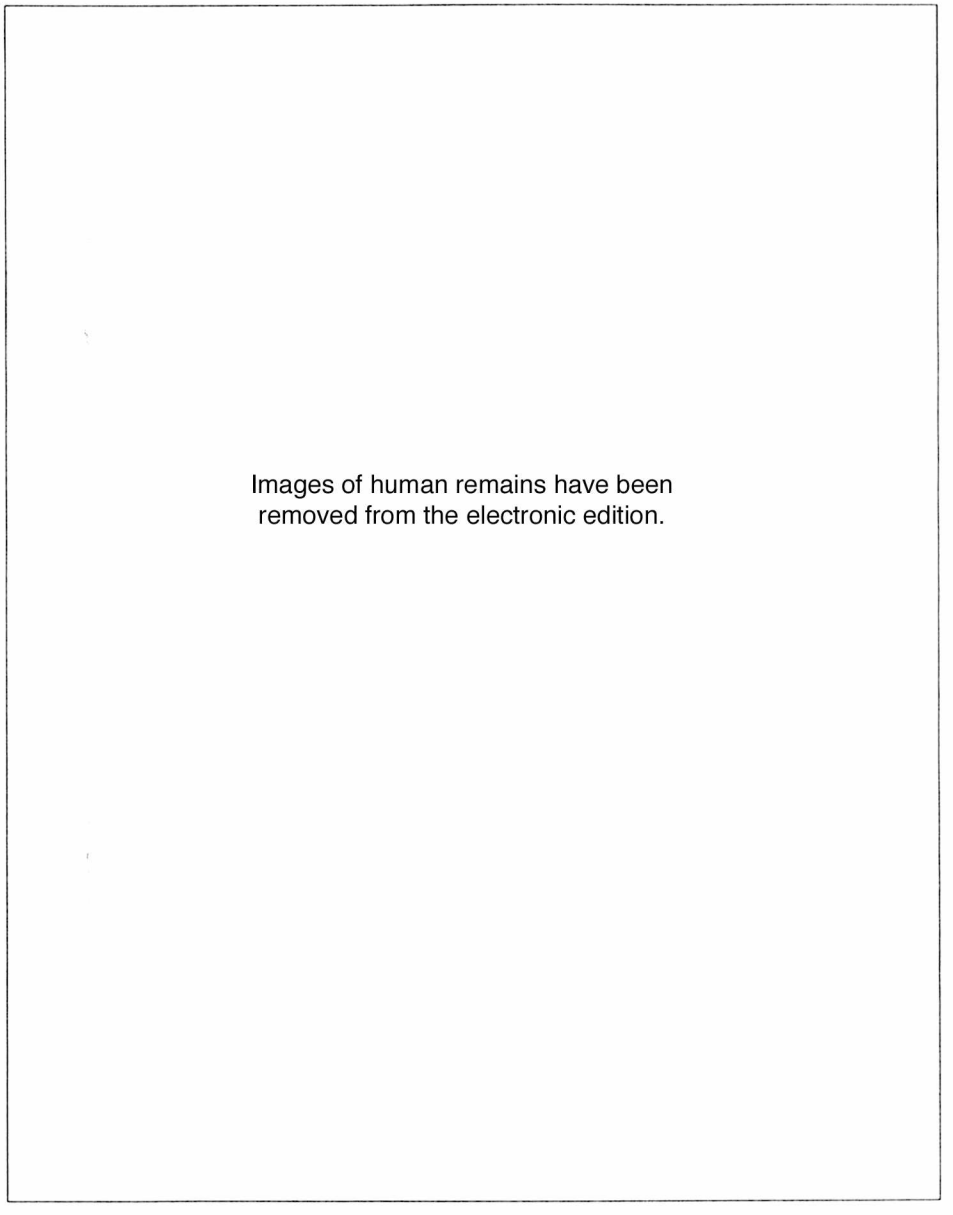


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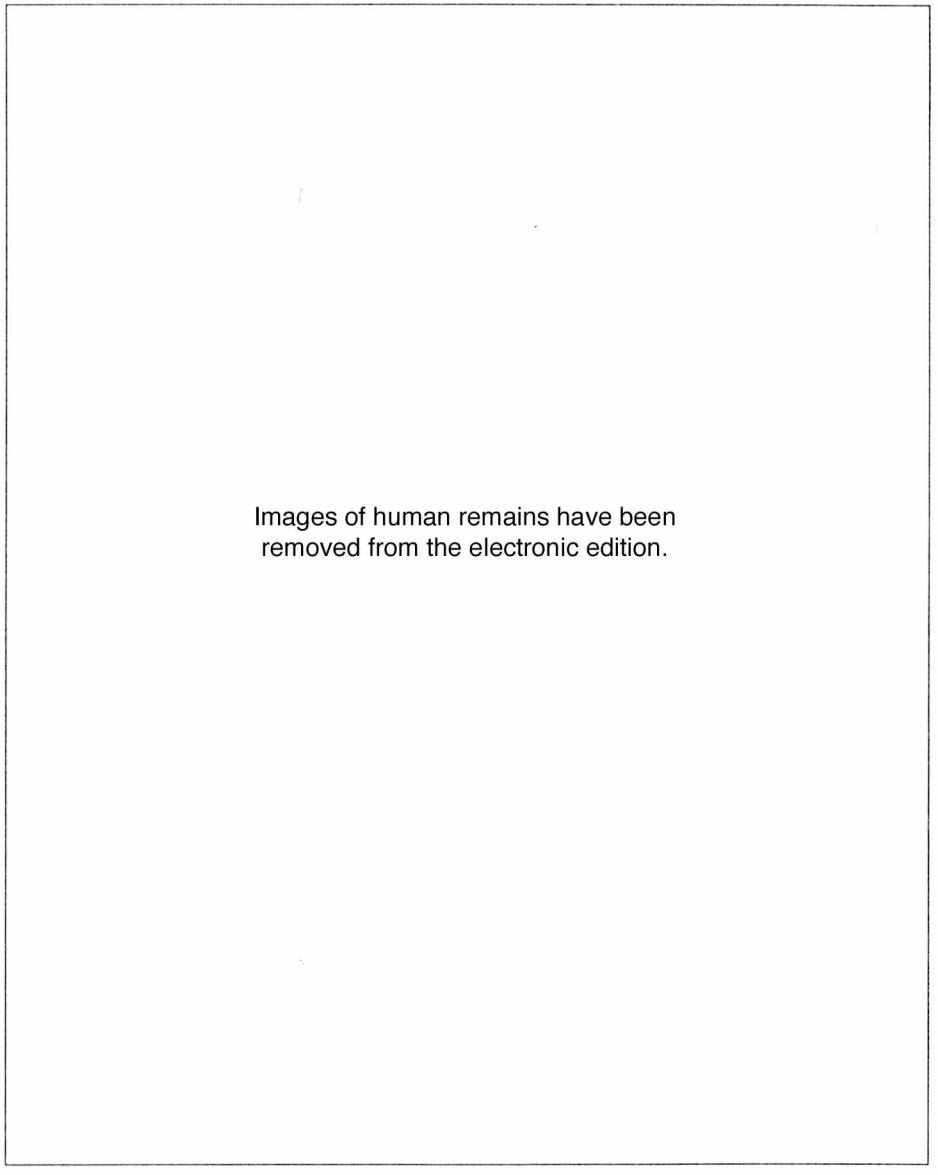


Figure 13

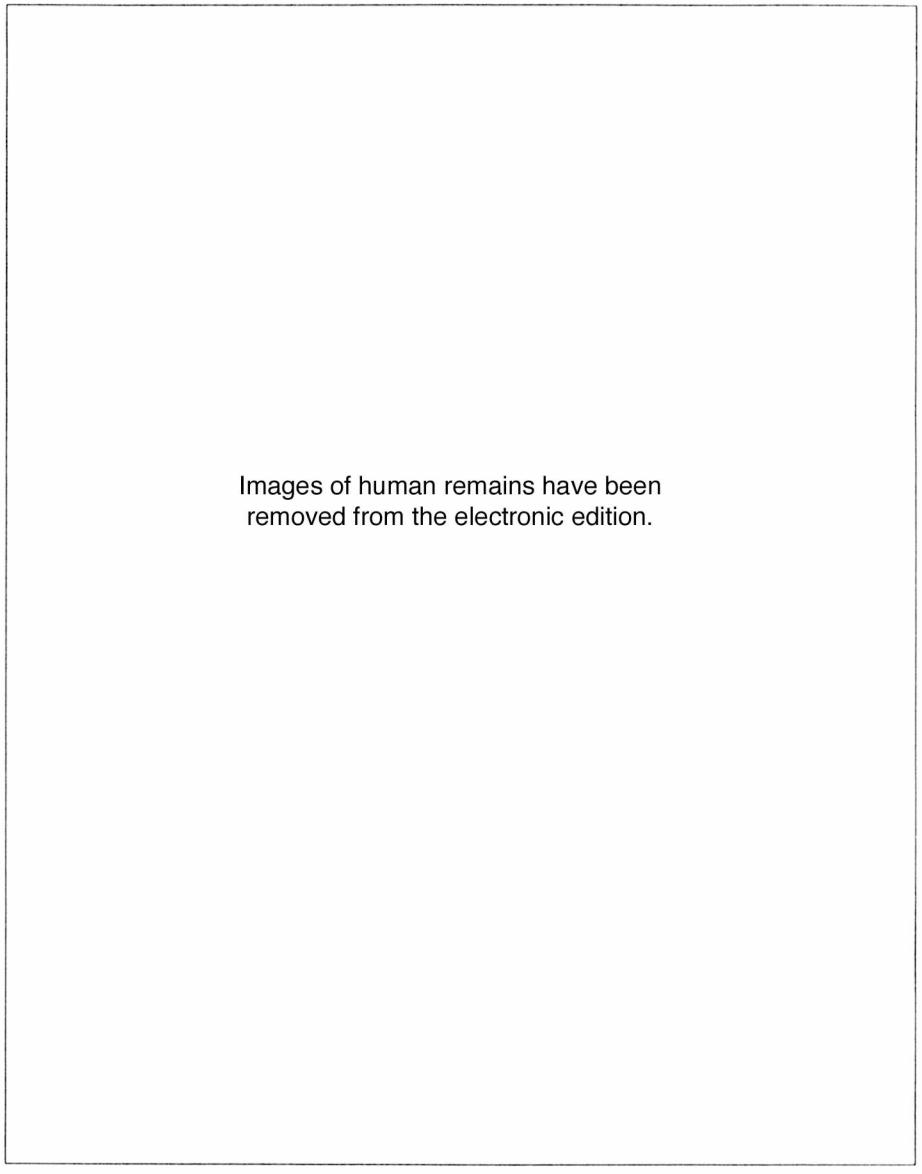


Figure 14



Figure 15

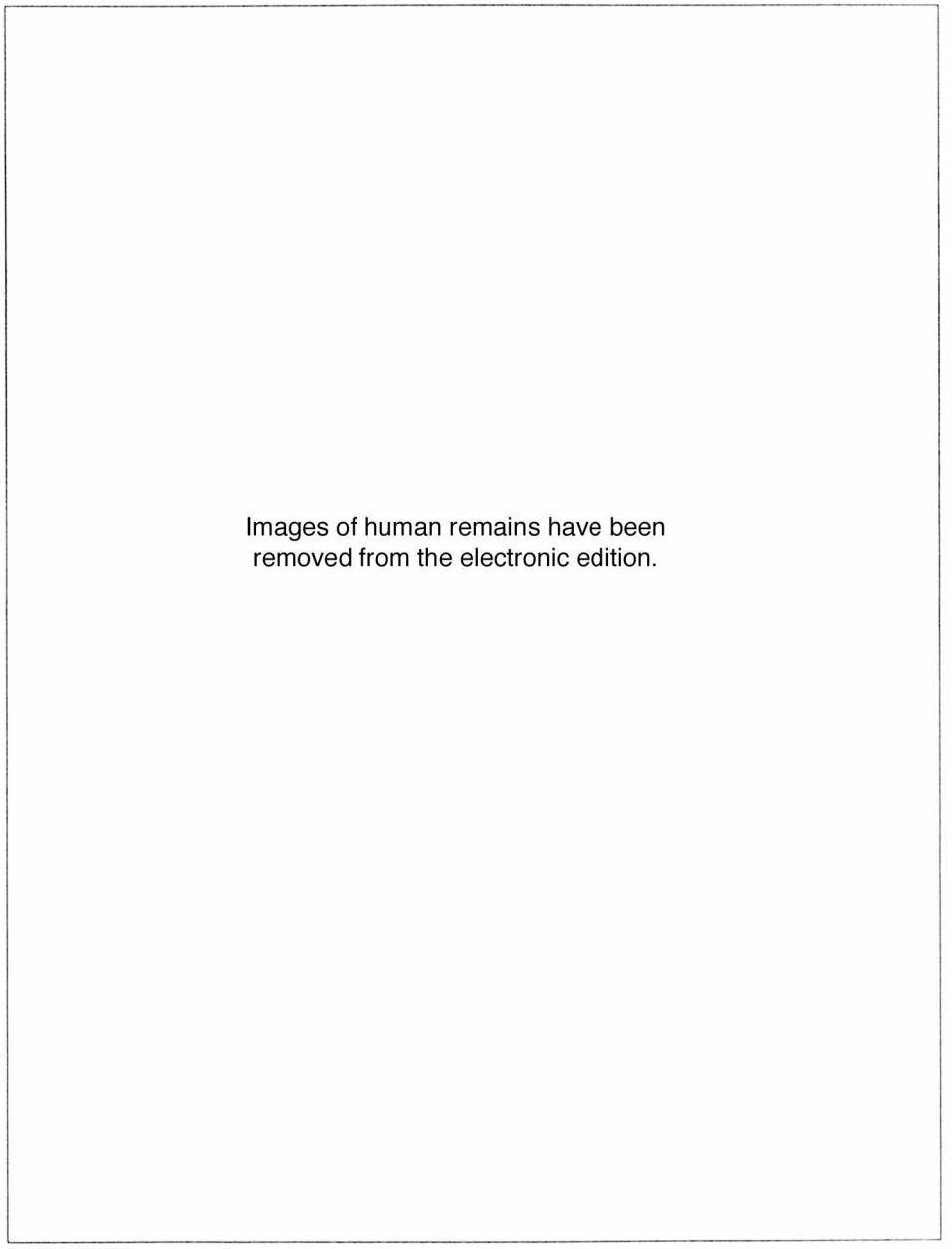


Figure 16

Figures 15-19. Ipiutak, female skulls from burials 53, 61B, 77B, 120, 124.

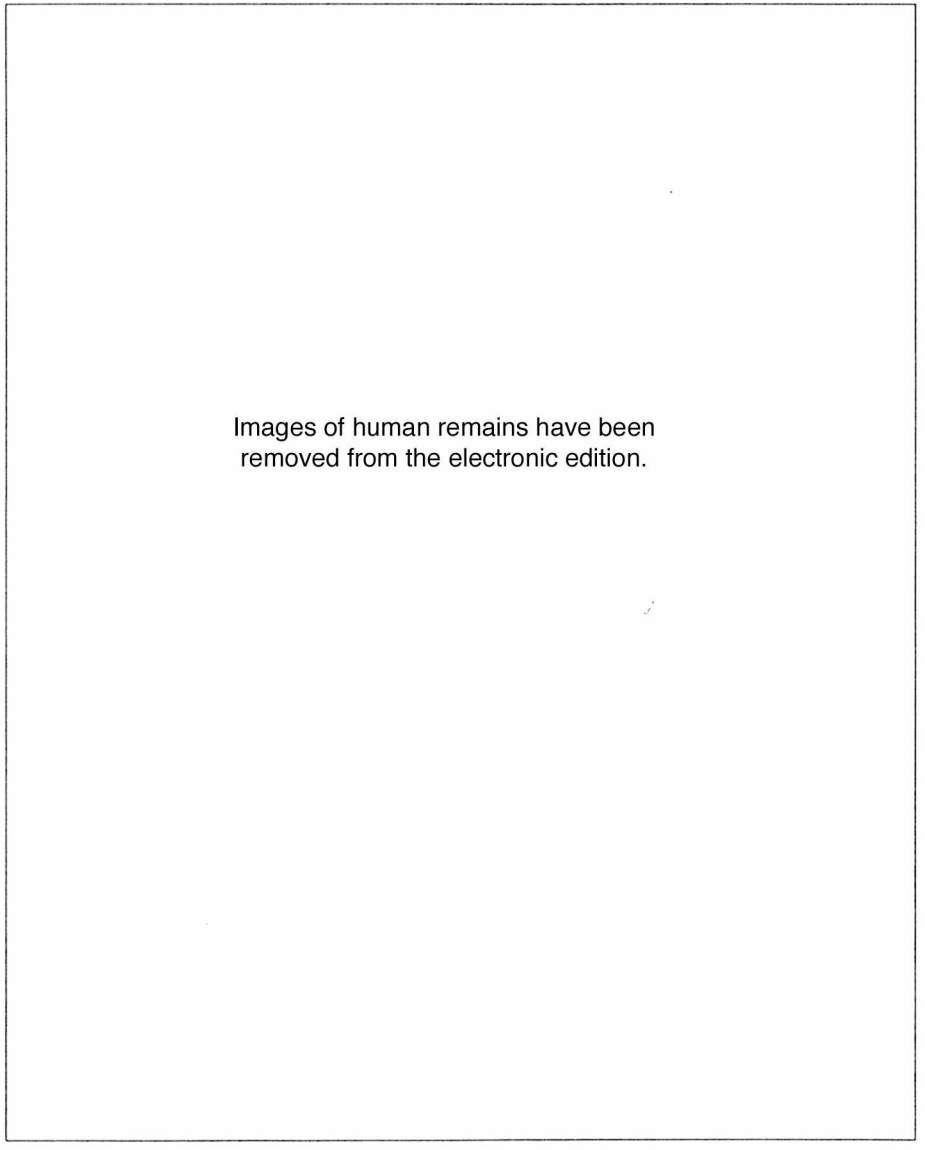


Figure 17

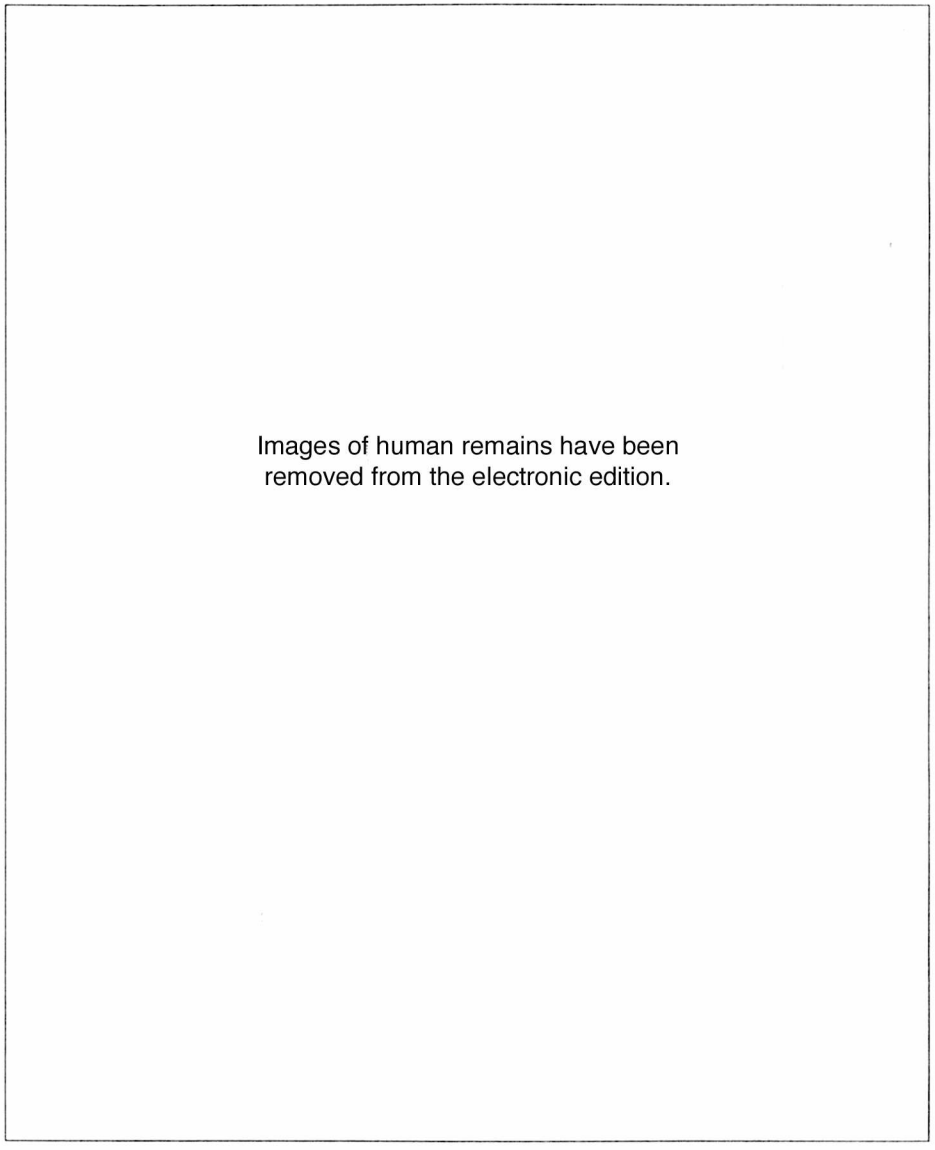


Figure 18

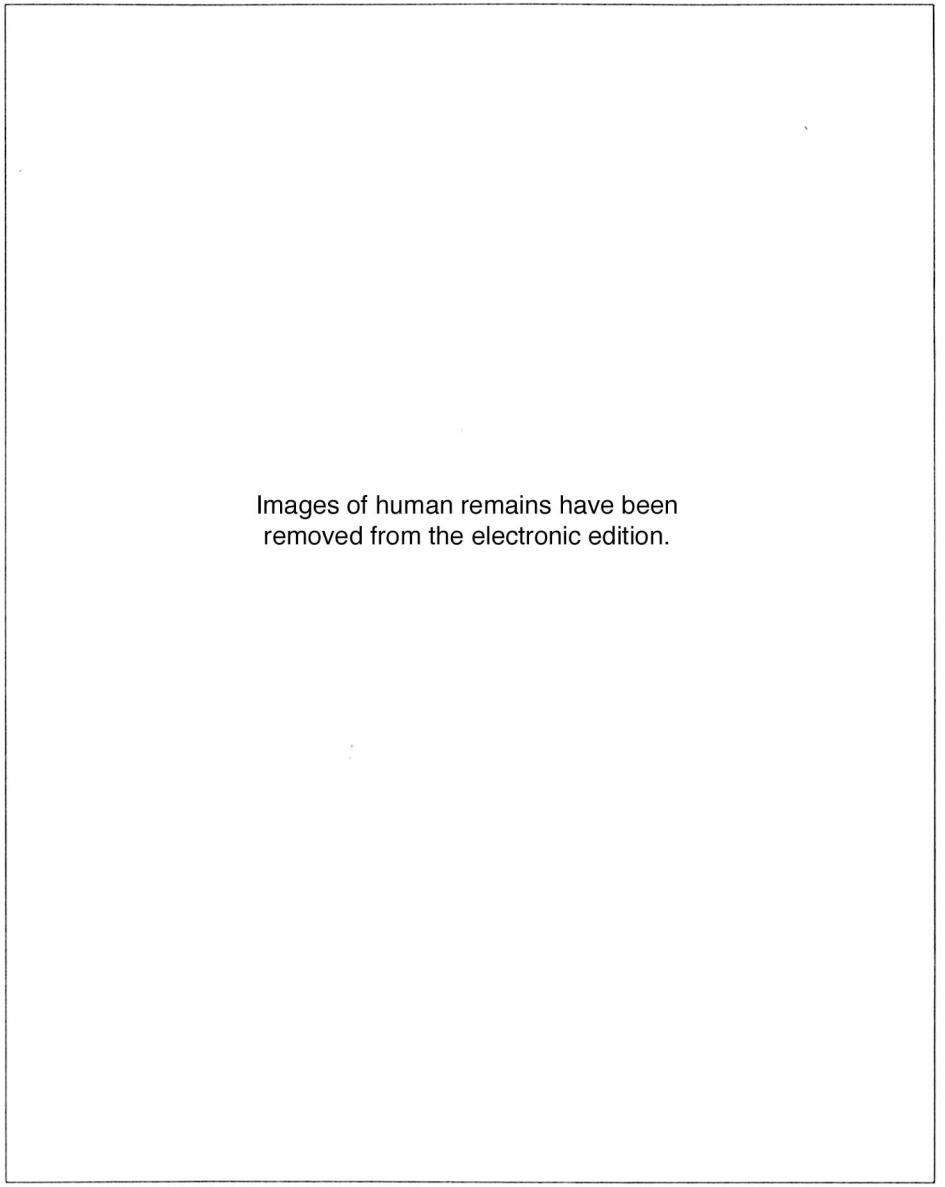

Images of human remains have been
removed from the electronic edition.

Figure 19

CRANIAL VARIATION IN MAN

SHORT NAMES IN ALPHABETICAL ORDER

ASB = Biasterionic Breadth
AUB = Biauricular Breadth
AVR = M1 Alveolus Radius
BAA = Basion Angle, na-pr
BBA = Basion Angle, na-br
BBH = Basion-Bregma Height
BNL = Basion-Nasion Length
BPL = Basion-Prosthion Length
DKA = Dacryal Angle
DKB = Interorbital Breadth
DKR = Dacryon Radius
DKS = Dacryon Subtense
EKB = Biorbital Breadth
EKR = Ectoconchion Radius
FMB = Bifrontal Breadth
FMR = Frontomalare Radius
FOL = Foramen Magnum Length
FRA = Frontal Angle
FRC = Nasion-Bregma Chord
FRF = Nasion-Subtense Fraction
FRS = Nasion-Bregma Subtense
GLS = Glabella Projection
GOL = Glabello-Occipital Length
IML = Malar Length Inferior
JUB = Bijugal Breadth
MAB = Palate Breadth
MDB = Mastoid Width
MDH = Mastoid Height
MLS = Malar Subtense
NAA = Nasion Angle, ba-pr
NAR = Nasion Radius
NAS = Nasio-Frontal Subtense
NBA = Nasion Angle, ba-br
NDA = Naso-Dacryal Angle
NDS = Naso-Dacryal Subtense
NFA = Nasio-Frontal Angle
NLB = Nasal Breadth
NLH = Nasal Height
NOL = Nasio-Occipital Length
NPH = Nasion-Prosthion Height
OBB = Orbit Breadth Left
OBH = Orbit Height Left
OCA = Occipital Angle
OCC = Lambda-Opisthion Chord
OCF = Lambda-Subtense Fraction
OCS = Lambda-Opisthion Subtense
PAA = Parietal Angle
PAC = Bregma-Lambda Chord
PAF = Bregma-Subtense Fraction
PAS = Bregma-Lambda Subtense
PRA = Prosthion Angle, na-ba
PRR = Prosthion Radius
SIA = Simotic Angle
SIS = Simotic Subtense
SOS = Supraorbital Projection
SSA = Zygomaxillare Angle
SSR = Subspinale Radius
SSS = Zygomaxillary Subtense
STB = Bistephanic Breadth
VRR = Vertex Radius
WCB = Minimum Cranial Breadth
WMH = Cheek Height
WNB = Simotic Chord
XCB = Maximum Cranial Breadth
XFB = Maximum Frontal Breadth
XML = Malar Length Maximum
ZMB = Bimaxillary Breadth
ZMR = Zygomaxillare Radius
ZOR = Zygoorbitale Radius
ZYB = Bizygomatic Breadth

(Howells 1973:162)

Inv. No. AMNH coll. 99.1	Burial No.	Sex	Age	1. NOL	1b. GOL	8. XCB	17. BBH	20. BPH	5. BNL	9. WFB	10. XFB	11. AUB	12. OCB+	7. FOL	16. FOB*
660	B7 I	♂?	mat.	I90	I86	I39	I42	II9	I06	90	II4	I27	I08	37	3I
205	I27	♂?	sen.	I86	I84	I4I	I34	II2	I05	94	II4±2	I30	II0	37,0	30,6
209	II6	♂	sen.	I84±I	–	I45	I39	I2I	I0I±2	98	II8	I3I	II4	39.0	30,7
I96	II4	♂?	ad.	I77	I75	I35	I25	I08	94	87	I04	I20	I05	37,6	27.6
208	II3	♂?	sen.	–	–	–	–	–	–	–	–	–	II2	–	–
I94	I08	♂?	sen.	I79	I76	I35	I27	II0	96	9I	III±I	I25	II0	37,9	28.5
2II	I07A	♂?	ad.	I77	I76	I35	I28	III	96	88	I08	I23	I07	36.5	28.I
I8I	89B	♂?	mat.	I84	I82	I38	I27	II0	I02	94	II5	I30	I06	37,I	29.3
I69	78	♂?	sen.	I75	I74	I34	I32	II2	I03	9I	II6	I24	I05	33,5	27,I
I66	77A	♂?	mat.	I84	I8I	I37	I30	II0	I04	83	I07	I3I	III	40.0	34.0
I65	76	♂?	mat.	I78	I75	I35	I30	II4	98	–	II8	I25	I05	3I.5	25,8
I63	75	♂?	sen.	I82	I80	I38	I37	II5	I00	96	II3	I3I	I07	38.4	30.9
I6I	68	♂?	mat.	I90	I89	I40	I37	II3	I08	I00	II3	I30	I09	34,5	29.5
I09	6I	♂?	ad.	I8I	I80	I35	I36	II2	I05	96	II4	I3I	I05	–	–
I07	69	♂	sen.	I8I	I79	I38	I25	I06	I0I	95	II0	I29	II2	38,9	28.6
I05	56	♂?	ad.	I79	I76	I40	I35	III	I03	93	II2	I27	I09	35.8	3I.I
I03	53A	♂?	mat.	I8I	I79	I46	I3I	II0	99	9I	II3	I32	II3	35.5	32.9
I00	5I	♂?	ad.	I78	I78	I4I	I29	I09	99	97	II8±2	I30	I08	–	–
98	49	♂	ad.	I93	I90	I39	I32	II7	I04	95	II3	I28	III	33.4	28.I
97	48	♂?	sen.	I85	I84	I4I	I37	II4	I00	98	II8	I34	I06	38.8	32.0
96A	46	♂?	mat.	I80	I76	I33	I36	II3	I05	97	III	I26	I03	37.0	34.2
94	44	♂?	ad.	I82	I82	I46	I36	II6	I02	96	II5	I3I	II3	39.3	34.2
9IA	4IA	♂?	mat.	I85	I85	I46	I38	II6	I08	I0I	I2I	I35	II2	36.8	33.3
90	39	♂	mat.	I88	I83	I39	I34	II4	I02	96	II7	I26	II3	–	–
89C	38A	♂?	ad.	I82	I79	I38	I35	II3	I00	95	II6	I25	I09	–	–
89B	38	♂?	mat.	I84	I79	I43	I30	II2	I02	95	II5	I28	II0	35.I	32.7
87	36	♂?	mat.	I85	I82	I37	I35	II4	I07	97	II6	I29	II0	36.2	28.8
84A	33	♂?	ad.	I76	I73	I37	I32	II4	I05	94	II2	I28	II2	35,0	3I.6
80	29	♂?	mat	I78	I76	I37	I28	III	I02	98	II8	I3I	I04	–	–
77	24	♂	mat	I86	I85	I4I	–	II6	–	I05	I20	I34	II6	–	–
75A	2I	♂	ad.	I82	I80	I47	I35	II6	I0I	I02	I20	I32	III	35.0	29.4
72	I6	♂	mat	I83	I8I	I36	I35	II3	I04	92	II0	I25	I07	35.6	27.9
I92[x]	I03A	♂	mat	I88	I85	I44	I32	II4	99	I02	I24	I36	I05	40.0	29.8
I83[x]	86	♂?	sen	I80	I78	I35	I32	II0	I02	94	II5	I26	I06	–	–
6I[x]	4XXXX	♂	sen.	I87	I85	I37	I36	II6	I0I	86	II8	I29	II5	43.7	39.0
60[x]	3	♂	mat.	I8I	I80	I44	I34	II3	I0I	95	II5	I33	II7	37.2	3I.I
59B[x]	I	♂	mat	–	–	–	–	–	–	–	–	–	–	–	–
I79[xx]	88	♂?	mat	–	–	–	–	–	–	–	–	–	–	–	–
I82[xx]	II	♂?	mat.	I87	I84	I38	I34	III	I07	99	II5	I28	II0	37,6	28.0

23a. Horiz.circ. through ophr	24. Transverse arc	25. Sagittal arc	26. FRK	27. PAK	28. OCK	29. FRC	30. PAC	31. OCC	31(1). Lambda-inion chord	31(2). Inion-opisthion chord	GLS	45. ZYB	40. BPL	48. NPH	47. Full height of face
5I9	3I2	37I	I28	II3	I30	II2	I04	I04	64	64	24	I38	I02	82	I24
5I8	302	364	I23	II6	I25	I08	I05	I02	72	47	24	I39	–	–	–
522	3I9	366	I25	I30	III	III	II5	93	69	37	24	I38	I04±I	79±2	I27±2
490	290	348	II8	II8	II2	I05	I07	92	66	38	23	I28	97	70	II4
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
500	292	355	I25	I05	I25	I09	96	97	74	45	24	I34	93	74	I23
496	295	363	I2I	I25	II7	I06	II2	97	66	45	25	I29±I	95±I	70±I	–
5II	295	355	I23	II3	II9	I09	I0I	97	75	34	25	I36	I0I	68	II6±2
498	297	343	I24	III	I08	I09	I02	88	57	45	25	I35	98	76	II6
5II	295	360	I23	II8	II9	II0	I05	I00	68	43	23	I40	I00	79	I32
495	304	362	I22	I33	I07	I07	II7	89	54	49	22	I36	–	–	II5±3
508	303	363	I26	I27	II0	II2	II5	92	54	5I	26	I4I	92	76	I25±3
524	308	370	I26	I25	II9	I09	II0	96	67	47	25	I4I	I06	78	I27
504	299	–	I25	I20	–	I06	I09	–	–	–	24	I39	I00±I	77	I25
505	284	349	II7	II5	II7	I06	I04	95	6I	49	22	–	99±I	73±I	II3±3
506	305	358	I27	I2I	II0	III	I08	92	60	42	23	I39	I0I	74	I22
5I0	308	359	I20	I06	I33	I06	98	I03	72	52	24	I38	92	75	I24
509	302	–	II9	I25	–	I04	III	–	–	–	25	I35	94	75	I20
530	3I2	385	I32	I35	II8	II4	I22	96	64	48	27	I34	99	77	I26
522	3I0	373	I28	I37	I08	III	II6	96	58	56	25	I43	97±2	72±I	I22
497	300	356	I27	I20	I09	II3	I09	92	62	4I	23	I34	98	75	I26
520	3I2	364	I23	I3I	II0	I09	II5	93	63	4I	24	I37	99	8I	I27
527	3I5	367	I39	II8	II0	I20	I08	93	60	44	30	I46	I06	82	I3I
5I5	302	–	I33	II0	–	II7	I02	–	–	–	27	I35	96±I	76±I	I25±3
5I5	302	359	I25	I28	I06	II3	II6	90	68	33	23	I34	98	80	I29
5I3	304	363	I27	II7	II9	II4	I08	97	6I	5I	23	I35	96	80	I30
5I6	3I0	36I	I28	I20	II3	II2	I08	92	67	39	25	I38	I00±	80±I	I30±2
492	302	344	I23	II3	I08	III	I02	90	6I	42	22	I36±2	I03	78	I28
498	300	–	I20	II7	–	I05	I05	–	–	–	25	I38	I04	77	I28
527	3I0	–	I28	I39	–	II8	I20	–	–	–	24	I47	–	8I	I30
520	320	37I	I26	I33	II2	III	II8	98	64	45	25	I40	98	8I	I3I
505	300	36I	I30	II5	II6	II5	I03	92	66	43	25	I33	99	78	–
529	3II	378	I33	II9	I26	II7	I07	I0I	70	50	26	I54	94	76±I	I24
503	298	360	I25	II5	I20	II0	I05	95	70	4I	27	I33	98	73	–
525	304	373	I20	I25	I28	I07	II4	I07	72	49	22	I36	I03	75	I22
5I0	308	364	I28	I06	I30	III	98	I06	76	46	28	I38	96	69±2	–
–	–	–	–	II2	–	–	I02	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
5I4	303	357	I26	I2I	II0	II2	I09	9I	56	46	25	I39	I03	74	II7

Table 1. Individual measurements of male skulls from the Ipiutak burial site.

Burial number	43. fmt-fmt	46. Medial width of face	60. MAL	61. MAB	62. OSL	63. OSB	55. NLH	54. NLB	51. DUB	51a. OBB	52. OBH	DC. Dacryal chord	DS. Dacryal height	MC. Maxillo-frontal chord
BJ I	I05	I06	56	68	48.8	43.8	57	22.4	48.0	44.2	35.I	I7.5	7.4	I5.7
I27	-	-	-	-	-	-	-	-	-	-	-	-	-	-
II6	I06	I05	-	-	-	-	-	-	42	-	35	-	-	-
II4	I02	I05	49	63	43,6	40,3	53	22.I	42.9	38.9	33.0	I9.0	II.0	I6.5
II3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
I08	I04	I0I	5I	63	44,9	39.8	55	25.5	42.5	39.3	38.I	I8.8	9.4	I8.0
I07A	I04	97	-	-	-	-	50	22.2	(40.5)	-	(35.8)	-	-	I9.6
89B	I07	I07	52	67	46.4	45.I	48	27.0	4I.6	39.0	32.0	2I.9	I0.0	20.9
78	I03	97	52	66	46.I	45.I	55	23.3	42.0	39.8	36.2	I8.9	8.0	I6.2
77A	I06	I05	54	68	46.7	42.I	59	22.5	44.5	43.0	38.2	I5.8	7.I	I7.I
76	-	I05	-	67	-	4I.7	-	-	4I.0	-	34.6	-	-	-
75	I09	I02	55	6I	45±I	39±I	54	23.7	44.0	4I.0	33.8	20.6	9.2	I9.0
68	II3	II5	55	65	50.7	40.I	56	24.0	45.0	4I.5	35.I	24.5	II.8	22.9
6I	II0	I04	-	-	-	-	55	24.0	44.I	4I.2	35.6	2I.9	6.8	I8.3
59	II0	-	-	-	-	-	-	-	-	-	-	-	-	-
55	I04	98	54	66	48.4	40.9	52	23.0	42.0	-	36.5	-	-	I7.3
53A	I03	I03	50	67	44.9	43.I	55	25.5	42.4	-	37.2	I8.4	7.8	I7.7
5I	I07	I02	5I	63	45.5	39.8	52	20.4	42.5	40.0	36.3	-	-	-
49	I06	98	54	6I	49.8	40.0	53	24.I	42.9	40.9	36.0	20.I	8,5	I7.I
48	II0	I05	-	-	-	-	50	26.7	42.0	39.4	33.0	-	-	22.9
46	I07	I0I	54	65	47.7	40.0	56	22.I	44.0	4I.4	35.0	2I.6	II.5	I9.2
44	I03	I0I	53	69	46.8	43.5	57	24.4	4I.4	39.6	35.9	-	-	I8.3
4IA	II2	98	60	69	52.0	44.5	57	25.9	46.7	42.2	37.3	25.7	II.0	I8.9
39	I05	-	-	-	-	-	57	22.6	(43.0)	(40.2)	(4I.2)	-	-	I7.7
38A	I07	96	55	68	47.5	42.5	55	26,3	4I.8	39.4	34.9	20.8	8.8	I8.7
38	I07	I09	54	70	46.3	45.9	57	23.9	44.7	4I.8	38.5	20.6	8.6	I8.0
36	I06	I03	-	-	-	-	56	22.8	46.5	44.5	36.0	20.8	9.0	I8.5
33	I08	I03	-	-	-	-	58	27.3	44.4	42.3	37.5	-	-	20.5
29	I09	I03	56	68	49	45	54	26.7	44.2	-	34.8	-	-	20.0
24	II6	I07	57	65±2	50	43	56	26,5	48,I	45.6	4I.4	2I.5	9.6	I9.I
2I	I09	I00	54	66	49.5	42.0	56	26.2	45.7	43.4	35.3	I9.6	9.9	I8.I
I6	I06	98	52	68	44.I	42.4	59	25.4	4I.6	40.I	35.3	I7.0	8.9	I6.7
I03A	II7	II0	53	67	44.9	43.8	56	24.I	46.I	43.0	37.0	22.5	8,5	I9.8
86	I05	-	-	-	-	-	54	22.2	42.0	40.6	38.6	I7.0	8.5	I7.0
4ADD.	I04	98	59	67	49.7	45.4	56	2I.9	44.8	42.8	36,0	I8.4	6.8	I2.7
3	I07	I02	50	65	46.I	39.0	52	25.I	43.2	4I.9	38.0	I9.6	9.3	I6.0
I	-	-	-	-	-	-	-	-	-	-	-	-	-	-
88	-	-	-	-	-	-	-	-	-	-	-	-	-	-
II	III	I04	53	68	46.0	43.5	56	26.5	44.9	4I.8	33.6	22.0	9.5	I8.8

MS. Maxillo-frontal height	SC. WNB	SS. WNH	Bimalar chord fmo-fmo	Height n over chord fmo-fmo	Zygo-maxillary chord zm1-zm1	Height of ssp over chord zm1-zm1	Depth canine recess	Mandible: 65. Condylar breadth	66. Angular breath	68. Length of angles	68(1). Length of condyle	70. Height of ramus	71a. Breadth of ramus	67. Front width	69. Height of symphesis	69(1). Body height	69(3). Body thickness
2.8	3.3	I.2	99	I4	I04	22	7.0	II8	I26	74	I09	54	39	45	38	3I	9
-	-	-	-	-	-	-	-	II6	II0	77	III	53	36	43	-	-	II
-	-	-	-	-	I03	24	-	I22	II7	86	II9	58	43	47	38	36	I2
5.0	5.8	2,4	I04	I6	I03	23	6.0	II0	I02	84	II0	55	40	44	34	30	II
-	-	-	-	-	-	-	-	-	I00	77	I08	53	38	44	36	34	II
5.9	9.0	2.4	I05	I3	99	I4	7.0	II5	I05	79	II2	5I	36	44	33	32	I2
5.9	I0.4	3.3	96	I5	95	I8	5.5	-	-	-	-	-	-	-	-	-	-
6.0	7.2	3.I	97	I6	I06	2I	4.3	II7	I07	80	I05	5I	38	46	34	30	I2
4.7	5.9	2.9	95	II	97	I8	7.I	II9	I09	8I	I08	47	35	47	33	29	I2
4.8	4.7	I.8	98	I4	I05	22	6.I	I23	II8	82	II8	63	39	46	37	36	I3
-	-	-	-	-	-	-	-	I2I	II7	82	I08	60	40	45	3I	29	I3
6.0	6.5	3.0	99	I5	I00	23	6.4	I2I	I08	85	II7	50	38	50	37	37	I4
5.9	7.0	2.8	I04	I9	I09	22	5.2	II8	I09	90	I2I	60	46	46	39	35	I4
3.7	8.I	I.3	I04	I4	I05	I9	5.I	I26	II3	8I	III	65	36	46	35	35	I3
-	-	-	I0I	I6	-	-	-	-	II4±I	79	II3±2	52	37	47	38	36	I2
6.5	-	-	99	I5	97	22	6.0	I20	II2	84	I20	55	40	48	35	33	I4
5.5	8.7	2.0	96	I7	I03	I9	6.4	II9	III	78	II2	57	38	49	35	32	I4
-	-	-	97	I5	I09	26	7.3	I2I	I09	75	I03	50	39	45	36	32	II
4.3	4.5	I.5	96	I7	98	I9	5.2	II2	II4	76	III	48	34	45	35	32	I4
3.2	6.0	I.0	I0I	II	I03	I6	2.9	I23	II3	82	I09	60	42	47	37	34	I3
6.9	7.6	3.3	I00	20	I02	26	6.9	II5	I09	84	II2	56	42	44	37	33	I3
4.I	7.4	2.0	96	I4	I0I	25	2.8	II8	99	78	I08	49	39	47	39	3I	I4
6.8	9.4	3.9	I05	I7	99	23	7.7	I30	II4	88	I22	59	39	47	38	-	I2
5.5	6.3	2.3	96	I6	-	-	5.3	II5	I09	8I	I08	55	45	43	35	34	I4
6.3	9.6	3.0	98	I3	94	I8	3.0	I2I	II5	78	II0	58	39	43	38	36	I4
5.I	5.4	2.2	99	I5	I06	2I	6.2	I23	II7	89	II3	60	4I	5I	36	32	I3
5.9	7.5	3.9	99	I7	I04	22	4.7	II9	II3	84	II7	56	36	48	38	37	I3
7.7	I0.2	5.0	I02	I7	I04	I9	4.7	I22	I02	84	II2	60	4I	46	37	34	II
5.4	9.3	2.8	I02	I4	I02	2I	5.6	I34	II6	84	I09	6I	43	45	40	37	I5
4.9	5.0	I.4	I09	I8	I07	I9	4.4	I22	I22	83	II3	63	4I	5I	39	38	I5
6.0	6.0	2.7	I0I	I3	I02	I7	3.3	II8	II4	82	II6	60	40	49	37	34	I4
4.8	3.4	I,6	97	I5	96	2I	5.9	-	II3	83±2	-	-	40	46	37	35	I2
3.9	5.9	I.6	I05	I4	II0	I9	5.I	I33	I25	82	II6	66	37	58	36	33	I3
5.2	5.7	2.6	97	I6	-	-	4.4	-	-	-	-	-	-	-	-	-	-
4.7	2.0	I.I	96	I0	96	22	6.3	I2I	II5	8I	II2	54	35	42	34	3I	9
5.3	6.9	2.7	99	I2	I03	2I	4.0	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	II3	II0	78	I08	56	40	47	36	34	I2
-	-	-	-	-	-	-	-	I20	I09	85	III	53	42	46	38	36	I3
5.0	8.I	I.8	I02	I6	I03	2I	5.8	II8	I02	79	I09	56	4I	45	37	36	I4

Table 1 (continuation).

Burial number	32. Angle of proj. of brow from n	Angle of proj. of brow from gl	33(1). Angle upper part of occiput	33(2). Angle lower part of occiput	33(4).Angle curve of occiput	34. Angle of occipit. foram.	77. Naso-malar angle	Zygo-maxillary angle	72. Total angle of face	73.Angle medial part of face	74.Angle alveolar part of face	75. Angle nasal bone	75(1). Angle projection of nose	79. Angle ramus of mandible	C'. Angle of chin	Supercilliary (along Martina 1-6)
BJ1	78	70	76	33	I09	-	I49	I34	88	90	82	68	20	I37	7I	4
I27	-	-	-	-	II6	-	-	-	-	-	-	-	-	I33	-	2
II6	-	-	98	2I	II9	-7	-	I30	-	-	-	-	-	I30	66	-
II4	79	74	96	26	I22	-5	I46	I32	83	85	75	-	-	I22	65	3
II3	-	-	-	-	-	-	-	-	-	-	-	-	-	I32	67	-
I08	77	70	88	I8	I06	-5	I52	I49	85	90	69	73	I2	I37	66	3
I07A	84	80	94	24	II8	-II	I45	I39	86±	-	-	66	20±2	-	-	3
89B	80	73	92	27	II9	-4	I44	I37	85	88	76	64	2I	I25	76	3
78	8I	72	86	32	II8	+2	I54	I39	88	88	88	7I	I7	I30	63	2
77A	77	70	95	32	I27	-II	I48	I34	86	87	82	65	2I	I26	68	3
76	78	72	96	24	I20	-7	-	-	-	-	-	-	-	I22	69	4
75	82	78	85	26	I2I	-4	I46	I3I	87	90	78	63	24	I3I	60	3
68	83	74	88	25	II3	+5	I40	I36	86	86	86	60	26	I25	69	2
6I	82	75	-	-	-	-	I50	I40	85±2	87±2	76±4	-	-	I2I	72	4
59	76	7I	87	30	II7	-9	I45	-	-	-	-	-	-	-	-	3
55	78	72	98	29	I27	-3	I46	I3I	84	85	80	-	-	I36	64	3
53A	79	75	84	25	I09	+2	I4I	I40	86	88	79	65±2	2I±2	I32	66	2
5I	83	80	-	-	-	-	I46	I29	85	86	82	-	-	I28	75	2
49	80	72	98	I9	II7	-9	I4I	I38	89	9I	84	69±2	20±2	I40	69	3
48	84	76	86	28	II4	-3	I55	I46	85±2	85±2	85±2	-	-	I2I	75	3
46	76	68	95	29	I24	-I	I36	I26	87	87	87	57	30	I24	73	4
44	84	79	94	3I	I25	+4	I47	I27	89	89	89	68	2I	I3I	78	2
4IA	80	7I	94	3I	I25	-I	I44	I30	82	86	7I	59	23	I27	68	4
39	78	73	90	-	-	-	I43	-	84±2	86	76±4	60	24	I23	69	3
38A	77	70	-	-	I23	-	I50	I38	85	90	74	59	26	I29	7I	3
38	75	68	90	29	II9	-9	I46	I37	88	9I	80	67	2I	II6	65	3
36	80	73	90	26	II6	-I	I42	I34	90	92	84	70	20	I3I	63	3
33	76	74	85	35	I20	-2	I43	I40	84	86	78	58±2	26±2	I23	67	2
29	78	72	82	-	-	-	I49	I35	82	84	76	69	I3	II7	76	3
24	74	68	-	-	-	-	I44	I4I	8I	8I	8I	59	22	I22	73	3
2I	8I	75	99	26	I25	-6	I5I	I43	83	84	80	63	20	I28	73	2
I6	76	70	8I	30	III	0	I46	I33	89	9I	85	65	24	-	69	3
I03A	78	70	9I	23	II4	-I6	I50	I42	87	90	78	-	-	I26	54	5
86	77	74	90	25	II5	0	I44	-	82	82	82	59	23	-	-	2
4xxx	79	70	88	33	I2I	-I9	I57	I3I	8I	86	64	-	-	I30	68	3
3	83	78	87	33	I20	-6	I53	I36	84	84	84	60±2	24±2	-	-	2
4	-	-	-	-	-	-	-	-	-	-	-	-	-	I26	76	-
88	-	-	-	-	-	-	-	-	-	-	-	-	-	I24	66	-
II	78	72	90	34	I24	+3	I45	I3€	87	89	78	7I	I6	I27	7I	3

Mammiform appendix (1-3)	Thickness pars tympanica, MM	Transvers profile of spine of nose (0-2)	Lower edge of pyriform foramen	Frontal-nasal barb (1-5)	Norma occipit. (lat. sides/vault)	Sinus sagittalis	Torus occipitalis (0-3)	Os postaquamosum (d/s), MM	Foramina tympanica (d/s)	Foramina supraorbitalia (d/s)	Foramina infraorbitalia(d/s)(supp.)	Torus palatinus (0-3)	Torus mandibularis (0-3)	Foramina mentalia(d/s)(supp.)	Arcus mylohyoideus (d/s)	Grinding of teeth (upper/lower, 0-3+)	Loss of teeth (upper/lower)
2	2	2	ant		2/2	?	3	0/0	0/0	+/+	0/0	I	3	0/0	0/0	3+/3+	+/+
2	2	-	-	-	2/3	?	I	I8/I9	0/0	0/+	0/0	-	I	0/0	0/0	-/3	-/+
3	3	-	-	-	2/2	d	I	0/0	+/+	-	-	0	2	0/0	0/0	3+/3	0/0
3	3	0	ant	-	2/3	d	2	0/0	0/0	0/+	0/0	2	0	0/0	0/0	3/3	0/0
1	2	-	-	-	-	d	0	-	0/0	-	-	0	I	0/0	0/0	3/3	0/0
2	2	0	f.p.	2	2/2	d	I	0/0	+/+	+/+	0/0	2	I	0/0	+/+	3+/3	0/0
2	4	0	ant	-	2/3	d	0	0/0	0/0	+/+	0/0	3	3	0/0	0/0	3+/3+	+/+
2	3	I	s.p.	I	2/3	d	0	6/0	0/0	+/+	0/0	I	0	0/0	+/+	3/2	0/0
2	4	I	f.p.	2	2/3	?	I	0/0	+/+	0/0	0/0	2	0	0/0	+/0	3/3	0/0
2	3	I	f.p.	2	I/3	s	2	I3/0	+/+	0/0	0/0	0	0	0/0	0/+	2/2	0/0
2	2	-	-	-	2/3	s	0	0/0	+/+	0/+	0/0	I	0	0/0	0/0	2-3/2	0/0
2	3	0	-	-	2/2	d	2	0/0	0/0	0/0	0/0	0	I	0/0	0/0	2-3/2-3	+/0
2	2	I	f.p.	2	2/3	d	0	0/0	0/0	0/0	0/0	0	I	0/0	0/0	3/2-3	0/0
2	I	0	f.p.	-	2/2	d	0	0/0	+/+	+/+	0/0	0	2	0/0	+/0	3/3	+/+
2	4	-	-	-	I/3	d	I	0/20	0/0	+/0	0/0	2	I	0/0	0/0	3+/3+	+/0
2	3	0	-	-	2/2	s	I	0/0	0/0	0/0	0/0	0	I	0/0	0/0	2/2	0/0
2	4	0	f.p.	-	3/I	d	2	0/0	+/+	0/+	0/0	0	0	0/0	0/0	I-2/I-2	0/0
2	2	-	f.p.	-	3/3	?	0	0/I2	0/+	+/+	0/0	I	0	0/0	+/0	2-3/2-3	0/0
2	5	0	f.p.	-	2/2	s	2	I4/0	0/0	+/+	0/0	0	0	0/0	0/0	2/2	0/0
2	3	0	f.p.	-	2/2	d	3	I7/0	0/0	0/0	0/0	0	2	0/0	0/0	3+/3	+/+
2	4	0	ant	3	2/2	d	2	0/0	0/0	+/0	0/0	0	0	0/0	0/+	2-3/2-3	0/0
2	I	0	f.p.	2	2/2	d	I	0/0	+/+	0/0	+/0	0	0	0/0	0/0	2/2	0/0
2	4	0	f.p.	3	2/3	d	I	0/0	0/0	+/+	0/0	I	2	0/0	0/0	3/3	+/+
2	4	0	ant	3	2/2	d	I	0/0	+/+	0/+	0/0	0	3	0/+	0/0	3/3	+/+
2	5	0	f.p.	-	2/2	?	I	0/0	0/0	0/+	0/0	I	3	0/0	0/0	3/3	0/0
2	2	I	f.p.	3	2/2	?	I	I0/0	+/+	0/0	0/0	0	I	0/0	+/+	I/I	0/0
3	2	I	f.p.	4	2/I	d	I	0/9	0/0	0/+	0/0	2	2	0/+	0/0	3/3	+/+
3	2	0	f.p.	-	2/2	s	0	0/0	0/0	0/0	0/0	0	0	0/0	0/0	2/2	0/0
2	4	0	f.p.	-	2/3	?	0	0/0	0/0	0/0	0/0	I	I	+/0	0/0	3/3	0/0
2	2	2	f.p.	2	2/3	d	3	0/0	0/0	0/0	0/0	I	3	0/0	0/0	3+/3+	+/+
2	3	0	f.p.	3	3/3	s	2	0/I5	0/0	0/0	0/0	0	I	0/0	0/0	I/I	0/0
2	4	2	f.p.	2	2/2	d	2	0/0	0/0	+/+	0/0	3	I	0/0	0/0	3/3	0/0
3	3	2	f.p.	3	2/2	d	2	0/0	0/0	+/+	0/+	I	0	0/0	0/0	3/3	0/0
2	4	I	ant	3	2/2	d	2	0/0	0/0	0/+	0/0	2	-	-	0/0	3/-	+/-
2	3	2	f.p.	-	2/3	d	2	9/I6	+/+	+/+	0/0	0	0	0/0	0/0	3/2	0/0
2	2	0	f.p.	I	2/3	d	I	0/0	0/0	0/0	0/0	2	-	-	0/0	2/-	0/-
2	3	-	-	-	-	d	I	-	0/0	-	-	-	0	0/0	0/0	-/3	-/0
-	-	-	-	-	-	-	-	-	-	-	-	-	2	0/0	0-/0	-/3	-/0
2	3	0	s.p.	2	2/2	d	I	0/0	+/+	+/+	0/0	3	I	0/0	0/0	3/3+	0/0

Table 1 (end).

Inv. No. AMNH cat. 99.1	Burial No.	Sex	Age	1. NOL	1b. GOL	8. XCB	17. BBH	20. BPH	5. BNL	9. WFB	10. XFB	11. AUB	12. OCB+	7. FOL	16. FOB*	23a. Horiz. circ. through ophr	24. Transverse arc	25. Sagittal arc	26. FRK	27. PAK	28. OCK	29. FRC	30. PAC	31. OCC	31(1). Lambda-inion chord	31(2). Inion-opisthion chord	GLS	45. ZYB	40. BPL	48. NPH	47. Full height of face
684	B722	♀	ad.	I69	I68	I30	I2I	I03	95	84	I04	I20	I08	35.4	29.3	475	28I	327	I09	II4	I04	99	I02	86	57	4I	2I	I2I	94	67	–
206	I29	♀	sen.	–	–	–	–	–	–	9I	–	–	–	–	–	–	–	–	I2I	–	–	I03	–	–	–	–	25	–	–	–	–
203	I28	♀!	sen.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
204	I24	♀!	ad.	I8I	I79	I39	I28	II4	I0I	93	II3	I22	I09	32,0	28,3	503	3I2	365	I22	I2I	I22	III	I09	97	65	49	24	I32	I00	76	II9
20I	I22	♀!	ad.	I73	I72	I33	I30	I07	98	85	I08	II8	I03	36,5	3I.7	482	287	346	II8	II5	II3	I03	I05	97	56	5I	22	I25±2	93	75	II6±2
200	I2I	♀!	mat.	I72	I72	I40	I25±I	I08±I	94	88	II4	I23	I03	33.8	27.5	493	298	35I	I2I	I2I	I09	I03±2	I03	9I	54	50	25±I	I26	86±2	73	–
I99	I20	♀!	ad.	I76	I74	I34	I26	I06	I00	95	I08	I26	I05	34.0	28.0	490	287	347	I27	II2	I08	II0	I02	9I	6I	42	26	I38	98	70	I07
I98	II8	♀!	ad.	I7I	I70	I36	I29	II0	96	96	II0	I2I	I08	34.9	27.6	492	299	354	I20	I22	II2	I06	III	92	69	37	24	I28	95	70	II3
I97	II7	♀!	ad.	I75	I73	I34	I30	I09	96	93	II2	I22	I05	37,0	28.6	487	294	347	I22	II3	II2	II0	I05	93	67	39	26	I26	98	74	I2I
I80	89A	♀!	mat	I68	I68	I30±I	I24	I02	96	82	I02	II8	I03	33.I	28.0	–	–	335	II7	II2	I06	I05	I02	89	65	34	22	II9±I	–	–	–
I68	77B	♀!	ad.	I75	I74	I29	I30	I09	99	92	I05	II9	II9	33.2	26.I	485	282	348	I22	II2	II4	I05	I05	96	64	43	24	I27	95	72	II5
I60	67	♀!	sen	–	–	I43	I24	–	–	–	–	–	–	36.2	28.7	–	–	–	–	I20	III	–	I07	94	67	38	–	–	–	–	–
562	66	♀!	mat	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
III	6IB	♀!	ad.	I84	I84	I44	I40	II9	98	9I	II3	I32	II2	36.0	30.6	520	320	380	I30	II9	I3I	II6	I09	I05	73	50	25	I36	I02	84	I35
I04	54	♀!	ad.	I77	I76	I36	I30	III	96	9I	I06	I24	II2	35.8	3I.2	497	30I	357	I20	I25	II2	I08	II3	92	6I	43	23	I27	97	7I	II9
I02	53	♀!	ad.	I79	I78	I38	I30	I08	98	92	II5	I30	I08	37,I	3I.2	505	292	352	I20	I20	II2	I06	I09	93	57	5I	25	I34	I0I	75	II8
99	50	♀!	ad.	I65	I64	I32	I2I	I04	92	83	I09	II8	I00	32.7	27.6	470	287	334	II2	I22	I00	I00	I06	8I	48	47	22	I24	92	68	II7
9IB	4I	♀!	mat.	I79	I77	I44	I3I	II5	98	94	III	I28	II5	42.0	30.0	505	3I4	358	I25	II7	II6	III	I07	98	58	54	25	I3I	94	73	II2
86D	35	♀!	sen.	I76	I75	I33	–	II0	–	94	II5	II9	I03	–	–	–	296	–	I22	II5	–	I09	I05	–	–	–	24	I26	–	–	–
86C	35	♀?	mat	I75±3	–	I40	I22	II2	–	–	–	I22	I04	33.3	30.0	–	308	–	–	–	II4	–	–	94	64	43	–	I27	–	–	–
84D	33	♀!	ad.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
84C	33	♀?	sen.	I83	I82	I39	–	III	–	–	II4±2	I29	II8	–	–	–	300	366	I27	II7	I22	II3	I06	97	67	45	26	–	–	–	–
84B	33	♀	sen.	I74	I73	I29	I22	II0	97	–	I08±2	I22	I0I	32.4	27.0	477	275	332	II3	II3	I06	I03	I03	88	49	52	2I	–	–	–	–
83A	32	♀!	ad.	I76	I75	I35	I28	II0	9I	94	III	I20	I09	37.2	28.0	497	294	352	I20	II9	II3	I07	II0	94	58	50	23	I28	94	72±I	II8
79	26	♀	mat.	I79	I78	I34	–	–	–	85	II4	–	–	–	–	502	300	–	I26	I2I	–	II4	III	–	–	–	25	I30±2	–	69	–
59A[x)]	4	♀	sen.	I72	I7I	I30	I23	I04	99	84	III	I22	I04	34.8	29.0	484	280	338	II2	I09	II7	I0I	98	96	70	39	23	I29±I	–	–	–
64[x)]	6	♀	sen.	I7I	I70	I32	I27	I06	92	9I	I09	II9	I03	33.I	28.4	483	286	346	II9	I09	II8	I06	I0I	97	65	44	25	I29	90	65±I	–
70[x)]	I4	♀	sen.	I74	I7I	I37	I29	I06	99	92	II0	I23	I06	36.0	27.6	489	290	–	I23	–	–	I05	–	–	–	–	24	I33	–	–	–
I73[x)]	83	♀?	mat	I80	I78	I36	I23	II0	99	89	II0	I26	II2	–	–	502	293	356	I2I	I25	II0	I04	III	92	55	48	25	–	–	–	–
I74[x)]	84	♀	ad.	I67	I67	I38	I23	I06	90	88	I09	I28	I09	33.8	30.I	486	295	350	II8	II6	II6	I03	I02	94	57	49	27	I29	84	69	–
II2[xx)]	62	♀!	ad.	I72	I72	I30	I2I	I03	93	96	I09	I20	I0I	3I.0	26.9	478	280	350	II7	II8	II5	I02	I04	95	62	46	24	I24	88	64	99
I72[xx)]	82	♀!	sen.	I72	I70	I46	I30	II2	98	89	III	I29	I20	36.9	29.9	499	307	347	I2I	II9	I07	I08	I06	92	58	44	25	I33	92±2	69±2	I20±3
67[x)]	I3I	♀!	ad.	I7I	I7I	I44	I26	II3	97	I00	II5	I28	I09	33.9	29.8	498	3I2	34I	I23	I08	II0	II0	97	94	65	39	26	I3I	89	72	II6±2
672[xx)]	I32	♀!	ad.	I77	I74	I38	I27	I09	99	86	I09	I23	I08	34.3	29.8	496	297	355	I20	II9	II6	I09	I06	99	63	48	22	I28	97±I	69	I09
675[xx)]	I37	♀!	ad.	I77	I76	I39	I28	II0	95	92	I09	I25	I03	33.9	26.7	497	300	353	II8	II5	I20	I06	I05	94	66	47	23	I32	98	68	II4
I9I[xx)]	II	♀!	ad.	I78	I75	I32	I30	I06	97	93	II4	I25	I08	34.4	30.7	494	285	357	I22	II2	I23	I09	I02	96	74	39	24	I34	9I	68	–
I76[xx)]	II	♀	ad.	I7I	I7I	I38	I28	I09	94	88	II0	I22	I07	35.5	29.7	489	296	355	I2I	II5	II9	I06	I04	99	75	37	26	I26	87±2	67±2	–
I75[xx)]	II	♀	mat.	I85	I85	I45	I28	II5	98	94	II6	I27	III	36,2	30.0	52I	3I6	373	I25	I32	II6	I09	II8	95	68	38	27	I26	93	64	–

Table 2. Individual measurements of female skulls from the Ipiutak burial site.

Burial number	43. fmt-fmt	46. Medial width of face	60. MAL	61. MAB	62. OSL	63. OSB	55. NLH	54. NLB	51. DUB	51a. OBB	52. OBH	DC. Dacryall chord	DS. Dacryal height	MC. Maxillo-frontal chord	MS. Maxillo-frontal height
BJ 22	96	93	50	60	44.4	37.1	47	21.3	39.4	37.6	33.1	17.5	9.0	14.0	5.0
129	-	-	-	-	-	-	-	-	45	-	38±1	-	-	16.4	5.0
128	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
124	108	103	-	-	50.0	43.3	56	25.5	45.5	42.2	38.6	20.6	11.1	17.4	6.8
122	100	98	51	67	42.2	41.4	54	24.5	40.3	-	37.7	-	-	19.0	6.0
121	99	-	-	-	43.4	36.3	51	-	42	-	39	-	-	16.3	5.0
120	108	104	-	-	-	-	52	22.5	43.4	41.0	35.2	22.1	8.4	19.8	4.6
118	103	92	49	61	44.5	38.0	52	22.3	40.4	38.5	32.9	20.1	8.5	18.0	6.2
117	102	96	52	63	46.9	39.4	51	25	41.8	38.8	38.0	-	-	-	-
89A	96	98	-	-	-	-	48	23.7	40.2	37.9	34.0	17.1	9.1	14.9	6.1
77B	104	97	49	65	43.3	40.9	51	21.6	43.3	42.0	33.5	19.2	9.2	19.0	5.0
67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
61B	108	109	58	68	53.0	39.6	55	25.2	42.5	40.4	38.2	18.8	9.6	17.3	6.0
54	105	100	54	65	44.3	40.9	49	25.0	42.8	40.0	32.1	-	-	16.0	3.7
53	107	102	56	69	50.1	42.0	51	25.1	43.0	41.4	33.6	20.0	7.3	19.0	3.8
50	94	95	50	63	43.6	40.9	48	21.0	38.0	-	33.9	17.0	8,5	16.8	6,5
41	104	97	-	-	-	-	52	24.7	42.7	40.5	39.0	19.6	7.3	16.4	5.2
35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	-	-	-	-	-	-	-	-	-	-	-	-	-	17.9	7.3
33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	104	99	54	65	48±1	42.5	52	24.0	40.5	38.7	35.8	20.2	8.0	18.3	5.6
26	106	106	-	-	-	-	50	24.0	43.0	41.5	35.2	18.0	8.4	16.6	4.5
1	96	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	102	-	-	-	-	-	47	-	39.8	-	33.1	-	-	15.5	6.0
14	103	-	-	-	-	-	-	-	41.9	39.5	35.0	-	-	20.9	4.8
83	-	-	-	-	-	-	-	-	-	-	-	-	-	15.9	5.0
84	96	92	46	64	41.1	42.5	49	22.0	39.5	38.8	37.0	-	-	16.0	6.7
62	103	92	-	-	-	-	47	20.2	42.1	39.3	34.9	19.4	10.9	18.0	5.7
82	102	97	-	-	-	-	49	23.4	40.3	37.2	32.8	19.0	6,5	18.1	3.5
131	106	100	51	68	44.8	41.8	50	23.1	42.0	39.4	33.9	20.9	9.4	17.2	4.4
132	104	91	-	-	-	-	50	24.6	40.0	38.5	34.9	17.8	9.9	17.5	5.9
137	103	107	53	67	45.8	41±1	52	23.3	41.2	38.9	35.2	19.5	8.3	16.0	4.5
II	104	103	-	64	-	40.9	53	23.7	42.6	40.0	36.1	20.3	8.0	17.0	4.0
II	96	90	-	-	-	-	49	22.5	40.5	38.9	38.0	16.5	8,5	14.3	5.9
II	101	97	48	59	41.0	39.0	49	23.5	39.6	37.2	33.2	-	-	-	-

SC. WNB	SS. WNH	Bimalar chord fmo-fmo	Height n over chord fmo-fmo	Zygo-maxillary chord zm1-zm1	Height of ssp over chord zm1-zm1	Depth canine recess	Mandible									
							65. Condylar breadth	66. Angular breath	68. Length of angles	68(1). Length of condyle	70. Height of ramus	71a. Breadth of ramus	67. Front width	69. Height of symphesis	69(1). Body height	69(3). Body thickness
7.0	2.5	88	12	90	17	3.2	-	- -	-	-	-	-	-	-	-	-
6,6	2.1	-	-	-	-	-	-	-	-	-	-	-	41	35	33	10
-	-	-	-	-	-	-	113	97	80	104	56	37	46	-	-	11
7.8	3.3	100	21	-	-	4.3	116	100	81	111	50	35	46	36	31	10
6,5	2,5	92	14	94	24	1.0	113	101	81	109	55	37	46	32	28	13
7.0	2.0	95	13	-	-	-	110	95	71	98	47	34	44	32	31	8
10.4	2,8	100	16	99	22	6,5	118	106	77	106	53	36	48	33	31	13
9.0	3.2	92	13	89	18	4.2	110	101	81	108	50	39	44	32	29	13
-	-	95	17	97	20	2.7	112	96	81	109	51	40	49	36	32	13
6.0	2.1	90	13	-	-	-	110	103±1	73	-	-	34	42	33	33	12
7.7	2.9	98	17	96	18	2.9	111	95	86	113	44	40	44	35	32	13
-	-	-	-	-	-	-	116	102	83	107	53	39	51	-	-	12
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.0	2.6	100	12	107	15±1	7.3	118	109	78	116	57	38	48	43	41	13
-	-	96	14	96	18	5.9	114	99	80	110	56	35	47	37	35	14
8.1	1.5	101	13	101	21	5.0	123	96	80	111	59	37	51	35	31	13
10.0	3,9	86	10	93	19	5.2	107	89	75	103	51	35	43	33	27	11
6,7	2.4	97	14	95	18	3.9	117	106	70	109	56	34	45	34	34	14
-	-	-	-	-	-	-	112	96±2	-	-	-	37	43	35	32	13
-	-	-	-	-	-	-	115	100	72	103	52	31	42	35	32±1	11
-	-	-	-	-	-	-	-	105	84	111±2	53±2	37	45	34	30	14
7.9	3.5	-	-	-	-	-	121	101	80	-	53	36	47	33	32	8
-	-	-	-	-	-	-	-	100	-	-	-	-	42	-	-	10
10.2	3.3	95	12	98	19	5.7	115	95	81	107	55	38	47	34	-	11
4.0	1,7	99	13	105	19	4.2	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	116±2	94	72	96	53	33	44	-	-	9
5.0	2.0	95	11	-	-	-	120	94	68	96	47	34	41	34	-	10
7.5	2.1	98	14	-	-	-	-	-	-	-	-	-	-	-	-	-
4.4	2.3	-	-	-	-	-	110	108	77	99	57	34	43	34	32	12
6.0	2.9	90	12	91	20	4.3	-	-	-	-	-	-	-	-	-	-
8.9	3.3	95	17	89	19	6.0	108	91	75	97	50	33	42	26	24	10
6.7	1,5	92	12	97	21	4.2	117	98	72	102	44	34	44	36	-	10
7.0	2.8	97	15	97	17	3.2	118	102	78	106	52	35	46	33	28	12
6.0	2.5	95	14	90	20	3.3	118	97	76	107	52	34	42	30	29	9
7,4	2.0	93	13	108	23	2.5	120	101	74	102	56	37		33	33	13
6.2	1,9	95	17	100	20	2.8	-	-	-	-	-	-	-	-	-	-
4.5	1.6	91	13	88	19	6.1	-	-	-	-	-	-	-	-	-	-
6.7	1.4	94	14	95	14	4.4	-	-	-	-	-	-	-	-	-	-

Table 2 (continuation).

Burial number	32. Angle of proj. of brow from n	Angle of proj. of brow from gl	33(1). Angle upper part of occiput	33(2). Angle lower part of occiput	33(4).Angle curve of occiput	34. Angle of occipit. foram.	77. Naso-malar angle	Zygo-maxillary angle	72. Total angle of face	73.Angle medial part of face	74.Angle alveolar part of face	75. Angle nasal bone	75(1). Angle projection of nose	79. Angle ramus of mandible	C'. Angle of chin	Superciliary (along Martina 1-6)	Mammiform appendix (1-3)	Thickness pars tympanica, MM	Transvers profile of spine of nose (0-2)	Lower edge of pyriform foramen	Frontal-nasal baib. (1-5)	Norma occipit. (lat. sides/vault)	Sinus sagittalis	Torus occipitalis (0-3)	Os postaquamosum (d/s), MM	Foramina tympanica (d/s)	Foramina supraorbitalia (d/s)	Foramina infraorbitalia(d/s)(supp.)	Torus palatinus (0-3)	Torus mandibularis (0-3)	Foramina mentalia(d/s)(supp.)	Arcus myiohyoideus (d/s)	Grinding of teeth (upper/lower, 0-3+)	Loss of teeth (upper/lower)
22	80	74	91	31	I22	- 4	I50	I39	85	87	79	-	-	-	-	2	2	I	0	ant		2/3	s	0	0/I0	0/0	0/0	0/0	0	-	-	-	I-2/-	0/-
I29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	77	2	I	I	0	-	-	-	-	0	0/0	+/+	0/0	0/0	3	3	0/0	0/0	3/3	0/0
I28	-	-	-	-	-	-	-	-	-	-	-	-	-	II9	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0/0	0/0	-/3+	-/+
I24	78	76	93	22	II5	-I3	I34	-	89	-	-	72±3	I7±3	I32	7I	2	2	3	0	-	-	3/I	d	I	I4/8	0/0	0/+	0/0	3	0	0/0	0/0	3/3	0/0
I22	80	75	93	36	I29	-I0	I46	I26	82	86	7I	-	-	I24	7I	2	2	3	I	-	-	3/3	d	I	0/9	0/+	0/0	0/0	I	0	0/0	0/0	3/2	0/0
I2I	85	82	94	27	I2I	-3	I49	-	90±2	-	-	-	-	I29	68	2	I	4	0	-	-	3/I	s	I	0/0	0/0	0/0	0/0	I	I	0/0	0/0	3/3	0/0
I20	79	73	95	28	I23	-9	I45	I32	83	85	75	67	I6	I27	72	3	2	4	0	ant	3	2/I	?	0	0/0	0/0	0/+	0/0	I	0	0/0	+/0	3+/3	+/0
II8	82	79	98	2I	II9	-8	I49	I36	85	88	74	62	23	I28	65	2	2	4	2	ant	2	3/I	?	0	0/0	0/0	+/+	0/0	I	I	0/0	0/0	2/2	0/0
II7	78	74	98	2I	II9	-4	I4I	I35	8I	83	75	-	-	I27	67	2	2	3	-	ant	-	2/I	d	0	0/0	0/0	0/0	0/0	0	I	0/0	0/0	3/2	0/0
89A	80	77	I00	22	I22	-3	I48	-	-	86	-	60	24±2	I34	68	I	I	4	0	-	-	2/3	?	0	0/0	0/0	+/+	0/0	3	3	0/0	0/+	3+/3+	+/+
77B	84	78	95	33	I28	0	I42	I39	85	90	7I	64	2I	I35	60	2	I	4	0	ant	-	2/I	d	0	0/0	0/0	0/+	0/0	0	0	0/0	0/0	I/I	0/0
67	-	-	-	-	I24	-	-	-	-	-	-	-	-	I2I	-	-	2	2	-	-	-	2/I	d	I	I3/I6	0/0	-	-	-	2	0/0	0/0	-/3+	-/+
66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	0/0	0/0	-/3+	-/+
6IB	79	75	90	25	II5	-8	I53	I49±2	79	83	69	68	II	I36	78	2	I	3	I	ant	-	2/3	s	I	0/0	0/0	0/0	0/0	2	2	0/0	0/0	2-3/2-3	0/0
54	83	78	93	25	II8	-5	I47	I39	87	90	79	-	-	I26	7I	2	2	4	0	f.p.	-	2/3	d	0	0/0	0/0	+/+	0/0	I	I	0/0	0/0	3/3	0/0
53	82	79	90	26	II6	-I	I5I	I35	80	83	72	62	I8	I28	74	2	I	4	0	f.p.	2	3/I	d	0	0/0	0/0	+/+	0/+	2	I	0/0	0/0	3/3	0/0
50	8I	76	9I	28	II9	-5	I54	I36	82	85	74	65	I7	I25	72	2	I	I	0	f.p.	-	3/I	d	0	I5/I2	+/+	+/0	0/0	I	0	0/0	0/0	2/2	0/0
4I	80	75	86	36	I22	-7	I48	I38	83	84	80	69±2	I4±2	I36	59	2	2	3	0	f.p.	2	3/I	s	0	I9/0	0/0	0/0	0/0	0	3	0/0	0/0	3+/3+	+/+
35	-	-	-	-	-	-	-	-	-	-	-	-	-	I30±2	6I	2	I	2	-	-	-	3/I	d	I	0/0	0/0	0/+	-	-	3	0/0	0/0	-/3+	-/+
35	-	-	-	-	I22	-	-	-	-	-	-	-	-	I3I	72	2	2	3	-	-	-	2/2	d	2	0/0	+/+	+/+	-	-	I	0/0	0/0	-/3	-/0
33	-	-	-	-	-	-	-	-	-	-	-	-	-	I2I	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0/0	0/0	-/I	-/0
33	-	-	-	-	II7	-	-	-	-	-	-	-	-	I27	60±2	2	2	3	0	-	-	2/I	d	0	0/0	0/0	0/0	-	-	I	0/0	+/0	-/3+	-/0
33	-	-	-	-	I20	-	-	-	-	-	-	-	-	-	-	2	2	3	-	-	-	2/3	d	I	0/0	0/0	0/0	-	-	I	0/0	+/+	-/3	-/0
32	8I	77	94	24	II8	-7	I52	I38	80	84	68	59	2I	I23	69	I	3	3	0	f.p.	2	3/3	d	0	0/0	+/+	+/+	+/+	3	I	0/0	0/0	3/2-3	+/0
26	-	-	-	-	-	-	I5I	I40	-	-	-	-	-	-	-	2	2	6	I	inf	-	3/2	-	0	II/0	0/0	+/+	0/0	2	-	-	-	3/-	0/-
I	-	-	-	-	I20	-	-	-	-	-	-	-	-	I20	-	I	2	2	-	-	-	2/2	d	0	0/0	0/0	+/+	-	-	I	0/0	0/0	-/3+	-/+
6	84	8I	95	27	I22	0	I54	-	-	-	-	-	-	I32	76	I	2	5	0	f.p.	-	3/2	?	0	0/0	0/0	0/0	0/0	2	I	0/0	0/0	3+/3+	+/+
I4	79	72	-	-	-	-3	I48	-	-	-	-	-	-	-	-	3	2	4	I	-	-	-	s	0	0/0	0/0	+/+	-	-	-	-	-	-	-
83	-	-	-	-	I25	-	-	-	-	-	-	-	-	II6	64	3	I	3	2	-	-	2/2	d	I	I3/8	+/0	0/0	-	-	I	0/0	0/0	-/3+	-/0
84	86	84	93	3I	I24	-9	I50	I33	88	89	86	72	I6	-	-	I	I	4	I	inf	2	3/I	d	0	0/0	0/0	0/0	0/0	2	-	-	-	2/-	0/-
62	79	70	I00	22	I22	-II	I4I	I34	83	87	70	73	I0	I2I	68±2	2	I	2	0	ant	I	3/2	d	0	0/0	0/0	0/0	0/0	I	0	0/0	+/+	2-3/2-3	+/0
82	85	79	92	32	I24	+3	I5I	I33	-	90	-	75	I3±2	I35	63	2	I	4	I	inf	2	3/I	s	I	0/I3	0/0	0/0	+/+	3	I	0/+	0/0	3+/3	0/+
I3I	84	79	93	30	I23	-2	I45	I4I	86	88	8I	67	I9	I28	68	2	3	3	2	inf	I	2/3	?	0	0/0	0/0	+/0	0/0	I	0	0/0	0/0	2/I	0/0
I32	78	74	95	32	I27	-7	I47	I32	86	88	80	62	24	I28	63	2	2	5	I	ant	3	2/3	d	I	0/0	0/0	+/+	0/0	2	0	0/0	0/0	3/3	0/0
I37	83	80	9I	22	II3	+5	I49	I34	83	86	73	64	I9	I23	85	I	2	3	0	ant	2	3/2	d	I	0/0	0/0	+/0	0/0	0	0	0/0	0/0	3/3	0/0
II	77	74	94	I6	II0	-4	I4I	I36	86±2	86	86	64	22±2	-	-	2	I	4	I	f.p.	2	3/3	d	I	0/I3	0/0	0/0	0/0	I	-	-	-	3/-	0/-
II	86	84	98	22	I20	-I0	I48	I33	88	90	83	62	26	-	-	I	2	I	0	f.p.	3	3/I	d	0	0/0	0/0	+/+	0/0	0	-	-	-	3/-	+/-
II	88	85	I0I	2I	I22	-8	I47	I47	90	95	72	-	-	-	-	I	I	2	I	inf	2	3/I	d	0	I0/I3	0/0	0/0	0/0	3	-	-	-	3/-	0/-

Table 2 (end).

Inv. No. AMNH coll. 99.1	Burial No.	Sex	Age	1. NOL	1b. GOL	8. XCB	17. BBH	20. BPH	5. BNL	9. WFB	10. XFB	11. AUB	12. OCB+	7. FOL	16. FOB*
Group A															
469	441	♂	sen.	–	–	–	–	–	–	–	–	–	–	–	–
474	449	♂	ad.	179	177	137	143	120	106	96	119	126	103	40.6	30.1
478	453	♂	sen.	204	199	136	143	120	116	98	106	140	112	43,4	33,0
476	451	♂	sen.	184	182	134	138	117	105	93	111	132	108	40.0	31.5
480	456	♂	mat	183	181	132	138	117	100	95	108	123	104	34,6	28.1
475	450	♂	sen.	202	201	136	144	120	116	100	118	131	109	37,9	29.1
Group B															
549	527	♂	ad.	183	179	140	143	121	108	97	114	130	113	40.2	30.4
545	523	♂	mat	188	187	134	140	117	106	94	109	127	113	38±1	33.2
542	519	♂	mat	185	184	140	144	120	108	99	116	133	116	40.1	31.7
541	518	♂	sen.	200	194	142	137	118	107	99	116	135	115	46,6	30.8
536	512	♂	sen.	179	178	141	135	114	102	93	112	129	111	40.0	31.2
535	511(a)	♂	ad.	180	178	132	140	117	105	98	112	125	103	39.9	30.0
529	506	♂	sen.	191	191	140	144	121	111	93	109	131	100	35.4	27.7
527	504	♂	mat.	185	184	143	137	120	103	104	121	133	110	36,3	31.7
525	502	♂	mat.	186	185	141	145	122	106	96	113	131	108	36.7	32.7
519	496	♂	mat	185	184	145	139	117	105	99	123	133	105	38.2	34.6
514	491	♂	mat.	175	175	131	131	108	100	89	107	121	101	35.2	30.4
521	498	♂	mat.	181	177	141	145	117	110	100	111	138	108	37.4	32.1
508	485	♂	mat.	184	183	139	137	117	106	95	114	130	105	40.5	32.3
511	488	♂	mat.	179	180!	133	137	115	105	90	110	128	107	35.2	31.0
509	486	♂	ad.	175	174	137	137	115	102	95	114	127	116	35.1	30.9
506	482	♂	mat.	181	180	138	134	112	100	97	113	130	104	38.8	30.5
504	480	♂	mat.	182	181	138	141	116	107	96	112	130	105	40.4	30.2
497	473	♂	ad.	185	185	125	142	118	107	94	112	122	110	38.0	31,8
498	474	♂	mat.	177	176	137	136	113	104	96	112	126	110	36.0	31.9
499	475	♂	mat.	178	177	140	134	115	104	96	113	130	112	38.4	33.9
495	471	♂	mat.	185	184	144	140	117	107	96	115	133	105	37.1	32.6
492	467	♂	mat.	177	177	134	134	114	99	91	110	123	109	36.2	33.7
493	469	♂	sen.	193	192	137	140	120	108	96	114	132	111	40.3	30.9
491	466	♂	ad.	187	187	140	143	120	106	103	124	129	109	33.0	29.8
490	465	♂	sen.	203	202	139	143	123	113	102	114	136	111	41.9	33.9
488	463	♂	mat	184	183	140	141	118	111	102	116	137	112	37.6	31.0
481	456	♂	mat	182	180	143	137	117	110	97	117	133!	111	36,6	31.0
Group C															
357	308	♂	mat	196	195	147	150	125	111	99	124	140	109	37,8	30.6
339	286	♂	ad.	179	179	145	142	121	103	95	114	131	109	36,6	31.7
349	298	♂	mat	189	188	137	144	123	104	104	117	130	105	36.9	29.3
340	287	♂	sen.	190	187	142	137	116	105	98	115	134	110	39.5	31,2
353	303	♂	sen.	194	194	132	142	121	109	100	111	126	102	34.0	32.4
346	295	♂	sen.	190	189	130	141	117	108	101	119	124	102	35.3	30.4
355	307(a?)	♂	sen	–	–	–	–	–	–	–	–	–	–	–	–

54. Width nasal

23a. Horiz. circ. through ophr.	24. Transverse arc	25. Sagittal arc	26. FRK	27. PAK	28. OCK	29. FRC	30. PAC	31. OCC	31(1). Lambda-inion chord	31(2). inion-opisthion chord	GLS	45. ZYB	40. BPL	48. NPH	47. Full height of face
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
502	309	365	134	126	105	118	110	91	58	44	27	142	102	76	130
530	306	380	130	125	125	116	116	101	67	51	23	149	115	83	128
505	305	362	129	123	110	111	110	94	64	41	27	143	100	71±1	112±2
502	307	365	123	126	116	109	113	97	64	45	26	134	96	74	119
544	311	387	133	134	120	114	120	98	62	51	27	147	108	80	134±1
509	318	361	125	121	115	110	109	101	63	47	23	138	101	73	122
522	303	382	131	132	119	117	118	99	61	54	27	140	110±1	79±1	125±2
520	322	367	127	126	114	112	115	98	71	41	24	149	107	76	126
532	312	370	125	120	125	116	107	97	59	63	22	149	102	84	137
512	309	352	123	117	112	108	105	94	66	43	25	145	96	72	111
500	304	358	118	134	106	105	119	93	70	30	23	137	103	72	119
524	318	382	131	128	123	117	114	100	68	51	27	140	105	83	131±2
523	326	385	133	115	137	114	106	113	88	40	30	142	103	72	118
518	317	380	139	123	118	122	113	97	62	50	29	143	102	76	119±2
523	320	368	134	110	124	114	103	101	75	42	30	143	108	73	120
491	293	355	125	119	111	109	106	95	62	45	27	132	95	70	114
515	311	355	130	112	113	116	104	94	65	44	23	148	105	81	128±1
511	312	361	132	117	112	114	109	92	61	42	26	143	110	78	–
505	304	361	125	120	116	111	108	94	65	47	26	141	109	79	129
502	311	360	132	116	112	113	105	94	66	44	29	136	101	71	119
505	301	363	123	115	125	110	105	99	69	47	25	139	–	–	–
510	300	360	130	118	112	113	106	94	60	45	26	141	96	71	120
512	304	374	130	129	115	113	119	94	62	43	30	131	101	79	125
504	304	356	125	115	116	110	102	97	68	43	26	137	100	74	118
507	308	353	121	116	116	108	105	99	61	49	25	141	106	71	118
520	316	367	126	121	120	112	103	100	71	46	27	142	–	–	–
497	307	361	122	121	118	108	108	97	69	42	25	135	95	70	110
529	312	377	133	130	114	117	118	96	61	50	28	143	99	80	130
529	320	384	136	128	120	117	116	103	71	46	31	134	106	78	126
555	320	392	133	119	140	119	111	109	83	51	28	148	115	82	128
523	310	360	126	118	116	113	107	97	64	49	26	148	108	74	118
517	315	352	132	106	114	114	97	98	61	49	26	147	107	79	125
546	332	397	135	139	123	118	124	102	61	56	28	147	110	81	131
512	322	365	140	108	117	120	102	97	57	51	32	147	97	73	129
524	320	389	136	139	114	119	123	95	65	44	28	144	103	76	126
525	308	377	124	135	118	107	119	102	61	52	24	151	102	79±1	126
525	314	386	139	129	118	120	115	95	60	55	29	139	102	73	–
518	304	375	132	122	121	111	111	99	64	50	20	138	99	73	–
–	–	–	–	–	–	–	–	–	–						

Table 3. Individual measurements of male skulls from the Tigara burial site.

Burial No.	43. fmt-fmt	46. Medial width of face	60. MAL	61. MAB	62. OSL	63. OSB	55. NLH	54. NLB	51. DUB	51a. OBB	52. OBH	DC. Dacryal chord	DS. Dacryal height	MC. Maxillo-frontal chord
441	-	-	-	-	-	-	-	-	-	-	-	-	-	-
449	105	104	55	64	46,4	40.5	55	22.5	45.9	43.1	37.3	17.5	8.6	15.3
453	112	114	58	70	49.6	47.7	62	26.4	49.5	46.8	39.1	-	-	16.6
451	107	98	50	65	-	-	53	21.1	45.0	-	34.0	-	-	16,4
455	103	94	53	59	47.1	38.1	53	24.0	44.4	42.1	34.0	15.7	9.0	12.9
450	112	107	57	66	49.8	42.9	58	27.0	46,8	43.7	39.0	18.1	10.2	16.7
527	108	102	51	61	45.3	36.0	55	20.6	44.5	40.9	36.5	19.7	9.8	17.5
523	107	108	-	-	-	-	58	23.1	45.9	43.4	38.0	16.6	8.7	15.5
519	111	107	58	70	51.8	42.0	53	25.5	45.0	42.8	35.6	18.1	11.8	16.7
518	116	117	57	66	53.0	44.2	60	23.1	48.5	46.5	38.6	18.0	9.0	15.7
512	108	107	52	64	44.5	40±1	50	23.0	43.1	41.8	34.4	16.1	10.6	15.9
511(a)	110	103	55	62	47.5	38.7	50	23.8	44.3	41.5	33.4	21.3	11.2	17.9
506	111	102	60	68	50.8	43±1	60	24.4	44.0	41.8	35.0	22.6	10.0	20.0
504	107	105	-	-	-	-	51	24.1	44.0	40.1	35.8	19.8	8.6	16.2
502	109	107	52	64	46.3	39.8	54	24.1	46.5	44.1	37.6	19.1	9.7	18.0
496	109	110	56	69	51.4	43.7	51	24.3	44.0	41.5	33.5	18.2	8.1	17.8
491	104	96	50	62	45.0	40.4	50	23.4	43.1	41.5	34.0	16.9	6.5	15.0
498	113	102	58	63	50.5	39±1	59	22.6	46.0	43.1	39.1	19.5	11.0	18.2
485	109	113	56	67	-	-	57	24.9	43.6	41.8	36.9	18.7	9.8	16.2
488	106	108	57	66	51.8	38.2	56	23.0	43.3	40.0	37.1	17.4	10.4	15.3
486	105	107	54	62	47.8	35.0	52	21.2	42.4	41.0	33.7	18.1	8.3	17,5
482	107	102	-	-	-	-	52	20.9	46.0	42.9	35.6	17.0	8.6	16.6
480	107	95	50	63	41.2	39,6	55	21.1	44.9	42.2	36.9	17.6	8.3	15.7
473	103	99	55	66	48.4	40.8	58	22.0	41.0	39.1	38.7	-	-	17.5
474	105	105	53	61	45.0	38.0	57	22.4	42.9	40.9	35.9	14.5	8.1	13.5
475	110	104	57	66	49.9	40.7	49	24.3	44.8	43.1	34.1	19.8	7.2	17.3
471	107	97	-	-	-	-	55	22,5	46.2	42.0	35.2	17.7	7.8	14.1
467	104	100	51	62	44.9	37.3	51	22.0	45.4	42.6	32.2	16.0	9.4	14.4
469	108	108	55	63	50.0	40.5	60	26.5	48.4	46.6	35.4	21.4	9.5	20.0
466	109	101	59	69	51.7	40.6	58	23.3	44.5	43.0	34.5	17.0	8.5	16.2
465	116	113	60	71	53.7	43.2	60	30.4	47.4	43.6	36.6	21.1	10.4	17.0
463	110	103	53	64	47.0	39.7	52	24.3	45.1	43.4	35.5	18.4	10.2	17,6
456	109	105	58	67	52.5	43.2	57	24.3	45.0	42.0	38.0	20.9	9.3	18.3
308	108	106	59	68	51.8	41.9	59	25.0	41.9	39.2	37.1	21.0	9.7	19.2
286	112	105	53	70	45.1	44.0	54	23.3	49.0	46.4	36.1	18.0	8.3	15.4
298	114	101	58	67	50.3	38.7	56	25.3	46.9	44.3	35.3	21.0	8.7	18.0
287	114	114	55	65	50.0	43.5	57	21.0	48.4	43.8	36.3	20,3	7,3	15.0
303	110	105	51	62	44.8	38.3	54	24.0	48.0	44.6	39.0	19.2	8.2	16.1
295	109	100	51	61	46.6	39.7	53	22.0	43.6	40.8	33.0	21.0	7.0	17.3
307(a?)	-	-	-	-	-	-	-	-	-	-	-	-	-	-

MS. Maxillo-frontal height	SC. WNB	SS. WNH	Bimalar chord fmo-fmo	Height n over chord fmo-fmo	Zygo-maxillary chord zm1-zm1	Height of ssp over chord zm1-zm1	Depth canine recess	Mandible								
								65. Condylar breadth	66. Angular breath	68. Length of angles	68(1). Length of condyle	70. Height of ramus	71a. Breadth of ramus	67. Front width	69. Height of symphesis	69(1). Body height	69(3). Body thickness
-	-	-	-	-	-	-	-	129	112	89	120	52	39	50	-	36	12
4.2	2.6	0.9	98	16	101	21	5.3	121	109	89	116	60	40	52	39	35	11
4.2	-	-	105	19	114	29	5.0	129	110	95	127	62	44	49	36	34	10
4.9	8.3	2.9	98	13	98	19	5.1	127	117	81	110	58	40	47	35	32	11
3.7	4.4	1.4	95	15	93	17	2.9	118	109	79	108	50	38	45	36	30	11
4.6	6.1	2.2	101	13	107	22	5.5	127	125	87	117	55	45	51	38	33	15
4.2	5.5	2.2	98	18	100	22	1,6	118	106	85	113	55	43	47	35	31	11
4.0	7.3	2.9	97	16	104	27	9.7	123	109	81	120	55	36	48	35	32	9
6.6	7.8	3.4	103	14	102	18	3.7	128	121	90	108	69	45	53	39	34	15
6.2	4.5	2.3	104	18	117	26	6.7	126	119	83	117	60	37	48	39	36	12
6.7	6.8	3.8	95	10	103	20	5.3	124	116	75	103	59	37	46	35	29	12
5.5	7.7	3.1	100	16	102	20	5.3	120	116	80	112	50	36	49	35	30	12
6.0	8.7	3.5	101	16	102	25	4.9	120	112	84	114	53	40	51	39	-	10
4.0	5.0	2.8	97	13	103	21	6.3	124	101	80	106	55	41	48	-	-	12
5.2	7,2	3,0	101	15	106	18	7.1	126	121	75	106	51	37	48	34	30	12
3.4	4.3	1.8	100	13	102	21	5.3	123	109	81	113	62	39	48	38	33	14
3.6	6.3	2,0	95	12	94	17	3.7	123	114	73	102	51	37	46	35	30	12
5.8	6.7	3.6	103	13	100	22	6.9	131	117	87	118	56	39	48	39	-	12
5.0	5.6	1.9	97	16	111	27	2,8	122	123	80	110	52	41	49	-	29	15
6.2	6.9	5.0	94	13	105	23	4.3	116	111	86	114	54	44	53	38	35	15
4.5	8.4	2.7	97	14	103	20	5.5	116	106	77	104	58	40	49	36	31	14
4.0	8.5	2.8	98	14	102	20	5.9	125	108	79	104	54	35	47	37	34	11
5.9	5.9	3.3	98	16	94	23	4.1	126	110	81	106	57	38	47	35	31	10
5.4	7.0	2.6	94	12	96	19	4.5	116	113	73	104	57	38	48	35	31	13
4.5	5.0	2,0	96	11	102	24	7.1	118	106	84	106	54	40	46	35	31	12
4.3	5.2	1,3	101	15	105	20	4.4	123	112	84	115	63	40	48	36	31	13
3.4	7.5	2.7	97	15	93	20	6,4	122	105	81	103	61	41	44	33	28	11
4.6	3.3	2.4	94	15	96	21	5.3	113	116	82	107	62	41	41	35	30	11
6,6	8.0	2.4	100	17	107	26	4.8	133	110	87	109	62	39	47	37	33	12
4.8	4.7	1.8	100	14	96	21	4.3	116	102	77	112	50	38	45	37	30	12
4.4	7.5	2.7	103	17	113	26	3.7	130	121	84	116	60	45	49	38	33	15
6.1	7.6	3.7	102	16	103	21	5.7	130	112	85	111	57	43	47	37	34	12
5.4	8.4	3.7	100	16	101	22	6.0	134	117	81	109	60	40	48	38	31	11
6.7	4.8	2.1	96	14	106	22	5.5	131	119	87	117	63	45	48	43	37	14
4.2	5.5	2.0	103	19	102	20	6,5	128	118	83	112	59	40	53	39	37	12
5.3	5.4	2.2	103	17	100	26	4.6	121	110	82	110	59	41	45	40	35	14
3.5	5.5	2.6	105	14	113	21	4,8	127	121	89	118	61	42	47	-	-	11
3.8	5.3	1.1	99	17	103	20	8.0	-	-	-	-	-	-	-	-	-	-
3.0	6,4	1.7	98	13	98	20	3.7	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	124	119	85	111	59	40	50	-	-	12

Table 3 (continuation 1).

Burial No.	32. Angle of proj. of brow from n	Angle of proj. of brow from gl	33(1). Angle upper part of occiput	33(2). Angle lower part of occiput	33(4).Angle curve of occiput	34. Angle of occipit. foram.	77. Naso-malar angle	Zygo-maxillary angle	72. Total angle of face	73.Angle medial part of face	74.Angle alveolar part of face	75. Angle nasal bone	75(1). Angle projection of nose	79. Angle ramus of mandible	C'. Angle of chin	Supercilliary (along Martina 1-6)	Mammiform appendix (1-3)
441	-	-	-	-	-	-	-	-	-	-	-	-	-	I32	-	-	-
449	82	75	90	37	I27	-I	I44	I35	87	89	80	63	24	I20	67	3	2
453	75	67	87	29	II6	-3	I40	I26	84	85	80	-	-	I24	64	3	2
451	84	75	9I	33	I24	+4	I50	I38	-	90	-	64	24±2	I26	7I	3	2
455	86	80	94	30	I24	-2	I45	I40	86	90	74	72	I4	I28	73	3	2
450	8I	70	90	27	II7	+2	I5I	I35	87	90	77	66	2I	I28	72	5	2
527	8I	72	89	42	I3I	+4	I40	I33	88	9I	76	68	20	I25	72	3	2
523	78	74	9I	27	II8	-I5	I44	I25	79	82	68	56	23	I4I	70	3	2
519	84	75	87	3I	II8	+8	I50	I4I	85	88	75	62	23	I08	8I	3	3
518	73	66	74	32	I06	+7	I42	I32	89	90	86	68	2I	I3I	68	5	3
512	83	75	88	3I	II9	-4	I56	I38	87	89	8I	-	-	I22	78	4	3
511(a)	85	78	I00	32	I32	+3	I45	I37	84	85	8I	6I	23	I35	64	3	3
506	8I	74	88	24	II2	-2	I45	I28	88	90	8I	66	22	I28	73	3	2
504	85	77	93	27	I20	-II	I50	I36	84	86	79	69	I5	I23	-	3	2
502	84	77	88	30	II8	-I	I47	I42	85	87	80	6I	24	I29	74	3	2
496	85	76	87	29	II6	+I	I5I	I35	8I	8I	8I	54	27	I25	78	3	3
491	84	78	94	30	I24	-8	I52	I40	86	90	74	75	II	I30	7I	2	2
498	7I	64	87	30	II7	+2	I52	I33	82	83	79	58	24	I32	68±I	4	2
485	8I	75	89	33	I22	+3	I44	I28	8I	8I	8I	59	22	I32	-	2	2
488	8I	79	86	25	III	+2	I49	I33	8I	84	72	59	22	I25	72	2	2
486	86	79	90	25	II5	-2	I48	I38	83	88	68	70	I3	I22	79	2	I
482	79	76	89	26	II5	-4	I48	I37	-	88	-	60	26±2	I22	67	3	2
480	8I	7I	94	34	I28	-I	I44	I28	88	88	88	62	26	II9	66	4	2
473	88	84	95	27	I22	-3	I5I	I37	85	87	78	60	25	I26	83	I	2
474	80	73	90	27	II7	-2	I54	I30	84	85	8I	6I	23	II7	75	3	2
475	82	75	83	42	I25	-7	I47	I38	83	86	75	-	-	I25	76	3	2
471	84	74	88	27	II5	-4	I46	I34	-	9I	-	69	20±2	II3	75	3	2
467	85	79	90	28	II8	-7	I45	I33	86	86	86	66	20	II7	69	2	I
469	82	76	90	29	II9	-7	I42	I28	93	96	82	72	2I	II5	66	3	2
466	86	80	98	23	I2I	-7	I49	I33	82	86	68	64	I8	I37	75	2	2
465	84	75	82	24	I06	-7	I44	I3I	84	84	84	56	28	I22	74	4	2
463	80	72	79	37	II6	-4	I45	I36	85	86	8I	64	2I	I20	78	4	3
456	83	78	87	38	I25	-3	I45	I33	85	89	74	69	I6	I24	79	4	2
308	8I	75	89	3I	I20	-3	I47	I35	8I	83	73	59	22	I22	77	4	2
286	89	85	87	4I	I28	0	I39	I37	89	93	77	66	23	I24	77	2	2
298	83	77	98	2I	II9	-3	I44	I25	84	85	8I	6I	23	I23	79	3	2
287	82	7I	9I	36	I27	-8	I50	I39	86	89	76	-	-	I22	70	5	2
303	83	77	82	30	II2	-2	I42	I38	86	86	86	68	I8	-	-	3	2
295	9I	80	85	34	II9	+3	I50	I36	89	89	89	67	22	-	-	4	2
307(a?)	-	-	-	-	-	-	-	-	-	-	-	-	-	II9	69	-	-

Thickness pars tympanica, MM	Transvers profile of spine of nose (0-2)	Lower edge of pyriform foramen	Frontal-nasal barb (1-5)	Norma occipit. (lat. sides/vault)	Sinus sagittalis	Torus occipitalis (0-3)	Os postaquamosum (d/s), MM	Foramina tympanica (d/s)	Foramina supraorbitalia (d/s)	Foramina infraorbitalia(d/s)(supp.)	Torus palatinus (0-3)	Torus mandibularis (0-3)	Foramina mentalia(d/s)(supp.)	Arcus mylohyoideus (d/s)	Grinding of teeth (upper/lower, 0-3 +)	Loss of teeth (upper/lower)
-	-	- -	-	-	-	-	-	-	-	-	2	0/0	0/0	-/3	-/0
3	I	ant 2	3/2	?	2	I2/I6	0/0	0/0	0/0	0	0	0/0	0/0	2/2	0/0
4	2	f.p. 2	I/3	s	3	0/0	+/+	0/0	0/0	0	I	0/+	0/0	3/3	0/0
2	0	ant 3	2/2	?	I	0/0	0/0	+/+	0/0	I	I	0/0	0/0	3+/3+	+/+
4	2	f.p. 2	3/3	d	0	0/0	0/0	0/0	0/0	0	I	+/+	0/0	3/3	0/0
3	0	ant -	I/2	d	3	0/0	0/0	+/+	0/0	0	3	0/0	0/0	3+/3+	+/0
3	I	f.p. 2	2/3	d	I	0/0	0/0	+/+	0/+	0	0	0/0	0/0	I-2/I-2	0/0
3	0	f.p. 3	2/3	?	2	0/7	0/0	0/+	0/0	2	0	0/0	0/0	3/3	+/+
6	0	f.p. 2	2/3	d	I	I5/0	0/0	+/0	0/0	I	I	0/0	0/0	3/3	0/0
6	0	ant 3	I/3	d	3	0/0	0/0	+/+	0/0	0	2	0/0	0/0	3/3	0/0
2	I	ant 3	2/3	?	I	0/0	0/+	+/+	0/0	0	3	0/0	0/0	3+/3+	0/0
3	I	ant 4	2/3	d	0	0/II	+/+	+/+	0/0	0	0	0/0	0/0	3/3	0/0
4	2	s.p. 2	2/3	?	3	I4/0	0/0	0/+	+/+	2	I	0/0	0/0	3+/3+	0/+
4	2	ant 2	2/3	s	2	0/I8	+/0	+/0	0/+	2	I	0/0	0/0	3/3	+/+
3	0	f.p. I	2/3	d	I	0/I2	0/0	+/+	0/+	I	0	0/0	0/0	3/3	0/0
5	2	f.p. I	2/3	?	I	0/0	0/0	+/+	+/0	2	2	0/0	0/0	2/I	0/0
4	0	ant -	3/I	?	I	0/0	+/+	+/+	0/0	0	I	0/0	0/0	2-3/2-3	0/0
2	2	f.p. 2	I/3	d	I	I0/I0	0/0	+/+	+/+	I	I	o/o	o/o	o/o	/
3	I	f.p. 2	2/3	d	0	0/0	+/+	+/0	0/0	2	2	0/0	0/0	3/3	+/+
4	2	f.p. I	2/I	d	2	-	0/0	0/0	0/0	0	2	0/0	0/0	I/I	0/0
5	0	ant 3	2/2	d	2	-	0/0	+/0	0/0	0	0	0/0	0/0	3/2	0/0
4	0	f.p. 2	2/2	d	2	I2/0	0/0	+/+	0/0	2	0	0/0	0/0	3/3	+/+
4	2	ant 3	2/3	d	2	0/I0	0/+	+/+	0/+	I	0	0/0	0/0	3/3	0/+
4	I	f.p. 2	2/2	d	0	I6/I3	+/+	0/0	0/0	0	I	0/0	0/0	I/I	0/0
7	2	ant I	2/2	d	I	0/I8	+/0	+/+	0/0	I	0	0/0	0/0	3/3	0/0
3	0	f.p. -	I/3	s	I	0/0	0/+	+/0	0/0	0	I	0/0	0/0	3/3	0/0
4	0	ant 2	2/3	d	2	I8/0	+/+	+/0	0/0	0	0	0/0	+/0	3/3	+/+
3	2	ant 2	2/3	d	I	0/0	0/+	0/0	0/0	2	I	0/0	+/0	3/3	0/0
2	0	f.p. -	I/3	d	2	0/I0	0/0	0/+	0/0	0	0	+/0	0/0	2-3/2	0/0
5	2	f.p. 2	2/2	d	0	0/I4	0/0	+/+	+/+	I	I	0/0	0/0	I/I	0/0
4	0	f.p. 3	2/3	d	3	0/0	0/+	0/+	0/+	2	I	0/0	0/+	3/3	0/+
4	0	f.p. 2	2/2	d	0	I4/0	0/+	0/+	0/0	0	0	0/0	0/0	3/3	0/0
2	0	f.p. 2	2/2	d	2	0/I2	0/0	0/+	0/0	0	0	0/0	0/0	2-3/2	0/0
4	2	f.p. 2	2/3	s	3	0/I8	0/0	+/+	0/0	2	3	0/0	0/0	3+/3+	0/0
4	0	ant -	2/3	s	0	0/0	0/0	+/0	0/0	0	I	0/0	0/0	3/2	0/0
5	2	f.p. 2	2/3	?	0	0/0	0/+	+/+	0/0	0	I	0/0	0/0	2-3/2-3	0/0
5	2	ant -	2/3	d	0	I7/I0	0/0	0/+	0/0	0	I	0/0	0/0	3/3+	+/+
5	0	f.p. 2	2/3	d	2	I3/0	0/0	+/+	0/0	I	-	-	-	3/-	0/-
4	0	f.p. 2	2/3	d	0	0/0	0/0	+/+	0/0	0	-	-	-	2/-	0/-
-	-	- -	-	-	-	-	-	-	-	-	0	0/0	0/+	-/3	-/+

Table 3 (continuation 2).

Inv. No. AMNH coll. 99.1	Burial No.	Sex	Age	1. NOL	1b. GOL	8. XCB	17. BBH	20. BPH	5. BNL	9. WFB	10. XFB	11. AUB	12. OCB+	7. FOL	16. FOB*
Group C															
325	283	♂?	ad.	–	–	–	–	–	–	–	–	–	–	–	–
314	245	♂?	ad.	–	–	–	–	–	–	–	–	–	–	–	–
317	248	♂?	ad.	181	180	139	144	115	104	97	113	129	115	41.1	29.9
312	243	♂?	ad.	192	189	140	135	114	109	93	114	135	108	38.5	30.5
315	246	♂?	sen.	178	177	140	136	118	104	99	116	132	109	37.7	28.9
336	282	♂?	mat.	190	189	137	142	116	108	96	115	127	106	39.3	33.0
305	236	♂?	ad.	188	187	137	149	128	105	93	111	135	108	38.8	32.3
295	224	♂?	mat.	189	188	133	145	120	112	97	118	–	–	38.6	33.1
289	214	♂?	ad.	184	183	136	138	120	107	96	118	130	110	41.2	33.0
288	213	♂?	mat.	–	–	136	140	118	–	98	–	124	107	37.2	31.0
292	218	♂?	mat.	196	195	130	136	118	99	98	109	124	108	35.8	29.7
284	208	♂?	mat	190	189	134	–	127	–	98	114	126	108	–	–
283	207	♂?	ad.	–	–	–	–	–	–	93	–	–	–	–	–
277	204	♂?	mat.	191	189	130	140	117	109	94	105	125	104	38.8	31.8
319	254	♂?	ad.	189	188	134	138	117	108	98	110	129	112	41.6	34.0
278	197	♂?	mat	185	184	139	140	122	107	96	114	130	111	36.7	30.5
266	193	♂?	sen.	188	188	134	139±1	118	105±1	94	110	124	110	37.1	30.6
265	192	♂?	mat.	188	185	133	136	115	107	96	110	125	98	35.2	32.6
263	190	♂?	mat.	–	–	–	–	–	–	–	–	–	–	36.3	31.1
Group D															
227	164	♂?	ad.	181	178	134	137	117	103	90	112	129	103	41.0	32.0
233	161	♂?	sen.	198	197	139	151	127	113	104	117	132	107	35.8	30.0
228	159	♂?	sen.	195	194	138	144	126	107	94	115	132	114	36.2	34.1
250	146	♂?	sen.	181	182	134	136	114	103	98	113	128	104	35.4	30.2
253	141	♂?	mat	192	192	130	–	121	–	95	108	122	106	–	–
235	156	♂?	sen.	204	199	136	149	123	119	99	113	133	110	41.5	33.0
252	136	♂?	mat.	185	182	135	138	117	107	91	109	129	104	35.0	29.9
Group E															
260	183	♂?	sen.	181	180	124	140	118	106	91	107	120	99	31.7	28.4
241	188	♂?	sen.	189	188	139	143	119	107	102	118	135	114	40.8	29.4
237	170	♂?	mat.	191	190	139	141	122	104	97	115	129	107	35.6	29.9
242	181	♂?	mat.	185	180	124	134	111	112	93	108	124	98	38.6	33.7
256	187	♂?	ad.	193	190	139	143	116	105	100	115	133	108	37.1	32.6
246	150	♂?	ad.	188	188	133	135	112	107	99	113	131	102	38.5	33.1
Group F															
363	313	♂?	sen.	197	196	139	139	120	113	99	118	139	110	40.4	31.6
364	314	♂?	ad.	194	192	139	140	116	111	104	116	137	113	38.9	35.6
367	318	♂?	sen.	190	187	140	138	117	107	100	116	136	114	39.5	32.0
369	320	♂?	sen.	178	177	136	138	118	104	100	118	132	110	40.7	34.0
372	323	♂?	sen.	–	–	–	–	–	–	–	–	–	–	–	–
373	324	♂?	mat	179	178	136	137	115	104	93	112	127	107	38.6	31.2
374	325	♂?	sen	170	168	134	132	109	99	91	112	124	102	37.8	31.6

23a. Horiz.circ. through ophr	24. Transverse arc	25. Sagittal arc	26. FRK	27. PAK	28. OCK	29. FRC	30. PAC	31. OCC	31(1). Lambda-inion chord	31(2). Inion-opisthion chord	GLS	45. ZYB	40. BPL	48. NPH	47. Full height of face
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
509	305	360	120	122	118	106	110	101	67	42	23	136±1	104	74	124
523	304	369	130	127	112	114	114	93	68	35	26	142	107	75	124
505	309	355	117	120	118	103	110	97	74	39	25	144	108	73±1	–
525	308	379	128	130	121	112	116	98	63	52	27	140	97	79	124
522	324	392	135	137	120	119	123	103	67	49	26	140	–	–	–
522	305	378	136	125	117	117	111	99	67	41	29	137	107	80	131
520	318	367	133	121	113	116	108	95	63	45	28	146	111	79	121
–	–	365	132	120	113	114	109	97	61	45	29	135±2	–	70	–
529	304	402	135	141	126	113	127	103	66	51	30	133	96	64	–
521	325	392	136	131	125	118	118	103	70	50	28	141	–	78	127
–	–	–	–	–	–	–	–	–	–	–	–	–	–	77	–
512	300	373	130	126	117	114	114	98	62	48	25	140	103	81	128
522	304	359	121	120	118	107	109	97	61	48	25	146	101	77	125±2
519	320	375	131	129	115	115	115	99	73	34	27	141	107	81	127
518	308	385	130	137	118	115	122	96	69	41	26	134±2	110±1	76	–
512	302	374	130	124	120	112	111	97	68	43	28	142	109	82	128
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
499	304	360	118	130	112	101	114	96	70	33	21	138	107±1	76	122
541	325	404	149	131	124	127	118	99	61	54	31	147	105	80	130
532	326	395	137	117	141	119	110	113	81	51	28	141	109	82	130
505	302	369	126	130	113	109	117	95	61	46	28	137	97	75	120
520	315	383	130	132	121	113	120	98	70	45	29	–	–	–	–
533	312	380	131	126	123	115	115	99	64	51	24	152	106	87	133
505	304	372	130	128	114	114	114	96	66	44	25	143	109	74	–
496	298	377	122	133	122	109	119	103	64	52	24	132	109	79	122±2
526	315	379	132	125	122	112	113	103	68	46	28	150	100	80	124±2
525	320	389	132	131	126	114	118	106	77	43	28	141	103	79	128
493	290	350	125	125	100	109	108	88	48	50	25	138	103	76	123
523	303	385	134	111	140	118	104	112	79	52	26	144	98	77	126
515	298	370	123	129	118	108	116	97	55	59	25	138	103	75	–
542	315	386	138	123	125	119	113	102	75	47	28	148	111	85±1	–
535	305	372	128	125	119	113	113	100	68	45	25	156	107	81	128
530	307	373	126	130	117	112	117	97	60	53	22	148	–	–	–
511	310	355	128	119	108	112	107	92	58	47	26	144	97	75	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
500	307	360	125	121	114	108	109	98	60	50	28	140	105	69	110
479	295	340	118	115	107	106	104	93	68	33	23	134	93±1	65±1	101±2

Table 3 (continuation 3).

Burial No.	43. fmt-fmt	46. Medial width of face	60. MAL	61. MAB	62. OSL	63. OSB	55. NLH	54. NLB	51. DUB	51a. OBB	52. OBH	DC. Dacryal chord	DS. Dacryal height	MC. Maxillo-frontal chord	MS. Maxillo-frontal height	SC. WNB	SS. WNH	Bimalar chord fmo-fmo	Height n over chord fmo-fmo	Zygo-maxillary chord zm1-zm1	Height of ssp over chord zm1-zm1	Depth canine recess	Mandible: 65. Condylar breadth	66. Angular breath	68. Length of angles	68(1). Length of condyle	70. Height of ramus	71a. Breadth of ramus	67. Front width	69. Height of symphesis	69(1). Body height	69(3). Body thickness
263	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	I27±2	II3±2	80	II2	62	40	49	-	34	I2
245	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	II9	I05	77	III	57	39	49	-	32	I2
248	I03	I02	54	69	46.9	41.7	53	23.2	42.2	40.0	34.2	20.3	I0.6	I5.5	7.4	5.9	3.4	94	I3	98	24	1.5	II2	II0	75	II4	59	34	49	35	3I	I3
243	I09	I00	60	68	54	44.I	54	23.I	46,I	43.2	35.4	20.9	9.I	I6,6	5.5	8.3	5.0	I0I	I8	I04	24	7.2	I22	II6	9I	II9	59	4I	49	37	35	I2
246	II2	99	-	-	-	-	53	2I.I	45.5	43.5	37.0	I8.2	9.2	I7.0	4.7	8.0	2,0	I04	I3	I09	2I	7.0	I27	II5	84	II3	58	4I	46	-	33	I5
262	II2	I03	53	6I	47.5	39.5	59	2I.I	47.9	45.0	37.0	I7.5	8.9	I6.0	4.7	5.0	I.6	I02	I6	I02	24	4.3	I2I	II4	83	II5	60	38	52	37	34	I3
236	I08	I07	6I	70	55.3	43.4	-	-	-	-	-	-	-	-	-	-	-	99	I4	-	-	4.4	I37±I	I03	82	I07	59	40	49	37	34	I0
224	III	I02	57	6I	50.2	35	58	25.7	44.0	40.0	34.0	24.5	8,3	20.9	4.3	I0.6	I.9	I00	I3	99	24	2.7	I20	I06	83	I2I	66	42	45	4I	38	I2
2I4	I07	I05	60	-	52.5	-	57	26.5	45.3	43.I	40.3	I7,3	II.5	I4.0	7.I	7.9	4.7	99	I5	I03	23	8.7	I3I	II9	82	II6	57	39	48	35	33	I2
2I3	I05	-	-	-	-	-	50	24.6	42.I	4I.8	33.0	I9.6	8.7	I7.3	3.7	6,3	2.0	96	I2	-	-	5.7	-	98	-	-	-	32	45	-	3I	I0
2I8	I08	I04	-	-	-	-	45	23.2	44.8	42.4	35.8	20.9	8.I	I8.0	5.0	3.9	2.2	I0I	I6	I00	I7	6.0	-	-	-	-	-	36	52	-	-	I0
208	I07	I05	58	67	5I.7	40.9	54	26.0	42.0	39.I	35.I	2I.4	7.7	I7.5	4.2	9.3	2.4	98	I4	I02	I9	4.I	I2I	I07	85	II8	52	42	48	40	38	I2
207	I03	I09	-	-	5I.9	45.0	54	23.7	44.8	-	35.4	I9,3	I0.6	I6.3	5.9	8.0	4.I	95	I4	I06	24	4.7	-	III	79	III	53	40	47	35	33	I0
204	I09	II2	55	67	48.7	39.I	59	23.3	43.I	40.5	35.0	23.2	II.I	I9.0	6.0	4.7	3.0	I0I	20	II4	27	3,8	I24	I09	79	II4	54	42	48	4I	36	I2
254	II6	III	53	7I	45.9	44.5	58	25.7	48.8	43.I	38.7	23.8	I0.2	I7.8	4.3	7.5	3.I	I06	I6	I05	23	8.I	I24	I08	84	II2	60	39	43	35	34	I0
I97	I08	I05	59	67	5I.0	43.4	54	23.7	46.0	44.I	38.4	-	-	I4.4	5.3	7.0	3.0	I00	I5	I0I	22	5.5	I23	II7	83	II3	52	38	50	39	36	I3
I93	I04	-	-	-	-	-	53	-	43.0	40.5	34.5	20.0	8.7	I8.5	5.0	6,5	2.I	97	I6	-	-	-	-	-	-	-	-	-	-	-	-	-
I92	III	I08	56	66	49.7	40.0	54	22.7	44.8	43.I	35.8	I9.5	7.6	I7.4	3.7	2,0	0.3	I0I	I5	I05	20	I,2	I25	I24	83	II3	54	43	50	38	33	II
I90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	95	-	-	60	37	47	33	3I	I0
I64	I03	I0I	56±I	66	50.2	42.3	56	24.0	43.5	4I.3	37.5	I6.8	7.6	I6.6	4.2	4.2	2.2	97	I2	99	I9	4.5	I20	III	88	II3	58	43	52	35	29	I2
I6I	II6	II3	67	69	5I.4	43±I	57	25.0	48.0	45.0	37.0	20.0	I0.3	I7.5	5.0	8.2	2.4	I06	I8	I09	20	3.2	I27	II3	84	II3	57	42	47	40	35	I2
I59	I06	II4	58	73	50.7	46.5	6I	26.0	44.5	4I.0	32.5	I8.9	7.8	I6.8	4.9	5.3	I.8	97	I4	II2	26	3.0	I30	I24	82	II7	63	43	49	38	33	I4
I46	I04	I00	-	-	-	-	56	25.0	44.0	40.9	36.I	I9.9	I0.3	I5.9	6.0	6.I	3.I	96	I5	98	23	5.9	II7	I05	76	III	54	37	45	38	3I	II
I4I	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
I56	II5	II6	58	67	5I.I	40.2	66	24.0	49.8	47.8	4I.0	I9.3	I0.7	I8.9	6.6	6,4	3.2	I07	I9	II3	22	5.0	I35	I25	89	II7	59	40	50	37	35	II
I36	I08	I05	60	66	55.3	39.0	50	25.I	45.7	44.0	33.I	I9.0	7.5	I6.9	3.4	3,6	0.7	99	I4	I0I	I8	4.6	-	-	-	-	-	-	-	-	-	-
I83	I04	I05	-	-	-	-	55	26,5	44.9	4I.4	37.7	I6,6	I2.3	I4.I	5.8	6,5	4.2	96	I5	I0I	2I	8.2	II6	I04	85	II7	58	37	47	-	-	I3
I88	II5	I04	53	64	45.8	42.3	58	25.2	46.4	43.2	36.9	2I.9	6,4	I7.0	2.9	6,4	I.7	I04	I7	I03	25	6.I	I32	II5	89	II6	56	4I	50	35	32	I0
I70	I08	I08	58	70	50.0	44.2	54	23.4	44.3	4I.7	33.I	2I.2	8.5	I8.7	4.9	4.8	3.3	98	I4	I07	2I	3.2	I26	I20	82	II5	54	4I	52	4I	33	I4
I8I	I09	I0I	55	66	46.8	4I.9	55	2I.I	46.6	42.8	39.8	I7.2	7.7	I5.7	3.7	2.0	0.6	I02	I8	I0I	22	6.I	I22	I06	76	I08	54	36	48	36	3I	II
I86	II5	III	52	65	45.9	38.9	57	24.0	47.3	44.6	34.0	I6.8	II.0	I4.I	5.0	6.2	2.I	I03	I8	II0	I9	4.5	I26	III	84	II4	66	40	50	34	3I	I3
I50	I08	II0	53	63	47.5	40.6	53	26.9	45.0	42.9	37.9	I7.0	9.0	I6,6	4.9	5.3	I,8	98	I5	I08	22	3.8	-	-	-	-	-	-	-	-	-	-
3I3	II9	II4	-	-	-	-	6I	27,5	47.6	45.9	37.I	24.0	II.6	22.I	7.0	6.7	3.0	III	I7	III	20	7.0	I36	II9	80	II7	59	40	48	-	-	I0
3I4	I22	III	57	70	52.3	44.3	62	25.0	5I.7	48.I	4I.I	20.9	8.8	I7.2	5.2	5.8	2.9	III	I6	I07	24	2,8	I33	II9	90	II8	63	38	50	35	3I	I2
3I8	II8	I04	-	-	-	-	55	27.0	48.6	46.2	36.3	20.5	I0.6	I7,2	6.8	8.6	4.2	III	I5	I05	22	4.8	I28	I20	8I	III	60	37	47	-	-	9
320	II2	I04	-	-	-	-	54	2I.5	48.I	45.0	40.7	I8.3	8.7	I4.8	5.2	6.6	2.3	I05	I5	I03	23	4.9	-	-	-	-	-	-	-	-	-	-
323	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	I32	II6	84	II9	50	35	45	-	-	I3
324	I09	97	55	63	49.2	4I.6	49	24.9	44.3	42.7	33.2	20.6	8,2	I8.6	5.3	7.0	3.6	I00	I2	97	20	6.0	II4	I06	78	I09	52	39	46	33	29	II
325	I03	-		-	-	-	48	24.I	43.0	40.7	36.0	I9.7	9.6	I5.7	5.8	6,2	3,6	95	I6	-	-	-	I28	I07	74	I02	62	35	46	28±I	25	II

Table 3 (continuation 4).

Burial No.	32. Angle of proj. of brow from n	Angle of proj. of brow from gl	33(1). Angle upper part of occiput	33(2). Angle lower part of occiput	33(4).Angle curve of occiput	34. Angle of occipit. foram.	77. Naso-malar angle	Zygo-maxillary angle	72. Total angle of face	73.Angle medial part of face	74.Angle alveolar part of face	75. Angle nasal bone	75(1). Angle projection of nose	79. Angle ramus of mandible	C'. Angle of chin
263	–	–	–	–	–	–	–	–	–	–	–	–	–	I30	70
245	–	–	–	–	–	–	–	–	–	–	–	–	–	I32	63
248	85	78	92	40	I32	+5	I49	I28	80	81	77	60	20	I37	71
243	80	70	100	24	I24	–1	I41	I30	84	88	73	66	18	I23	71
246	90	85	84	29	II3	+2	I52	I38	81	83	75	58	23	I22	–
282	84	75	86	29	II5	–3	I45	I30	90	90	90	70	20	I27	66
236	–	–	–	–	I24	–	I49	–	–	–	–	–	–	II9	81
224	83	77	98	32	I30	–2	I51	I28	85	86	80	70	I5	I30	72
214	83	80	88	34	I23	–5	I46	I32	81	85	69	64	I7	I31	82
213	–	–	–	–	I31	–	I52	–	–	–	–	–	20	–	–
218	90	78	100	22	I22	–21	I45	I42	86	89	77	–	–	–	–
208	88	81	90	24	II4	–	I48	I39	84	88	74	66	18	I35	73
207	–	–	–	–	–	–	I47	I31	–	–	–	–	18±2	I31	64
204	80	75	93	31	I24	+5	I37	I29	87	88	83	69	18	I35	76
254	83	78	87	36	I23	0	I46	I33	86	90	71	–	–	II9	76
I97	85	81	100	32	I32	–2	I47	I33	85	86	81	64	21	I29	75
I93	80	77	97	21	II8	–	I44	–	80	85	67	–	–	–	–
I92	81	77	92	26	II8	+2	I47	I38	85	89	77	68±2	17±2	I29	75
I90	–	–	–	–	–	–	–	–	–	–	–	–	–	I27	–
I64	83	77	97	35	I32	–2	I52	I38	80	83	70	56±1	24±1	I21	69
I61	85	79	92	28	I20	–3	I42	I40	89	93	77	–	–	I24	74
I59	86	80	86	31	II7	–8	I48	I30	87	87	87	62	25	I27	74
I46	86	83	98	25	I23	–3	I45	I30	87	88	83	60	27	I34	72
I41	–	–	–	–	II4	–	–	–	–	–	–	–	–	–	–
I56	76	67	84	33	II7	–4	I41	I37	90	93	79	71±1	I9	I22	68
I36	81	74	87	27	II4	–3	I49	I41	82	86	72	–	–	–	–
I83	80	78	95	28	I23	–7	I45	I35	80	81	77	55	25	I38	–
I88	86	78	89	37	I26	–5	I44	I28	89	92	79	70	I9	I22	64
I70	86	79	97	24	I21	0	I48	I37	87	90	79	71	I6	I31	72
I81	74	68	88	38	I26	+1	I41	I33	87	90	76	–	–	I30	78
I86	79	68	89	26	II5	–4	I41	I42	89	92	73	70	I9	II9	70
I50	79	74	85	31	II6	–10	I46	I36	85	88	77	70	I5	–	–
313	77	70	87	23	II0	–8	I46	I40	87	89	81	67	20	I30	–
314	77	68	93	29	I22	–2	I48	I32	85	88	74	60±2	25±2	I20	62
318	75	69	86	32	II8	–7	I50	I34	–	86	–	56	28±2	I24	70
320	82	79	88	33	I21	–	I48	I32	87	87	87	–	–	–	–
323	–	–	–	–	–	–	–	–	–	–	–	–	–	I39	–
324	89	84	87	39	I26	–3	I53	I35	82	85	72	65	I7	I32	71
325	80	72	98	31	I29	–4	I43	–	86	90	73	70	I6	I26	66

Burial No.	Supercilliary (along Martina 1-6)	Mammiform appendix (1-3)	Thickness pars tympanica, MM	Transvers profile of spine of nose (0-2)	Lower edge of pyriform foramen	Frontal-nasal baib. (1-5)	Norma occipit. (lat. sides/vault)	Sinus sagittalis	Torus occipitalis (0-3)	Os postaquamosum (d/s); MM	Foramina tympanica (d/s)	Foramina supraorbitalia (d/s)	Foramina infraorbitalia(d/s)(supp.)	Torus palatinus (0-3)	Torus mandibularis (0-3)	Foramina mentalia(d/s)(supp.)	Arcus mykohyoideus (d/s)	Grinding of teeth (upper/lower, 0-3+	Loss of teeth (upper/lower)
263		–	–	–	–	–	–	–	–	–	–	–	–	–	I	0/0	0/0	-/2	-/0
245		–	–	–	–	–	–	–	–	–	–	–	–	0	0	0/0	0/0	I/I	0/0
248	3	I	4	I	f.p.	3	2/3	♂	0	I0/0	0/0	+/+	0/0	I	0	0/0	0/0	I/I	0/0
243	3	2	4	2	f.p.	3	2/I	♀	0	0/0	0/0	+/0	0/0	0	I	0/0	+/+	I/I	0/0
246	3	3	5	0	ant	2	2/3	♀	I	0/0	0/0	0/0	0/0	2	3	0/0	0/0	3+/3+	+/+
282	4	2	5	I	f.p.	2	2/3	♂	2	0/0	0/0	+/+	0/0	0	I	0/4	0/0	3/3	0/0
236	3	2	5	–	f.p.	–	2/3	?	0	0/I2	0/0	0/0	0/0	I	I	0/0	0/+	I/I	0/0
224	3	2	3	0	f.p.	2	3/3	♀	0	0/0	0/0	+/+	0/0	0	3	0/0	0/0	2/2	0/0
214	2	2	3	0	f.p.	2	2/3	♀	0	I4/0	0/0	+/+	0/0	I	0	0/0	0/0	3/3+	0/0
213	4	I	3	2	f.p.	I	–	♀	0	I5/9	0/0	0/0	0/0	0	I	0/0	0/0	3+/3+	+/+
218	4	2	4	2	f.p.	2	2/2	♂	I	0/0	0/0	+/+	+/+	2	I	0/0	0/0	3/3	+/+
208	3	2	5	0	a.p.	I	2/3	♀	I	5/5	0/0	+/0	0/0	I	0	0/0	0/0	3/3+	0/+
207																			
204	2	2	3	0	f.p.	3	–	♂	0	0/0	+/+	+/0	0/0	I	I	0/0	0/0	2/2	0/0
254	3	3	5	I	f.p.	2	2/3	♂	3	5/5	0/+	+/+	0/0	0	0	0/0	0/0	3/2–3	0/0
I97	3	3	4	2	f.p.	–	I/2	♂	I	0/0	+/+	0/+	0/0	0	I	0/0	+/+	3/3	0/0
I93	2	2	4	0	a.p.	4	2/3	♀	I	I4/I4	0/0	0/0	0/0	0	0	0/0	0/0	3+/3+	0/0
I92	3	2	4	0	ant	–	2/2	♀	0	0/0	0/0	+/+	0/0	2	0	0/0	+/0	3/3+	+/+
I90	2	2	3	0	f.p.	I	2/3	♀	0	20/5	+/+	+/+	0/0	0	I	0/0	0/0	3/3	+/+
I64	–	2	3	–	–	–	–	♀	0	0/0	0/0	–	–	0	0	0/0	0/0	I/I	0/0
I61	3	2	4	2	f.p.	–	2/3	♀	0	I8/20	0/0	+/+	0/0	0	0	0/0	0/0	I/I	0/0
I59	3	2	5	0	f.p.	2	2/3	♀	2	0/0	0/0	+/0	+/0	I	3	0/0	0/0	3+/3+	0/0
I46	3	2	4	0	f.p.	I	2/3	♀	2	0/0	0/0	+/+	0/+	3	3	0/0	0/+	2/2	0/0
I41	2	2	6	I	f.p.	3	2/3	♂	2	I4/0	0/0	+/+	0/0	I	I	0/0	0/0	3+/3+	+/+
I56	3	2	5	–	–	–	2/2	♀	I	4/0	+/+	0/0	–	–	–	–	–	-/-	-/-
I36	3	2	5	I	ant	2	I/3	♀	2	II/5	0/0	+/+	0/0	0	I	0/+	+/0	3/3	0/0
I83	2	2	3	I	f.p.	I	2/3	♂	I	0/0	0/0	+/0	0/0	2	–	–	–	3/-	0/-
I88	2	2	6	I	f.p.	2	2/3	♀	0	5/0	0/+	0/0	0/0	3	3	0/0	0/0	3+/3	+/+
I70	4	2	3	I	f.p.	2	2/3	♀	I	7/7	0/0	+/0	0/0	I	I	0/0	0/0	3/3	0/0
I81	3	2	2	2	ant	I	2/3	♂	I	0/I3	0/0	0/+	0/0	I	2	0/0	0/0	3/3	0/0
I86	5	2	3	2	ant	2	2/3	♀	2	0/0	0/0	+/+	0/0	I	I	0/0	0/0	3/3	0/0
I50	5	2	5	0	ant	2	I/3	?	I	0/0	0/0	+/+	0/0	I	0	0/0	0/0	2/2	0/0
313	3	2	3	I	f.p.	2	2/3	♀	0	0/0	+/+	+/+	0/0	0	–	–	–	I/-	0/-
314	4	3	4	0	ant	–	2/2	♀	2	0/0	+/+	+/+	0/0	I	I	0/0	+/+	3/3	+/+
318	3	3	5	2	f.p.	3	2/3	?	0	0/0	0/0	+/+	0/0	0	I	0/0	+/+	2-3/2-3	0/0
320	3	2	4	0	ant	2	2/3	♀	2	0/0	0/0	+/+	0/0	0	I	0/+	0/+	3/3	+/+
323	3	2	4	0	f.p.	–	2/3	♀	0	0/0	0/0	+/+	0/0	I	–	–	–	3+/-	+/-
324																			
325	3	2	4	2	inf	2	2/2	?	2	0/0	0/0	0/0	0/0	0	I	0/0	+/0	2/2	0/0
	3	2	5	I	ant	–	2/I	?	0	6/4	+/+	+/+	0/0	I	I	0/0	+/0	3+/3+	+/+

Table 3 (continuation 5).

Inv. No. AMNH coll. 99.1	Burial No.	Sex	Age	1. NOL	1b. GOL	8. XCB	17. BBH	20. BPH	5. BNL	9. WFB	10. XFB	11. AUB	12. OCB+	7. FOL	16. FOB*
Group F															
379	332	♂	ad.	177	176	142	134	115	106	100	119	130	114	39.2	35.0
386	341	♂	mat.	184	183	138	142	117	110	101	113	133	107	38.0	30.7
380	334	♂	mat.	175	174	145	143	119	105	97	119	134	106	35.6	31.3
382	337	♂	sen.	183	180	138	–	121	–	94	110	137	112	–	–
381	336	♂	mat.	184	181	139	135	115	108	102	114	134	110	36,7	32.0
338A	344	♂	mat.	190	186	135	141	120	105	93	118	128	111	35.0	28.2
395	352	♂	sen.	181	179	137	140	115	106	95	113	132	109	39.9	33.1
393	349	♂	mat.	180	179	136	135	113	108	94	111	129	117	37.4	31.5
400	358	♂	sen.	190	184	141	140	117	111	88	110	138	111	37.0	33.6
396	354	♂	sen.	188	186	138	140	114	115	89	113	135	109	39.9	34.7
398	356	♂	mat.	–	–	–	–	–	–	–	–	–	–	–	–
392	348	♂	mat.	191	190	135	140	120	114	103	118	131	111	41.9	33.0
390	346	♂	mat.	181	180	140	140	121	104	101	119	137	102	36,7	31.0
402	360	♂	sen.	189	185	138	141	120	111	102	117	132	106	40.9	35.0
397	355	♂	mat.	189	185	135	145	119	110	97	110	131	107	44.91	34.0
403	363	♂	sen.	185	184	142	–	120	–	99	114	136	111	–	–
404	364	♂	sen.	185	183	140	139	116	108	102	118	136	106	37.5	34.0
407	367	♂	sen.	185	184	140	142	121	107	98	116	136	104	–	–
408	368	♂	mat.	183	182	141	143	118	104	102	119	133	111	35.2	33.5
410	371	♂	mat.	171	169	131	128	109	93	90	108	123	108	36.8	31.0
432	397	♂	ad.	178	178	139	139	117	99	97	118	125	110	32.6	27.4
439	405	♂	mat.	189	189	135	142	122	105	95	113	130	106	37.8	28.8
435	400	♂	sen.	194	191	139	140	117	110	102	111	134	119	39.6	33.9
435A	400(a	♂	ad.	189	187	147	142	117	110	104	122	138	111	38.9	35.9
428	391	♂	mat.	192	188	142	145	122	107	99	119	132	107	41.5	33.0
431	396	♂	ad.	188	185	146	146	127	104	104	124	134	111	36.5	32.4
426	389	♂	mat.	186	184	137	137	115	106	95	108	130	103	39.7	31.1
441	407	♂	mat.	186	184	143	136	116	103	96	114	135	107	42.0	33.1
450	420	♂	mat.	183	180	130	138	116	102	97	111	125	104	36,7	28.0
434	399	♂	sen.	189	190	147	142	125	106	97	115	139	118	36.0	30.9
436	401	♂	ad.	187	184	137	139	119	103	100	114	130	107	41.4	29.6
462	432	♂	sen.	185	182	137	143	125	105	94	112	129	109	36.7	33.3
445	413	♂	ad.	177	177	148	142	124	101	100	117	141	110	32.3	29.9
447	415	♂	mat.	199	197	141	146	125	109	97	112	133	105	39.4	30.6
446	414	♂	sen.	182	179	125	142	118	105	96	108	124	106	37.2	29.1
452	422	♂	sen.	186	186	131	137	115	105	98	105	122	96	34.7	28.7
463	433	♂	sen.	180	178	129	129	111	102	99	112	125	102	39.0	29.1
453	423	♂	ad.	185	181	140	144	122	101	97	118	131	112	43.4	31.1
468	439	♂	sen.	190	189	142	141	120	103	96	118	130	112	36.0	34.8
460	430	♂	mat.	182	181	140	133	117	107	95	113	132	107	36.7	30.2
466	437	♂	ad	177	1781	137	131	110	106	99	113	129	107	37.6	30.7
Iplutak															
69	12	♂	mat	188	187	140	140	116	108	98	116	134	108	36.5	28.5

23a. Horiz.circ. through ophr	24. Transverse arc	25. Sagittal arc	26. FRK	27. PAK	28. OCK	29. FRC	30. PAC	31. OCC	31(1). Lambda-inion chord	31(2). Inion-opisthion chord	GLS	45. ZYB	40. BPL	48. NPH	47. Full height of face
506	314	349	127	102	120	110	92	102	78	32	26	138	103±1	70±1	112±2
518	312	365	136	119	110	116	107	94	66	41	30	145	106	75	124
509	318	360	128	120	112	114	104	99	56	51	26	146	95±1	76±1	124±2
509	316	370	120	118	132	108	105	112	81	44	20	146	–	–	–
515	305	363	119	115	129	107	104	110	75	49	21	146	108	71	112
516	322	378	126	121	131	114	109	106	75	47	25	145	105	77	–
512	310	364	124	113	127	108	111	110	80	44	24	148	–	–	–
505	304	344	119	115	110	108	106	94	62	45	23	137	105	74	114
517	309	367	115	123	129	104	111	105	68	57	19	150	–	–	–
516	305	354	125	110	119	112	101	99	60	54	25	147	105	80	123±3
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
528	312	363	128	117	118	112	105	97	69	44	26	141	105	78	129
519	322	364	130	124	110	115	111	93	57	47	26	139	96	79	129
522	318	368	128	128	112	112	113	93	63	45	24	146	–	–	–
517	310	371	134	128	109	117	113	93	72	34	26	149	109	75	124±2
521	320	363	122	109	132	110	101	107	76	47	23	141	–	81±2	130
524	313	366	122	106	138	108	97	112	85	46	23	150	101	75	–
513	322	374	129	124	121	115	110	101	66	49	26	149	103	75	121
518	316	369	129	121	119	113	112	99	65	49	26	140	104	76	–
484	291	352	123	120	109	105	107	92	68	36	25	133	93	74	123
508	311	371	125	130	116	107	116	95	65	42	28	129	96±1	74	–
522	315	377	132	110	135	112	103	108	73	51	29	142	107	79	130
535	304	370	122	127	121	106	116	100	65	49	23	152	106	79	128
534	317	370	126	120	124	112	109	104	72	44	26	149	111	76	–
529	320	380	137	118	125	118	110	102	73	45	27	147	109	79	126
529	334	395	140	136	119	122	120	96	67	45	28	148	108	79	130
512	305	362	121	126	115	109	113	96	57	50	24	149	106	80	129
520	310	365	127	120	118	108	107	103	71	43	25	143	102	78	127
502	302	363	131	118	114	113	108	96	63	46	26	137	100	72	121
540	321	385	138	120	127	121	113	105	65	56	28	144	100	78	131±2
516	307	366	125	125	116	111	112	91	69	39	22	139	101	72	119
515	325	382	128	138	116	115	121	98	65	47	24	144±1	101	77	122
520	324	374	135	123	116	116	110	97	62	48	29	152	97	75	127
542	325	390	136	126	128	117	115	103	75	46	28	146	105	78	130
497	300	363	126	120	117	112	108	98	61	51	23	140	104	76	117
508	298	373	128	130	115	110	116	96	59	49	28	136	102	74	–
497	295	350	121	119	110	106	107	90	63	40	25	135	98	78	123±2
515	320	373	130	118	125	116	108	106	71	47	25	151	98	74	120
527	321	392	131	142	119	113	122	100	65	52	26	145	101	77	124
512	312	354	122	117	115	111	106	97	64	44	23	140	113	73	109
504	300	342	119	106	117	106	98	97	65	46	25	136	108	71	114
522	309	370	126	117	127	112	106	104	64	58	26	145	104	76	–

Table 3 (continuation 6).

Burial No.	43. fmt-fmt	46. Medial width of face	60. MAL	61. MAB	62. OSL	63. OSB	55. NLH	54. NLB	51. DUB	51a. OBB	52. OBH	DC. Dacryal chord	DS. Dacryal height	MC. Maxillo-frontal chord
332	109	98	52±1	64	47±1	41.4	51	24.2	47.2	43.5	37.5	17.3	7.5	14.0
341	114	110	60	71	52.0	43.5	57	24.5	46.5	43.7	34.9	21.6	7.8	18.8
334	112	105	-	-	-	40.9	57	26.1	49.6	46.7	38.2	17.5	8.1	13.6
337	111	101	-	-	-	-	55	23.8	45.2	44.3	35.7	20.0	6.9	17.1
336	113	103	-	-	-	-	51	24.6	47.1	44.3	34.6	-	-	18.7
344	107	103	56	69	49.4	43.0	55	22.0	44.0	42.0	34.7	17.5	11.3	16,1
352	111	106	-	-	-	-	56	24.4	47.2	45.1	39.9	17.0	12.7	16.9
349	110	105	55	67	47.5	40.8	57	26.7	46.8	43.5	38.5	20.0	10.7	19.5
358	106	106	-	-	-	-	59	26.2	45.0	42.3	35.4	18.2	12.7	16.9
354	111	105	55	64	47.8	43±1	60	27.4	47.0	43.3	39.3	21.4	10.8	19.4
356	-	-	-	-	-	-	-	-	-	-	-	-	-	-
348	116	100	56	61	47.2	37.4	57	22.0	46.6	45.0	39.3	19.5	11.7	18.5
346	112	105	54	67	46.3	40.2	59	26.0	45.2	43.9	35.1	20.5	10.0	19.2
360	116	100	-	-	-	-	56	20.2	48.4	44.7	38.2	20.0	10.9	17.3
355	113	105	58	64	51.3	41.5	56	25.3	44.0	41.8	35.6	18.0	12.2	17.2
363	111	105	-	66	-	-	56	27±1	43.6	40.1	37.0	24.0	11.0	19.7
364	116	110	52	65	46.6	42.2	57	23.7	46.7	43.4	36.6	23.9	9.7	20.2
367	107	101	54	65	48.0	42.6	51	22.6	45.2	43.0	35.0	16.7	9.7	14.4
368	112	105	57	68	50.9	39.4	54	23.8	45.6	44.0	39.5	20.4	9.1	16,5
371	102	103	50	63	43.5	40.3	52	22.1	42.0	40.5	33.2	15.3	7.9	13.1
397	106	97	50±1	65	42.11	42.11	52	-	42.1	41.0	36.7	18.0	7.3	15.3
405	111	100	58	71	50.6	45.4	54	23.0	43.0	40.0	34.0	21.1	8.7	17.0
400	116	114	56	74	49.0	46.0	55	24.9	51.0	47.7	35.0	20.9	5.0	17.0
400(a)	113	110	60	72	53.3	45.0	58	25.1	45.1	42.6	36.6	21.6	9.0	17.7
391	114	105	62	75	53.3	45±1	55	23.6	46.8	44.0	35.1	20.0	10.2	18,2
396	112	109	58	71	51.9	47.0	56±1	-	46.9	44.1	34.9	20.0	8.5	17.0
389	113	113	57	73	50.0	42.7	52	24.3	46.2	43.6	37.8	21.4	9.1	18.8
407	111	106	55	63	46.0	37.0	55	18.91	46.9	43.3	34.0	-	-	-
420	107	105	53	65	44.8	39.8	53	21.2	43.9	41.9	33.8	18.8	9.1	16.7
399	113	104	55	67	47.0	41.3	55	27±05	47.5	44.2	34.3	21.9	10.4	18.0
401	112	108	53	62	47.0	38.3	52	22.7	44.3	40.7	36.0	21.3	8.6	18.0
432	109	107	55	64	51.2	39.5	56	24.7	47.8	44.5	37.4	20.4	12.0	15.5
413	110	110	53	67	46,1	41.7	54	24.3	45.7	42.9	35.4	18.0	8.2	15.1
415	112	98	58	68	48.2	42.6	54	23.8	45.7	42.7	36.3	20.4	12.3	17.7
414	109	104	59	67	51.6	40.0	56	24.3	44.5	42.0	34.4	17.8	8.4	16,2
422	110	104	-	-	-	-	51	-	47.9	44.7	35.2	18.0	7.1	15.9
433	107	94	54	63	47.0	39.2	54	22.8	45.2	43.2	37.4	19.7	7.2	18.0
423	111	112	52	65	43.0	38.1	56	24.2	43.6	42.5	37.0	19.1	9.3	18.5
439	109	110	56	72	48.0	45±1	56	25.3	46.9	42.8	35.9	18.2	9.1	15.3
430	111	104	61	70	54.2	48±1	52	26.0	46,6	44.0	33.5	19.5	8.6	19.3
437	108	100	56	64	51.7	37.1	53	24.8	43.9	39.9	31.4	23.0	8.3	20.0
12	108	103	56	-	48,9	-	56	25,0	45,7	42,4	40.3	18.5	9.0	16.2

MS. Maxillo-frontal height	SC. WNB	SS. WNH	Bimalar chord fmo-fmo	Height n over chord fmo-fmo	Zygo-maxillary chord zm1-zm1	Height of ssp over chord zm1-zm1	Depth canine recess	Mandible								
								65. Condylar breadth	66. Angular breath	68. Length of angles	68(1). Length of condyle	70. Height of ramus	71a. Breadth of ramus	67. Front width	69. Height of symphesis	69(1). Body height	69(3). Body thickness
4.2	4.5	1.5	101	14	95	22	6,4	115	105	84	111	54	39	47	34	31	12
4.3	5.5	2.4	105	17	108	24	4.0	127	120	80	115	53	37	50	39	33	13
3.8	3.7	1.5	102	14	103	22	3.5	128	121	83	112	54	40	46	38	34	10
4.0	5.3	1.9	101	15	100	22	5.5	120	110	75	118	58	42	49	-	-	14
4.3	5.0	2.3	104	17	102	20	5.3	124	112	82	116	54	36	45	-	-	10
7.6	5.0	2.7	95	12	103	20	3.4	-	-	-	-	-	-	-	-	-	-
5.9	5.3	2.8	103	14	103	25	3.7	129	115	83	112	62	37	44	-	30	10
6.3	5.5	2.5	101	18	104	24	6.8	128±2	106	79	110	49	36	47	32	29	14
7.5	5.2	3.5	98	14	105	23	6.3	134	120	82	118	64	41	47	36	35	12
5.7	6,6	2.4	103	18	101	22	8.4	134	122	85	112	57	41	47	34	32	13
-	-	-	-	-	-	-	-	121	116	85	114	58	43	48	39	36	13
6.8	6,6	2.8	104	20	98	20	6.4	124	109	81	114	63	40	43	38	37	13
5.9	6.4	2.6	100	14	105	23	5.1	118	112	78	108	55	37	47	38	34	12
7.2	8.1	4.7	105	21	99	20	4.7	123	115	87	120	66	42	45	36	38	12
6.9	6,4	3.9	100	13	97	23	7.6	124	107	84	112	62	44	47	37	36	14
5.5	6.9	1.9	101	19	106	25	5.1	129	116	79	118	53	37	49	-	37	13
5.8	5.8	3.5	107	13	107	21	3.7	134	121	80	103	59	40	45	-	-	10
5.5	3.4	1.3	98	17	99	21	5.4	125	102	80	110	58	37	47	38	32	12
4.4	6.6	2.7	103	15	105	22	8.0	-	-	-	-	-	-	-	-	-	-
4.9	4.9	2.0	92	10	99	21	6,4	117	106	70	105	52	36	48	38	34	13
3.9	5.0	1.4	95	12	95	21	-	-	-	-	-	-	-	-	-	-	-
4.9	6.9	3.0	100	14	100	25	4.0	123	114	85	117	63	40	49	45	39	16
2.1	6,5	1.1	110	16	112	21	5.5	125	114	83	113	61	39	49	38±1	35	10
5.2	8.0	3.2	103	14	108	26	7,3	-	-	-	-	-	-	-	-	-	-
6.0	5.0	4.2	106	13	103	21	5.5	132	113	89	119	66	40	49	40	35	15
4.7	6.5	3.7	104	15	-	-	4.4	135	131	79	115	68	41	51	40	36	13
6.8	6.3	2.7	102	16	114	21	5.4	122	115	86	118	60	41	49	41	36	14
-	-	-	101	14	105	20	5.0	129	112	86	114	61	42	48	37	33	12
5.0	2.3	0.9	96	14	101	23	4.4	123	107	79	108	58	42	47	37	32	14
5.3	10.0	4.2	105	16	101	23	4.8	126	112	85	115	61	37	48	40	38	12
3.0	5.0	1.6	99	14	106	23	4.0	122	110	80	108	63	41	43	33	31	11
5.7	5.1	2.2	101	17	104	21	6,6	127	119	78	113	59	40	50	39	32	11
4.2	6,6	2.4	102	14	104	18	4.9	124	113	85	115	58	37	49	39	36	12
6.5	7.1	3.1	104	17	97	23	4.9	124	115	86	115	61	41	50	41	37	14
4.6	1.21	201	97	14	102	27	3.2	12 0	111	85	114	58	44	46	36	31	12
3.5	6,5	1.3	102	18	101	21	3.7	120	103	84	113	56	36	45	-	-	10
4.7	6.9	2.0	111	18	89	21	6.7	119	111	85	114	55	40	47	35	33	11
6.4	6.2	2.7	102	13	109	20	7,3	128	113	83	109	63	41	49	34	32	13
5.3	4.2	1.7	102	14	107	18	2.7	134	117	85	114	61	37	48	36	31	13
4.6	6.0	1.9	102	17	99	23	4.1	124	106	83	118	52	38	49	-	30	11
4.9	3.2	1.0	99	16	96	21	5.3	115	107	76	105	48	37	45	35	29	12
4.5	4.0	1.3	98	14	99	26	5.4	-	-	-	-	-	-	-	-	-	-

Table 3 (continuation 7).

Burial No.	32. Angle of proj. of brow from n	Angle of proj. of brow from gl	33(1). Angle upper part of occiput	33(2). Angle lower part of occiput	33(4).Angle curve of occiput	34. Angle of occipit. foram.	77. Naso-malar angle	Zygo-maxillary angle	72. Total angle of face	73.Angle medial part of face	74.Angle alveolar part of face	75. Angle nasal bone	75(1). Angle projection of nose	79. Angle ramus of mandible	C: Angle of chin	Supercilliary (along Martina 1-6)
332	83	77	92	38	I30	-I	I49	I30	85±I	88	75±2	67	I8±I	I24	68	3
341	85	77	92	29	I21	-5	I44	I32	85	89	70	71	I4	I36	76	3
334	80	75	90	44	I34	-I	I49	I34	90	93	81	-	-	I26	70	3
337	80	70	88	37	I25	-	I47	I32	-	86	-	58	I5±2	I26	-	5
336	78	68	86	35	I21	-9	I44	I37	81±I	86	67±2	-	-	I34	-	4
344	84	76	86	31	II7	+2	I52	I38	86	89	77	63	23	-	-	4
352	80	72	91	32	I23	-6	I50	I28	-	82	-	51	29±2	I26	68±2	4
349	78	74	89	33	I22	+3	I41	I30	84	87	72	68	I6	I30	76	2
358	73	65	78	36	II4	-6	I48	I33	-	90	-	61	27±2	I29	63	5
354	75	71	81	39	I20	-3	I41	I33	85	87	77	64	21	I22	73	3
356	-	-	-	-	-	-	-	-	-	-	-	-	-	I24	76	-
348	79	74	86	33	II9	-I	I38	I36	88	91	79	59	29	I24	74	3
346	84	78	91	35	I26	-I	I49	I33	90	91	86	73	I7	I27	69	3
360	79	70	85	32	II7	0	I36	I36	-	86	-	63	21±2	I25	65	5
355	78	69	90	27	II7	+2	I51	I29	82	84	75	58	24	I21	78	4
363	80	74	85	35	I20	-	I39	I29	-	90	-	71	I7±2	I431	73±2	2
364	79	72	82	30	II2	-I	I53	I37	87	88	84	58	29	II5	-	4
367	82	78	85	36	I21	-	I42	I34	88	90	83	60	28	I26	75	2
368	84	77	90	29	II9	-2	I47	I34	80	81	77	59	21	-	-	3
371	85	80	96	24	I20	-I0	I55	I34	84	86	78	57	27	I35	74	3
397	89	86	98	25	I23	-3	I52	I32	87	88	84	-	-	-	-	2
405	87	79	82	39	I21	0	I49	I27	84	84	84	59	25	I27	74	4
400	82	73	89	31	I20	+3	I47	I39	85	87	80	-	-	I23	76	4
400(a)	81	75	90	33	I23	+3	I50	I28	80	82	72	60	20	-	-	3
391	82	72	88	28	II6	+4	I52	I36	80	83	72	58	22	I23	74	5
396	85	79	94	20	II4	+I	I48	-	82	-	-	-	-	I28	71	4
389	80	73	94	35	I29	-2	I45	I40	83	87	73	60	23	I27	76	3
407	84	74	91	36	I27	-3	I49	I38	88	90	82	-	-	I22	71	4
420	83	75	92	29	I21	0	I47	I31	84	86	78	65	I9	I25	76	3
399	87	82	90	29	II9	-12	I46	I31	90	90	90	65	25	I24	72	3
401	79	68	90	22	II2	-6	I48	I33	85	85	85	56	29	I20	74	4
432	79	72	94	28	I22	-5	I42	I36	89	92	79	68	21	I27	75	4
413	89	80	89	33	I22	-5	I49	I42	89	92	79	-	-	I25	67	4
415	85	76	87	30	II7	+I	I44	I29	90	90	90	67	23	I23	74	4
414	78	71	88	34	I22	+3	I48	I24	82	83	78	59	23	I23	73	4
422	87	80	94	29	I23	-3	I41	I35	86	91	73	-	-	I26	-	3
433	81	75	92	27	II9	-3	I44	I30	85	88	77	75±I	I0±I	I25	72	3
423	81	75	90	34	I24	+3	I51	I40	85	85	85	62	23	II8	75	4
439	84	76	90	28	II8	-5	I49	I43	86	90	73	70	I6	I22	69	4
430	80	75	91	33	I24	-4	I43	I30	80	83	71	70	I0	I37	73	2
437	83	80	85	37	I22	+4	I44	I33	82	84	75	61	21	I31	78	I
I2	81	73	81	35	II6	-3	I48	I24	84	85	81	67	27	-	-	3

Mammiform appendix (1-3)	Thickness pars tympanica, MM	Transvers prattle of bone of nose (0-2)	Angle of lower edge of puttam foramen	Frontal-nasal barb. (1-5)	Norma occipit. (fat. sides/vault)	Sinus sagittalis	Torus occipitalis (0-3)	Os postaquamosum (d/s), MM	Foramina tympanica (d/s)	Foramina supraorbitalia (d/s)	Foramina infraorbitalia(d/s)(supp.)	Torus palatinus (0-3)	Torus mandibularis (0-3)	Foramina mentalia(d/s)(supp.)	Arcus myhohyoideus (d/s)	Grinding of teeth (upper/lower, 0-3+)	Loss of teeth (upper/lower)
I	3	0	inf	2	2/I	?	0	0/0	0/0	+/0	0/0	2	0	0/0	0/0	3+/2	0/0
2	4	2	f.p.	2	2/2	a	I	0/0	0/0	0/+	0/0	2	0	0/0	+/0	I/I	0/0
2	4	2	f.p	2	2/3	d	2	0/0	0/0	+/+	0/0	I	I	0/0	0/0	3+/3+	+/+
2	6	2	f.p	2	2/3	d	I	0/0	0/0	0/+	0/0	0	I	0/+	0/0	3+/3+	+/+
2	4	I	f.p	I	2/3	a	2	I4/0	0/0	+/+	+/0	I	0	0/0	0/+	3+/3+	+/+
2	5	0	ant	2	2/3	?	2	0/0	0/0	0/0	0/0	I	-	-	-	3/-	0/-
2	5	2	ant	4	2/3	d	0	0/0	+/+	+/0	0/0	I	I	0/0	+/+	3/3	+/+
I	4	I	f.p.	2	2/I	d	I	0/0	+/+	0/+	0/0	0	0	0/0	+/0	I/I	0/0
I	3	2	ant	-	I/3	d	2	0/0	0/0	0/0	0/0	0	2	0/0	0/0	3/3	+/0
2	4	0	ant	2	I/3	d	2	I6/7	0/0	+/0	0/0	0	0	0/0	+/+	3/3	+/+
-	-	-	-	-	-	-	-	-	-	-	-	-	I	0/0	+/+	-/3	-/0
I	5	0	ant	3	2/3	d	I	5/I2	+/+	+/+	0/0	0	0	0/0	+/0	2/2	0/0
2	4	2	f.p.	2	2/2	a	I	0/0	0/0	+/+	0/+	0	0	0/0	0/0	2/2	0/0
2	5	0	ant	-	2/2	d	0	I0/0	0/0	0/0	0/0	0	I	0/0	0/+	3/3	+/+
2	2	I	f.p.	2	2/3	d	2	0/0	0/0	+/0	0/0	2	I	0/0	0/0	3/3	0/0
I	4	0	f.p.	-	2/I	d	I	0/0	0/0	0/+	0/0	0	0	0/0	0/0	3/3	0/0
3	2	2	f.p.	3	2/2	d	0	I2/I2	0/0	0/+	0/0	0	0	0/0	0/0	3/3	+/+
2	4	2	ant	5	2/3	d	I	0/0	+/+	0/0	0/0	I	0	0/0	0/0	3/3	0/0
2	4	I	f.p.	2	2/2	d	0	0/0	0/0	+/0	0/0	I	-	-	-	3/-	0/-
2	2	2	ant	2	2/2	d	0	0/I5	0/0	0/+	0/0	0	I	0/0	0/0	3/3	0/0
I	3	0	ant	-	2/2	d	0	I0/I5	0/0	+/+	0/0	I	-	-	-	I/-	0/-
I	2	2	f.p.	3	2/3	d	I	0/6	0/0	0/0	+/+	I	2	0/0	0/0	3/3	0/0
I	3	0	f.p.	I	2/3	d	I	0/0	0/0	+/0	0/0	2	I	0/0	0/0	3+/3+	+/+
2	2	0	ant	2	2/2	d	I	I0/I2	0/0	0/+	+/+	0	-	-	-	3/-	0/-
3	6	2	f.p.	2	2/3	a	I	0/0	0/0	0/+	0/0	0	2	0/0	0/+	3+/3	0/+
3	6	2	-	-	2/2	?	0	7/7	0/0	0/+	0/0	2	I	0/0	0/0	2-3/3	0/0
2	3	2	f.p	2	2/2	d	0	I3/0	0/0	+/+	0/0	I	2	0/0	0/0	3/3	0/0
2	5	-	ant	2	2/2	a	2	0/0	0/0	0/0	0/0	0	I	0/0	0/0	3/3+	0/+
2	3	2	unt	2	2/2	d	I	0/0	0/0	+/+	0/+	I	I	0/0	+/0	2/2	0/0
2	3	0	ant	4	I/3	d	3	0/0	0/0	0/+	0/0	I	2	0/0	0/0	3+/3+	+/+
2	4	2	ant	3	2/2	d	I	4/4	0/0	0/+	0/0	I	I	0/0	+/+	2/2	0/0
2	3	0	f.p.	2	2/3	?	I	0/0	0/0	0/0	0/0	I	2	0/0	0/0	3/3	+/+
2	2	0	ant	-	2/3	a	0	0/0	0/0	0/+	0/0	0	I	0/+	0/0	3/3	0/0
I	3	0	f.p.	2	2/2	d	3	0/0	0/0	0/+	0/0	0	I	0/0	0/0	2/2	0/0
2	3	2	f.p.	I	2/3	?	2	0/I8	+/+	0/+	0/0	I	0	0/0	0/0	3/3	0/0
I	3	I	f.p.	-	3/I	d	I	0/0	0/0	+/+	0/0	I	0	0/0	0/0	3+/3+	+/+
I	2	0	f.p.	-	2/2	?	0	0/0	0/0	+/+	0/0	I	0	0/0	0/0	3+/3+	0/0
2	5	2	f.p.	2	2/3	d	I	0/0	0/0	0/0	+/0	2	I	0/0	+/0	3/3	0/0
3	3	0	f.p.	I	2/3	a	I	0/0	0/0	0/0	0/+	0	0	0/0	0/0	3/3	+/+
I	2	I	ant	I	2/2	d	I	0/0	0/0	+/+	0/0	I	0	0/0	0/0	3+/3+	+/+
2	I	2	f.p.	I	2/I	?	0	0/0	0/0	+/+	0/0	0	I	0/0	0/0	I/I	0/0
3	4	0	ant	3	2/3	?	0	0/0	+/+	+/+	0/0	0	-	-	-	3+/-	+/-

Table 3 (end).

Inv. No. AMNH coll. 99.1	Burial No.	Sex	Age	1. NOL	1b. GOL	8. XCB	17. BBH	20. BPH	5. BNL	9. WFB	10. XFB	11. AUB	12. OCB+	7. FOL	16. FOB*
Group A															
472	446	♀	ad.	I85	I85	I34	I36	II5	I01	I02	II4	I24	I06	36.0	32.7
473	448	♀	ad.	I86	I87	I34	I34	II2	I05	95	I09	I26	I08	38.9	29.2
477	452	♀	mat.	-	-	-	-	-	-	-	-	-	-	-	-
479	454	♀!	sen.	I81	I80	I27	I32	I09	I02	93	I05	II8	I07	38.3	31.0
Group B															
552	530	♀!	mat.	I76	I75	I23	I34	II4	I01	90	I05	II6	I02	37.3	29.2
546	524	♀!	mat.	I77	I77	I33	I36	II2	I01	92	II2	I25	I03	33.7	32.5
551	529	♀!	mat.	I79	I76	I35	I40	II5	I03	93	I09	I25	I07	37.2	30.6
544	522	♀!	mat.	I78	I77	I36	I37	II6	I00	91	III	I26	I06	32.91	30.8
543	520	♀!	ad.	I75	I74	I28	I34	II0	I02	90	I04	I22	I00	35.7	31.2
538	514	♀!	mat.	I79	I78	I34	I29	I08	I01	94	II2	I22	I04	36.9	29.9
540	516	♀!	mat.	I78	I77	I31	I28	I08	95	91	III	II8	I02	36.5	30.2
531	508	♀!	ad.	I75	I76	I35	I31	II5	I00	89	I06	I25	I02	33.5	27.7
528	505	♀	sen.	I77	I76	I33	I34	II7	I01	91	I06	I24	I09	34.2	29.5
532	509	♀!	ad.	I67	I66	I33	I31	II0	97	93	I08	I28	I05	34.2	30.5
537	513	♀!	ad.	I79	I80	I33	I35	II5	I00	86	I06	I23	I08	36.0	30.0
526	503	♀!	sen.	I81	I80	I33	I28	II3	98	96	III	I28	I02	34.6	29.9
517	494	♀!	ad.	I73	I72	I31	I25	I07	96	90	III	I22	I03	37.0	31.9
523	500	♀!	mat.	I74	I73	I39	I31	II3	98	96	II3	I23	III	32.01	30.0
522	499	♀!	mat.	I73	I74	I40	I33	II5	94	96	II6	I27	II0	33.9	29.9
524	501	♀!	sen.	I69	I69	I36	I32	II2	95	90	I04	I21	I05	31.61	29.9
515	492	♀!	sen.	I75	I75	I25	I33	III	I03	93	I03	I21	I03	37.7	32.8
513	490	♀!	mat.	I74	I74	I37	I29	II3	95	90	I08	I20	I05	34.0	28.6
520	497	♀!	ad.	I71	I72	I31	I30	II4	92	84	I08	II5	99	37.5	28.8
516	493	♀!	mat.	I79	I78	I33	-	II5	-	89	II4	II8	I04	-	-
510	487	♀!	ad.	I77	I76	I38	I37	I20	I00	94	I09	I26	II2	34±I	31.5
507	483	♀!	ad.	I75	I76	I36	I31	I08	I01	92	II0	I21	I04	38.8	31.4
512	489	♀?	mat.	I78	I77	I28	I33	III	I00	93	III	I22	I07	39.1	31.8
503	479	♀!	ad.	I80	I78	I29	-	II4	-	92	I07	II8	I04	-	-
502	478	♀!	mat.	I79	I78	I35	I31	I09	I01	91	II0	I28	I07	35.2	30.1
505	481	♀.	sen.	-	-	-	-	-	-	-	-	-	-	-	-
500	476	♀!	ad.	I80	I79	I35	I32	II0	99	92	I08	I27	I06	33.3	29.2
494	470	♀.	mat.	I84	I84	I23	-	II6	-	93	I01	II4	99	-	-
496	472	♀!	ad.	I71	I71	I35	I30	II0	95	93	III	I25	I03	36.8	29.8
489	464	♀!	ad.	I73	I72	I30	I29	I08	I01	92	II0	I24	I05	37.6	30.5

23a. Horiz.circ. through ophr	24. Transverse arc	25. Sagittal arc	26. FRK	27. PAK	28. OCK	29. FRC	30. PAC	31. OCC	31(1). Lambda-inion chord	31(2). Inion-opisthion chord	GLS	45. ZYB	40. BPL	48. NPH	47. Full height of face
515	308	379	I33	I28	II8	II2	II4	98	71	38	26	I26±I	97	70	II6
516	297	371	I30	I23	II8	II2	II0	I02	65	46	28	I35	I02	72	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
496	291	359	I25	I20	II4	I09	I08	96	73	34	28	I23	-	-	-
484	300	358	I29	I21	I08	II2	I07	95	66	38	29	I23	99	69	-
498	300	365	I22	I21	I22	I08	I09	I04	70	46	26	I31	97	80	I22
499	304	362	I29	I20	II3	II3	I08	98	63	45	27	I31	98	71	II5
502	311	374	I23	I26	I25	II2	III	I08	66	54	25	I31	I00	72	II8
486	294	352	I22	II6	II4	I08	I05	97	69	37	25	I27	I00	71	II5
500	296	359	I20	II9	I20	I05	I05	97	66	44	26	I33	98	68	III
495	292	363	I22	I21	I20	I07	I07	97	65	49	25	I34	97	74	II8
492	305	354	I24	II4	II6	I08	I03	96	67	43	26	I31	I00	70	II8
496	306	355	I31	I07	II7	II4	I00	97	67	42	27	I28	-	-	-
478	298	344	II9	98	I27	I05	90	I04	77	42	25	I36	94	72	II6
502	304	372	I27	I21	I24	II2	II0	I02	75	44	26	I27	91	73	II9
502	303	362	I28	III	I23	II0	I04	I00	70	43	29	I34	I00	69	I07
487	296	349	I25	II2	II2	II0	I01	93	67	38	27	I32	99	69	I09
502	311	355	I26	I09	I20	II0	99	I01	73	40	28	I30	-	-	-
501	316	365	I31	II3	I21	II2	I00	I01	81	33	29	I29	94±I	67±I	I03±2
489	300	358	I24	I21	II3	I08	I09	93	64	42	27	I34	90	70	I03
485	291	344	II8	II8	I08	I03	I07	88	61	40	24	I34	I04	76±I	II9
493	310	360	I31	II2	II7	II2	I01	97	67	44	28	I27	91	66±I	I05
480	300	359	I30	I20	I09	II3	I07	91	62	40	29	I20±I	97	73	II9
501	310	367	I31	I24	II2	II4	III	95	58	47	30	II8	-	-	-
502	322	368	I34	II6	II8	II4	I05	99	69	42	28	I34	I02	73	II7
498	293	345	II9	II6	II0	I02	I04	89	68	32	24	I31	95	66	I08
495	297	356	I28	II7	III	III	I06	94	69	35	28	I32	97	71	II4
497	298	-	I21	I33	-	I06	II8	-	-	-	25	I29	-	68±I	-
501	296	354	I22	I20	II2	I04	I08	93	56	50	26	I37	97	69	II2
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
499	298	360	I23	I23	II4	I07	I09	92	60	45	23	I35	97	69	II2
498	300	380	I25	II6	I39	I08	I06	I07	84	46	28	I20	-	73	II3
491	300	350	I21	II7	II2	I04	I03	96	56	48	27	I27	89	65	I09
489	288	342	II9	II7	I06	I05	I05	91	56	41	25	I34	99	69	III

Table 4. Individual measurements of female skulls from burials of the Tigara type.

Burial No.	43. fmt-fmt	46. Medial width of face	60. MAL	61. MAB	62. OSL	63. OSB	55. NLH	54. NLB	51. DUB	51a. OBB	52. OBH	DC. Dacryal chord	DS. Dacryal height
446	I06	99	5I	63	46.5	37.9	52	23.9	(42.9)	(40.8)	(33.9)	I8.2	6.8
448	I06	I00	52	6I	48.0	38.3	50	24.0	43.5	4I.3	36.0	-	-
452	-	-	-	-	-	-	-	-	-	-	-	-	-
454	-	-	-	-	-	-	-	-	-	-	-	-	-
530	I0I	I00	-	-	44.7	37.4	49	24.0	42.7	39.I	33.7	I7.6	8.4
524	I04	99	57	62	50.5	37.6	57	2I.4	44.0	4I.9	36.8	I7.5	9.6
529	I03	97	5I	62	47.3	4I.6	49	20.6	43.0	40.5	35.9	I9.4	II.7
522	I07	-	49	60	44.6	37.I	5I	2I.8	(45.8)	(43.0)	(36,5)	I8.0	9.2
520	99	9I	54	59	48.3	36.0	50	-	42.3	40.0	37.5	I6.6	9.6
5I4	I07	I0I	52	6I	46.9	37,2	46	22.3	44.8	42.9	37.9	I7.0	9.5
5I6	I07	I0I	56	6I	48.8	36.2	52	22.8	44.9	42.I	34.9	I7.0	7.0
508	I0I	I02	5I	65	48.3	40.I	5I	22.7	4I.0	40.0	34.6	I6.9	8.5
505	I04	98	-	-	-	-	49	-	45.0	42.9	35.9	I5.I	9.2
509	I05	98	50	59	46.4	38.4	5I	23.8	4I.5	39.5	33.7	I8.3	7.9
5I3	99	93	-	-	-	-	52	22.0	40.9	39.0	34.4	I5.3	8.8
503	I09	I03	55	66	47.0	4I.8	49	24.5	42.9	4I.I	34.2	I9.4	8,6
494	I02	I04	52	63	46.2	39.2	5I	25.0	42.7	40.3	37.7	I9.8	I0.5
500	I05	I0I	-	-	-	-	47	20.8	4I.3	39.3	35.2	I7.6	7.8
499	I04	97	-	-	-	-	48	23.4	4I.0	38.0	33.2	I8.7	8.2
50I	I0I	96	5I	59	42.6	37.5±I	49	23.3	43.2	40.0	36.4	I6.2	6.2
492	I03	96	56	59	5I.0	39.5	54	-	44.8	42.0	38.0	I8.0	7.3
490	I0I	94	49	60	42.5	38.6	46	22.0	4I.9	40.3	34.5	I6.4	8.I
497	95	97	56	6I	48.4	39,0	53	23.I	40.8	38.I	35.I	I7.0	7.9
493	99	-	-	-	-	-	-	-	-	-	-	-	-
487	I04	I05	53	6I	46.2	34.4	49	2I.8	4I.8	38.5	35.8	20.8	8.I
483	I06	96	49	62	42.6	40.3	49	22.5	43.4	4I.8	34.7	I5.8	8.9
489	I06	99	-	-	-	-	50	23.0	4I.2	38.6	34.2	20.9	7.3
479	I04	-	-	-	-	-	50	-	-	-	-	-	-
478	I09	I05	50	6I	44.4	37.0	48	23.5	47.7	45.3	33.3	I5.7	7.0
48I	-	-	-	-	-	-	-	-	-	-	-	-	-
476	I09	I03	50	62	44.I	35,4	48	24.I	48.0	46.I	33.3	I6.I	7.9
470	I02	95	5I	-	-	-	53	23.7	42.I	40.0	34.8	I6.9	8.0
472	98	96	48	60	42.8	36.8	50	2I.2	4I.5	-	36.6	-	-
464	IIO	I03	52	63	45.9	4I.0	50	23.6	45.I	42.2	36.9	I7.4	8.I

MC. Maxillo-frontal chord	MS. Maxillo-frontal height	SC. WNB	SS. WNH	Bimalar chord fmo-fmo	Height n over chord fmo-fmo	Zygo-maxilary chord zm1-zm1	Height of ssp over chord zm1-zm1	Depth canine recess	Mandible: 65. Condylar breadth	66. Angular breth	68. Length of angles	68(1). Length of condyle	70. Height of ramus	71a. Breadth of ramus	67. Front width	69. Height of symphesis	69(1). Body height	69(3). Body thickness
I6.5	4.0	6.2	I.8	95	I4	95	I9	5.2	II5	I02	7I	99	45	38	42	33	27	I2
I6.3	3.9	-	-	97	II	I00	2I	7.0	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	II9	I02	78	I07	50	38	43	38	34	I3
-	-	-	-	-	-	-	-	-	II6	94	75	I03	55	36	44	-	26	I2
I3.9	3.8	3,6	I.5	92	I4	99	2I	5.9	-	-	-	-	-	-	-	-	-	-
I6.3	4.2	6.2	2.5	98	I5	98	22	5.9	II9	I07	76	II2	50	34	44	36	3I	II
I6.7	5.0	7.7	2.8	95	I2	93	20	4.I	I2I	I02	76	I03	50	40	49	37	3I	II
I3.6	3.9	2.9	I.8	I0I	I5	-	-	4.3	I2I	II3	70	I0I	5I	37	45	34	29	II
I5.3	5.6	7.6	2.8	93	I8	89	23	-	II8	I03	70	I07	49	34	46	34	29	I0
I5.6	4.4	5.5	2.I	I00	I5	97	20	4.5	II8	I05	73	I03	56	36	45	33	3I	II
I3.0	3.6	5.7	2.3	97	I2	I00	20	6.I	II4	I05	78	I06	54	38	46	34	29	II
I4.9	5.4	5.7	3.0	93	I4	I00	22	2.9	II6	IIO	74	I03	55	39	49	33	30	I2
I4.4	5.3	6.I	2.I	97	I6	97	I8	-	II6	I07	72	97	47	33	44	34	28	9
I6.8	3.6	5.9	I.4	96	I4	I00	2I	4.I	I24	I08	72	99	52	38	44	34	30	II
I5.0	4.3	4.5	I.7	90	I6	9I	I8	4.I	I20	II3	69	I0I	5I	34	53	39	32	I3
I7.4	4.4	6.2	2.4	99	I4	I03	I9	3.3	II7	98	78	I04	52	37	46	35	-	II
I5.3	4.6	6.0	2.9	94	I4	I03	24	8.II	II7	99	78	I04	52	35	49	30	27	II
I6,6	4.3	5.3	I.8	95	II	99	I5	4.9	II6	I00	76	I04	53	37	46	33	29	I4
I5.2	4.3	5.0	I.5	93	II	96	I8	4.0	II4	97	74	I0I	50	37	45	-	-	I2
I4.I	3.9	5.9	I.5	93	I5	92	I7	4.7	I23	II3	70	I0I	49	33	46	-	-	I0
I6.I	4.0	6,6	I.8	97	I4	97	I9	7.8	II9	IIO	78	II4	48	33	50	36	3I	II
I4.0	4.2	7.0	2.I	92	I4	9I	I8	3.8	II5	I02	73	98	50	35	45	32	29	II
I4.8	5.5	4.6	I.3	86	I3	93	22	2.6	III	I0I	73	I08	53	37	43	36	30	II
-	-	-	-	92	I5	-	-	-	III	99	75	I04	49	3I	4I	-	-	8
I8.0	4.2	5.7	I.4	95	I4	I04	2I	5.2	II2	98	73	99	50	40	48	36	32	I4
I5.0	4.6	6.0	2.5	97	I4	94	I9	4.4	II7	I09	77	I0I	53	37	45	30	27	I0
I9.9	3.6	8.7	2.6	96	I2	95	I8	-	I2I	I00	77	I06	55	38	46	-	-	II
I8.4	5.8	7.I	2.6	-	-	-	-	-	II2	I05	77	I07	55	38	48	-	-	II
I3.4	3.2	3.0	I.4	I03	I5	I02	I8	4.4	II5	I02	8I	I04	59	4I	45	36	29	I2
-	-	-	-	-	-	-	-	-	-	IIO	-	-	-	39	48	-	-	I0
I5.2	4.I	3.3	I.9	I03	I5	I02	20	4.2	II6	I03	80	I03	63	4I	46	35	30	II
I5.5	4.2	4.8	I.3	95	I5	93	20	5.0	I08	I05	78	I04	48	39	46	-	-	I2
-	-	-	-	92	I3	95	I8	6.2	II5	I07	70	95	53	35	47	28	27	II
I5.7	4.4	6.2	2.3	I0I	I5	97	I9	9.2	II4	I03	84	IIO	53	42	48	3I	30	II

Table 4 (continuation 1).

Burial no.	32. Angle of proj. of brow from n	Angle of proj. of brow from gl	33(1). Angle upper part of occiput	33(2). Angle lower part of occiput	33(4).Angle curve of occiput	34. Angle of occipit. foram.	77. Naso-malar angle	Zygo-maxillary angle	72. Total angle of face	73.Angle medial part of face	74.Angle alveolar part of face	75. Angle nasal bone	75(1). Angle projection of nose	79. Angle ramus of mandible	C'. Angle of chin	Superciliary (along Martina 1-6)
446	84	82	I00	24	I24	-6	I47	I36	85	88	76	-	=	I32	74	3
448	85	80	96	35	I3I	-3	I54	I34	84	87	76	-	-	-	-	2
452	-	-	-	-	-	-	-	-	-	-	-	-	-	I3I	77	-
454	-	-	-	-	I20	-	-	-	-	-	-	-	-	I28	70±I	2
530	88	82	95	32	I27	-2	I46	I34	87	9I	76	-	-	-	-	3
524	84	79	97	28	I25	-9	I46	I32	86	89	78	64	22	I39	68	2
529	8I	73	93	34	I27	-3	I52	I34	85	88	77	68	I7	I28	74	3
522	83	79	93	32	I25	-I0	I47	-	90	92	85	-	-	I26	76±I	2
520	83	79	94	32	I27	-5	I38	I25	80	86	64	-	-	I38	77	2
5I4	82	78	9I	29	I29	-4	I47	I35	85	88	78	62	23	I27	7I	2
5I6	80	76	94	23	II7	-8	I52	I36	83	86	75	64	I9	I24	76	2
508	85	79	90	27	II7	-2	I46	I32	85	88	78	7I	I4	I26	75	2
505	84	79	90	34	I24	-5	I44	I39	-	94	-	65	27±2	I27	77	2
509	83	78	87	3I	II8	-2	I47	I34	86	88	82	64	22	I26	76	2
5I3	85	80	95	20	II5	-II	I4I	I37	90	93	82	-	-	I35	65	2
503	86	80	94	29	I23	-7	I48	I39	85	88	76	69	I6	I24	78	3
494	8I	76	96	23	II9	-9	I47	I30	82	86	70	60	22	I23	62	2
500	86	80	90	3I	I2I	-9	I54	I46	-	90	-	70	I8±2	I26	72±I	2
499	88	82	95	20	II5	-5	I53	I39	85	85	85	68	I7	I29	-	2
50I	86	82	96	24	I20	-7	I44	I39	87	90	79	-	-	I3I	-	2
492	80	74	89	3I	I20	-3	I48	I37	8I	87	65	67	I4	I4I	62	2
490	87	80	93	27	I20	-3	I46	I37	88	90	62	66	22	I25	72	2
497	88	85	95	28	I23	-9	I46	I29	83	85	78	66	I7	I35	70	I
493	-	-	-	-	-	-	-	-	-	-	-	-	-	I29	-	2
487	86	8I	9I	3I	I22	0	I47	I36	85	87	80	69	I6	I26	83	2
483	87	79	94	27	I2I	0	I48	I36	86	90	74	-	-	I2I	70	2
489	84	76	94	29	I23	I	I52	I38	85	86	8I	64	2I	I22	63±I	2
479	86	80	-	-	-	-	-	-	84±I	-	-	-	-	I28	76	3
478	84	73	87	3I	II8	+I	I47	I4I	85	88	76	-	-	II7	72	3
48I	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
476	82	75	93	26	II9	+2	I47	I37	85	85	85	68	I7	II4	72	3
470	90	84	92	I4I	I06	-	I45	I34	85	89	77	70	I5	I26	69±I	2
472	87	83	93	40	I33	-9	I49	I38	87	89	80	-	-	I23	75	I
464	8I	77	99	34	I33	-2	I47	I37	83	86	74	66	I7	I25	7I	2

Mammiform appendix (1-3)	Thickness pars tympanica, MM	Transvers profile of spine of nose (0-2)	Lower edge of pyriform foramen	Frontal-nasal barb (1-5)	Norma occipit. (lat. sides/vault)	Sinus sagittalis	Torus occipitalis (0-3)	Os postaquamosum (d/s), MM	Foramina tympanica (d/s)	Foramina supraorbitalia (d/s)	Foramina infraorbitalia(d/s)(supp.)	Torus palatinus (0-3)	Torus mandibularis (0-3)	Foramina mentalia(d/s)(supp.)	Arcus mylohyoideus (d/s)	Grinding of teeth (upper/lower, 0-3+)	Loss of teeth (upper/lower)
I	3	I	f.p.	I	3/3	d	0	0/0	0/0	0/+	0/0	3	2	0/0	0/0	2-3/2-3	0/0
I	4	-	f.p.	I	2/2	d	0	0/0	0/0	0/0	0/0	0	-	-	-	2/-	0/-
-	-	-	-	-	-	-	-	-	-	-	-	-	0	0/0	0/0	-/2	-/0
I	4	-	-	-	2/2	s	0	I2/8	0/0	0/0	0/0	-	I	0/0	+/0	-/3	-/+
-	2	2	inf	I	2/3	?	I	-	0/0	+/+	0/0	I	0	0/0	0/0	3/3	0/0
I	4	I	ant	2	2/2	d	0	0/8	0/0	0/0	0/0	3	0	0/0	0/0	2/2	0/0
2	5	0	ant	2	2/2	d	2	0/8	0/0	+/0	0/0	2	I	0/0	0/0	3/3	0/0
2	3	2	f.p.	2	2/3	?	I	II/0	0/0	+/+	+/0	3	0	0/0	0/0	3/3	0/0
I	3	0	-	-	2/2	s	0	0/0	0/0	0/0	0/0	I	0	0/0	0/0	2/2	0/0
2	3	0	ant	3	3/I	d	2	0/0	+/+	+/0	0/0	2	I	0/0	0/0	3/3	0/0
I	4	0	f.p.	4	2/2	?	I	8/0	0/0	+/+	0/0	0	I	0/0	0/0	3/3	0/0
2	5	I	ant	-	2/2	s	0	0/0	0/0	0/0	0/0	2	I	0/0	0/0	2/2	0/0
2	5	0	ant	-	I/2	d	I	0/0	+/+	0/0	0/0	2	3	0/0	0/0	3+/3+	0/0
2	4	0	ant	3	2/I	d	0	0/0	0/0	+/+	+/+	0	I	0/0	0/0	2/2	0/0
2	3	0	f.p.	2	2/2	s	2	II/0	0/0	0/0	0/0	2	2	0/0	0/0	3/3	0/0
2	5	2	ant	3	2/I	d	2	II/0	0/0	+/+	0/0	3	I	0/0	0/0	3+/3+	0/+
2	2	0	f.p.	2	2/2	?	0	0/0	0/0	0/+	0/0	2	0	0/0	0/0	2-3/2-3	0/0
I	3	0	f.p.	I	3/I	?	I	0/0	0/0	+/+	0/0	3	2	0/+	0/0	3+/3+	+/+
2	4	0	s.p.	-	3/I	d	I	I3/23	0/0	+/+	0/0	3	I	0/0	0/0	3+/3+	+/+
2	4	0	f.p.	I	3/2	s	0	4/4	0/0	+/+	0/0	0	3	0/0	0/0	3+/3+	0/+
2	3	0	ant	-	I/2	d	I	0/0	0/0	0/+	0/0	0	0	0/0	+/+	3/3	0/0
2	4	2	ant	-	3/I	d	I	I9/0	+/+	+/+	0/0	I	I	0/0	+/0	3/3	0/0
2	4	0	f.p.	-	2/I	s	0	0/0	0/0	+/+	0/0	I	0	0/0	0/0	2/2	0/0
2	3	-	-	-	2/I	d	0	0/0	0/0	0/0	0/0	I	0	0/0	0/0	3+/3+	+/+
I	5	0	f.p.	2	2/I	?	I	I0/0	0/0	+/+	0/0	0	0	0/0	0/0	I/I	0/0
2	3	2	ant	I	2/2	d	0	0/0	+/+	+/0	0/0	I	0	0/0	0/0	2/2	0/0
I	4	I	ant	2	2/I	d	I	0/0	0/0	+/+	0/0	3	I	0/0	0/0	3+/3+	+/+
2	3	0	-	-	2/3	d	0	0/0	0/0	+/0	0/0	3	2	0/0	0/0	3/3	+/+
2	2	2	f.p.	-	2/I	d	I	0/II	0/0	+/+	0/0	I	0	0/0	0/0	3/3	0/0
-	-	-	-	-	-	-	-	-	-	-	-	-	0	0/0	+/+	-/3	-/0
2	2	2	f.p.	I	2/I	d	I	I3/I5	0/0	0/+	0/0	I	0	0/0	0/0	3/3	0/0
I	4	0	inf	2	2/3	s	0	0/0	0/0	+/+	0/0	2	I	0/0	0/0	3+/3+	+/+
2	4	0	-	-	3/I	d	0	0/0	+/+	+/+	0/0	I	0	0/0	0/0	I/I	0/0
I	4	0	ant	2	2/3	d	I	0/0	0/0	+/+	0/+	I	0	0/0	0/0	2-3/2	0/0

Table 4 (continuation 2).

Inv. No. AMNH col. 99.1	Burial No.	Sex	Age	1. NOL	1b. GOL	8. XCB	17. BBH	20. BPH	5. BNL	9. WFB	10. XFB	11. AUB	12. OCB+	7. FOL	16. FOB*
Group B															
487	462	♀!	ad.	I75	I75	I3I	I34	II3	97	90	II2	II8	ID2	36,3	29.9
485	460	♀!	sen.	I68	I66	I36	I34	II2	99	89	I07	I29	I05	34.7	30.7
483	458	♀!	sen.	I74	I73	I33	-	II3	-	96	I09	II5	I08	-	-
482	457	♀!	ad.	I8I	I79	I32	I35	II2	I06	9I	I09	I27	I08	38.4	30.6
Group C															
359	3ID	♀!	ad.	I78	I78	I33	I3I	I09	99	9I	I08	I26	III	36,I	30.2
357A	308(a)	♀?	ad.	I83	I8I	I32	I35	-	I05	96	II3	-	I08	42.9	3I.0
352	30I	♀!	mat.	-	-	-	-	-	-	-	-	-	-	-	-
345	394	♀!	ad.	I8I	I78	I36	I36	II6	ID0	96	I09	I3I	I09	36.0	28.6
350	300	♀!	ad.	I83	I8I	I32	I3I	III	ID3	92	IID	I24	III	35.0	32.2
347	250	♀!	sen.	I79	I80	I33	I29	II7	98	95	III	II9	I05	-	-
3I8	252	♀!	mat.	I8I	I8I	I33	-	III	-	97	IID	I25	I0I	-	-
335	28I	♀	ad.	I77	I77	I42	I3I	II2	ID2	87	II5	I30	IID	36,6	30.7
334	275	♀!	ad.	I86	I86	I3I	I36	II5	ID0	95	III	I22	ID4	37.4	29.9
358	309	♀!	sen.	I80	I8I	I30	I34	III	I0I	9I	I08	I22	I05	33.7	28.4
355	307	♀!	mat.	I77	I77	I34	I3I	I08	I0I	96	II5	I26	ID4	37.4	3I.8
3I6	247	♀!	ad.	I70	I70	I37	I34	II4	ID0	92	IID	I27	I05	34.7	29.9
330	27I	♀!	sen.	I8I±I	I80±I	I30	I37	II8	I06	96	I05	I22	99	36.2	3I.0
330A	27I(a)	♀!	ad.	I8I	I8I	I32	I32	II4	98	96	IID	I26	IID	35.6	30.7
337	283	♀!	ad.	-	-	I25	I23	I08	-	-	-	II2	97	-	-
303	234	♀?	ad.	-	-	- -	-	-	-	-	-	-	-	-	-
302	233	♀!	ad.	I76	I76	I29	I33	II2	ID2	93	I08	I24	ID4	37.0	30.I
298	229	♀!	sen.	I76	I75	I25	I32	II5	99	94	I09	I25!	ID3	39.I	24.4
294	222	♀!	ad.	I77	I77	I29	I35	II3	IID	90	I06	I26	ID4	36,2	3I.0
296	225	♀!	mat.	I80	I80	I29	I33	II5	I0I	90	I08	I2I	IID	39.I	27.9
297	226	♀!	mat.	-	-	-	-	-	-	-	-	-	-	-	-
287	2I2	♀!	ad.	I68	I68	I26	I2I	ID4	92	90	IID	II9	97	38.0	30.6
286	2II	♀	ad.	-	-	-	-	-	-	-	-	-	-	-	-
666	278	♀	ad.	I80	I79	I3I	I34	II2	ID2	92	IID	I29	I09	33.4	27.9
32I	257	♀!	ad.	I79	I79	I36	I37	II5	I06	I0I	II9	I30	ID3	39.7	30.0
320	256	♀	ad.	I75	I75	I26±I	I28	I08	I0I	89	I07	II8	96	37.9	30.0
322	258	♀!	ad.	I8I	I80	I27	I32	III	ID2	94	I07	I23	ID4	37.5	32.0
282	205	♀!	ad.	I84	-	I28	I38	II6	ID2	92	I07	II9	-	34.2	27.9
262	I89	♀!	mat.	I8I	I8I	I29	I32	I09	ID2	89	ID4	I23	ID4	35.9	29.0
268	I95	♀!	ad.	I74	I73	I34	I30	III	99	90	I07	I30	ID4	36.0	29.8

23a. Horiz.circ. through ophr	24. Transverse arc	25. Sagittal arc	26. FRK	27. PAK	28. OCK	29. FRC	30. PAC	31. OCC	31(1). Lambda-Inion chord	31(2). Inion-opisthion chord	GLS	45. ZYB	40. BPL	48. NPH	47. Full height of face
490	300	35I	I32	III	ID8	II3	ID2	90	56	48	28	I26±I	97±I	67	ID9
482	295	343	II7	II7	ID9	ID5	ID5	9I	59	44	2I	I43	96	72	I20
494	302	-	I22	II6	-	ID8	ID4	-	-	-	26	-	-	-	-
493	296	350	II9	II9	II2	ID6	ID6	94	67	39	24	I35	I02	70	II6
497	290	353	I23	ID0	I30	ID6	95	ID5	73	45	26	I3I	97	67	IIO
-	-	354	I25	I24	ID5	III	IID	88	63	37	23	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
502	305	368	I28	II8	I22	II3	I07	I02	68	47	25	I37	96	74	I22
500	293	360	I20	I26	II4	I06	III	94	68	40	22	I36	I03	72	II9±I
505	3IO	368	I32	I20	II6	II3	IID	94	74	33	3I	I27	I02	73	II8±2
503	299	-	II6	I25	-	I0I	II3	-	-	-	25	I33	-	7I	III
509	3ID	357	I26	II9	II2	IID	ID4	95	7I	34	27	I35	96	69	-
5I2	303	385	I35	I29	I2I	II7	II6	I0I	60	55	30	I29	99	72	III
499	295	365	I25	I25	II5	I08	IID	95	59	50	28	I28	96±I	66±I	-
502	293	35I	I3I	II3	I07	II2	I00	89	54	45	30	I3I	92	68	-
487	303	345	I23	I2I	I0I	I08	I08	89	57	40	26	I33	98	70	II4
508	290	367	I29	I20	II8	II2	I08	I02	74	39	26	I26	-	-	-
50I	297	372	I3I	II7	I24	II4	I06	I0I	74	38	30	I3I	I02	74	II8
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
489	295	353	I29	II8	I06	IID	I05	92	62	39	27	I30	99	73	II6
490	296	355	I22	I23	IID	I07	I08	93	60	45	25	I36	I07	76	I2I
493	293	360	I26	97	I37	I08	94	III	8I	45	28	I32	I03	73	I22
505	300	37I	I28	I3I	II2	IID	II5	96	7I	36	3I	I3I	I0I	67	IIO
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
473	285	344	I20	II6	I08	I03	I05	90	6I	40	27	I25	96	70	II8
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
502	297	368	I23	I27	II8	I07	II3	I00	57	54	25	I35	98	7I	-
508	3IO	355	I30	II9	I06	II3	I06	92	53	49	28	I36	99	79	I30
484	280	352	I22	I27	I03	I05	IID	89	55	43	27	I27	95	66	I06
499	290	358	I25	I28	I05	I08	II2	89	57	42	26	I30	99	65	I22±2
502	302	373	I30	I30	II3	II3	II7	95	50	56	26	I28	I04	70	II3
500	289	366	I23	I27	II6	I07	II4	97	63	5I	27	I30	I00	76	-
489	297	350	I2I	I24	I05	I07	IID	92	59	4I	24	I29	97	70	I08

Table 4 (continuation 3).

Burial No.	43. fmt-fmt	46. Medial width of face	60. MAL	61. MAB	62. OSL	63. OSB	55. NLH	54. NLB	51. DUB	51a. OBB	52. OBH	DC. Dacryal chord	DS. Dacryal height	MC. Maxillo-frontal chord	MS. Maxillo-frontal height
462	99	94	52	58	45.0	36.9	46	-	41.5	40.0	34.6	-	-	14.6	3.1
460	107	103	53	66	46.0	45.0	51	24.3	44.5	42.7	36,6	19.2	7.7	17.0	3.9
458	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
457	106	101	52	66	46 1	39.8	51	24.7	43.9	40.2	37.1	21.5	7.8	17.7	3.6
310	100	102	53	64	44.3	37.7	50	25.0	43.0	40.4	35.9	15.9	7.4	13.5	4.5
308(a	-	-	-	-	-	-	-	-	-	-	-	-	-	19,7	5.1
301	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
294	108	108	54	68	47.0	-	51	21.0	45.1	40.7	39.0	22.2	9.1	17.7	4.2
300	109	100	57	61	48.7	38.8	53	24.5	44.9	42.0	37.1	19.3	9.2	17.3	5.4
250	100	97	57	-	50.0	-	50	23.3	40.5	38.9	33.0	19.0	8.0	16,6	4.9
252	109	99	52	64	47.0	42.0	50	24.4	42.0	40.1	35.2	20.4	8.7	19.5	4.1
281	105	100	49	64	44.4	41.0	52	20.9	42.5	38.9	36.0	19.1	6,5	16.9	4.4
275	107	95	55	62	50.6	39.9	51	26.0	44.8	42.9	38.0	20.0	8.7	18.3	5.4
309	104	96	-	58 -		36,5	48	22.9	42.6	40.3	34.2	15.6	7.1	15.1	4.4
307	106	100	50	57	43.4	35.2	51	21.8	43.3	41.7	35.5	17.2	7.2	14.9	3.9
247	104	100	53	62	46.3	39.9	53	24.5	42.6	40.7	37.2	20.5	11.1	18.4	5.5
271	102	-	-	-	-	-	-	-	-	-	-	-	-	-	-
271(a)	103	103	55	65	49.5	39.1	54	25.2	42.3	40.0	36,8	19.0	7.3	16,5	5.3
283	-	-	-	62	-	39.1	-	-	-	-	-	-	-	-	-
234	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
233	101	95	53	61	45,1	39.7	50	21.2	42.0	39.8	34.4	15.0	9.4	14.2	3.7
229	108	111	58	67	53.0	40.9	51	26.0	44.6	43.1	36.2	18.2	8.4	16.9	3.9
222	101	102	54	66	47.5	41.1	50	23.0	41.8	38.8	34.0	20.5	7.2	17.4	3.7
225	99	100	54	62	47.0	42.0	52	23.3	42.4	40.4	34.0	12.7	7.4	11.4	4.4
226	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
212	95	90	53	56	48.1	36.5	47	19.2	39.1	38.0	35.9	-	-	15.7	4.9
211	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
278	104	96	52	62	46.1	40.0	48	24.5	-	-	-	-	-	-	-
257	107	103	52	69	47.3	42.0	58	23.8	41.4	39.0	36.9	22.0	8.1	19.1	5.7
256	99	89	49	58	42.0	35,0	48	23.3	42.3	-	37.0	-	-	13.4	4.2
258	102	100	99	64	45,0	39.9	48	-	41.0	38.9	33.0	20.0	6,0	19.1	4.0
205	103	-	56	61	49.6	39.1	51±1	25.0	-	-	-	-	-	-	-
189	100	97	54	62	48.0	40.9	55	24.5	39.9	38.1	37.1	17.9	8.4	15.5	4,6
195	103	89	51	62	44.3	38.0	48	21.3	42.6	40.8	35.5	18.3	8.6	17.8	4.0

SC. WNB	SS. WNH	Bimakar chord fmo-fmo	Height n over chord fmo-fmo	Zygo-maxillary chord zm1-zm1	Height of ssp over chord zm1-zm1	Depth canine recess	Mandible								
							65. Condylar breadth	66. Angular breath	68. Length of angles	68(1). Length of condyle	70. Height of ramus	71a. Breadth of ramus	67. Front width	69. Height of symphesis	69(1). Body height	69(3). Body thickness
-	-	91	13	90	24	3.9	110	88	77	102	50	40	45	32	29	11
5.4	2.6	99	13	100	22	5.7	126	106	78	107	57	38	46	34	33	10
7.3	2.3	-	-	-	-	-	106	93	-	107	-	37	40	-	-	10
5.0	1.3	99	19	97	21	6.1	118	106	80	107	55	41	46	32	29	11
4.9	1.3	94	11	97	18	3.2	110	102	78	106	51	37	50	32	27	10
6.4	2,0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	127	108	77	108	52	33	53	33	31	10
5.3	1.2	100	17	108	24	7.9	120	105	82	113	50	38	50	35	31	12
4.9	2.3	99	15	97	21	7.6	119	102	82	109	53	37	45	34	32	12
9.5	3.5	92	13	96	19	3.4	109±1	102	74	107	47	34	46	36	32	12
7.8	2.3	99	14	99	21	4.6	118	106	77	105	51	39	46	-	-	12
-	-	94	13	97	19	5.7	-	-	-	-	-	-	-	-	-	-
7.0	2.4	98	15	91	18	5.7	112	90	78	107	58	35	43	-	30	10
2.5	0.6	92	11	103	17	6.1	-	-	-	-	-	-	-	-	-	-
2.6	0.3	95	14	96	20	3.7	-	-	-	-	-	-	-	-	-	-
10.0	3.0	98	14	99	20	3.9	117	106	80	107	63	39	51	31	31	14
-	-	-	-	-	-	-	112	101	75	111	54	34	44	31	29	11
7.2	2.6	96	15	101	23	4.8	116	111	75	108	49	37	48	35	30	12
-	-	-	-	-	-	-	-	94	74	108	50	33	47	-	28	11
-	-	-	-	-	-	-	121	100	80	110	53	36	49	35	33	9
4.4	2.4	91	14	93	22	4.1	113	94	76	103	56	35	40	35	34	11
1.2	1.0	100	13	109	20	4.2	128!	96	89	119	57	41	46	40	36	12
6.0	1.8	93	14	101	20	2.3	123	103	81	115	53	37	47	39	33	11
3.9	1.8	89	11	98	21	7.1	119	111	77	107	44	39	46	33	27	8
5.0	2.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.5	1.5	88	11	88	23	6.2	108±2	102	80	112	53	281	45	36	32	11
-	-	-	-	-	-	-	-	102	70	98	45	33	48	28	25	11
-	-	-	-	94	18	4.0	124	100	77	107	53	34	46	39	32	12
7.2	2.7	97	14	101	24	2.5	118	100	82	106	50	36	51	38	32	12
6.1	2.0	90	12	90	15	2.0	117	100	74	102	47	37	44	30	27	10
-	-	95	13	-	-	3.8	123	111	77	110	48	38	49	32	30	11
-	-	96	13	-	-	-	108±1	93	84	111	56	38	47	35	31	9
5.3	1.4	88	12	96	20	6.1	-	-	74	107	47	35	40	-	-	10
5.0	1.9	98	14	87	21	3.7	111	107	71	99	45	33	46	32	28	11

Table 4 (continuation 4).

Burial No.	32. Angle of proj. of brow from n	Angle of proj. of brow from gl	33(1). Angle upper part of occiput	33(2). Angle lower part of occiput	33(4).Angle curve of occiput	34. Angle of occipit. foram.	77. Naso-malar angle	Zygo-maxillary angle	72. Total angle of face	73.Angle medial part of face	74.Angle alveolar part of face	75. Angle nasal bone	75(1). Angle projection of nose	79. Angle ramus of mandible	C'. Angle of chin	Supercilliary (along Martina 1-6)
462	87	80	88	31	119	-1	148	124	85	-	-	-		126	70	2
460	79	74	90	31	121	+1	151	132	84	88	72	-	-	126	70	3
458	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
457	82	75	93	29	122	+7	138	133	83	86	74	69	14	125	79	3
310	82	78	87	32	119	-8	154	139	84	88	71	-	-	126	63	2
308(a)	-	-	-	-	119	-	-	-	-	-	-	-	-	-	-	3
301	-	-	-	-	-	-	-	-	-	-	-	-	-	135	67	-
294	79	72	92	28	120	-5	142	132	87	87	87	64	23	130	66	3
300	77	69	95	24	119	-7	146	133	81	84	70	-	-	123	76	3
250	90	87	99	19	118	-5	148	137	86	91	73	76	10	139	80	1
252	86	79	-	-	-	-	148	134	81	84	73	64	17	130	71	2
281	85	82	96	27	123	-9	149	137	89	89	89	-	-	-	-	2
275	83	77	95	28	123	-15	146	137	84	88	71	69	15	125	-	2
309	85	78	90	28	118	-6	153	144	85±2	88	76±2	69	16	-	-	3
307	82	77	92	32	124	-1	147	135	89	90	85	71	18	-	-	2
247	85	81	93	34	127	-1	148	136	84	88	71	64	24	126	71	2
271	-	-	-	-	125	-	-	-	-	-	-	-	-	135	65	2
271(a)	88	85	100	25	125	-10	145	131	82	83	79	61	21	137	78	2
283	-	-	-	-	-	-	-	-	-	-	-	-	-	137	73	-
234	-	-	-	-	-	-	-	-	-	-	-	-	-	130	73	-
233	86	81	95	34	129	-1	146	129	85	90	74	71	14	122	75	2
229	85	80	84	37	121	-9	151	140	80	86	72	-	-	128	68	2
222	87	82	86	34	120	-2	146	137	82	84	78	65	17	134	68	3
225	88	85	96	25	121	-7	152	134	84	87	73	-	-	141	77	2
226	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
212	83	76	96	27	123	-12	152	125	80	80	80	54	26	134	68	2
211	-	-	-	-	-	-	-	-	-	-	-	-	-	131	77	-
278	83	80	95	32	127	-6	-	138	-	-	-	-	-	130	66	2
257	84	79	90	35	125	+4	148	129	87	90	78	74	13	125	76	2
256	82	79	84	35	129	-5	150	143	87	92	71	78	9	129	75	2
258	89	84	95	31	126	-2	149	-	84	-	-	-	-	139	67	2
205	80	-	93	33	126	-1	150	-	79	85	61	-	-	124	76	2
189	82	79	88	26	114	-8	150	135	83	85	76	65	18	134	66	2
195	82	77	100	32	132	-9	148	128	85	84	81	-	-	135	67	2

Mammiform appendix (1-3)	Thickness pars tympanica, MM	Transvers profile of spine of nose (0-2)	Lower edge of pyriform foramen	Frontal-nasal barb (1-5)	Norma occipit. (lat. sides/vault)	Sinus sagittalis	Torus occipitalis (0-3)	Os postaquamosum (d/s), MM	Foramina tympanica (d/s)	Foramina supraorbitalia (d/s)	Foramina infraorbitalia(d/s)(supp.)	Torus palatinus (0-3)	Torus mandibularis (0-3)	Foramina mentalia(d/s)(supp.)	Arcus mylohyoideus (d/s)	Grinding of teeth (upper/lower, 0-3+	Loss of teeth (upper/lower)
1	4	0	-	-	3/2	d	1	0/0	+/+	0/+	0/0	1	0	0/0	0/0	3/3	0/0
3	5	2	ant	2	2/2	s	1	5/0	0/0	+/+	0/0	1	0	0/0	0/0	3/3	0/+
2	3	0	-	-	2/1	?	0	7/13	0/0	+/+	0/0	-	0	0/0	0/0	-/3+	-/+
1	4	0	ant	1	2/2	d	0	0/20	0/0	+/+	0/0	1	0	0/0	0/0	1/2	0/0
2	3	0	f.p.	-	2/3	s	0	0/0	0/+	0/+	0/0	3	0	0/0	0/0	2/2	0/0
1	4	2	-	-	2/3	s	0	0/0	+/0	0/0	0/0	-	-	-	-	-/-	-/-
-	-	-	-	-	-	-	-	-	-	-	-	-	1	0/0	0/0	-/3	-/0
2	6	0	f.p.	2	2/2	d	0	0/0	0/0	+/+	0/0	1	0	0/0	0/0	3/2	+/0
1	3	2	ant	2	2/2	d	0	8/0	0/0	0/0	0/0	2	2	0/0	0/0	2/2	0/0
2	4	0	s.p.	1	3/3	d	0	10/0	0/0	+/+	0/0	3	2	0/0	0/0	3/3	+/+
2	4	0	inf	2	2/3	d	0	0/0	0/0	+/+	0/+	1	1	0/0	0/0	3/3	+/+
1	5	-	ant	3	2/3	d	0	0/6	0/0	+/+	+/0	2	-	-	-	1/ -	0/-
2	4	0	ant	1	2/3	d	1	0/0	0/0	+/+	0/0	2	0	0/0	0/0	2-3/2-3	0/0
1	4	2	ant	2	2/2	d	0	0/0	0/0	+/+	0/0	1	-	-	-	3/-	+/-
2	4	0	f.p.	2	2/2	d	0	0/0	+/+	+/+	0/0	0	-	-	-	3/-	0/-
3	4	0	ant	2	2/3	s	0	0/0	0/0	+/0	0/0	2	1	0/0	+/+	2/2	0/0
2	1	-	ant	-	1/2	?	0	9/9	0/0	0/0	0/0	1	0	0/0	0/0	3/3	0/0
2	4	0	f.p.	2	2/2	d	0	0/7	0/0	0/+	0/0	0	0	0/0	0/0	1/1	0/0
-	4	-	-	-	-	?	0	-	0/0	-	-	1	0	0/0	0/0	1/1	0/0
-	-	-	-	-	-	-	-	-	-	-	-	-	0	0/0	0/0	-/1	-/0
1	4	1	ant	-	2/2	?	0	0/0	0/0	0/0	0/+	2	0	0/0	0/0	3/3+	0/+
2	4	2	f.p.	2	2/3	s	0	17/5	0/0	+/+	0/0	2	0	0/0	0/0	3+/3	+/0
2	4	1	f.p.	1	2/3	s	0	0/0	0/0	0/+	0/0	1	1	0/0	0/0	2/2	0/0
3	4	1	f.p.	1	2/3	?	0	0/0	0/0	+/+	0/0	0	0	0/0	0/0	3/3	0/0
-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	3	2	ant	3	2/1	d	0	9/10	0/0	+/+	0/0	0	0	0/0	0/0	1/1	0/0
2	3	-	-	-	-	d	0	0/0	0/0	-	-	-	0	0/0	0/0	-/1	-/0
2	3	-	ant	3	2/2	d	1	0/0	0/0	0/0	0/0	1	0	0/0	0/0	2/2	0/0
2	4	0	f.p.	1	2/3	d	0	0/0	0/0	0/+	0/+	1	0	0/0	0/0	1/1	0/0
1	4	0	inf	1	2/3	d	0	0/0	0/0	+/+	0/0	1	1	0/0	0/0	1/1	0/0
1	3	0	-	-	2/3	d	0	0/0	+/+	+/0	-	0	0	0/0	0/0	1/1	0/0
2	3	0	-	-	2/2	d	0	0/0	0/+	0/0	0/0	0	0	0/0	0/0	1-2/1	0/0
1	4	0	f.p.	2	2/2	d	1	0/0	0/0	0/0	0/0	0	1	0/0	0/0	3/3	+/+
1	3	1	ant	3	2/2	s	0	0/0	0/0	+/0	0/+	1	0	0/0	0/0	1/2	0/0

Table 4 (continuation 5).

Inv. No. AMNH coll. 99.1	Burial No.	Sex	Age	1. NOL	1b. GOL	8. XCB	17. BBH	20. BPH	5. BNL	9. WFB	10. XFB	11. AUB	12. OCB+	7. FOL	16. FOB*	23a. Hortz.circ. through ophr	24. Transverse arc	25. Sagittal arc	26. FRK	27. PAK	28. OCK	29. FRC	30. PAC	31. OCC	31(1). Lambda-inion chord	31(2). Inion-opisthion chord	GLS	45. ZYB	40. BPL	48. NPH	47. Full height of face
Group C																															
276	202	♀!	ad.	I75	I75	I33	I33	II0	I00	89	I05	II9	I05	34.9	30.6	489	288	364	I25	I28	III	I07	II3	94	64	40	28	I20	97	68	III
272	201	♀!	sen.	I73	I74	I32	I29	III	97	94	I07	II7	I06	39.2	29.0	492	295	353	II9	I2I	II3	I02	I08	98	67	4I	23	I25	95	69	I09
267	I94	♀	sen.	I85	I85	I33	I44	I22	I05	89	II0	I22	II0	34.5	30.2	509	32I	386	I37	I3I	II8	II9	II7	I02	69	44	30	I2I	-	-	-
327	265	♀!	ad.	I8I	I82	I32	I36	II3	I02	86	I06	I2I	I08	38.8	30.4	499	300	364	I27	I22	II5	I07	III	98	64	45	28	I28	98	69	II5
332	273	♀!	mat.	I8I	I80	I30	I32±I	II5	I0I	88	I04	II9	I06	35.7	29.4	500	300	367	I22	I25	I20	I09	II3	98	63	47	24	I28	-	-	-
324	26I	♀	ad.	I83	I83	I34	I32	II4	I00	94	II4	I26	II3	44.9	34.6	5I2	302	368	I32	I28	I08	II4	II0	95	65	36	28	I29	94	74	I2I
326	264	♀	ad.	-	-	I25	I24	II0	92	86	I03±I	I20	95	32.8	28.0	-	287	-	I25	-	-	II0	-	-	-	-	27	I2I	93	82	I30
333	274	♀	mat.	I85	I83	I23	I38	II9	I04	90	I05	I20	I04	36.3	28.2	499	302	372	I3I	I20	I2I	II5	II0	I00	7I	43	27	I28	I02±I	7I	I07
33I	272	♀!	mat.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
329	270	♀!	ad.	I80	I80	I26	I3I	II2	I02	90	I06	II9	I04	38.2	3I.5	493	293	363	I22	I32	I09	I07	II4	9I	65	38	26	I24	98	7I	III
667	279?	♀!	mat.	I80	I79	I3I	I33	II5	I03	I00	III	I27	99	37.8	28.7	500	300	353	I30	II3	II0	II4	I04	94	65	40	30	I38	I03	70	II3
Group D																															
240	I80	♀!	mat.	I80	I80	I34	I32	I09	I02	98	II3	I24	I03	36,5	29.5	503	294	362	I22	I25	II5	I07	I08	94	63	44	27	I32	I0I	7I	II7
225	I79	♀!	sen.	I93	I90	I3I	I40	I22	III	95	I07	I28	III	39.5	30.8	5I7	3I0	382	I32	I26	I24	II8	II5	I06	68	50	26	I36	II5±I	80±I	I29
236	I66	♀	sen.	I83	I8I	I34	I35	II6	I02	95	I08	I29	I06	37,5	3I.8	503	306	368	I25	I27	II6	III	III	99	74	37	25	I36	-	-	-
229	I65	♀!	ad.	I84	I82	I33	I33	II6	98	88	II2	I27	III	36.9	30.4	508	300	375	I26	I25	I24	III	II2	I02	73	43	26	I28	-	73	-
224	I67	♀!	ad.	I78	I78	I30	I39	II7	I02	92	I06	I25	I09	34.3	29.0	498	306	373	I25	I25	I23	III	III	I00	72	40	26	I36	I04±I	76±I	I2I
23IA	I63(a)♀!		sen.	I69	I68	I32	I39	II6	I0I	89	II2	I2I	I00	39.9	33.5	483	306	353	II6!	I32	I05	I06	II2	93	72	27	22	I26±I	-	-	-
23IB	I63(b)	♀!	mat.	I84	I84	I38	I40	II7	I03	9I	II0	I27	I07	35,0	29.0	5I4	307	376	I39	I22	II5	II7	II3	99	59	5I	3I	I36	96	67	-
232	I75	♀!	ad.	I73	I72	I40	I39	II9	I0I	93	II2	I29	I04	36.9	3I.I	493	3I5	365	I22	I32	III	I08	II4	95	7I	34	24	I33	-	-	-
257	I62	♀!	ad.	I80	I8I	I29	I27	I09	96	86	I04	II8	I03	4I.0	33.0	496	290	359	I26	I20	II3	II0	I05	92	62	42	28	I25	97	7I	-
234	I48	♀!	sen.	I83	I82	I35	I33	II8	99	90	I08	I22	III	34.2	26.2	5I3	3I0	375	I29	I23	I23	II3	II2	I00	68	45	28	I29	96	72	-
249	I47	♀!	mat.	I82	I82	I32	I26	II5	97	88	I07	II9	97	36.9	28,3	495	287	373	I3I	II9	I23	II4	I07	I04	69	44	29	I26	-	-	-
248	I78	♀	sen.	I80	I78	I32	I33	II9	99	85	I03	I25	I07	32.9	24.4	497	305	370	I2I	I37	II2	I06	I22	94	63	46	25	I28	I04	74	I22±2
27I	I45	♀	mat.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
259	I42(a?)♀		ad.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
292	I40	♀!	mat.	I9I	I87	I23	I34	II4	I02	93	I06	II6	96	39.9	3I.8	504	295	372	I26	II8	I28	II2	I08	I06	72	46	24	I32±I	99±I	75±I	-
Group E																															
226	I43	♀	mat.	I80	I78	I30	I28	II0	97	94	I09	I2I	II0	34.0	30.3	497	290	362	I22	I24	II6	I09	II0	95	6I	47	26	I27	I00±I	75±I	-
220	I3I	♀	sen.	I79	I79	I27	I23	I06	I0I	88	I07	II4	I08	-	-	493	28I	359	II9	I24	II6	I03	I09	99	60	50	26	-	-	-	-
Group F																															
362	3I2	♀!	sen.	I74	I75	I28	I28	III	9I	88	I07	II7	I04	32.4	25.I	487	293	362	I26	I26	II0	I08	III	89	68	36	27	I27	-	-	-
363	3I3(a)♀		sen.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
370	32I	♀	mat.	I79	I79	I3I	I29	I08	I02	92	I06	I20	I09	35.4	29.0	498	285	355	I23	I08	I24	I08	98	98	65	5I	25	I29	98	73	II8
366	3I6	♀!	sen.	I76	I75	I33	I3I	I09	97	89	I09	I26	I06	38.7	3I.0	493	293	353	I22	I20	III	I05	I09	9I	60	42	26	I3I	-	-	-
368	3I9	♀!	sen.	I74	I74	I37	I30	II0	98	9I	II0	I3I	I03	37,6	30.5	497	298	353	I28	II8	I07	II2	I06	88	56	46	27	I37	-	-	-

Table 4 (continuation 6).

Burial No.	43. fmt-fmt	46. Medial width of face	60. MAL	61. MAB	62. OSL	63. OSB	55. NLH	54. NLB	51. DUB	51a. OBB	52. OBH	DC. Dacryal chord	DS. Dacryal height	MC. Maxillo-frontal chord	MS. Maxillo-frontal height
202	99	91	54	58	47.0	34.6	49	22.0	41.0	38.8	32.9	-	-	13.4	4.5
201	105	92	49	61	46.2	38.0	49	23.1	43.6	-	39.0	-	-	14.0	5.2
194	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
265	96	94	51	63	41.9	39.0	52	23.0	42.0	39.7	37.4	16,5	8.7	14.6	5.1
273	103	96	-	-	-	-	48	25.1	42.4	40.0	34.0	16.9	11.0	14.3	4.9
261	101	99	48	68	42.4	40.4	56	21.0	41.0	38.9	34.5	18.0	9.0	16,5	5.4
264	99	88	52	57	-	32.0	55	19.9	42.1	39.8	36,4	18.0	8.8	12.6	5.0
274	103	92	54	62	48.0	40.0	50	23.7	42.2	39.4	33.9	20.0	9.9	16,2	5.1
272	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
270	101	88	50	60	44.6	37.4	50	22.0	42.8	40.9	34.2	18.0	9.4	15.7	5.7
2797	109	104	54	61	48.4	37.8	52	26.0	44.9	42.8	36.2	20.5	8.0	17.1	4.4
180	104	103	55	62	48.2	40±1	51	26.1	45.0	42.3	35.3	21.4	8.2	17.4	4.0
179	106	102	58	68	51.5	41.0	54	-	44.2	40.8	36,3	20.0	11.1	17.3	4.7
166	108	-	-	-	-	-	-	-	-	-	-	-	-	17.8	6.9
165	101	98	51	62	48.8	40.1	54	22.9	42.2	-	37.5	-	-	18.0	5.4
167	103	108	54	66	47.3	38.3	51	23.3	43.7	41.1	34.3	16.9	7.4	15.8	3.6
163(a)	98	-	-	-	-	-	53	-	42.5	40.3	37.3	15.9	7.0	14.3	3.9
163(b)	105	99	-	-	-	-	52	24.5	43.6	41.5	39.6	17.7	8.1	15.4	4.8
175	104	95	-	-	-	-	51	23.8	42.2	39.2	35.9	17.9	7.5	14.4	3.8
162	99	99	54	59	45.4	37.7	51	21.8	41.5	41.0	35.7	13.0	9.3	12.1	6.4
148	104	94	49	57	45.6	38.0	50	24.0	44.0	40.5	35.3	16.7	7.5	14.0	3.0
147	-	-	-	-	46.2	37.5	-	-	-	-	-	-	-	-	-
178	100	97	56	64	51.1	38.5	52	22.9	43.7	41.3	33.7	15.6	6.3	13.2	3.9
145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
142(a?)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
140	109	97	-	-	-	-	53	-	46.2	44.8	38.6	16.8	9.3	14.9	5.2
143	103	103	55	66	51.8	43.9	50	25.2	43.0	40.7	37.2	19.9	8.6	15.3	4.5
131	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
312	102	93	-	-	-	-	49	22.3	39.5	37.4	32.6	19.3	6.9	17.2	3.4
313(a)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
321	102	98	54	64	47.0	40.6	52	24.0	41.2	39.0	35.8	19.0	8.5	16.7	5.2
316	100	-	-	-	-	-	51	24.0	44.5	42.2	37.5	17.2	7.2	14.5	4.4
319	105	99	-	-	-	-	49	21±1	44.7	43.0	38.6	18.0	9.5	15.0	5.3

SC. WNB	SS. WNH	Bimalar chord fmo-fmo	Height n over chord fmo-fmo	Zygo-maxillary chord zm1-zm1	Height of ssp over chord zm1-zm1	Depth canine recess	Mandible									
							65. Condylar breadth	66. Angular breath	68. Length of angles	68(1). Length of condyle	70. Height of ramus	71a. Breadth of ramus	67. Front width	69. Height of symphesis	69(1). Body height	69(3). Body thickness
4.3	2.0	91	16	88	21	4.0	113	94	73	102	52	34	44	34	30	11
5.0	2.5	104	15	94	20	6.1	114	97	78	105	51	35	47	-	27	9
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.0	2.0	90	14	103	21	6,4	116	103	78	106	47	35	46	31	28	11
5.8	2.1	93	14	94	21	7.3	-	107	-	107±2	-	38	46	-	37	14
7.0	2.0	91	14	99	24	4.1	114	95	76	104±2	53	35	43	30	27	10
4.5	2.9	92	13	88	20	5.7	107	97	77	107	48	36	42	39	33	10
8.4	3.2	96	15	90	21	4.3	120	101	77	104	48	37	44	-	32	10
-	-	-	-	-	-	-	-	110	73	108	52	37	45	-	-	11
5.6	2.1	94	15	88	19	8.3	124	110	72	103	47	35	45	35	31	11
4.3	1.3	100	17	104	23	6,1	117	112	75	107	48	38	45	34	29	13
5.6	1.2	100	14	103	23	5.0	118	93	76	100	53	35	44	35	31	11
-	-	98	19	97	22	5.0	124	115	83	119	51	38	52	41	36	13
5.4	3.0	100	15	-	-	-	124	101	70	104	51	33	43	-	-	11
6,5	1.8	94	14	-	-	5.6	120	106	77	109	53	37	46	36	32	10
3.6	0.9	95	13	106	16	2.7	124	109	76	109	57	40	47	37	31	13
6,6	2.1	94	12	-	-	-	-	101	77	101	-	-	-	-	-	-
3.1	1.6	95	13	95	18	6.7	-	-	-	-	-	-	-	-	-	-
6.2	1.5	94	12	92	23	5.7	120	110	73	102	50	35	45	-	-	10
6.1	4.1	89	12	97	22	4.2	-	-	-	-	-	-	-	-	-	-
4.1	1.2	99	12	93	19	-	119	101	76	106	53	35	45	40	-	10
4.3	1.0	92	11	-	-	-	115	94	80	106	50	35	44	31	28	8
2.5	1.7	92	12	92	19	3.7	112	102	81	111	50	39	49	39	32	11
-	-	-	-	-	-	-	-	-	-	-	49	38	45	-	-	11
-	-	-	-	-	-	-	112	107	80	110	55	38	47	32	26	10
4.7	1.7	101	18	96	21	-	118	107	79	108	53	34	48	-	-	9
5.2	1.6	94	12	102	21	7.2	118	110	78	110	49	36	45	37	-	12
-	-	-	-	-	-	-	-	-	-	-	-	34	44	-	29	11
5.5	1.6	92	10	90	17	4.7	111	107	72	101	50	37	41	35	-	12
-	-	-	-	-	-	-	-	110	72	103	54	36	46	-	-	11
7.0	3.3	95	15	95	22	3.4	122	110	78	106	57	36	47	34	31	11
3.6	0.8	95	15	-	-	5.1	-	109±1	75	106	50	35	-	-	-	9
5.1	2.1	101	15	99	21	4.7	124	110	78	106	50	36	49	-	-	11

Table 4 (continuation 7).

Burial No.	32. Angle of proj. of brow from n	Angle of proj. of brow from gl	33(1). Angle upper part of occiput	33(2). Angle lower part of occiput	33(4).Angle curve of occiput	34. Angle of occipit. foram.	77. Naso-malar angle	Zygo-maxillary angle	72. Total angle of face	73.Angle medial part of face	74.Angle alveolar part of face	75. Angle nasal bone	75(1). Angle projection of nose	79. Angle ramus of mandible	C'. Angle of chin	Supercilliary (along Martina 1-6)
202	83	81	100	26	126	-8	141	129	83	90	63	-	-	128	76	2
201	85	84	96	31	127	-6	148	134	84	86	78	63	21	126	-	1
194	-	-	-	-	126	-	-	-	-	-	-	-	-	-	-	2
265	87	84	94	33	127	-1	145	136	85	89	71	68	17	132	70	2
273	84	79	90	35	125	-1	146	132	84±2	84	84	60	24	-	-	3
261	84	78	102	31	133	-13	146	128	90	92	82	-	-	128	71	3
264	83	78	-	-	-	-11	148	131	89	88	86	71	18	130	75	3
274	86	83	86	34	120	-3	145	130	87	89	82	-	-	126	68	3
272	-	-	-	-	-	-	-	-	-	-	-	-	-	141	-	-
270	87	82	92	27	119	-3	144	133	87	87	87	64	23	137	66	2
2797	85	80	90	30	120	0	142	132	84	87	75	66	18	136	71	2
180	84	79	90	29	119	-7	149	132	82	86	71	67±1	14±1	123	80	2
179	82	78	91	36	127	-5	138	131	84	-	-	-	-	141	69	3
166	-	-	-	-	120	-	147	-	-	-	-	-	-	135	-	3
165	83	80	91	28	119	-14	147	-	-	-	-	-	-	130	68	3
167	86	82	95	29	124	-2	149	146	85	-	-	61	24	132	74	2
163(a)	85	80	99	32	131	-3	151	-	-	-	-	-	-	-	-	3
163(b)	86	80	95	32	127	-8	149	138	87	90	76	71	16	-	-	2
175	87	81	97	29	126	-4	151	127	-	86	-	66	18±2	129	-	3
162	83	79	94	27	121	-10	150	131	84	86	78	-	-	-	-	2
148	87	81	93	28	121	-9	153	136	88	91	80	72	16	128	74	3
147	-	-	-	-	130	-	153	-	-	-	-	-	-	124	72	2
178	85	80	95	22	117	-3	151	135	84	90	69	-	-	133	73	3
145	-	-	-	-	-	-	-	-	-	-	-	-	-	130	78	-
142(a?)	-	-	-	-	-	-	-	-	-	-	-	-	-	130	68	-
140	78	71	93	30	123	-8	141	133	85	87	81	-	-	125	68±1	3
143	80	76	99	21	120	-7	151	135	81	84	74	64	17	134	64	2
131	-	-	-	-	126	-	-	-	-	-	-	-	-	130	65±1	2
312	85	77	100	15	115	-7	155	139	-	87	-	71	14±2	131	72	3
313(a)	-	-	-	-	-	-	-	-	-	-	-	-	-	128	-	-
321	81	77	85	30	115	-4	145	130	88	91	80	62	26	123	66	2
316	85	80	94	29	123	-2	145	-	-	88	-	69	17±2	128	60	2
319	82	79	89	31	120	-9	147	134	-	86	-	57	27±2	128	-	1

Mammiform appendix (1-3)	Thickness pars tympanica, MM	Transvers profile of spine of nose (0-2)	Lower edge of pyriform foramen	Frontal-nasal barb (1-5)	Norma occipit. (lat. sides/vault)	Sinus sagittalis	Torus occipitalis (0-3)	Os postaquamosum (d/s), MM	Foramina tympanica (d/s)	Foramina supraorbitalia (d/s)	Foramina infraorbitalia(d/s)(supp.)	Torus palatinus (0-3)	Torus mandibularis (0-3)	Foramina mentalia(d/s)(supp.)	Arcus mylohyoideus (d/s)	Grinding of teeth (upper/lower, 0-3+)	Loss of teeth (upper/lower)
1	4	1	fp.	-	2/2	d	0	0/0	0/0	+/0	0/0	2	0	0/0	0/+	2-3/2-3	0/
2	5	1	ant	-	3/3	?	0	0/6	+/+	+/+	0/0	0	0	0/0	0/0	3/3	0/+
2	4	-	-	-	2/3	?	0	0/0	0/0	+/+	0/0	1	0	0/0	0/0	3/3	+/+
1	5	0	ant	1	2/2	d	0	0/0	0/0	+/+	0/0	1	0	0/0	0/0	1/1	0/0
2	3	0	ant	3	2/2	d	1	13/9	0/0	0/+	0/0	2	3	0/0	0/0	3/3	+/0
2	3	0	ant	2	2/3	d	0	11/12	0/0	0/0	0/0	0	1	0/0	0/+	1/1	0/0
1	6	2	ant	3	2/2	-	0	0/13	0/0	+/+	+/0	0	1	0/0	0/0	2/1	0/0
2	5	0	ant	2	2/3	d	1	10/0	0/0	+/+	0/0	2	0	0/0	0/0	3+/3+	+/+
-	-	-	-	-	-	-	-	-	-	-	-	-	1	0/0	0/0	-/3	-/0
2	4	0	ant	3	2/3	s	0	0/0	+/0	+/+	0/0	1	0	0/0	0/0	2/2	0/0
2	4	2	f.p.	-	2/2	d	1	11/0	0/0	+/+	0/0	2	0	0/0	0/0	2/2	0/0
2	4	0	ant	2	3/3	d	0	10/10	0/0	0/0	0/0	2	1	0/0	0/0	3/2	0/0
2	3	0	-	-	2/3	d	1	0/0	0/0	+/0	0/0	0	1	0/0	0/0	3/2	0/0
2	2	2	-	-	2/1	d	1	0/10	0/0	+/+	0/0	1	1	0/0	0/0	3+/3+	+/+
2	4	0	-	-	1/3	d	0	0/0	+/0	0/0	+/+	2	1	0/0	0/0	2/2	0/0
2	4	1	f.p.	-	2/1	d	1	0/0	+/+	+/0	0/0	2	2	0/0	0/0	2-3/2	0/0
1	4	0	f.p.	-	2/2	d	0	8/10	0/0	0/0	0/0	3	0	0/0	0/0	3+/3+	+/+
1	3	0	ant	-	2/2	d	1	0/9	0/0	+/0	0/0	0	-	-	-	3/-	0/-
2	4	0	f.p.	1	2/1	d	0	10/0	0/0	+/+	0/0	3	1	0/0	0/0	3+/3	+/+
1	4	0	f.p.	-	2/2	s	1	0/0	+/0	0/0	0/0	3	-	-	-	2/-	0/-
2	4	2	ant	2	2/1	d	1	0/0	0/0	+/+	0/0	2	1	0/0	+/0	3/3	+/+
2	3	1	ant	-	2/1	d	0	0/13	+/+	+/+	0/0	0	0	0/0	0/0	3/3	0/0
2	5	2	ant	-	2/3	d	1	0/7	0/0	+/+	0/0	1	1	0/0	+/0	2/2	0/0
-	-	-	-	-	-	-	-	-	-	-	-	1	3	0/0	0/0	3/3	0/0
-	-	-	-	-	-	-	-	-	-	-	-	-	0	0/0	0/0	-/1	-/0
2	3	0	f.p.	-	2/3	d	0	0/0	0/+	+/+	0/0	1	2	0/0	0/0	3+/3+	+/+
2	4	0	ant	1	2/2	d	1	10/0	0/0	+/+	0/0	0	1	0/0	0/0	3/3+	+/+
2	3	0	-	-	1/2	s	0	0/0	0/+	+/+	0/0	3	1	0/0	0/0	3+/3+	0/+
2	4	0	f.p.	2	2/1	d	1	0/0	0/0	+/+	0/+	2	2	0/0	0/0	3+/3+	+/+
-	-	-	-	-	-	-	-	-	-	-	-	-	2	0/0	0/0	-/3+	-/+
2	4	0	f.p.	2	2/1	d	2	0/0	0/0	+/+	0/0	2	1	0/0	0/0	2/2	0/0
2	7	0	ant	-	3/3	s	2	0/0	0/0	+/0	0/0	0	1	0/0	0/+	3/3	+/+
2	4	0	ant	-	2/2	?	2	0/0	+/+	+/+	0/0	0	1	0/0	0/0	3+/3+	+/+

Table 4 (continuation 8).

Inv. No. AMNH coll. 99.1	Burial No.	Sex	Age	1. NOL	1b. GOL	8. XCB	17. BBH	20. BPH	5. BNL	9. WFB	10. XFB	11. AUB	12. OCB+	7. FOL	16. FOB*	23a. Hortz.circ. through ophr	24. Transverse arc	25. Sagittal arc	26. FRK	27. PAK	28. OCK	29. FRC	30. PAC	31. OCC	31(1). Lambda-inion chord	31(2). Inion-opisthion chord	GLS	45. ZYB	40. BPL	48. NPH	47. Full height of face
Group F																															
371	322	♀!	mat.	179	180	143	136	118	104	100	115	131	104	35.3	30.5	511	318	365	127	123	115	110	109	96	62	46	28	135	105	76	115
375	327	♀!	ad.	184	184	142	132	114	100	97	112	130	108	37.0	32.0	517	311	370	124	126	120	110	112	101	66	48	26	135	105	76	122
375A	327A	♀	sen.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
377	330	♀!	ad.	182	182	133	135	114	104	102	112	128	108	36.7	30.2	511	307	366	127	126	113	111	113	95	61	44	26	135	100	73	120
378	331	♀!	sen.	178	178	128	134	112	105	97	109	122	105	35.3	30.9	497	300	363	124	121	118	109	106	100	68	42	26	134	100	72	115
383	338	♀!	ad.	175	176	129	134	113	98	93	108	119	103	37.4	30.7	490	296	359	126	111	122	110	101	101	73	40	28	121	90	73	-
387	342	♀	sen.	171	171	132	132	108	104	85	107	123	106	35.0	29.8	480	290	337	110	115	112	99	104	95	61	43	22	136	97	65	100
388	344	♀!	sen.	176	175	133	138	116	109	97	112	130	120	33.8	30.7	498	306	349	127	111	111	112	101	94	60	45	25	137	107	70	107
394	350	♀!	sen.	187	184	139	139	114	107	93	114	132	109	36.1	33.4	515	305	360	123	115	122	107	108	103	68	47	26	141	102±1	68±1	111±3
401	359	♀	ad.	183	182	133	139	119	109	94	111	126	103	33.9	31.0	503	313	360	120	130	110	107	116	92	60	47	23	131	108	74	120
409	369	♀!	ad.	172	172	126	126	109	95	95	109	121	100	34.0	30.1	485	292	347	120	113	114	104	104	96	64	43	25	126	93	67	108
421	384	♀!	mat.	173	174	136	139	118	101	94	113	125	102	37.3	32.4	496	311	364	129	119	116	109	106	101	65	44	31	136	96±2	69±2	112
423	386	♀!	mat.	180	180	133	131	115	92	89	113	119	103	35.9	29.5	504	309	374	135	127	112	115	115	92	61	42	31	124	-	-	-
430	395	♀!	mat.	173	172	134	129	110	95	89	113	120	101	35.3	30.4	488	302	352	118	126	108	102	110	97	60	45	24	131	93	66	111±2
438	404	♀!	ad.	177	176	131	126	112	93	86	111	120	100	37.6	28.7	495	303	361	125	119	117	109	108	97	67	40	29	130	98	75	125±2
412	373	♀!	ad.	177	178	137	136	117	96	97	114	122	99	39.9	32.0	504	312	367	131	131	105	109	115	90	64	35	30	128	95	70	116
422	393	♀!	ad.	162	161	135	127	112	91	89	109	120	101	37.5	29.6	468	301	336	123	105	108	110	92	91	65	38	25	124	100	71	118
416	379	♀!	mat.	173	173	131	134	114	101	92	110	118	100	37.1	29.0	490	303	351	125	115	111	108	101	94	67	36	28	-	-	-	-
414	377	♀!	ad.	168	168	132	132	111	96	93	109	118	102	33.2	29.0	481	300	349	118	111	120	104	100	100	68	43	26	122	90	63	111
415	378	♀!	mat.	172	172	131	134	115	94	91	115	117	105	36.4	30.0	488	308	360	126	121	113	110	108	93	67	36	29	127	91	70	112
417	380	♀!	mat.	174	174	140	133	113	94	95	115	126	103	36.0	29.4	500	307	362	128	121	113	109	109	95	64	42	28	129±1	96	69	113
424	387	♀!	ad.	181	180	138	136	117	102	92	111	127	104	35,6	30.7	505	311	365	128	125	112	110	112	95	64	41	27	128	99	74	118
429	392	♀	mat.	179	176	136	126	107	100	95	111	126	107	37.5	28.7	499	294	347	118	116	113	104	104	95	67	42	22	129	97	73	118
420	383	♀!	ad.	175	174	134	128	111	98	96	113	120	109	37.6	31.4	499	302	354	119	122	113	104	109	98	63	46	24	130	98	75±1	118
440	406	♀	ad.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
442	408	♀!	sen.	180	181	136	141	114	106	97	107	124	108	38.0	30.2	508	302	361	125	121	115	113	108	98	66	44	25	133	104	73	121
425	393?	♀!	ad.	169	169	134	131	106	98	88	104	127	108	36.3	30.7	488	285	342	118	117	107	104	102	92	57	47	25	131	98±2	69±1	113
455	425	♀!	sen.	177	176	138	130	113	96	96	113	126	104	35.5	29.1	503	305	356	122	125	109	108	112	90	57	45	24	135	-	-	-
449	419	♀!	ad.	171	170	128	129	110	102	89	105	117	107	38.9	34.5	480	291	331	120	105	106	108	96	92	65	35	24	126	104	72	115
464	434	♀!	mat.	176	177	136	130	113	98	102	112	126	107	34.6	28.6	504	304	360	125	110	125	107	100	102	74	43	28	137	101	68	115
454	424	♀!	ad.	163	163	130	131	107	98	91	106	118	97	-	-	-	291	-	125	107	-	110	94	-	-	-	27	126	97	69	109±2
465	435	♀!	mat.	179	178	125	131	109	100	84	102	116	102	40.9	30.4	482	283	353	116	130	107	104	113	91	59	40	24	123	95	70	112±2
444	412	♀!	ad.	174	175	139	128	112	93	91	109	131	109	37.2	31.5	498	303	360	119	111	130	103	101	103	78	42	26	131	89	70	122
459	429	♀!	sen.	179	179	134	131	113	99	92	109	128	106	38.0	28.7	501	302	359	119	123	117	105	113	100	72	36	24	135	97	70	114
451	421	♀!	ad.	185	184	141	128	112	100	97	112	129	109	38.2	30.6	516	306	366	129	110	127	111	101	102	74	45	28	135	-	-	-
458	428	♀!	ad.	175	175	141	135	114	101	94	115	128	115	35.0	31.6	503	312	356	129	117	110	115	105	93	62	43	28	139	-	-	-

Table 4 (continuation 9).

Burial No.	43. fmt-fmt	46. Medial width of face	60. MAL	61. MAB	62. OSL	63. OSB	55. NLH	54. NLB	51. DUB	51a. OBB.	52. OBH	DC. Dacryal chord	DS. Dacryal height	MC. Maxillo-frontal chord
322	109	104	55	65	46.1	46.1	54	23.4	43.0	40.4	36.6	23.3	8.8	19.3
327	110	100	55	66	50.2	42.7	54	24.3	43.3	41.3	35.3	17.7	7.1	16.7
327A	-	-	-	-	-	-	-	-	-	-	-	-	-	-
330	110	99	54	65	48.8	43.5	51	24.8	46.2	43.3	38.0	23.0	8.0	20.6
331	108	99	54	62	-	-	51	25.9	46.5	-	38.5	-	-	16.4
338	101	87	53	59	43.9	38.0	54	22.7	41.3	39.5	36.3	17.0	10.0	15.3
342	104	94	50	56	45.7	37.9	50	24.9	43.9	40.9	36.3	18.0	12.7	17.5
344	111	103	56	62	53.1	40±1	52	25.0	45.8	41.9	37.5	20.8	10.2	19.3
350	109	104	-	-	-	-	51	26.7	43.1	40.7	37.0	20.3	10.4	18.9
359	105	98	56	62	50.6	38.1	53	24.3	41.0	39.0	36.3	18.2	11.9	17.1
369	106	96	50	61	43.9	39.4	51	22.5	41.4	41.0	32.1	21.4	6.1	21.1
384	106	98	-	60	-	-	49	-	42.6	38.9	36.0	21.9	8.2	18.1
386	100	-	-	-	-	-	46	-	40.5	39.8	34.4	17.3	6.0	15.8
395	104	94	49	-	43.9	-	48	23.9	42.9	39.1	33.1	17.5	11.0	11.9
404	100	100	54	61	47.8	38.0	51	19.2	43.1	40.5	36.9	16.0	7.4	14.3
373	106	93	54	60	48.5	37.5	48	-	42.6	40.0	36.0	19.0	7.0	16,6
394?	99	90	58	61	49.2	36.7	51	21.1	40.7	38.7	33.4	16.4	9.4	14.1
379	-	-	-	-	-	-	-	-	-	-	-	-	-	-
377	95	-	48	60	44.9	37.0	-	-	-	-	-	-	-	-
378	101	94	50	59	-	-	49	21.0	40.0	38.6	34.0	15.4	9.3	14.4
380	106	102	54	66	46.5	42.6	49	25.4	42.4	39.5	34.7	19.4	6.8	15.5
387	106	94	55	63	48.7	37.4	51	18.6	44.7	41.1	33.3	16.3	9.0	14.4
392	105	103	54	62	45.4	39.0	53	23.8	44.3	42.7	35.3	20.7	7.6	17.0
383	107	95	54	-	-	-	54	24.0	43.0	42.0	37.2	16.0	9.1	15.1
406	-	-	-	-	-	-	-	-	-	-	-	-	-	-
408	110	100	61	69	50.8	43.4	51	21.6	45.0	42.8	34.0	19.1	7.5	17.5
393?	104	-	-	-	48.5	41.2	49	-	44	42	37	17.3	8.8	16,4
425	107	96	-	-	-	-	53	25.8	46.0	43.5	35.0	20.0	7.7	16.7
419	103	92	54	60	46.1	34.8	50	19.5	43.4	40.9	36.7	15.6	7.1	14.9
434	110	101	57	63	48.3	40.1	48	23.7	44.0	41.4	35.7	22.0	6.4	19.6
424	97	94	51	58	44.8	36.0	51	23.5	40.3	38.2	35.0	16.0	6.0	14.0
435	100	95	50	61	47.1	36.6	51	21.3	45.1	42.8	34.7	14.2	6.7	13.3
412	105	101	50	64	43.6	38.5	49	22.1	42.4	39.0	36.2	18.2	6.7	14.2
429	102	99	52	59	48.5	38.9	50	22.9	43.4	40.9	36.8	16.2	10.6	17.2
421	107	98	-	-	-	-	51	22.6	45.5	43.6	34.4	16.5	8.7	16.0
428	108	101	-	-	-	-	53	22.7	43.5	41.6	36.1	16.9	8.9	15.3

MS. Maxillo-frontal height	SC. WNB	SS. WNH	Bimalar chord fmo-fmo	Height n over chord fmo-fmo	Zygo-maxillary chord zm1-zm1	Height of ssp over chord zm1-zm1	Depth canine recess	Mandible									
								65. Condylar breadth	66. Angular breadth	68. Length of angles	68(1). Length of condyle	70. Height of ramus	71a. Breadth of ramus	67. Front width	69. Height of symphesis	69(1). Body height	69(3). Body thickness
5.3	9.3	3.6	99	16	103	24	3.7	124	98	84	111	49	38	48	34	29	10
3.8	5.3	1.7	101	14	99	23	0.8	124	107	80	116	50	33	46	35	34	12
-	-	-	-	-	-	-	-	-	-	-	-	54	37	-	-	-	-
4.7	7.0	2.1	102	19	98	24	6.7	120	102	78	108	52	34	48	37	33	10
3.8	4.3	1.0	99	18	98	20	3.4	128	106	79	106	47	36	49	35±1	32	10
4.9	6.9	2.3	103	16	88	22	3.4	-	-	-	-	-	-	-	-	-	-
7.1	6.9	3.3	94	14	95	20	6.2	123	108	80	109	49	35	43	28	27	11
4.9	6.4	2.1	102	19	101	22	7.2	123	99	77	104	53	40	46	30	29	13
5.2	4.4	1.9	109	15	104	22	6,6	135	113	81	108	58	35	48	33	31	11
6.6	6.3	4.0	94	18	96	23	5.8	124	107	81	116	50	37	46	34	31	14
4.1	6.3	2.2	98	15	95	20	4.4	116	99	78	103	53	37	43	30	29	10
3.8	6.4	1.3	97	14	-	-	4.7	125	111	73	108	56	34	46	34	31	11
3.4	4.7	1.1	92	11	-	-	-	119	102	77	111	51	36	42	37	36	13
3.2	5.1	2.0	95	11	91	14	3.1	116	101	77	104	57	36	50	33	-	9
3.4	4.7	1.6	94	13	98	20	5.1	116	108	76	108	52	37	46	37	36	13
4.3	3.7	1.3	96	13	-	-	-	114	101	73	103	52	37	45	35	32	9
4.0	5.6	2.0	88	10	85	17	6.1	114	99	78	110	48	41	45	35	30	12
-	-	-	-	-	-	-	-	112	106	64	100	53	37	41	-	-	9
-	-	-	-	-	-	-	-	107	101	64	93	53	32	42	32	26	10
3.6	7.9	2.5	91	11	92	19	6.9	111	97	72	103	49	33	42	35	31	11
3.6	4.2	2.9	96	11	98	21	2.7	116	107	74	100	52	38	46	34	28	10
3.9	4.5	2.5	98	13	103	18	2.9	116	96	77	107	54	37	45	37	31	8
4.3	3.7	0.9	98	17	103	24	4.7	114	100	77	110	53	37	42	35	33	10
4.7	6.3	2.0	96	12	92	20	7.6	115	104±1	75	107	48	34	41	-	-	8
-	-	-	-	-	-	-	-	118	109	81	112	57	40	48	33	29	12
4.9	7.0	2.0	101	16	99	23	4.3	119±2	101	86	112	49	36	45	-	32	12
5.3	6.9	3.1	96	16	-	-	-	118	108	83	107	63	36	48	34	32	9
4.2	3.8	1.3	100	14	98	20	5.0	117	106	71	101	49	33	44	-	-	9
4.3	2.6	1.0	94	13	90	19	8.3	112	100	77	108	50	38	45	31	29	11
3.5	6.1	1.5	101	15	101	22	7.5	117	98	79	103	50	39	50	35	33	11
3.1	3.3	1.0	89	12	93	20	4.0	111±1	98	78	105	51	38	43	29	25	12
4.8	4.0	1.1	93	16	94	21	5.4	114	102	73	107	51	33	44	32	31	11
2.8	3.6	0.4	96	14	100	19	3.5	124	112	80	111	52	36	49	36	32	13
5.0	6.7	1.1	95	11	98	21	3.1	120	103	78	103	58	36	46	33	31	10
4.2	8.8	2.7	100	16	-	-	2.9	123	101	76	107	56	37	46	-	-	12
4.3	6.2	3.2	98	13	100	21	4.0	120	106	79	106	51	38	42	-	29	9

Table 4 (continuation 10).

Burial No.	32. Angle of proj. of brow from n	Angle of proj. of brow from gl	33(1). Angle upper part of occiput	33(2). Angle lower part of occiput	33(4).Angle curve of occiput	34. Angle of occipit. foram.	77. Naso-malar angle	Zygo-maxillary angle	72. Total angle of face	73.Angle medial part of face	74.Angle alveolar part of face	75. Angle nasal bone	75(1). Angle projection of nose	79. Angle ramus of mandible	C'. Angle of chin	Superciliary (along Martina 1-6)
322	90	86	88	37	I25	-5	I44	I30	86	89	78	-	-	I28	67	2
327	88	80	9I	32	I23	-I6	I49	I30	82	86	7I	65	I7	I40	65	3
327A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
390	87	8I	94	3I	I25	-5	I39	I28	86	88	8I	7I	I5	I29	72	3
33I	8I	78	96	3I	I27	-I0	I40	I36	85	9I	69	-	-	I27	-	2
338	83	79	94	30	I24	-I0	I46	I27	90	92	84	72	I8	-	-	2
342	82	78	90	36	I26	-2	I47	I34	82	86	68	63	I9	I33	62	2
344	83	80	87	39	I26	+2	I39	I33	83	87	70	72	II	I24	74±	2
350	84	74	88	39	I27	-3	I49	I34	85±I	87	79±I	7I	I4	I2I	69	3
359	8I	75	89	30	II9	-3	I38	I29	83	87	7I	70	I3	I39	69	2
369	84	79	95	30	I25	-8	I46	I34	84	88	7I	72	I2	I24	76	2
384	93	89	93	38	I3I	-4	I48	-	-	-	-	-	-	I34	70	2
386	89	80	I00	26	I26	-II	I53	-	-	89	-	-	-	I35	7I	3
395	87	78	98	34	I32	-I	I54	I46	85	90	70	70	I5	I22	76	3
404	87	84	96	33	I29	-II	I49	I36	85	88	78	64	2I	I32	70	I
373	90	88	I00	27	I27	-3	I50	-	85	90	72	-	-	I3I	78	2
394?	84	79	90	32	I22	0	I54	I36	80	85	66	66	I4	I33	74	2
379	-	-	-	-	I29	-	-	-	-	-	-	-	-	I34	-	2
377	90	88	90	35	I25	+2	-	-	-	-	-	-	-	I29	76	2
378	90	87	96	3I	I27	-8	I53	I35	87	89	82	68	I9	I35	67	2
380	90	87	98	27	I25	0	I54	I34	83	88	70	62	2I	I23	83	I
387	86	79	94	30	I24	-7	I50	I4I	87	9I	77	77	I0	I28	78	3
392	77	68	9I	26	II7	-6	I42	I30	86	89	76	-	-	I35	74	3
383	80	77	97	29	I26	-I4	I52	I33	8I	88	62	-	-	I34	77	2
406	-	-	-	-	-	-	-	-	-	-	-	-	-	I26	69	-
408	8I	77	92	3I	I23	-2	I45	I30	82	88	67	67	I5	I24	68±I	2
393?	85	80	92	3I	I23	-6	I43	-	82±I	-	-	-	-	II7	73	2
425	80	77	93	29	I22	-3	I49	I36	-	9I	-	-	-	I33	-	2
4I9	80	76	95	35	I30	-2	I49	I34	8I	84	73	-	-	I34	70	2
434	89	85	90	29	II9	-7	I47	I33	8I	85	70	69	I2	I2I	82	2
424	83	79	-	-	-	-	I50	I34	82	86	70	-	-	I24	66	2
435	82	77	97	33	I30	-7	I42	I32	85	88	77	68	I7	I37	66	2
4I2	90	87	90	24	II4	-II	I47	I38	90	93	82	-	-	I29	66	I
429	82	78	I00	32	I32	-9	I54	I34	85	88	77	-	-	I28	7I	2
42I	86	76	89	28	II7	-8	I45	-	-	-	-	-	-	I24	75	3
428	84	79	94	3I	I25	0	I50	I34	-	88	-	66	20±2	I24	-	2

Mammiform appendix (1-3)	Thickness pars tympanica, MM	Transvers profile of spine of nose (0-2)	Lower edge of pyriform foramen	Frontal-nasal barb (1-5)	Norma occipit. (lat. sides/vault)	Sinus sagittalis	Torus occipitalis (0-3)	Os postaquamosum (d/s), MM	Foramina tympanica (d/s)	Foramina supraorbitalia (d/s)	Foramina infraorbitalia(d/s)(supp.)	Torus palatinus (0-3)	Torus mandibularis (0-3)	Foramina mentalia(d/s)(supp.)	Arcus mylohyoideus (d/s)	Grinding of teeth (upper/lower, 0-3+	Loss of teeth (upper/lower)
2	4	0	ant	2	2/I	s	0	I9/0	0/0	+/+	0/+	2	0	0/0	0/0	3/3	0/+
2	5	I	f.p.	I	2/3	d	I	I3/I8	0/0	+/+	0/0	I	0	0/0	0/0	3/2-3	0/0
-	-	-	-	-	-	-	-	-	-	-	-	-	2	0/0	0/0	-/3+	-/0
2	4	0	ant	2	2/I	s	2	0/0	0/0	0/0	0/0	0	0	0/0	0/+	3/3	0/0
2	3	0	s.p.	I	2/3	d	I	I7/0	+/+	+/+	0/0	0	0	0/0	0/0	3+/3	0/+
2	4	2	f.p.	2	2/I	d	0	0/0	0/0	+/+	0/0	0	-	-	-	3/-	o/-
I	4	0	ant	3	2/I	d	I	0/0	+/+	+/+	0/0	0	0	0/0	0/0	3/3	0/0
I	3	I	ant	I	2/2	?	I	0/0	+/+	+/+	0/0	I	2	0/0	+/+	3/3	0/+
I	4	2	f.p.	2	2/2	?	I	0/0	+/+	+/+	0/0	0	0	0/0	+/+	3/3	0/0
I	5	2	f.p.	I	3/2	d	0	0/0	+/+	0/0	0/0	0	0	0/0	0/0	2/2	0/0
I	3.5	I	inf	I	2/I	d	0	0/I5	0/0	+/+	0/0	0	0	0/0	0/0	2/2	0/0
I	5	0	-	-	2/2	d	I	I5/0	0/0	+/+	0/0	I	I	0/0	0/0	3+/3	0/0
I	3	0	ant	-	3/2	s	I	0/0	+/+	+/+	0/0	0	I	0/0	0/0	3+/3+	+/+
2	4	2	ant	2	3/I	s	0	0/0	+/+	0/+	+/0	2	0	0/0	0/0	3/3+	+/+
I	4	0	ant	3	3/2	s	I	0/0	0/0	0/0	0/0	0	0	0/0	+/0	2-3/3	0/+
I	4	0	-	-	3/2	?	0	6/0	+/+	0/0	0/0	0	0	0/0	0/0	2-3/2-3	0/0
I	4	I	inf	I	3/2	d	0	0/8	0/0	0/+	0/0	I	0	0/0	0/0	I-2/I-2	0/0
I	4	-	f.p.	2	3/I	d	I	0/0	0/0	0/0	0/0	I	I	0/0	0/0	-/3	+/+
2	4	-	-	-	3/I	d	I	I0/I5	+/+	0/0	0/0	0	0	0/0	0/0	I/I	0/0
2	2	0	ant	3	2/2	d	0	0/0	0/+	+/+	0/0	0	I	0/0	0/0	3/3	+/+
2	4	2	f.p.	2	3/2	s	0	I5/I5	+/+	0/+	0/0	2	0	0/0	0/0	I/I	0/0
I	3	2	ant	I	2/2	d	0	0/8	+/+	0/0	0/0	0	0	0/0	0/0	2-3/2	0/0
2	3	I	f.p.	I	2/I	s	I	0/0	0/0	+/+	0/0	0	0	0/0	0/0	I/I	0/0
I	4	0	f.p.	-	2/2	?	0	7/9	0/0	0/0	+/+	I	I	0/0	0/0	3+/3+	+/+
-	-	-	-	-	-	-	-	-	-	-	-	-	I	0/0	0/0	-/I	-/0
I	4	0	ant	2	2/I	d	I	0/0	0/0	+/+	0/0	3	I	0/0	0/0	3+/3+	0/0
I	4	I	-	-	2/2	d	I	0/0	0/+	+/+	0/0	0	0	0/0	0/0	3/3	0/0
I	5	2	ant	-	3/2	d	I	I2/0	0/0	0/0	0/0	0	I	0/0	0/0	3+/3+	+/+
I	3	2	f.p.	2	2/2	d	0	0/I5	0/0	+/0	0/0	I	0	0/0	0/0	I/I	0/0
2	2	0	f.p.	I	2/I	s	I	I0/I0	+/+	0/0	0/0	I	0	0/0	0/0	3/3	0/0
I	2	I	f.p.	-	3/I	-	0	I4/I4	0/0	0/0	0/0	2	I	0/0	0/0	I/I	0/0
I	5	0	f.p.	I	2/3	s	I	0/0	0/0	0/0	0/0	0	I	0/0	0/0	3/3	+/0
I	2	0	f.p.	2	2/I	d	0	0/0	0/0	+/+	0/+	I	0	0/0	0/0	I/I	0/0
2	3	0	ant	2	2/2	s	I	0/0	0/0	+/+	0/0	I	0	0/0	0/+	3/3	0/0
2	4	I	-	-	2/I	d	2	I8/II	+/+	0/0	0/0	I	I	0/0	0/0	3/3	+/+
2	5	2	ant	2	2/2	d	0	8/0	+/+	0/+	0/0	2	2	0/0	0/0	3/3	+/+

Table 4 (end).

Inv. No. AMNH cat. 99.1	Burial No.	Sex	Age	1. NOL	1b. GOL	8. XCB	17. BBH	20. BPH	5. BNL	9. WFB	10. XFB	11. AUB	12. OCB+	7. FOL	16. FOB*	23a. Horiz.circ. through ophr	24. Transverse arc	25. Sagittal arc	26. FRK	27. PAK	28. OCK	29. FRC	30. PAC	31. OCC	31(1). Lambda-inion chord	31(2). Inion-opisthion chord	GLS	45. ZYB	40. BPL	48. NPH	47. Full height of face
Ipiutak																															
108	60	?	5	-	-	-	-	-		86	101	-	-	-	-	-	-	-	116	-	-	102	-	-	-	-	27	-	-	59	-
83	32	?	6	156	156	123	108	97	78	82	95	96	96		-	438	265	313	105	106	102	90	96	82	58	34	24	96±2	76	52	88
96	46	?	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
193	103B	?	9	166	167	136	118	104	86	88	101	116	101	36,1	28.9	476	290	339	113	112	114	98	100	94	62	47	24	116	85	63	105
190	11	?	12	168	168	133	118	104	91	92	108	122	105	33.9	28.9	480	287	334	111	112	111	99	101	92	57	47	22	120	96	63	-
176	85A	?	14	175	174	136	116	100	93	90	109	119	102	36.3	29.4	490	280	345	111	101	133	99	95	102	75	42	22	120	94	63	97
92	42	?	16	185	185	138	135	113	95	92	111	122	105	35.9	30.0	502	300	373	126	128	119	111	118	97	72	35	25	124	91	70	115
93	43	♂!	16	184	184	144	132	107	101	91	114	129	115	-	-	513	298	355	119	114	122	104	103	97	75	35	21	129	90	69	114
95	45	♂!	16	177	176	138	125	108	98	95	111	123	107	38.9	32.8	502	302	354	122	123	109	104	110	92	67	34	28	129	96	68	112
Tigara																															
313	244	?	I I/2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
280	168	?	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
351	296	?	3	157	-	119	116	-	82	76	98	91	95	-	-	-	259	326	109	112	105	93	100	87	58	35	24	-	-	-	-
221	132	?	3	157	159	125	-	103	-	79	103	93	96	-	-	453	287	-	109	120	-	91	106	-	-	-	28	93	-	47	81
244	169	?	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
245	155	?	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
264	191	?	4	168	168	128	-	-	-	80	107	-	-	-	-	-	-	358	126	117	115	106	107	94	66	40	29	-	-	-	-
307	238	?	4	179	180	126	131	114	92	92	100	107	103	39.4	27.1	486	298	363	130	121	112	107	110	93	66	36	30	-	85	51	-
418	381	?	4	178	179	133	-	114	-	81	107	104	102	-	-	492	308	371	126	131	114	105	118	94	64	44	31	100	-	54	90
518	495	?	4	160	161	129	-	95	-	80	103	101	100	-	-	460	278	346	121	112	113	94	98	91	57	45	30	95±1	-	51	86
360	311	?	5	170	171	129	125	110	86	87	111	109	97	-	-	478	300	352	116	122	114	98	109	93	73	28	27	105±2	73	59	96
467	438	?	5	167	168	125	-	104	-	88	105	107	110	-	-	468	288	341	115	114	112	100	102	90	60	40	27	105	-	55	93
427	390	?	5	151	152	131	-	107	-	86	106	108	-	-	-	-	294	-	120	105	-	100	95	-	-	-	29	105	-	56	91
433	398	?	6	171	172	126	-	110	-	93	108	110	104	-	-	475	284	-	115	120	-	103	109	-	-	-	25	-	-	61	101
399	357	?	6	-	-	-	-	-	-	-	-	-	-	41.6	35.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
385	340	?	6	160	161	126	122	108	85	89	105	112	-	34.9	29.9	450	294	335	117	107	111	99	97	93	62	40	27	108±1	-	56	-
299	230	?	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
356	302	?	6	169	170	128	120	108	84	87	103	-	-	-	-	462	290	344	121	115	108	102	105	88	61	37	28	103	80	56	93
411	372	?	6	171	172	135	129	111	92	94	111	112	100	38.2	30.4	485	306	357	125	121	111	104	108	97	60	45	29	111	86	59	101
301	232	?	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
309	240	?	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 5. Individual measurements of children's skulls from the burial sites of Ipiutak and Tigara.

Burial No.	43. fmt-fmt	46. Medial width of face	60. MAL	61. MAB	62. OSL	63. OSB	55. NLH	54. NLB	51. DUB	51a. OBB	52. OBH	DC. Dacryal chord	DS. Dacryal height	MC. Maxillo-frontal chord	MS. Maxillo-frontal height
Iplutak															
60	87	78	–	–	–	–	42	I7.0	34.5	32.I	–	–	–	–	–
32	82	72	38	52	34.8	27.2	38	20.0	33.8	33.0	32.2	–	–	I4.I	2.5
46	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
I03B	93	89	45	59	39.9	36.8	47	I9.I	36.9	34.8	33.6	I8.8	8.0	5.6	4.4
II	I0I	9I	49	58	4I.3	35.6	48	23.I	40.I	37.3	3I.I	2I.0	8.I	I5.4	4.7
85A	98	94	49	63	42.3	39.0	48	23.5	38.7	37.0	33.2	I8.5	8.6	I6.7	5.2
42	I02	90	47	64	42.2	39.5	5I	22.7	40.6	39.I	36.0	–	–	I7.2	5.0
43	I04	99	47	59	40.9	33.9	50	22.2	39.8	–	34.6	–	–	I7.0	5.7
45	I02	95	49	6I	44.0	37.6	49	24.0	39.4	37.4	35.8	20.5	6,5	I8.0	3.I
Tigara															
244	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
I68	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
296	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
I32	82	66	34	47	32.5	23.9	32.8	I8.0	33.7	–	3I.0	–	–	–	–
I69	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
I55	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
I9I	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
238	93	–	–	–	–	–	–	–	36.5	35.0	29.6	–	–	I7.3	4.3
38I	84	79	35	5I	34.0	28.0	36.	2I.0	37.I	35.I	33.2	–	–	–	–
495	84	73	35	50	3I.9	28.7	36	I7.5	33.8	–	32.I	–	–	–	–
3II	88	78	–	–	–	–	42	I9.9	37.2	–	34.9	–	–	I6.9	4.6
438	89	76	38	5I	36.5	30.I	38	20.9	36.2	–	33.5	–	–	I4.3	4.0
390	87	78	36	54	33.2	30.0	38.5	I9.I	37.5	35.0	32.4	–	–	I2.6	2.7
398	–	–	4I	58	37.5	3I.9	42	I8.0	38.5	37.5	3I.6	I8.4	6.6	I4.9	3.8
357	–	–	–	–	–	–	–	–	–	–	–	–	–	I5.9	4.5
340	89	–	–	–	–	–	–	–	–	–	–	I5.3	7.0	I5.0	4.0
230	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
302	88	78	38	54	36.2	32.3	4I	20.0	37.2	35.2	32.7	I6.6	4.6	I4.7	3.2
372	96	85	42	57	38.2	32.I	42	20.0	40.0	38.7	33.9	I7.0	6.6	I5.2	4.2
232	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
240	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

SC. WNB	SS. WNH	Bimalar chord fmo-fmo	Height n over chord fmo-fmo	Zygo-maxillary chord zm1-zm1	Height of ssp over chord zm1-zm1	Depth canine recess	Mandible									
							65. Condylar breadth	66. Angular breath	68. Length of angles	68(1). Length of condyle	70. Height of ramus	71a. Breadth of ramus	67. Front width	69. Height of symphesis	69(1). Body height	69(3). Body thickness
–	–	79	I3	76	22	3.8	89	80	59	8I	34	30	38	27	22	II
6.5	I.0	77	I3	70	I8	2.3	86	76	60	80	32	29	38	23	20	II
–	–	–	–	–	–	–	I0I	84	65	88	4I	3I	40	25	2I	I0
4.6	2.2	85	I3	86	I8	I.7	I08	89	63	88	46	28	40	27	22	II
7.8	2.5	93	I2	89	20	3.6	–	–	–	–	–	–	–	–	–	–
6.0	I.8	9I	I4	9I	I8	3.7	II2	96	69	95	44	3I	39	24	23	II
5.8	I.9	9I	I7	88	I8	3.4	II4	97	82	I09	50	37	47	30	26	I3
3.9	2.7	95	I2	96	I9	5.3	II9	I07	73	I03	53	39	37	30	29	I3
I5.9	I.9	95	I5	95	I8	6.2	II6	98	72	I05	46	33	45	32	26	I2
–	–	–	–	–	–	–	–	69	5I	65	29	22.5	32.5	2I	I7.5	8
–	–	–	–	–	–	–	–	7I	5I	72	–	23	34	–	I9	9
–	–	–	–	–	–	–	–	72	–	–	–	–	–	–	–	–
–	–	77	II	66	I6	I.0	83	68	5I	70	34	25	35	23	I8	9
–	–	–	–	–	–	–	88	75	50	70	34	25	35	23	I9	9
–	–	–	–	–	–	–	79	7I	43	70	33	22	35	20	I9	I0
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	0.5	–	–	–	–	–	–	–	–	–	–
–	–	79	I2	77	I9	I.8	94	78	53	78	3I	27	38	25.5	2I	II
–	–	77	II	7I	I6	2.6	86	75	53	73	36	22	39	25	I9	II
9.3	2.7	83	I4	–	–	2.5	–	–	–	–	–	–	–	–	–	–
6.3	I.3	84	I6	74	20	2.I	98	83	58	8I	35	26	4I	27	2I	II
3.2	0.7	82	I2	77	I8	4.I	–	–	–	73	–	–	–	24	22	I0
7.I	I.9	–	–	–	–	3.2	I00	89±I	64	88	35	32	42	29	24	I3
2.4	0.8	–	–	–	–	–	–	–	–	–	–	–	–	–	27	II
4.7	I.5	–	–	–	–	–	97	8I	56	8I	37	28	40	–	22	I0
–	–	–	–	–	–	–	92	89	57	84	37	3I	36	28	25	II
4.4	0.7	82	I2	75	I9	2.6	–	84±2	58	86	35	26	39	26	23	II
5.7	I.2	90	I5	84	2I	4.I	I05	90	66	92	44	32	44	27	26	II
–	–	–	–	–	–	–	95	84	57	85	44	26	4I	–	24	I0
–	–	–	–	–	–	–	93	80	64	87	4I	30	38	–	23	9

Table 5 (continuation 1).

Burial No.	32. Angle of proj. of brow from n	Angle of proj. of brow from gl	33(1). Angle upper part of occiput	33(2). Angle lower part of occiput	33(4).Angle curve of occiput	34. Angle of occipit. foram.	77. Naso-malar angle	Zygo-maxillary angle	72. Total angle of face	73.Angle medial part of face	74.Angle alveolar part of face	75. Angle nasal bone	75(1). Angle projection of nose	79. Angle ramus of mandible	C'. Angle of chin
Iplutak															
60	-	-	-	-	-	-	I44	I20	-	-	-	-	-	I36	82
32	90	84	95	27	I22	-	I43	I26	85	85	85	75	I0	I36	77
46	-	-	-	-	-	-	-	-	-	-	-	-	-	I28	80
I03B	87	85	90	26	II6	-II	I46	I35	86	87	8I	69	I7	I27	72
II	85	80	89	33	I22	-II	I5I	I32	80	83	70	65	I8	-	-
85A	80	77	86	32	II8	-I4	I46	I37	85	87	77	64	2I	I34	64
42	83	78	-	-	I24	-	I39	I35	80	8I	77	-	-	I27	60
43	79	75	I0I	I8	II6	-	I52	I37	90	93	8I	-	-	I28	63
45	88	83	I00	27	I27	-6	I45	I38	82	85	73	67	I5	I42	73
Tigara															
244	-	-	-	-	-	-	-	-	-	-	-	-	-	I50	72
I68	-	-	-	-	-	-	-	-	-	-	-	-	-	I38	70
296	-	-	-	-	I3I	-	-	-	-	-	-	-	-	-	-
I32	I0I	97	-	-	-	-	I48	I28	9I	93	83	-	-	I40	76
I69	-	-	-	-	-	-	-	-	-	-	-	-	-	I35	73
I55	-	-	-	-	-	-	-	-	-	-	-	-	-	I56	74
I9I	-	-	-	-	II9	-	-	-	-	-	-	-	-	-	-
238	I00	94	9I	34	I25	-8	-	-	-	-	-	-	-	-	-
38I	99	96	98	23	I2I	-	I46	I27	89	89	89	-	-	I39	84
495	94	9I	98	25	I23	-	I48	I3I	89	89	89	-	-	I50	73
3II	93	90	I0I	26	I27	-	I43	-	90	-	-	79	II	-	-
438	9I	89	99	26	I25	-	I38	I23	88	88	88	76	I2	I35	82
390	I00	97	-	-	-	-	I47	I30	9I	9I	9I	78	I3	-	-
398	9I	87	-	-	-	-	-	-	88	88	88	78	I0	I43	73
357	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
340	-	-	-	-	I28	-	-	-	-	-	-	-	-	I36	-
230	-	-	-	-	-	-	-	-	-	-	-	-	-	I43	77
302	94	89	99	24	I23	-	I47	I26	86	86	86	75	II	I48	69
372	95	90	93	40	I33	-I0	I43	I27	90	92	84	77	I3	I29	73
232	-	-	-	-	-	-	-	-	-	-	-	-	-	I35	-
240	-	-	-	-	-	-	-	-	-	-	-	-	-	I30	-

Burial No.	Supercilliary (along Martina 1-6)	Mammiform appendix (1-3)	Thickness pars tympanica, MM	Transvers profile of spine of nose (0-2)	Lower edge of pyriform foramen	Frontal-nasal barb (1-5)	Norma occipit. (lat. sides/vault)	Sinus sagittalis	Torus occipitalis (0-3)	Os postaquamosum (d/s), MM	Foramina tympanica (d/s)	Foramina supraorbitalia (d/s)	Foramina infraorbitalia(d/s)(supp.)	Torus palatinus (0-3)	Torus mandibularis (0-3)	Foramina mentalia(d/s)(supp.)	Arcus myohyoideus (d/s)
Iplutak																	
60	I	I	2	-	inf	2	3/I	d	0	-	+/+	0/+	0/0	0	0	0/0	0/0
32	I	I	4	0	inf	I	3/I	d	0	0/0	+/+	+/0	0/+	I	0	0/+	0/0
46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0/0	0/0
I03B	I	I	3	2	ant	3	3/I	s	0	I3/0	0/0	+/+	0/0	I	0	0/0	0/0
II	I	I	3	0	inf	-	3/I	d	0	0/0	+/+	+/+	0/0	I	-	-	-
85A	I	2	I	0	inf	2	3/2	d	0	0/0	0/0	0/+	0/0	I	I	0/0	0/0
42	2	I	3	0	f.p.	-	3/I	d	0	0/0	0/0	+/0	0/0	I	0	0/0	0/0
43	3	2	4	I	ant	-	2/2	d	0	0/I3	+/+	0/+	0/0	I	0	0/+	0/0
45	I	I	I	0	inf	-	3/I	d	0	0/0	+/0	0/0	0/0	0	0	0/0	0/0
Tigara																	
244	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0/0	0/0
I68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0/0	0/0
296	I	I	4	-	-	-	3/I	d	0	0/0	0/0	-	-	I	0	0/0	0/0
I32	I	I	2	-	inf	I	3/I	?	0	I8/I7	+/+	0/0	0/0	0	0	0/+	0/0
I69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0/0	0/0
I55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0/0	0/0
I9I	I	-	-	-	-	-	2/I	d	0	-	-	0/0	-	I	0	0/0	0/0
238	I	-	4	0	-	-	3/I	?	0	6/0	+/+	+/0	0/0	0	-	-	-
38I	I	I	3	-	inf	I	3/I	d	0	0/0	+/+	0/0	0/0	0	0	0/0	0/0
495	I	I	2	-	inf	I	3/I	d	0	0/0	0/+	0/+	0/0	I	0	0/0	0/0
3II	I	-	4	0	inf	-	3/I	d	0	0/0	+/+	+/+	0/0	I	0	0/0	0/0
438	I	I	3	0	inf	-	2/I	d	0	0/0	+/+	+/+	0/0	0	0	0/0	0/0
390	I	-	2	0	inf	2	3/I	-	0	0/I4	+/+	0/0	0/0	0	0	0/0	0/0
398	I	I	3	0	inf	I	2/2	d	0	0/0	+/+	0/0	0/0	I	0	0/0	0/0
357	2	I	4	0	-	-	-	d	0	-	+/+	+/0	0/0	0	0	0/0	0/0
340	I	I	4	0	-	-	3/I	d	0	0/0	+/+	+/+	0/0	0	0	0/0	0/0
230	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0/0	0/0
302	I	I	4	0	inf	I	3/I	d	0	-	+/+	+/+	0/0	0	0	0/0	0/0
372	I	I	5	0	inf	I	3/I	?	0	0/0	0/0	0/0	0/0	0	0	0/0	0/0
232	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0/0	0/0
240	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0/0	0/0

Table 5 (continuation 2).

Inv. No. AMNH coll. 99.1	Burial No.	Sex	Age	1. NOL	1b. GOL	8. XCB	17. BBH	20. BPH	5. BNL	9. WFB	10. XFB	11. AUB	12. OCB+	7. FOL	16. FOB*
269	I96	?	7	I72	I73	I25	I26	II2	85	86	I05	II0±I	I02	40.9	27.8
29I	2I7	?	7	I62	I63	I23	I20	I06	86	85	98	II2	98	37.3	29.9
247	I34	?	7	I70	I72	II8	I23	I08	9I	87	I05	I04	94	36,0	26,5
484	459	?	7	I70	I70	I40	I29	II5	89	95	II5	I22	I03	-	-
50I	477	?	8	I73	I74	I33	I25	I09	89	92	I08	II2	I06	34.8	28.6
293	22I	?	8	I69	I69	I3I	-	I07	-	88	I05	I07	I00	-	-
344	293	?	9	I69	I69	I32	I30	I09	92	95	III	II8	I03	33.2	28.2
548	526	?	I0	I59	I60	I2I	I27	I07	87	9I	I02	III	I0I	37.6	25.I
384	339	?	I0	I73	I73	I30	I28	II3	94	96	II2	II4	I09	36.0	27.9
342	290	?	I0	I68	I69	I30	I22	I07	89	9I	I08	II3	I02	35.2	30.2
534	5II	?	I0	I73	I73	I25	I23	III	87	90	I06	II2	I0I	34.3	29.0
4I9	382	?	II	I74	I75	I27	-	I08	-	90	III	I06	93±2	40.5	3I.2
82	3I	?	II	I70	I7I	I30	I26	I09	90	90	I07	II3	I04	36.6	30.0
354	306	?	II	I76	I77	I28	I33	II3	94	89	I08	III	98	37.3	30.6
34I	289	?	II	I75	I75	I34	I33±2	II4	-	93	III	-	-	-	-
304	235	?	I2	I78	I79	I25±2	I35	II8	96	96	II2	-	-	35.9	30.2
343	29I	?	I2	I64	I64	I34	I29	II4	93	97	III	II8	I06	37.5	26.5
4I3	376	?	I2	I7I	I7I	I44	I30	II3	98	99	II9	I25	I09	39.8	33.I
39I	347	?	I2	I70	I70	I37	I30	III	95	96	III	II8	III	-	-
290	2I5	?	I2	I66	I65	I28	I25	I06	87	87	99	II7	I00	35.3	25.9
550	528	?	I2	I73	I73	I40	I32	II2	94	95	II4	I24	I07	38.4	32.6
223	I5I	?	I2	I80	I8I	I35	I38	II9	95	96	II4	II7	I05	37.2	28.6
300	23I	?	I3	I7I	I72	I23	I3I	III	93	9I	I04	II2	I03	34.2	28.I
405	365	?	I3	I76	I76	I35	I33	II4	93	94	III	I23	I0I	37.2	30.3
406	366	?	I4	I67	I66	I34	I33	III	97	97	III	I24	I02	33.5	29.I
285	209	?	I4	I77	I78	I24	I36	II4	98	9I	I08	II3	96	36.9	3I.9
308	239	?	I5	I84	I85	I27	I33	II3	95	-	II3	-	I04	-	-
88	37	?	I6	I80±2	I80±2	I40±2	I36	II7	I0I	95	II8	I25	II2	38.0	28.3
389	345	?	I6	I69	I70	I29	I3I	I09	96	88	I05	II9	I09	37.7	30.0
36I	304	?	I6	I79	I78	I29	I28	III	97	93	I03	I22	I07	38.0	28.2

23a. Horiz.circ. through ophr	24. Transverse arc	25. Sagittal arc	26. FRK	27. PAK	28. OCK	29. FRC	30. PAC	31. OCC	31(1). Lambda-inion chord	31(2). Inion-opisthion chord	GLS	45. ZYB	40. BPL	48. NPH	47. Full height of face
475	298	36I	I22	I23	II6	I04	I07	I00	72	38	26	-	75	59	98
453	280	334	II3	II8	I03	I07	I05	87	55	4I	24	III	82	57	96
470	284	354	I24	I2I	III	I04	I06	95	6I	48	3I	-	86	58	-
490	3II	-	I23	I24	-	I08	III	-	-	-	25	I22	8I	62	I03
484	296	355	II3	I32	II0	98	II6	93	66	38	23	II3	85	62	I03
-	288	347	II9	I25	I03	I02	II2	87	63	3I	25	I07	-	59	98
480	293	350	I20	I2I	I09	I03	I07	93	63	38	27	II9	82	65	I09
455	282	333	II7	I09	I07	98	I00	93	65	36	28	-	-	-	-
489	300	357	I26	I24	I07	I04	III	89	6I	42	27	II4±I	9I	62	I06
472	292	34I	II7	I22	I02	I02	I07	86	56	39	25	II7	87	62	I04
478	294	365	II9	I28	II8	I04	II4	98	60	52	26	III	89	54	94
479	292	348	II8	I28	I02	I02	II3	87	56	40	27	II0±I	-	63	I03
484	295	348	I20	I03	I25	I03	94	I04	72	49	28	II2	82	6I	I05
486	30I	362	I25	I25	II2	I06	I08	93	65	40	28	I09±I	84	64	-
492	3I2	339	I20	III	I09	I04	99	89	70	30	25	II9	-	60	-
- -	-	-	I25	-	-	I06	-	-	-		23	-	90	69	II6
473	307	339	II7	I04	II8	I03	94	I00	78	33	23	II7	85	65	I03
497	3I6	345	I28	II5	I02	III	I04	88	65	30	28	I22	93	68	III
488	302	-	II6	95	-	I02	88	-	-	-	25	-	89	64	I04
465	288	344	II6	II8	III	I0I	I04	95	6I	42	25	I09	8I	60	III
497	305	364	I23	I27	II4	I08	III	95	66	40	26	I24±I	88	68	I09±I
500	3I2	378	I32	I23	I23	II2	I09	I07	64	52	3I	II6	93	66	I09
475	292	355	II8	II4	I23	I04	I02	I03	69	47	26	II4	93	63	I03
493	3II	368	I25	I20	I23	I07	I08	I0I	73	40	20	I23	83	6I	I02
48I	295	343	II7	I03	I23	I05	96	I04	66	5I	23	I29	90	67	I05
485	299	36I	I26	I26	I09	I08	II4	93	56	49	28	II3±2	90	65	-
502	3II	-	I27	I30	-	III	II5	-	-	-	27	-	9I	66	I07
5II	3II	357	I22	I28	I07	I09	II8	90	62	38	25	I28	I00	74	I20
483	290	34I	II7	I03	I2I	I03	96	I00	73	4I	25	I22	94±I	69	II4
493	290	359	I20	I22	II7	I05	I09	97	60	50	25	I25	97	70	-

Table 5 (continuation 3).

Burial No.	43. fmt-fmt	46. Medial width of face	60. MAL	61. MAB	62. OSL	63. OSB	55. NLH	54. NLB	51. DUB	51a. OBB	52. OBH	DC. Dacryal chord	DS. Dacryal height	MC. Maxillo-frontal chord
I96	9I	-	38	57	33.0	3I.8	44	20.0	38.3	37.0	35.7	-	-	I5.0
2I7	88	83	4I	55	35.5	28.5	42	20.4	38.0	36.5	33.8	I5.6	6.0	I4.I
I34	89	8I	42	54	36.0	28.0	43	20.2	38.3	-	34.9	-	-	I4.5
459	99	94	43	64	37.0	35.0	47	22.3	40.7	39.0	35.0	I8.4	9.0	I6.6
477	95	-	42	59	36.9	30.5	45	20.5	37.6	34.5	32.5	I7.3	6,5	I4.8
22I	92	84	45	57	40.0	29.0	42	20.7	36.6	34.3	32.5	I8.0	4.0	I5.0
293	98	88	44	6I	37.0	40.0	46	I9.0	40.8	39.4	35.3	I4.I	6.9	I2.8
526	-	-	-	-	-	-	-	-	-	-	-	-	-	-
339	98	86	44	6I	4I.3	36,6	46	23.0	37.6	36.4	32.4	I9.0	6.3	I8.5
290	95	88	46	6I	4I.5	37.4	43	I9.4	38.9	37.4	34.0	I7.3	7.7	I4.I
5II	94	86	44	57	36.6	32.5	38	20.0	36.8	-	33.9	-	-	I5.6
382	92	-	44	58	38.0	35.0	45	2I.0	38.9	37.4	34.4	I6.3	6.7	I3.5
3I	93	8I	4I	53	35.5	30.5	44	I8.3	37.0	36.0	34.8	I5.5	5.8	I4.0
306	93	80	40	57	37.2	30.I	47	I8.6	37.0	35.6	33.6	I6.7	8.0	I3.7
289	96	88	4I	57	34.8	33.6	43	I9.I	37.8	35.0	34.4	2I.0	7.3	I8.4
235	-	-	47	63	44.0	35.9	49	-	40.3	-	37.0	-	-	-
29I	98	96	43	6I	39.I	36.6	49	20.6	40.7	38.7	37.4	I7.9	6.8	I4.2
376	I00	9I	49	62	43.I	33.8	52	20.6	43.4	42.I	34.9	I6.3	6.8	I5.0
347	97	84	46	55	39.8	28.9	46	2I.5	40.4	39.2	33.7	I5.6	7.8	I6.2
2I5	92	79	45	57	38.8	32.5	44	2I.0	38.0	36.4	32.6	I7.3	7,5	I5.4
528	99	-	46	63	42.5	36.5	52	-	-	-	-	-	-	-
I5I	97	89	50	59	42.9	33.5	49	2I.2	40.4	39.5	33.0	I7.9	6.7	I6.6
23I	98	86	46	56	38.9	34.0	47	22.6	38.4	36.7	32.8	I8.5	7.0	I5.7
365	I00	88	43	58	38.7	35.0	46	20.7	40.0	37.9	35.5	I8.4	8,5	I7.2
366	I04	99	45	62	39.6	36.I	52	20.3	4I.0	39.6	35.6	20.4	6.9	I8.9
209	96	-	49±I	59	42.9	35,6	47	2I±I	38.0	37.I	34.0	I9.0	6,I	I7.6
239	-	90	48	60	42.9	33.4	49	2I.I	39.2	38.0	33.9	I6,6	7.0	I3.4
37	I03	98	53	68	47.0	40.I	53	22.7	4I.5	40.4	34.7	20.5	7.6	I7.0
345	98	85	50	58	45.5	35.0	50	22.9	39.9	38.5	34.0	I6.9	7.5	I5.6
304	I02	99	5I	6I	46.6	35.4	53	22.4	4I.3	4I.0	34.2	I9.4	7.9	I7.5

MS. Maxillo-frontal height	SC. WNB	SS. WNH	Bimalar chord fmo-fmo	Height n over chord fmo-fmo	Zygo-maxillary chord zm1-zm1	Height of ssp over chord zm1-zm1	Depth canine recess	Mandible 65. Condylar breadth	66. Angular breadth	68. Length of angles	68(1). Length of condyle	70. Height of ramus	71a. Breadth of ramus	67. Front width	69. Height of symphesis	69(1). Body height	69(3). Body thickness
5.8	5.0	2.I	85	I3	-	-	-	98	86	64	84	42	32	40	25	25	I0
3.6	5.2	I.I	83	I3	82	I8	5.I	-	90	60	83	4I	3I	4I	25	2I	II
4.2	I.5	0.3	83	I3	79	I4	4.3	-	-	-	-	-	-	-	-	-	-
4.2	5.0	2.5	94	I5	89	I8	3,9	-	-	64	89	44	34	43	-	26	I2
3.7	3.9	0.7	86	II	-	-	2.7	I06	92	59	85	44	33	40	29	26	I2
3.4	I.0	0.2	85	I3	8I	I7	3.4	97	93	60	89	43	32	37	29	24	II
3.9	4.5	I.9	90	I4	84	I8	3.3	I08	96	67	93	46	3I	40	29	25	II
-	-	-	-	-	-	-	-	I00	95	65	89	47	35	46	28	25	I3
3.0	9.0	I.2	90	I3	86	I9	I.0	I07	96	67	95	44	3I	46	29	27	I2
3.9	4.0	0.9	85	I4	87	I6	4.8	I0I	88	68	88	39	33	45	3I	28	I2
3.7	5.5	I.5	86	I3	83	I8	I.4	-	-	63	86	43	33	43	27	22	I0
3.4	5.5	2.3	85	I2	-	-	6.I	97	90	63	88	40	3I	40	29	25	8
4.3	2.I	0.5	86	I2	80	I6	6.7	I0I±2	9I	6I	96	43	28	4I	26	22	II
3.7	4.6	2.I	86	I2	78	I8	5.2	-	-	-	-	-	-	-	-	-	-
4.3	6.5	I.3	87	I4	86	I6	4.6	I04	95	64	86	40	3I	42	26	22	II
-	-	-	-	-	-	-	5.0	-	I06	72	I05	40	34	44	32	29	I0
4.I	4.0	0.6	89	I5	92	I6	4.8	I03	97	67	89	47	34	4I	27	24	I2
5.0	4.6	I.4	93	I7	90	22	5.9	II2	99	67	95	42	34	42	30	25	I0
4.5	6.4	0.9	90	I6	82	I9	2.2	-	88	68±I	96±I	43±2	29	44	30	25	I3
4.4	6.7	2.6	86	I4	78	I9	2.5	I03	95	64	89	4I	3I	42	28	26	I2
-	-	-	92	I3	-	-	-	II2	98±I	7I	99	43	36	43	29	26	I2
5.2	5.6	I.4	89	I4	-	-	-	I09	92	68	97	42	33	43	32	26	II
4.4	5.4	2.3	9I	I3	84	I9	2.2	I00	9I	70	96	42	34	44	28	23	II
4.7	5.6	I.7	93	I6	88	I9	4.0	II3	I02	69	96	42	30	43	27	24	I0
4.0	6,4	I.8	I05	I7	94	I9	3.6	II2	I0I	77	97	45	37	46	28	26	II
4.4	3.I	I.0	88	I4	-	-	-	-	-	-	-	42	32	-	-	26	9
4.8	6,6	2.6	-	-	89	20	3.2	I07	I0I	67	96	4I	36	45	30	26	I0
5.9	7.0	3.0	94	I4	96	22	2.3	II9	I0I	8I	I06	49	38	49	35	30	I3
4.7	4.0	I.6	90	I3	82	I8	5.5	III	97	76	I03	5I	34	44	30	29	II
4.I	7.7	2.I	I07	I7	98	23	3.7	-	-	-	-	-	-	-	-	-	-

Table 5 (continuation 4).

Burial number	32. Angle of proj. of brow from n	Angle of proj. of brow from gl	33(1). Angle uppr pt of occiput	33(2). Angle lowr pt of occiput	33(4).Angle curve of occiput	34. Angle of occipit. foram.	77. Naso-malar angle	Zygo-maxillary chord zm1-zm1	72. Total angle of face	73.Angle medial part of face	74.Angle alveolar part of face	75. Angle nasal bone	75(1). Angle projection of nose	79. Angle ramus of mandible	C'. Angle of chin
I96	-	-	-	-	I25	-	I46	-	-	-	-	-	23	I23	72
217	93	89	92	35	I27	-8	I45	I33	89	89	89	69	20	I27	83
I34	95	9I	9I	3I	I22	-I4	I45	I4I	85	89	73	-	-	-	-
459	88	84	-	-	-	-	I45	I36	90	9I	86	70	20	I3I	78
477	90	83	I00	23	I23	-8	I5I	-	87	-	-	74	I3	I29	8I
22I	92	89	-	-	I32	-	I46	I34	83	86	75	-	-	I37	87
293	90	84	99	29	I28	-7	I45	I34	89	89	89	70	I9	I29	75
526	-	-	-	-	I32	-	-	-	-	-	-	-	-	I26	74
339	90	86	90	3I	I2I	-9	I48	I32	88	90	8I	-	-	I36	70
290	88	84	97	28	I25	-9	I44	I40	85	86	8I	70	I5	I24	8I
5II	89	84	94	3I	I25	-I8	I46	I33	83	84	80	69	I4	I28	8I
382	9I	85	98	30	I28	-	I48	-	89	90	86	77	I2	I30	79
3I	95	88	80	35	II5	-9	I49	I36	9I	94	8I	79	I2	I37	64
306	90	84	95	26	I2I	-4	I49	I3I	89	89	89	72	I7	-	-
289	90	87	-	-	II9	-	I44	I39	90	90	90	75	I5	I26	72
235	94	90	-	-	-	-I	-	-	88	93	75	-	-	I37	68
29I	85	8I	9I	32	I23	-3	I43	I42	88	90	77	74	I4	I23	8I
376	85	82	99	29	I28	-2	I40	I28	88	90	8I	7I	I7	I37	82
347	88	85	-	-	-	-3	I4I	I30	89	90	85	77	I2	I38±2	7I
2I5	90	84	98	35	I33	-8	I44	I28	87	88	83	73	I4	I32	65
528	88	85	I02	25	I27	0	I49	-	88	-	-	-	-	I37	69
I5I	94	90	94	34	I28	-I2	I45	-	85	-	-	72	I3	I37	80
23I	90	87	90	32	I22	-8	I48	I3I	84	85	80	69	I5	I34	7I
365	9I	90	96	25	I2I	-8	I42	I33	89	9I	8I	66	23	I37	70
366	84	80	90	36	I26	-I	I44	I36	87	90	75	68	I9	I22	72
209	89	85	93	3I	I24	-5	I45	-	87	89	80	-	-	-	-
239	86	82	-	-	-	-	-	I32	84	84	84	66	I8	I37	8I
37	88	85	95	28	I23	-3	I47	I3I	85	86	82	75	I0	I24	70
345	83	79	88	30	II8	-I	I48	I32	82	85	73	-	-	I27	72
304	85	8I	92	30	I22	-8	I45	I30	84	86	77	65	I9	-	-

Supercilliary (along Martina 1-6)	Mammiform appendix (1-3)	Thickness pars tympanica, MM	Transvers profile of spline of nose (0-2)	Lower edge of pyriform foramen	Frontal-nasal barb (1-5)	Norma occipit. (lat. sides/vault)	Sinus sagittalis	Torus occipitalis (0-3)	Os postaquamosum (d/s), MM	Foramina tympanica (d/s)	Foramina supraorbitalia (d/s)	Foramina infraorbitalia(d/s)(supp.)	Torus palatinus (0-3)	Torus mandibularis (0-3)	Foramina mentalia(d/s)(supp.)	Arcus myohyoideus (d/s)
I	I	3	0	-	-	3/I	d	0	0/0	0/+	0/0	0/0	0	0	0/0	0/0
I	I	4	0	inf	2	2/I	?	0	0/0	+/+	0/0	0/0	I	0	0/0	0/0
I	I	3	0	inf	I	3/2	d	0	0/0	+/+	0/0	0/0	2	-	-	-
2	-	4	2	inf	2	3/2	-	0	0/0	0/0	+/0	0/0	0	0	0/0	0/0
I	I	4	0	inf	2	3/I	d	0	0/0	0/0	+/+	0/0	0	0	0/0	0/0
2	2	5	0	inf	-	3/2	s	0	0/0	+/+	0/+	0/0	0	0	0/0	0/0
2	I	2	0	ant	4	2/2	d	0	0/0	0/0	0/+	0/0	I	0	0/0	0/0
I	2	2	0	-	-	2/I	d	0	0/0	0/+	+/+	0/0	0	0	0/0	0/0
I	I	3	0	inf	-	3/I	d	0	0/0	0/+	+/+	0/0	0	0	0/0	0/0
I	I	5	0	inf	-	3/2	d	0	0/0	0/0	0/0	0/0	I	I	0/0	0/0
I	I	3	0	inf	-	3/2	s	0	I4/I6	+/0	0/0	0/0	I	0	0/0	0/0
2	I	4	2	f.p.	2	3/I	d	0	5/0	+/+	0/0	0/0	0	0	0/0	0/0
I	I	3	0	ant	2	3/I	d	0	0/0	0/0	+/+	0/0	0	0	0/0	0/0
I	2	4	2	f.p.	-	3/I	s	0	0/0	0/0	+/0	0/0	0	-	-	-
2	I	4	0	inf	-	3/2	d	0	-	0/0	+/+	0/0	0	0	0/0	0/0
I	I	4	0	f.p.	-	2/3	d	0	-	0/0	0/0	0/+	0	I	0/0	0/0
I	2	4	0	inf	2	3/2	s	0	0/I3	0/0	0/0	0/0	I	0	0/0	0/0
I	I	4	0	f.p.	I	3/I	d	0	0/0	0/0	+/+	0/0	I	0	0/0	0/0
I	I	4	0	inf	-	2/I	d	0	0/0	0/0	0/+	0/0	0	0	0/0	0/0
2	-	5	0	f.p.	-	2/I	d	0	0/0	0/0	+/+	0/0	I	0	0/0	0/0
2	I	2	0	-	-	3/2	s	0	0/0	0/0	+/0	0/0	2	0	0/0	0/0
I	I	4	0	-	-	2/2	d	0	9/6	0/0	0/+	0/0	2	0	0/0	0/0
I	I	3	I	f.p.	2	2/3	d	0	8/8	0/0	+/+	0/0	0	0	0/0	0/0
I	I	2	0	ant	2	3/2	d	0	I0/I0	+/+	0/0	0/0	0	0	0/0	0/0
2	2	3	0	inf	I	3/2	d	0	0/0	0/0	+/+	0/0	0	I	0/0	0/0
I	2	4	0	ant	-	3/3	s	0	0/0	+/+	+/+	0/0	0	0	0/0	0/0
2	I	2	0	f.p.	3	2/2	d	0	5/0	0/0	0/0	0/0	0	I	0/0	0/0
I	2	3	0	f.p.	2	3/2	d	0	0/0	+/+	0/0	0/0	0	I	0/0	0/0
I	I	4	2	inf.	-	2/2	d	0	0/0	0/0	0/+	0/0	0	0	0/0	0/0
2	2	4	0	f.p.	2	3/I	s	0	0/II	0/0	+/+	0/0	I	-	-	-

Table 5 (end).

Table 6. Individual measurements of bones of the male skeletons from the Ipiutak burial site.

			Femur						Tibia				Humerus				Radius			Ulna		
Inv. No. AMNH Collection 99.1	Burial No.	Sex	1. Greatest length	8. Circumference of middle of diaphysis	6. Sagittal diameter of middle of diaphysis	7. Transverse diameter of middle of diaphysis	10. Upper sagittal diameter	9. Upper transverse diameter	1. Full length	10b. Smallest diameter of diaphysis	8a. Largest sagittal diameter	9a. Transverse diameter	1. Greatest length	7. Smallest circumference of diaphysis	5. Greatest diameter of middle of diaphysis	6. Smallest diameter of middle of diaphysis	1. Greatest length	5. Sagittal diameter of diaphysis	4. Transverse diameter of diaphysis	1. Greatest length	14. Upper sagittal diameter	13. Upper transverse diameter
59B	I	♂	-	-	-	-	-	-	305	74	33	25	-	-	-	-	(209)	-	-	227	25	20
60	3	♂	-	-	-	-	-	-	339	75	37	22	-	-	-	-	-	-	-	-	-	-
6I	4	♂	-	-	-	-	-	-	3I0	74	37	2I	295	60	25	I6	2I7	I6	II	236	28	I9
66	9	♂	-	-	-	-	-	-	3I5	76	35	24	-	-	-	-	-	-	-	-	-	-
75A	2I	♂	4I7	86	29	27	25	35	332	75	34	23	3I0	62	24	I6	222	I8	II	243	26	2I
77	24	♂	4I3	92	3I	28	25	35	345	78	37	24	306	64	25	I7	230	I7	II	255	25	20
80	29	♂!	40I	88	32	25	25	32	32I	73	35	23	298	62	24	I7	228	I6	II	25I	24	I9
83A	32	♂	-	-	-	-	-	-	-	-	-	-	323	60	22	I6	-	-	-	-	-	-
87	36	♂	432	9I	27!	3I!	24	37	349	8I	39	24	3I6	64	27	I8	236	I8	I2	254	24	2I
89A	38	♂!	407	95	32	29	24	37	338	8I	38	23	307	68	28	I9	236	I9	I3	255	29	23
89	38	♂!	439	86	27!	28!	24	36	36I	70	32	24	322	62	24	I9	239	I7	I2	257	26	I9
90	39	♂!	399	90	30	27	25	34	3I0	79	40	23	302	63	24	I7	2I9	I6	II	240	23	I9
9IA	4Ia	♂	394	85	28	28	25	36	295!	74	34	22	294	6I	23	I8	204	I6	II	225	25	I8
94	44	♂	405	80	27	25	23	30	32I	73	33	2I	28I	56	2I	I6	2I5	I6	I0	233	23	I9
96A	46	♂	405	83	28	25	22	33	329	70	3I	23	288	6I	25	I6	223	I5	II	240	24	2I
97	48	♂	397	87	29	28	24	3I	324	8I	34	23	287	60	25	I8	2I2	I5	II	239	25	I9
98	49	♂	395	85	29	26	23	32	295	72	32	23	279	59	23	I8	2I2	I5	I0	232	2I	20
I00	5I	♂!	42I	80	28	23	23	29	3I8	69	3I	I9	300	59	22	I7	220	I5	I0	24I	22	I8
I03	53A	♂!	398	85	29	26	24	32	3I4	78	34	25	298	64	24	I9	22I	I7	II	237	25	I9
I05	55	♂	423	84	28	27	23	36	335	72	35	22	3I0	63	25	I8	227	I6	I0	244	26	23
I07	59	♂	395	8I	27	26	23	32	30I	70	3I	22	286	57	2I	I7	-	-	-	-	-	-
I09	6I	♂	456	88	29	28	26	36	347	76	38	22	3I6	64	23	I9	236	I7	I2	258	26	20
II0	6Ia	♂	-	-	-	-	-	-	345	72	32	2I	3I9	6I	22	I9	-	-	-	-	-	-
II3	65	♂?	-	-	-	-	-	-	-	-	-	-	295	58	22	I6	-	-	-	-	-	-
I6I	68	♂	443	89	29	27	24	32	359	73	34	22	326	6I	24	I8	255	I8	I2	277	24	I9
I63	75	♂	434	93	3I	28	26	35	356	75	35	20	329	60	23	I6	246	I5	II	267	23	I8
I65	76	♂	409	89	30	27	24	35	327	77	34	2I	29I	62	24	I8	224	I8	I2	249	24	I7

Included in parentheses are the measurements of the left bones.
The exclamation mark (!) indicates the most positive determination of sex, which is based mainly on data from the pelvis (in some cases, on the morphology of the long bones).

Table 6 (end).

Inv. No. AMNH Collection 99.1	Burial No.	Sex	Femur						Tibia				Humerus				Radius			Ulna		
			1. Greatest length	8. Circumference of middle of diaphysis	6. Sagittal diameter of middle of diaphysis	7. Transverse diameter oof middle of diaphysis	10. Upper sagittal diameter	9. Upper transverse diameter	1. Full length	10b. Smallest diameter of diaphysis	8a. Largest sagittal diameter	9a. Transverse diameter	1. Greatest length	7. Smallest circumference of diaphysis	5. Greatest diameter of middle of diaphysis	6. Smallest diameter of middle of diaphysis	1. Greatest length	5. Sagittal diameter of diaphysis	4. Transverse diameter of diaphysis	1. Greatest length	14. Upper sagittal diameter	13. Upper transverse diameter
I66	77A	♂	5I6	88	30	28	25	35	38I	79	39	22	363	63	23	I7	264	I7	II	283	28	20
I69	78	♂	390	83	28	26	24	29	290	68	3I	24	279	59	22	I7	2I4	I5	I0	223	24	I7
I70	79	♂	438	82	29	26	23	33	330	72	33	22	-	-	-	-	-	-	-	-	-	-
I7I		♂	426	94	33	27	28	32	337	78	40	25	-	-	-	-	228	I7	I2	-	-	-
I73	83	♂	390	82	28	25	23	3I	-	-	-	-	-	-	-	-	-	-	-	240	25	2I
I83	86	♂	397	86	29	25	24	34	299	72	34	24	-	-	-	-	2I3	I7	I0	228	24	2I
I79	88	♂	432	86	29	26	25	3I	324	73	34	22	303	6I	22	I7	229	I5	II	250	24	I8
I8I	89B	♂!	384	82	28	25	24	29	303	66	32	2I	276	6I	22	I7	220	I5	II	242	25	I6
I86	98	♂	4I9	98	34	29	28	37	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2I0	I04	♂	4I7	92	30	28	25	35	3I6	73	35	2I	299	64	26	I6	(225)	-	-	243	27	2I
2I8	I06	♂	-	-	-	-	-	-	327	73	36	24	305	59	22	I6	-	-	-	-	-	-
I94	I08	♂	382	83	28	26	24	3I	296	68	3I	2I	275	53	22	I5	203	I4	8	-	-	-
208	II3	♂!	4I7	87	29	27	25	33	32I	74	37	24	305	59	23	I6	225	I7	II	244	-	-
I96	II4	♂	409	78	25	25	2I	33	32I	7I	34	2I	298	58	2I	I6	225	I6	II	25I	24	20
209	II6	♂	4I0	86	29	26	23	33	-	-	-	-	294	63	24	I7	-	-	-	-	-	-
205	I27	♂	4II	93	33	28	26	32	325	73	34	23	304	65	25	I8	228	I8	II	248	28	2I
660	I	♂!	4I0	84	26!	27!	23	35	330	70	35	20	306	57	23	I7	225	I6	I0	24I	25	I8
662	I8A	♂!	390	85	28	27	23	33	-	-	-	-	-	-	-	-	-	-	-	243	25	I9
683	I8B	♂	-	-	-	-	-	-	323	7I	35	22	-	-	-	-	-	-	-	24I	27	20
663	20	♂	-	-	-	-	-	-	-	-	-	-	292	59	2I	I7	-	-	-	-	-	-
684	22	♂	425	89	3I	26	27	33	337	75	35	25	29I	58	2I	I7	23I	I6	II	249	24	I8
665	26	♂	-	-	-	-	-	-	343	74	36	2I	3I0	65	26	20	233	I8	I2	253	26	20
I82		♂!	39I	82	26	26	22	3I	3I4	68	28	20	-	-	-	-	2I8	I4	I0	-	-	-
84	33	♂	438	84	27	27	24	33	332	70	3I	20	305	62	23	I6	223	I9	I3	246	24	20
84	33	♂	409	8I	28	24	26	3I	322	67	29	22	302	57	20	I6	2I8	I7	II	236	22	I7
84	33	♂	4I4	79	26	25	22	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-
84	33	♂	427	85	29	26	24	36	-	-	-	-	320	64	24	I9	239	I7	II	257	25	I9
2I4	I07	♂	-	-	-	-	-	-	339	76	35	2I	-	-	-	-	-	-	-	-	-	-

Table 7. Individual measurements of bones of female skeletons from the Ipiutak burial site.

Inv. No. AMNH Coll. 99.1	Burial No.	Sex	Femur						Tibia				Humerus				Radius			Ulna		
			1. Greatest length	8. Circumference of middle of diaphysis	6. Sagittal diameter of middle of diaphysis	7. Transverse diameter of middle of diaphysis	10. Upper sagittal diameter	9. Upper transverse diameter	1. Greatest length	10b. Smallest diameter of diaphysis	8a. Largest sagittal diameter	9a. Transverse diameter	1. Greatest length	7. Smallest circumference of diaphysis	5. Greatest diameter of middle of diaphysis	6. Smallest diameter of middle of diaphysis	1. Greatest length	5. Sagittal diameter of diaphysis	4. Transverse diameter of diaphysis	1. Greatest length	14. Upper sagittal diameter	13. Upper transverse diameter
59A	I	♀	-	-	-	-	-	-	286	6I	27	20	-	-	-	-	-	-	-	-	-	-
64	6	♀	-	-	-	-	-	-	-	-	-	-	28I	52	I9	I4	20I	I2	8	2I9	2I	I5
66	9	♀	402	78	26	25	24	3I	-	-	-	-	-	-	-	-	230	I4	I0	-	-	-
70	I4	♀	383	75	24!	25!	22	30	282	66	27	2I	-	-	-	-	-	-	-	-	-	-
78	25	♀	382	82	27	26	24	3I	-	-	-	-	-	-	-	-	-	-	-	-	-	-
83A	32	♀	396	80	27	25	23	3I	308	65	29	22	29I	56	20	I6	203	I7	I0	2I7	24	I7
86A	35	♀	356	77	25	24	20	28	280	64	29	I9	267	53	2I	I5	I84	I4	I0	204	20	I6
86B	35	♀	375	76	25	24	20	30	295	66	28	20	27I	52	20	I5	I97	I5	9	2I7	23	I5
9IB	4I	♀	388	78	25!	27!	22	3I	3I6!	69	3I	24	292	54	2I	I5	2I5	I6	I0	235	23	I9
99	50	♀	379	75	25	24	2I	29	288	62	25	I9	272	50	I9	I4	I97	I3	9	2I2	I8	I3
I0I	52	♀	398	82	27	26	24	32	309	66	3I	22	293	53	I9	I5	208	I5	I0	224	23	I8
I02	53	♀	369!	8I	27	26	22	30	296	68	28	22	27I	57	22	I5	I99	I6	I0	2I8	22	I7
I04	54	♀	404	78	26	25	22	32	3I6	68	3I	2I	29I	49	I9	I4	209	I5	9	226	23	I5
III	6IB	♀	404	87	29	28	24	32	308	72	3I	22	294	58	23	I6	204	I6	I0	2I9	26	I8
II2	62	♀	335!	70	23	2I	20	27	259!	60	24	I9	249!	5I	I8	I4	I60!	I5	9	I73!	20	I7
I60	67	♀	382	74	24	24	I9	30	297	63	29	I8	274	52	20	I5	207	I4	9	225	2I	I6
I68	77B	♀!	386	75	23!	25!	22	30	303	63	29	2I	289	52	I9	I5	2I8	I4	9	236	22	I7
I72	82	♀!	377	75	25	23	20	29	-	-	-	-	272	53	I9	I4	20I	I4	9	2I9	22	I2
I73	83	♀	-	-	-	-	-	-	279	65	30	2I	262	53	I9	I5	-	-	-	-	-	-
I74	84	♀	37I	69!	23	22	2I	29	285	58	26	I8	26I	48	I9	I3	-	-	-	-	-	-
I77		♀	36I	78	24!	26!	I9	33	275	68	29	20	-	-	-	-	-	-	-	-	-	-
I77		♀	366	73	23!	24!	2I	30	286	59	27	I7	-	-	-	-	-	-	-	-	-	-
I80	89A	♀	375	73	25	23	I9	28	285	62	28	I9	266	5I	I9	I6	I92	I5	9	-	-	-
I85	90	♀!	363	62	I9!	2I!	I7	26	283	57	24	I8	252	45	I6	II	-	-	-	-	-	-
2I0	I04	♀	373	80	26	25	23	3I	306	73	3I	26	270	57	22	I7	205	I8	I0	227	25	I5

Table 7 (end).

Inv. No. AMNH Collection 99.1	Burial No.	Sex	Femur						Tibia				Humerus				Radius			Ulna		
			1. Greatest length	8. Circumference of middle of diaphysis	6. Sagittal diameter of middle of diaphysis	7. Transverse diameter of middle of diaphysis	10. Upper sagittal diameter	9. Upper transverse diameter	1. Greatest length	10b. Smallest diameter of diaphysis	8a. Largest sagittal diameter	9a. Transverse diameter	1. Greatest length	7. Smallest circumference of diaphysis	5. Greatest diameter of middle of diaphysis	6. Smallest diameter of middle of diaphysis	1. Greatest length	5. Sagittal diameter of diaphysis	4. Transverse diameter of diaphysis	1. Greatest length	14. Upper sagittal diameter	13. Upper transverse diameter
210	104	♀	–	–	–	–	–	–	–	–	–	–	269	51	21	13	–	–	–	–	–	–
191		♀	394	80	27	25	23	29	–	–	–	–	294	55	21	15	215	14	10	234	21	13
197	117	♀	378	76	25	25	21	32	299	65	28	20	269	52	21	15	195	14	9	215	21	19!
198	118	♀	397	78	26	24	21	31	311	64	29	21	287	55	23	16	213	15	9	227	24	19
199	120	♀!	403	91	31	27	25	33	320	72	29	21	299	60	23	17	222	15	9	240	24	19
200	121	♀!	371	74	24!	25!	20	30	290	60	26	18	282	50	18	13	201	15	9	222	20	16
201	122	♀	391	73	24!	24!	19	30	305	62	27	17	282	52	18	12	199	14	9	214	21	14
204	124	♀!	388	83	27!	27!	23	34	315	65	30	20	298	61	24	16	205	18	10	220	25	17
203	128	♀	388	82	26!	26!	23	30	315	63	30	20	284	58	23	17	222	15	11	239	24	17
206	129	♀	368	68	21!	23!	18	29	–	–	–	–	–	–	–	–	–	–	–	–	–	–
671	131	♀	370	76	25	24	22	28	291	70	32	24	–	–	–	–	203	18	10	222	25	20
672	132	♀	393	79	27	25	23	30	299	63	29	19	277	52	22	15	211	17	10	228	24	15
674	134	♀	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	244	20	16
675	137	♀	372	80	24	27	24	31	285	69	32	22	261	59	22	16	189	16	10	211	26	18
677	3	♀	–	–	–	–	–	–	279	65	28	20	–	–	–	–	–	–	–	–	–	–
678	10	♀	401	81	27	26	24	32	–	–	–	–	–	–	–	–	–	–	–	–	–	–
684	22	♀	–	–	–	–	–	–	319	72	36	21	–	–	–	–	–	–	–	–	–	–
84	33	♀	370	77	24!	25!	22	29	314	72	31	23	259	56	22	15	190	16	9	210	21	16
84	33	♀	397	78	25!	26!	22	31	–	–	–	–	276	58	21	16	–	–	–	–	–	–
84	33	♀	–	–	–	–	–	–	–	–	–	–	296	53	19	15	223	15	10	–	–	–
212	107	♀	–	–	–	–	–	–	292	65	27	22	266	54	20	15	–	–	–	218	19	16
213	107	♀	–	–	–	–	–	–	308	70	33	22	291	61	22	17	–	–	–	–	–	–
217	107	♀	365	78	25!	26!	24	30	301	64	30	22	–	–	–	–	–	–	–	–	–	–
217	107	♀	–	–	–	–	–	–	301	70	33	23	–	–	–	–	–	–	–	–	–	–

Table 8. Individual measurements of bones of male skeletons from Tigara type burials.

Inv. No. AMNH Collection 99.1	Burial No.	Sex	Femur						Tibia				Humerus				Radius			Ulna		
			1. Greatest length	8. Circumference of middle of diaphysis	6. Sagittal diameter of middle of diaphysis	7. Transverse diameter of middle of diaphysis	10. Upper sagittal diameter	9. Upper transverse diameter	1. Greatest length	10b. Smallest diameter of diaphysis	8a. Largest sagittal diameter	9a. Transverse diameter	1. Greatest length	7. Smallest circumference of diaphysis	5. Greatest diameter of middle of diaphysis	6. Smallest diameter of middle of diaphysis	1. Greatest length	5. Sagittal diameter of diaphysis	4. Transverse diameter of diaphysis	1. Greatest length	14. Upper sagittal diameter	13. Upper transverse diameter
426	389	♂	437	9I	30	26	26	32	370	76	38	26	3I5	64	23	I8	239	I6	II	254	2I	20!
44I	407	♂	469	9I	32	26	29!	26!	38I	74	32	23	339	63	24	I8	248	I6	I3	262	29	I8
533	5I0	♂!	-	-	-	-	-	-	-	-	-	-	29I	63	26	I8	-	-	-	-	-	-
535	5IIa	♂	424	86	29	26	25	3I	339	72	33	23	3I4	63	23	I8	227	I4	I0	249	25	20
499	475	♂	444	90	3I	28	25	35	342	76	37	23	3I7	68	26	I9	222	I7	I2	239	26	2I
498	474	♂	4I9	85	30	25	23	3I	357	70	34	23	292	65	24	I8	23I	I5	I3	262	26	2I
497	473	♂!	4I7	82	29	24	23	30	342	68	30	20	304	60	22	I8	222	I5	II	240	23	I7
495	47I	♂!	439	9I	3I	27	26	32	364	7I	32	24	305	66	26	I8	233	I5	I2	24I	24	I7
48I	456	♂	429	88	29	27	25	32	354	77	35	23	3I0	67	26	I7	236	I9	I2	253	25	20
480	455	♂!	435	80	27	25	24	32	353	70	35	2I	3I3	55!	20	I5	226	I3	I0	247	23	20
508	485	♂!	438	87	30	27	26	30	340	72	33	23	3I5	60	2I	I7	2I5	I6	II	235	24	2I
509	486	♂!	423	84	30	24	24	3I	332	69	3I	24	295	62	25	I5	205	I6	II	228	27	2I
504	480	♂	440	90	33	26	24	29	377	74	34	24	303	65	25	I7	245	I5	II	266	25	I9
463	433	♂	47I	92	34	25	27	30	370	76	34	25	32I	62	22	I8	248	I5	II	265	26	2I
466	437	♂	444	86	30	26	27	30	347	76	33	27	300	63	23	I8	223	I6	II	240	26	I9
468	439	♂	453	95	35	26	30	37	376	78!	36	24	326	62	24	I8	245	I7	II	26I	25	I9
469	44I	♂	-	-	-	-	-	-	-	-	-	-	-	-	-	-	229	I7	I2	-	-	-
47I	445	♂	-	-	-	-	-	-	347	76	35	25	-	-	-	-	-	-	-	-	-	-
474	449	♂	467	90	30	27	27	32	383	77	37	24	3I3	6I	2ı	I7	24I	I6	II	263	26	22
475	450	♂	434	95	34	27	26	33	360	78	36	28	3I3	70!	26	20	25I	I7	I2	266	26	22
476	45I	♂	459	99	35	28	27	34	346	77	37	25	33I	64	24	I7	237	I7	I2	254	26	2I
478	453	♂	468	98	34	30	30	36	373	78	4I	27	325	70	27	I9	252	I8	I2	264	29	2I
460	430	♂!	4I8	88	30	27	26	33	344	74	34	23	292	57	22	I8	2I8	I6	I0	237	28	I8
453	423	♂	450	92	32	27	28	33	375	70	36	24	3I9	66	25	I8	244	I7	II	260	28	22
452	422	♂	390	90	30	27	26	30	322	70	34	22	275	58	20	I7	(202)	-	-	220	26	I5
450	420	♂	449	87	30	25	23	32	355	75	34	25	3I5	6I	22	I8	224	I6	I2	249	26	20
447	4I5	♂	454	96	36	28	29	30	389	78	39	25	324	64	25	I8	245	I7	I2	265	26	20
446	4I4	♂	469	9I	32	27	28	32	380	79	38	24	324	65	24	I8	237	I5	I2	26I	24	I8
445	4I3	♂	454	93	32	28	25	33	360	77	34	27	324	65	25	I9	230	I8	I3	249	26	20
542	5I9	♂!	44I	90	33	26	25	30	355	79	39	25	294	66	26	I8	222	I8	I2	243	26	2I
5I4	49I	♂!	434	90	30	27	25	3I	345	67	27	23	29I	60	23	I5	22I	I4	I0	246	23	I6

Table 8 (continuation 1).

Inv. No. AMNH Collection 99.1	Burial No.	Sex	Femur						Tibia				Humerus				Radius			Ulna		
			1. Greatest length	8. Circumference of middle of diaphysis	6. Sagittal diameter of middle of diaphysis	7. Transverse diameter of middle of diaphysis	10. Upper sagittal diameter	9. Upper transverse diameter	1. Greatest length	10b. Smallest diameter of diaphysis	8a. Largest sagittal diameter	9a. Transverse diameter	1. Greatest length	7. Smallest circumference of diaphysis	5. Greatest diameter of middle of diaphysis	6. Smallest diameter of middle of diaphysis	1. Greatest length	5. Sagittal diameter of diaphysis	4. Transverse diameter of diaphysis	1. Greatest length	14. Upper sagittal diameter	13. Upper transverse diameter
56I	335	♂	–	–	–	–	–	–	–	–	–	–	264	60	22	I7	–	–	–	–	–	–
545	523	♂!	428	89	30	27	26	3I	344	73	36	24	3I7	64	24	I9	229	I6	II	250	25	I9
52I	498	♂!	439	96	34	28	25	35	356	7I	36	25	32I	70	25	20	240	I6	II	255	27	I9
539	5I5	♂	4I6	92	32	27	27	3I	374	74	37	23	–	–	–	–	–	–	–	–	–	–
54I	5I8	♂	498	I0I	36	30	30	35	408	80	38	26	348	70	27	20	255	I7	I4	276	30	2I
5I8	495a	♂	448	93	33	26	30!	30!	–	–	–	–	–	–	–	–	–	–	–	–	–	–
5I9	496	♂!	432	96	33	29	25	33	36I	80	37	28	3I4	70	26	20	245	I6!	I4!	269	28	2I
536	5I2	♂!	433	96	32	29	26	34	350	74	35	24	307	68	25	I9	234	I7	II	24I	25	I7
527	504	♂!	4I3	88	30	27	24	33	327	74	37	20	304	66	25	I7	2I8	I6	II	235	24	2I
529	506	♂!	440	89	27	28	23	32	366	77	34	23	307	58	24	I6	230	I6	I0	247	25	20
525	502	♂!	40I	88	3I	26	26	29	324	73	32	2I	294	62	24	I6	2I8	I4	I0	242	24	I9
5II	488	♂	465	86	30	25	26	29	379	72	33	24	33I	64	23	I7	240	I6	II	258	25	20
506	482	♂!	4I0	87	30	26	24	3I	353	72	34	22	299	65	24	I7	228	I7	II	244	25	20
488	463	♂	433	94	32	28	26	32	352	76	40	27	300	67	25	I8	230	I6	I2	253	27	I7
490	465	♂	465	95	32	28	28	33	358	74	39	27	3I9	68	27	20	239	I7	II	260	26	25
49I	466	♂?	443	80	27	24	22	29	362	65	29!	20!	307	50	I7!	I4!	230	I4	I0	246	22	I7
492	467	♂	439	83	29	25	23	32	367	73	32	24	302	6I	22	I7	23I	I5	I0	250	25	2I
493	469	♂	445	9I	33	26	26	3I	360	77	34	23	327	62	22	I7	24I	I4	II	258	27	22
462	432	♂	459	I00	35	30	27	34	370	76	38	25	329	70	24	2I	253	I7	I2	264	28	2I
46I	43I	♂!	454	86	30	26	26	34	365	77	34	23	320	67	26	I8	236	I6	I2	255	26	I9
547	525	♂!	46I	93	33	27	28	3I	372	82	39	26	3I5	64	24	I7	232	I5	II	268	26	2I
549	527	♂	428	90	32	26	26	30	345	74	36	23	303	64	25	I7	22I	I6	II	240	27	2I
3I9	254	♂!	469	95	32	30	29	36	402	78	38	24	330	64	22	I7	245	I5	I0	268	26	2I
355	307a	♂	–	–	–	–	–	–	–	–	–	–	282	60	2I	I7	2I0	I4	I0	233	23	I8
353	303	♂!	425	96	33	29	27	34	34I	75	36	26	30I	69	26	I9	225	I7	II	249	25	2I
357	308	♂!	450	99	34	29	26	33	380	78	36	27	327	67	23	I9	235	I6	I2	257	25	I9
363	3I3	♂!	487	I06	39	29	32	34	387	87	44	27	336	69	25	I9	244	I7	II	–	–	–
325	263	♂	439	8I	30	28	26	32	–	–	–	–	3I0	67	24	I8	–	–	–	–	–	–
367	3I8	♂	468	I05	36	28	33!	3I!	375	85	44	27	32I	7I	26	20	239	I8	II	262	30	I8
369	320	♂!	437	9I	32	25	27	30	342	75	4I!	I9!	309	60	22	I7	–	–	–	–	–	–
372	323	♂	435	92	3I	27	27	30	370	70	29	2I	–	–	–	–	22I	I8	I0	–	–	–

Table 8 (continuation 2).

Inv. No. AMNH Collection 99.1	Burial No.	Sex	Femur						Tibia				Humerus				Radius			Ulna		
			1. Greatest length	8. Circumference of middle of diaphysis	6. Sagittal diameter of middle of diaphysis	7. Transverse diameter of middle of diaphysis	10. Upper sagittal diameter	9. Upper transverse diameter	1. Greatest length	10b. Smallest diameter of diaphysis	8a. Largest sagittal diameter	9a. Transverse diameter	1. Greatest length	7. Smallest circumference of diaphysis	5. Greatest diameter of middle of diaphysis	6. Smallest diameter of middle of diaphysis	1. Greatest length	5. Sagittal diameter of diaphysis	4. Transverse diameter of diaphysis	1. Greatest length	14. Upper sagittal diameter	13. Upper transverse diameter
373	324	♂!	449	95	34	27	30	32	358	75	35	25	295	66	23	20	226	I7	I0	25I	27	I7
374	325	♂	420	88	32	25	27	30	347	70	34	I9	299	60	24	I7	228	I7	II	250	26	I9
364	3I4	♂!	472	I02	38	28	29	33	378	77	4I	26	335	65	26	20	256	I7	I3	275	27	23
292	2I8	♂!	39I	8I	28	24	23	30	325	68	3I	I9	274	54	22	I4	-	-	-	-	-	-
289	2I4	♂!	440	88	30	26	25	33	360	74	35	24	3I4	63	23	I8	23I	I6	II	246	25	2I
295	224	♂	440	93	32	27	27	3I	349	79	36	25	-	-	-	-	-	-	-	-	-	-
305	236	♂!	430	90	30	27	26	32	354	76	36	28	3I0	58	2I	I7	23I	I6	II	249	27	2I
3I4	245	♂!	432	85	30	23	23	33	345	78	35	24	290	63	2I	I8	222	I3	9	245	23	20
3I2	243	♂!	442	87	29	27	27	33	347	74	34	22	3I7	64	24	I8	22I	I6	I2	242	26	2I
3I5	246	♂!	444	89	30	28	25	33	347	78	36	25	3II	65	24	I9	23I	I8	II	248	29	2I
336	282	♂!	437	9I	32	27	27	3I	354	72	32	22	309	66	24	I9	234	I5	II	260	26	20
338	285	♂!	425	84	30	25	24	30	339	76	32	22	289	59	22	I7	220	I4	I0	24I	23	I8
339	286	♂!	448	I0I	37	29	32!	30!	363	75	34	24	3I7	67	23	I9	240	I8	II	258	30	I9
340	287	♂!	464	90	30	27	26	33	372	68!	35	23	343	66	25	I6	245	I4	II	268	25	I9
3I7	248	♂!	462	90	32	28	26	37	369	77	38	23	328	68	25	I7	243	I6	I3	256	26	2I
278	I97	♂!	436	89	3I	25	26	32	357	7I	3I	23	3I0	57	20	I5	233	I3	II	254	2I	I7
277	204	♂!	4I0	88	30	26	25	3I	346	73	36	24	300	66	25	I7	2I3	I5	I0	233!	25	20
288	2I3	♂!	387	85	29	25	23	28	304	67	33	2I	270	56	22	I6	202	I4	9	223	25	I9
284	208	♂!	434	97	33	29	26	34	348	79	37	27	303	65	23	I7	233	I5	I0	254	26	I9
283	207	♂!	406	88	30	27	25	29	332	72	3I	23	283	60	2I	I7	2I7	I7	II	233	27	2I
265	I92	♂!	-	-	-	-	-	-	-	-	-	-	3I2	67	24	I9	230	I7	II	254	29	22
266	I93	♂	426	84	28	26	23	3I	343	74	33	24	-	-	-	-	-	-	-	-	-	-
263	I90	♂!	440	85	30	25	24	29	-	-	-	-	294	57	25	I6	-	-	-	-	-	-
260	I83	♂!	402	80	26	25	23	32	323	68	3I	20	300	56	22	I4	2I2	I5	I0	225	23	I6
255	I50?	♂!	4I9	86	30	26	25	30	335	70	36	22	294	60	23	I7	2I6	I5	II	233	25	I8
227	I64	♂!	445	88	29	27	27	3I	36I	78	36	23	3I5	62	24	I7	229	I5	II	240	25	I9
252	I36	♂!	-	-	-	-	-	-	-	-	-	-	290	69	25	20	(2I8)	-	-	236	25	I9
230	I7I	♂!	403!	86	3I	24	26	27	34I!	68	30	I9	299	58	23	I5	230	I4	I0	249	2I	I9
228	I59	♂!	437	95	33	28	28	34	347	83	38	29	293	72	27	2I	233	I9	I3	25I	27	22
233	I6I	♂!	435	90	3I	26	26	30	343	74	36	24	3I3	62	24	I7	237	I7	I3	24I	24	I7
235	I56	♂	457	97	34	30	26	36	374	79	37	26	330	64	24	I7	247	I7	I2	27I	30	I9
237	I70	♂	404	83	28	26	25	30	345	73	32	25	307	62	22	I8	235	I5	II	255	27	I9

Table 8 (end).

Inv. No. AMNH Collection 99.1	Burial No.	Sex	Femur						Tibia				Humerus				Radius			Ulna		
			1. Greatest length	8. Circumference of middle of diaphysis	6. Sagittal diameter of middle of diaphysis	7. Transverse diameter of middle of diaphysis	10. Upper sagittal diameter	9. Upper transverse diameter	1. Greatest length	10b. Smallest diameter of diaphysis	8a. Largest sagittal diameter	9a. Transverse diameter	1. Greatest length	7. Smallest circumference of diaphysis	5. Greatest diameter of middle of diaphysis	6. Smallest diameter of middle of diaphysis	1. Greatest length	5. Sagittal diameter of diaphysis	4. Transverse diameter of diaphysis	1. Greatest length	14. Upper sagittal diameter	13. Upper transverse diameter
241	188	♂!	448	97	32	31	29	36	360	80	40	27	327	66	25	19	238	17	11	251	25	22
242	181	♂!	419	93	32	27	28	30	339	73	34	21	306	63	25	18	230	15	11	248	25	19
250	146	♂!	400	85	29	26	24	31	323	74	34	23	297	62	23	18	222	15	10	247	22	18
402	360	♂!	466	100	36	27	26	34	385	80	37	23	316	69	25	20	251	18	12	268	27	18
400	358	♂!	479	97	34	28	29	35	390	79	40	24	333	69	26	20	258	20	12	274	28	23
398	356	♂	430	93	33	27	25	32	348	78	37	24	303	65	26	18	232	17	12	-	-	-
397	355	♂	445	92	34	25	28	29	355	77	36	26	310	64	25	18	239	17	13	257	28	22
396	354	♂	453	96	35	28	31	34	375	77	38	25	338	69	27	18	263	19	12	279	28	21
395	352	♂	520	102	37	27	32	34	400	80	40	22	351	64	26	19	267	17	12	283	30	21
434	399	♂	452	104	36	29	30	34	375	82	41	28	313	74	28	20	250	18	13	270	25	19
439	405	♂	447	99	35	30	27	34	362	82	41	25	301	69	27	19	243	19	12	258	27	23
432	397	♂!	415	91	29	24	24	28	341	68	30	21	-	-	-	-	219	13	10	-	-	-
431	396	♂	496	100	35	31	28	35	395	86!	37	25	346	72	27	19	253	18	12	269	31	22
428	391	♂	455	100	35	30	28	33	385	80	41	25	317	68	25	18	(231)	-	-	250	28	20
436	401	♂!	431	86	31	25	24	33	340	72	35	23	302	67!	27	17	220	16	11	244	27	21
435	400	♂	441	93	32	28	29	31	375	77	40	24	326	64	23	18	244	16	11	264	26	19
410	371	♂!	402	86	29	27	25	31	334	72	36	28	287	64	23	17	224	16	10	240	27	19
408	368	♂	426	88	31	26	26	31	348	74	35	24	299	63	22	18	(226)	-	-	244	26	19
346	295	♂!	380	82	28	25	22	31	305	69	35	20	270	65	24	18	219	14	11	241	24	20
349	298	♂!	420	89	31	26	25	31	346	75	35	25	297	63	25	18	222	16	11	241	24	20
393	349	♂!	454	83	27	24	24	31	377	70	35	23	321	60	24	17	248	14	11	272	23	20
392	348	♂!	481	90	33	25	24	32	380	77	35	22	340	65	24	17	250	17	12	269	26	20
390	346	♂!	449	90	31	27	26	33	358	71	31	22	314	63	22	18	236	15	12	-	-	-
386	341	♂!	434	90	30	28	27	31	339	75	34	25	309	62	24	18	232	14	12	249	25	20
382	337	♂!	442	95	33	28	29	31	353	74	34	25	326	65	26	18	246	14	11	265	26	19
381	336	♂!	443	88	30	27	26	30	365	73	33	27	310	59	24	17	238	15	10	255	26	19
380	334	♂	430	91	32	28	27	34	342	74	33	23	306	59	23	17	225	15	10	241	26	19
379	332	♂!	426	93	34	26	27	31	356	71	29	21	294	58	23	16	219	15	10	239	23	18
407	367	♂!	424	84	29	26	23	31	352	75	36	23	311	65	24	20	243	18	12	261	28	20
404	364	♂!	428	93	33	27	29	30	341	74	37	25	313	63	22	19	236	16	13	254	27	19
403	363	♂	439	90	32	27	28	31	365	75	32	23	317	59	22	18	235	16	11	255	25	17
Ipiutak 69	12	♂!	455	95	33	29	29	33	363	77	36	25	310	68	25	19	230	15	11	251	25	20

Table 9. Individual measurements of bones of female skeletons from burials of the Tigara type.

Inv. No. AMNH Collection 99.1	Burial No.	Sex	Femur						Tibia				Humerus				Radius			Ulna		
			1. Greatest length	8. Circumference of middle of diaphysis	6. Sagittal diameter of middle of diaphysis	7. Transverse diameter of middle of diaphysis	10. Upper sagittal diameter	9. Upper transverse diameter	1. Greatest length	10b. Smallest diameter of diaphysis	8a. Largest sagittal diameter	9a. Transverse diameter	1. Greatest length	7. Smallest circumference of diaphysis	5. Greatest diameter of middle of diaphysis	6. Smallest diameter of middle of diaphysis	1. Greatest length	5. Sagittal diameter of diaphysis	4. Transverse diameter of diaphysis	1. Greatest length	14. Upper sagittal diameter	13. Upper transverse diameter
240	I80	♀!	398	8I	27	25	23	29	3I3	64	28	I8	289	55	20	I5	2I3	I4	9	228	22	I6
243	I84	♀	400	89	28	28	26	3I	3I4	65	30	22	–	–	–	–	–	–	–	–	–	–
249	I47	♀	385	79	26	25	23	30	3I0	67	30	22	26I	52	2I	I4	200	I3	9	223	23	I5
358	309	♀!	383	87	3I	24	26	27	–	–	–	–	–	–	–	–	–	–	–	–	–	–
359	3I0	♀!	397	79	27	24	22	28	309	69	33	I9	283	5I	I9	I4	202	I3	9	225	I9	I6
345	294	♀!	4I0	8I	28	24	22	30	33I	69	30	2I	285	59	2I	I6	205	I6	I0	227	23	I6
322	258	♀!	4I7	8I	28	24	23	30	327	64	32	2I	289	56	2I	I5	–	–	–	–	–	–
326	264	♀	397	82	27	25	23	29	3I7	65	28	2I	275	52	2I	I4	203	I4	9	–	–	–
327	265	♀	403	85	29	25	24	29	3I4	67	30	22	285	54	20	I5	I99	I3	9	223	2I	I6
329	270	♀!	390	78	27	24	22	27	308	6I	29	20	279	53	20	I4	207	I3	9	228	23	I7
330A	27Ia	♀!	404	86	29	25	26	28	322	7I	33	22	279	59	20	I7	2I4	I4	I0	234	24	I8
330	27I	♀	380	75	24	25	24	27	3I0	62	–	–	269	49	I8	I4	200	I4	8	222	20	I5
365	3I5	♀!	422	86	28	28	26	32	–	–	–	–	286	56	20	I5	2I0	I5	9	–	–	–
366	3I6	♀	425	87	29	27	25	3I	349	7I	27	2I	297	57	20	I5	2I7	I4	I0	242	24	I5
368	3I9	♀!	4I7	9I	3I	27	25	32	330	70	32	2I	305	60	22	I6	204	I6	I0	223	25	I7
440	406	♀	425	80	27	25	24	29	354	69	32	I9	300	55	2I	I5	220	I4	I0	238	22	I9
430	395	♀	404	80	28	25	23	30	328	65	3I	I9	293	52	I9	I4	2II	I4	9	228	I9	I8
429	392	♀	423	82	29	25	22	33	336	68	3I	2I	306	56	22	I6	2I4	I4	I0	236	22	I5
438	404	♀	–	–	–	–	–	–	–	–	–	–	303	60	2I	I7	(2I7)	–	–	235	27	I7
409	369	♀	394	76	26	23	22	26	3I8	65	29	2I	274	48	I9	I4	203	I3	9	22I	2I	I5
362	3I2	♀	–	–	–	–	–	–	–	–	–	–	273	59	22	I7	20I	I6	II	2I3	24	I6
424	387	♀	397	79	26	25	24	29	323	67	33	2I	265	54	I9	I5	2I6	I3	I0	229	24	I8
425	393?	♀	407	86	29	27	26	3I	334	68	3I	23	292	48	I8	I4	209	I4	9	232	22	I6
422	394?	♀	388	72	26	2I	I9	27	299	58	28	20	267	50	I9	I4	I96	I2	8	2I6	2I	I7
423	386	♀	387	79	27	25	24	29	333	67	3I	2I	280	56	2I	I5	–	–	–	–	–	–
42I	384	♀	4I2	87	29	28	25	33	330	7I	34	23	280	6I	2I	I9	205	I5	II	228	27	I8
420	383	♀	403	88	32	24	25	3I	335	68	34	20	278	50	20	I4	209	I6	I0	223	2I	I7
4I7	380	♀	380	76	24!	25!	22	3I	322	63	28	I8	268	54	22	I4	202	I5	II	225	2I	I7
4I4	377	♀	374	72	24	22	2I	26	307	60	30	I8	260	5I	I9	I3	I98	I4	9	2I7	2I	I4!
298	229	♀!	4II	88	3I	27	25	30	332	73	33	2I	298	59	23	I6	2I3	I6	I0	238	27	I7
302	233	♀!	383	79	27	24	23	28	300	62	29	20	270	54	22	I4	I99	I5	I0	2I2	20	I7
303	234	♀!	407	8I	27	24	23	30	3I4	68	35	I8	283	54	20	I5	208	I5	I0	227	25	I6
306	237	♀	404	87	30	25	25	29	327	65	30	22	288	59	22	I5	207	I5	9	–	–	–

Table 9 (continuation 1).

Inv. No. AMNH Collection 99.1	Burial No.	Sex	Femur						Tibia				Humerus				Radius			Ulna		
			1. Greatest length	8. Circumference of middle of diaphysis	6. Sagittal diameter of middle of diaphysis	7. Transverse diameter of middle of diaphysis	10. Upper sagittal diameter	9. Upper transverse diameter	1. Greatest length	10b. Smallest diameter of diaphysis	8a. Largest sagittal diameter	9a. Transverse diameter	1. Greatest length	7. Smallest circumference of diaphysis	5. Greatest diameter of middle of diaphysis	6. Smallest diameter of middle of diaphysis	1. Greatest length	5. Sagittal diameter of diaphysis	4. Transverse diameter of diaphysis	1. Greatest length	14. Upper sagittal diameter	13. Upper transverse diameter
331	272	♀	404	85	27	26	25	32	318	67	31	23	287	59	22	17	–	–	–	–	–	–
332	273	♀	408	86	30	25	24	32	320	74	33	24	285	54	19	16	206	15	11	228	24	18
334	275	♀!	402	85	30	25	22	29	325	68	31	20	291	55	20	15	217	14	10	240	23	17
337	283	♀!	420	76	28	21	23	27	–	–	–	–	–	–	–	–	–	–	–	–	–	–
316	247	♀!	395	82	28	24	23	29	320	69	29	22	284	57	21	16	208	14	10	228	23	19
318	252	♀!	373	77	25	24	21	30	308	65	32	20	271	53	18	15	205	14	10	224	21	16
321	257	♀!	417	84	29	23	26	28	338	66	32	21	288	54	20	16	–	–	–	–	–	–
335	281	♀!	421	84	30	25	25	29	357	68	33	21	292	57	22	14	228	13	10	245	21	15
276	202	♀!	379	74	26	21	21	27	300	63	26	18	275	48	18	13	195	11	9	215	20	15
272	201	♀!	400	81	27	25	23	29	327	67	30	21	282	53	20	15	208	14	10	227	24	15
271	145	♀!	–	–	–	–	–	–	321	72	34	22	275	58	21	16	220	17	11	238	25	20
267	194	♀	418	85	31	24	23	30	329	69	33	21	–	–	–	–	–	–	–	–	–	–
268	195	♀!	374	82	28	24	24	28	307	60	29	20	274	49	18	15	203	13	9	218	21	16
287	212	♀!	400	75	26	24	24	26	321	64	29	20	273	52	20	16	198	13	9	215	22	16
282	205	♀	410	77	26	23	22	29	340	68	30	20	–	–	–	–	–	–	–	–	–	–
262	189	♀	395	78	28	22	21	29	314	65	32	19	277	55	20	15	207	15	10	227	24	17
289	215?	♀	384	83	29	25	23	32	301	67	30	22	290	56	20	15	202	14	9	225	22	17
296	225	♀!	408	91	32	29	28!	29!	327	72	32	23	299	60	22	15	211	14	10	226	24	18
294	222	♀!	425	83	28	25	24	31	334	72	35	26	286	55	20	16	219	15	10	240	23	20
297	226	♀!	382	76	25	23	23	28	–	–	–	–	–	–	–	–	–	–	–	–	–	–
220	131	♀	396	85	30	25	22	32	314	66	33	20	274	60	25	16	211	15	10	231	25	18
222	140	♀!	418	88	30	27	24	35	335	72	37	23	292	61	22	17	218	17	10	240	26!	22!
224	167	♀!	390	83	28	26	26	31	298	69	31	24	273	52	21	15	197	13	9	219	23	19
225	179	♀!	400	93	31	29	26	31	332	75	35	23	283	61	22	18	208	17	11	220	25	19
226	143	♀	–	–	–	–	–	–	–	–	–	–	286	61	20	18	–	–	–	–	–	–
251	149?	♀!	371	78	26	24	24	29	294	62	28	18	256	50	19	15	200	13	8	221	22	16
229	165	♀!	373	77	27	24	21	29	302	68	34	20	263	56	20	15	208	14	10	230	22	14
231A	163	♀!	385	83	28	25	25	30	307	71	33	21	280	58	23	16	203	15	10	221	24	18
232	175	♀!	375	88	30	27	26	32	300	73	34	22	272	60	23	18	197	15	11	218	25	16
234	148	♀!	397!	85	30	25	23	31	338!	72	33	22	283	59	22	16	205	16	10	228	24	18
236	166	♀	–	–	–	–	–	–	–	–	–	–	273	53	22	16	198	15	10	221	21	17
238	173	♀	–	–	–	–	–	–	300	60	25	18	262	53	21	14	205	14	9	222	21	15
520	497	♀	394	75	26	23	21	27	315	65	29	18	283	53	21	15	203	14	9	220	20	17
526	503	♀!	391	83	29	24	23	30	317	69	30	22	271	58	24	15	201	15	10	220	24	16

Table 9 (continuation 2).

Inv. No. AMNH Collection 99.1	Burial No.	Sex	Femur						Tibia				Humerus				Radius			Ulna		
			1. Greatest length	8. Circumference of middle of diaphysis	6. Sagittal diameter of middle of diaphysis	7. Transverse diameter of middle of diaphysis	10. Upper sagittal diameter	9. Upper transverse diameter	1. Greatest length	10b. Smallest diameter of diaphysis	8a. Largest sagittal diameter	9a. Transverse diameter	1. Greatest length	7. Smallest circumference of diaphysis	5. Greatest diameter of middle of diaphysis	6. Smallest diameter of middle of diaphysis	1. Greatest length	5. Sagittal diameter of diaphysis	4. Transverse diameter of diaphysis	1. Greatest length	14. Upper sagittal diameter	13. Upper transverse diameter
528	505	♀	385	75	28	2I	2I	26	–	–	–	–	274	55	2I	I5	I92	I5	I0	2I0	23	I6
530	507	♀!	399	83	29	26	24	33	309	67	34	2I	284	56	23	I5	202	I4	9	224	24	I8
53I	508	♀	398	75	23!	24!	2I	29	327	65	30	22	288	53	2I	I5	2I2	I4	I0	227	20	I7
55I	529	♀!	406	80	26	27	24	32	327	68	29	20	297	56	22	I6	2I5	I5	II	23I	22	I8
552	530	♀	395	78	27	24	23	27	323	63	29	2I	280	53	20	I5	–	–	–	–	–	–
523	500	♀	388	84	29	26	24	32	3I2	67	32	20	28I	57	23	I5	I94	I5	II	2I6	22	I8
524	50I	♀	423	83	28	26	22	30	329	65	30	23	287	58	2I	I6	2I4	I5	I0	230	23	I6
546	524	♀!	428	79	27	24	23	29	337	64	28	2I	295	53	I9	I5	2I8	I5	I0	235	22	I7
666	278	♀!	396	80	26	25	2I	32	32I	66	3I	23	275	57	20	I8	203	I5	I0	227	24	I9
667	279?	♀!	388	80	28	24	2I	30	308	67	30	22	265	55	20	I7	208	I5	I0	229	23	I7
477	452	♀?	–	–	–	–	–	–	–	–	–	–	265	62	22	I8	–	–	–	–	–	–
489	464	♀	388	83	29	24	24	30	323	66	30	22	283	52	2I	I4	202	I3	I0	224	23	I6
444	4I2	♀	4I3	86	29	27	25	30	326	7I	32	26	282	60	22	I9	203	I6	I0	228	22	I7
442	408	♀	380	85	30	26	27	29	32I	70	34	20	259	56	2I	I7	207	I5	9	230	23	I7
459	429	♀	426	83	3I	24	24	28	343	67	32	I9	307	54	2I	I5	225	I5	9	244	24	I6
458	428	♀!	4I2	88	3I	25	26	26	333	7I	35	23	283	62	24	I7	2I9	I7	I0	240	25	I8
454	424	♀	400	77	25	23	2I	30	325	60	28	20	–	–	–	–	–	–	–	–	–	–
455	425	♀	39I	79	25	24	24	3I	325	65	29	2I	280	54	2I	I5	200	I6	I0	22I	24	20
483	458	♀	397	82	28	25	23	30	33I	69	32	2I	276	58	2I	I6	–	–	–	–	–	–
45I	42I	♀	406	82	27	25	23	30	336	65	30	22	275	56	2I	I6	–	–	–	–	–	–
449	4I9	♀	4I5	79	27	23	23	29	34I	68	30	22	28I	54	2I	I5	222	I5	I0	238	24	I9
505	48I	♀	–	–	–	–	–	–	36I	65	34	2I	–	–	–	–	–	–	–	–	–	–
502	478	♀	4I2	85	28	27	23	33	346	69	3I	23	286	62	2I	I8	2I2	I4	I0	23I	23	I9
500	476	♀	4I3	84	28	26	24	33	346	74	32	22	287	59	22	I7	2II	I5	I0	229	25	I9
522	499	♀	358	79	26	25	23	30	300	63	3I	I9	274	53	20	I4	I90	I5	I0	2I0	23	I6
537	5I3	♀	393	77	27	23	23	27	3I9	67	30	20	284	54	20	I5	202	I4	9	222	22	I7
538	5I4	♀!	405	85	29	26	25	30	335	65	30	23	289	58	23	I6	2I2	I5	I0	229	23	I9
543	520	♀!	377	77	25	25	22	29	305	60!	27	I8	256	47	I8	I4	200	I4	8	2I6	22	I6
5I2	489	♀	–	–	–	–	–	–	342	68	32	20	28I	56	22	I7	2I5	I5	I0	–	–	–
5I3	490	♀!	383	78	26	25	23	29	3I2	64	27	2I	268	56	2I	I6	I96	I4	II	22I	22	I6
5I5	492	♀	4II	87	30	26	27	29	332	69	3I	2I	280	6I	22	I6	2I0	I6	9	228	24	I8
554	333	♀	–	–	–	–	–	–	–	–	–	–	268	53	I9	I6	–	–	–	–	–	–
532	509	♀!	4I3	84	29	25	22	3I	342	65	29	20	288	54	22	I4	207	I5	I0	227	24	I7

Table 9 (end).

Inv. No. AMNH Collection 99.1	Burial No.	Sex	Femur						Tibia				Humerus				Radius			Ulna		
			1. Greatest length	8. Circumference of middle of diaphysis	6. Sagittal diameter of middle of diaphysis	7. Transverse diameter of middle of diaphysis	10. Upper sagittal diameter	9. Upper transverse diameter	1. Greatest length	10b. Smallest diameter of diaphysis	8a. Largest sagittal diameter	9a. Transverse diameter	1. Greatest length	7. Smallest circumference of diaphysis	5. Greatest diameter of middle of diaphysis	6. Smallest diameter of middle of diaphysis	1. Greatest length	5. Sagittal diameter of diaphysis	4. Transverse diameter of diaphysis	1. Greatest length	14. Upper sagittal diameter	13. Upper transverse diameter
544	522	♀!	395	80	26	25	23	29	336	66	30	I9	270	55	2I	I4	205	I5	9	222	23	I8
540	5I6	♀!	4I8	86	29	25	23	3I	340	67	3I	22	305	58	22	I6	220	I6	I0	237	26	I8
5I6	493	♀	40I	79	28	23	23	3I	327	67	33	2I	294	55	22	I5	220	I6	I0	237	25	I4
5I7	494	♀!	403	78	26	24	22	3I	329	62	30	I7	279	53	20	I4	203	I3	9	225	22	I7
370	32I	♀	-	-	-	-	-	-	-	-	-	-	3I4	52	I8	I4	2I4	I4	II	24I	22	I7
37I	322	♀	4I0	80	27	24	22	29	336	68	30	22	293	55	20	I5	2I4	I4	I0	232	23	I7
375	327	♀!	425	94	32	28	25	34	352	76	35	25	302	64	25	I9	223	I7	II	236	23	I8
377	330	♀!	426	9I	3I	27	25	33	342	72	3I	2I	293	55	2I	I6	222	I5	I0	239	23	I9
378	33I	♀!	4I7	87	29	26	23	30	335	68	32	23	296	55	2I	I6	220	I4	I0	24I	23	I6
347	250	♀	379	80	27	25	24	30	307	6I	30	22	283	54	20	I5	202	I4	II	222	23	I6
348	25I	♀!	38I	76	27	2I	22	28	295	57	27	I7	274	50	I8	I3	I93	I3	9	2I5	I6!	I5!
350	300	♀!	422	86	30	25	23	3I	352	70	3I	23	295	54	2I	I7	2I3	I5	I0	237	24	20
352	30I	♀!	439	92	32	28	27	32	358	74	35	23	299	59	22	I7	230	I6	I0	252	28	I8
388	344	♀!	4I8	86	30	26	24	30	337	64	29	-	-	-	-	-	-	-	-	-	-	-
387	342	♀!	427	84	30	25	26	29	334	66	32	I9	3I0	55	20	I6	2I9	I4	I0	244	24	I8
383	338	♀!	407	79	26	25	22	29	330	59	30	I9	295	53	20	I5	(2I7)	-	-	235	23	I5
40I	359	♀	424	85	29	26	24	3I	-	-	-	-	3I0	56	20	I7	22I	I5	I0	238	23	I8
394	350	♀!	454	I0I	36	28	32	33	359	75	38!	I9!	308	63	24	I8	230	I8	II	255	28	I9
4I5	378	♀	38I	8I	27	25	23	3I	329	68	32	2I	284	53	2I	I5	I99	I5	I0	220	23	I6
4I6	379	♀	367	75	25	24	2I	29	289	63	28	I8	255	47	I8	I5	-	-	-	-	-	-
4I2	373	♀	382	77	26	24	2I	27	304	63	3I	20	267	52	I9	I4	I95	I2	9	220	2I	I5
503	479	♀	387	8I	26	26	2I	3I	-	-	-	-	273	56	2I	I7	-	-	-	-	-	-
496	472	♀	379	68!	23	2I	20	25	3I5	57!	25	I9	268	48	I8	I3	I97	I2	9	2I6	20	I7
494	470	♀	380	76	26	23	2I	29	30I	66	29	2I	-	-	-	-	-	-	-	-	-	-
482	452	♀!	4I6	8I	28	24	23	30	335	65	29	20	29I	57	22	I6	2I2	I7	II	230	25	I5
479	454	♀	383	76	25	23	2I	29	300	63	27	2I	284	56	20	I5	I97	I5	I0	2I8	I9	I6
5I0	487	♀!	387	80	27	25	22	3I	3I7	67	30	22	283	58	22	I6	I96	I5	I0	2I7	25	2I
507	483	♀	398	79	27	24	2I	3I	328	66	28	22	27I	54	2I	I4	2I3	I3	II	237	22	I2
485	460	♀!	405	86	30	26	25	32	335	69	32	2I	288	56	22	I5	I99	I5	I0	223	24	I8
487	462	♀!	407	82	30	25	23	30	338	69	30	2I	290	55	22	I4	20I	I4	I0	222	23	I8
464	434	♀!	384	88	30	28	27	30	322	7I	34	22	288	55	2I	I6	I96	I7	I0	208	26	I7
465	435	♀	4I8	85	29	25	24	30	328	68	3I	22	299	54	22	I5	2I6	I6	I0	234	22	I7
472	446	♀	382	70	23	22	2I	27	-	-	-	-	266	49	I7	I5	-	-	-	-	-	-

Table 10. Age composition of adult skeletons.

Knitting of sutures (approximate age)	Iplutak				Tigara			
	♂		♀		♂		♀	
	n	%	n	%	n	%	n	%
Locking or weak (18-30 years)	10	24,4	21	52,5	27	20,3	66	43,7
Medium (30-50 years)	20	48,8	8	20,0	64	48,1	53	35,1
Strong (over 50 years)	11	26,8	11	27,5	42	31,6	32	21,2

Table 11. Grinding of teeth at different ages.

upper
(number ------ jaws with strong or very strong grinding of the teeth;
lower
In // -- total number of observations)

Knitting of sutures of the skull	Iplutak			Tigara			
	♂	♀	♂+♀, %	♂	♀	♂+♀, %
Locking or weak	4/10/ 4/10/	11/19/ 6/16/	51,7/29/ 38,6/26/	9/26/ 6/24/	14/59/ 12/59/	27,0/85/ 21,7/83/
Medium	11/17/ 11/18/	5/5/ 6/6/	72,7/22/ 70,9/24/	37/51/ 33/48/	32/37/ 31/38/	78,4/88/ 74,5/86/
Strong	8/9/ 7/9/	3/3/ 9/9/	91,7/12/ 88,9/18/	35/38/ 36/38/	26,/27/ 29/31/	93,8/65/ 94,2/69/

Table 12. Teeth missing at different ages.

upper
(number ------ jaws with missing teeth;
lower
In // -- total number of observations)

Knitting of sutures of the skull	Iplutak			Tigara			
	♂	♀	♂+♀, %	♂	♀	♂+♀, %
Locking or weak	2/10/ 2/10/	3/19/ 1/16/	17,2/29/ 11,5/26/	1/26/ 1/24/	6/59/ 6/59/	8,2/85/ 8,4/83/
Medium	5/17/ 5/18/	2/5/ 3/6/	31,8/22/ 33,3/24/	13/51/ 16/48/	16/37/ 15/38/	33,0/88/ 36,1/86/
Strong	4/9/ 2/9/	1/3/ 6/9/	41,7/12/ 44,5/18/	22/38/ 23/38/	11/27/ 19/31/	50,8/65/ 60,9/69/
All degrees	11/36/ 9/37/	6/27/ 10/31/	27,0/63/ 28,0/68/	36/115/ 40/110/	33/123/ 40/128/	29,0/238/ 33,6/238/

Table 13. Average dimensions of skulls from the burial sites of Iplutak and Tigara.

Features	♂					♀				
	Iplutak		Tigara			Iplutak		Tigara		
	n	M	n	M	s	n	M	n	M	s
1. Longitudinal diameter	36	182,7	112	186,1	6,7	33	175,0	123	177,6	5,3
1b. Longitudinal diameter at ophr	35	180,5	112	184,5	6,4	32	173,8	122	177,2	4,9
8. Transverse diameter	36	139,1	113	137,4	4,8	34	136,2	125	132,5	4,5
17. High diameter	35	133,0	109	139,8	4,3	31	126,8	120	132,4	4,2
20. Ear height	36	112,8	113	118,1	3,9	32	108,9	124	112,8	3,5
8:1. Transverse-longitudinal index	36	76,2	112	73,9	3,7	33	77,9	123	74,7	3,3
17:1. Height-longitudinal index	35	72,8	108	75,2	2,5	30	72,8	118	74,7	2,5
17:8. Height-transverse index	35	95,7	109	101,8	4,1	31	93,1	120	100,1	4,0
23a. Horizontal circumference through ophr	36	511,3	112	516,7	13,1	29	492,8	121	497,5	9,5
24. Transverse arc	36	303,8	112	310,6	9,1	32	295,4	123	299,9	8,4
25. Sagittal arc	31	361,9	113	369,8	13,2	29	350,8	120	360,0	10,3
11. Ear breadth	36	128,9	112	130,6	4,7	32	123,3	124	123,2	4,5
11:8. Auricular-transverse index	36	92,7	112	95,0	2,3	32	90,7	124	93,0	2,7
9. Least breadth of brow	35	94,9	114	97,0	3,6	31	90,5	124	92,2	3,7
10. Greatest breadth of brow	36	114,6	112	113,9	4,1	32	110,4	124	109,3	3,4
9:8. Brow-transverse index	35	68,2	113	70,7	2,9	30	66,5	124	69,6	3,1
10:8. Crown-transverse index	36	82,4	112	83,0	2,7	32	81,2	124	82,5	2,4
9:10. Brow breadth index	35	82,8	112	85,3	2,9	30	82,0	124	84,5	3,1
10:29. Brow breadth-length index	36	103,7	112	101,4	4,6	32	103,6	124	100,4	4,4
26. Brow arc	36	125,4	113	128,6	6,1	33	120,4	124	124,8	5,0
29. Brow chord	36	110,8	113	112,7	4,6	33	106,8	124	108,9	3,9
Sub. Nβ. Height of curve of brow	36	24,56	113	25,96	2,48	33	24,21	124	26,48	2,16
29:26. Index of curve of brow	36	88,2	113	87,7	1,6	33	88,6	124	87,3	1,4
Sub. Nβ: 29. Index of prominence of brow	36	22,25	113	23,1	1,9	33	22,77	124	24,3	1,6
Angle of profile of brow from n	34	79,2	110	82,2	3,8	26	81,6	114	84,5	3,1
32. Angle of profile of brow from gl	34	72,9	110	75,3	4,5	26	77,2	113	79,5	3,8

Table 13 (continuation).

Features	♂					♀				
	Ipiutak		Tigara			Ipiutak		Tigara		
	n	x	n	$\bar{x}$	s	n	$\bar{x}$	n	$\bar{x}$	s
Difference of angles of the profile of the brow	34	6,16	110	6,82	2,19	26	4,42	113	5,00	3,84
1-1b. Difference of profile diameter	35	2,20	112	1,62	1,43	32	1,13	122	0,49	1,03
Development of supercilliary (1-6)	35	2,91	114	3,26	–	34	1,85	124	2,22	–
27. Parietal arc	37	120,5	113	122,8	8,0	32	117,4	123	119,9	7,4
30. Parietal chord	37	108,0	113	110,9	6,4	32	105,3	123	107,4	5,6
30:27. Index of curve of sinciput	37	90,1	113	90,3	1,9	31	90,4	123	89,7	1,8
12:30. Parietal breadth-length index	36	101,2	112	98,0	7,0	30	102,2	122	98,5	6,5
5:30. Basalar-parietal index	35	94,7	108	96,2	6,4	28	91,3	118	93,2	5,5
Thickness of tympanic part (mm)	38	2,95	115	3,81	1,1	35	3,14	126	3,76	0,91
Mammiform appendix (1-3)	38	2,11	115	2,00	–	35	1,66	124	1,63	–
12. Breadth of occiput	37	109,4	112	108,0	4,4	32	107,8	125	105,1	4,1
12:8. Occipital-transverse index	36	78,6	112	78,7	3,1	32	79,0	124	79,4	3,2
12:10. Occipital-crown index	36	95,5	111	95,0	4,2	31	97,8	123	96,3	4,3
12:31. Occipital breadth-length index	31	114,2	112	109,3	5,9	30	115,2	118	109,5	6,1
28. Occipital arc	31	116,3	113	118,9	7,4	31	113,8	119	115,0	7,1
31. Occipital chord	31	95,7	113	99,1	5,3	31	94,0	119	96,4	4,8
31:28. Index of curve of occiput	31	82,5	113	83,3	2,2	31	82,6	119	83,9	2,2
33(1). Angle of slope of upper part of occiput	31	89,9	110	89,5	4,8	25	94,1	110	93,2	3,9
33(2). Angle of slope of lower part of occiput	29	27,8	110	31,0	5,1	25	26,3	110	29,8	4,6
33(4). Angle of bend of occiput	31	118,6	113	120,7	5,6	31	120,6	119	123,3	4,8
31(1). Chord of upper part of occiput	31	64,9	113	66,4	6,5	31	62,6	119	65,4	6,3
31(2). Chord of lower part of occiput	31	45,4	113	46,3	5,8	31	44,5	119	42,6	5,1
7. Length of occipital aperture	29	37,03	109	38,13	2,60	30	34,87	116	36,48	2,25
16. Breadth of occipital aperture	29	30,62	109	31,58	1,91	30	29,00	116	30,28	1,74
16:7. Index of occipital aperture	29	82,8	109	83,2	5,7	30	83,3	116	82,9	5,5
34. Angle of occipital aperture	28	−4,2	104	−2,2	4,6	26	−5,0	109	−5,3	4,25
45:8. Transverse facial-cerebral index	35	98,9	112	103,6	3,5	30	94,4	120	98,4	3,8
48:17. Vertical facial-cerebral index	33	57,2	102	54,5	2,6	24	54,8	99	53,7	2,9
9:45. Brow-malar index	34	68,8	112	68,3	3,0	29	70,3	120	70,7	3,1
10:45. Crown-malar index	35	83,5	111	80,3	3,8	29	85,9	120	83,8	3,5
66:9. Maxilla-brow index	32	117,7	101	116,5	7,6	23	109,1	112	112,0	7,8
47. Full height of face	31	123,8	86	123,6	6,6	17	115,9	87	114,8	5,7
48. Upper height of face	34	76,2	105	76,3	4,1	25	70,5	102	71,0	3,4
43. Upper breadth of face	34	107,3	113	109,7	3,8	28	101,9	118	103,8	3,7
43(1). Biorbital breadth	33	99,9	113	100,5	4,0	27	94,7	114	95,7	4,1
46. Medial breadth of face	32	102,8	110	105,1	4,9	24	98,3	106	98,0	4,6
45. Malar diameter	35	137,6	112	142,2	5,5	30	128,6	120	130,3	4,9
47:45. Facial index	30	90,3	86	86,8	4,5	17	89,4	87	88,0	5,1
48:45. Upper-face index	33	55,4	104	53,6	2,6	25	54,8	102	54,4	3,2
48:46. Medial-face index	31	74,7	102	72,6	3,5	23	72,1	97	72,6	4,6
5. Length of base of skull	35	102,1	108	106,2	4,1	29	96,4	119	99,9	3,8
40. Length of base of face	33	98,8	101	103,6	5,0	24	93,7	98	98,3	4,4
40:5. Index of projection of face	33	96,7	101	97,5	3,9	24	98,0	98	98,5	3,7
72. Total facial angle	32	85,4	101	84,9	3,0	22	84,6	99	84,6	2,5
73. Medial facial angle	31	87,2	109	87,4	3,1	22	87,0	102	87,8	2,4
74. Alveolar angle	31	79,4	100	78,1	5,4	20	75,9	93	75,8	5,9
55. Height of nose	32	54,8	112	55,0	3,3	26	50,5	113	50,7	2,3
54. Breadth of nose	32	24,28	108	24,04	1,89	24	23,50	100	23,22	1,69
54:55. Nasal index	32	44,2	108	43,7	3,7	24	46,2	100	45,7	3,6
51. Breadth of orbits from mf	34	43,71	112	45,62	2,11	28	41,61	110	43,07	1,77
51a. Breadth of orbits from d	28	41,36	110	42,97	1,91	23	39,57	104	40,67	1,69
52. Height of orbits	34	36,15	112	36,14	2,19	28	35,54	110	35,71	1,68
52:51. Orbital index (from mf)	34	82,9	112	79,3	4,5	28	85,4	110	83,1	4,0
52:51a. Orbita index (from d)	28	87,7	110	84,4	4,8	23	89,2	105	87,5	4,4
60. Length of alveolar arc	25	53,7	90	55,5	2,9	14	51,5	91	52,8	2,7
61. Breadth of alveolar arc	26	66,2	89	66,3	3,4	15	64,7	90	62,1	3,0
61:60. Maxilla-alveolar index	25	123,2	88	119,5	5,6	14	125,5	87	117,6	7,0
62. Length of palate	25	47,32	89	49,04	2,83	16	45,38	89	46,90	2,57
63. Breadth of palate	26	42,46	88	41,39	2,74	17	40,47	89	38,96	2,43

Table 13 (end).

Features	♂					♀				
	Ipiutak		Tigara			Ipiutak		Tigara		
	n	$\bar{x}$	n	$\bar{x}$	s	n	$\bar{x}$	n	$\bar{x}$	s
63:62. Palatal index	25	90,1	87	84,7	6,1	16	89,4	86	83,3	5,7
17. Naso-malar index	33	146,6	113	146,5	4,0	27	147,2	114	147,6	4,0
∠ zm zygo-maxillary angle	31	135,8	108	134,0	4,4	22	136,6	101	134,4	4,3
Depth of canine recess	32	5,43	110	5,19	1,53	23	4,29	102	4,96	1,62
DC. Dacryal chord	24	20,29	106	19,43	2,04	19	19,18	101	18,10	2,08
DS. Dacryal height	24	9,08	106	9,30	1,53	19	8,73	101	8,36	1,38
DS:DC. Dacryal index	24	45,0	106	48,5	9,3	19	45,9	101	46,8	9,1
MC. Maxillo-frontal chord	31	18,39	111	16,99	1,77	28	17,15	112	15,98	1,99
MS. Maxillo-frontal height	31	5,27	111	5,06	1,19	28	5,31	112	4,44	0,81
MS:MC. Maxillo-frontal index	31	29,0	111	30,0	6,8	28	31,4	112	28,3	5,8
SC. Simotic chord	30	6,73	110	6,14	1,70	28	7,11	110	5,55	1,59
SS. Simotic height	30	2,42	110	2,54	0,98	28	2,46	110	2,00	0,78
SS:SC. Simotic index	30	36,6	110	41,6	12,9	28	35,2	110	36,8	12,8
75(1). Angle of projection of nose	25	21,4	93	21,1	4,4	18	18,4	68	17,7	4,1
Lower edge of pyriform aperture, % /Anthropina	6	20,0	41	36,6		9	40,9	52	50,0	
/ Infantilis	–	–	2	1,8		5	22,7	6	5,8	
\ Fossae praenas.	22	73,3	66	58,9		8	36,4	43	41,3	
\Sulcus praenas.	2	6,7	3	2,7		–	–	3	2,9	
Frontal-nasal barb (1-5)	18	2,4	92	2,13		14	2,1	78	1,85	
68(1). Length of condyle	35	112,0	106	112,6	4,8	25	105,7	122	106,0	4,5
68. Length of angles	36	81,5	107	82,4	4,4	27	77,2	120	76,6	4,0
65. Condylar width	33	120,1	105	124,5	5,8	27	114,6	114	117,3	5,2
66. Angular width	36	111,7	108	112,7	6,5	29	99,2	122	103,4	5,6
67. Frontal width	36	46,4	109	47,9	2,3	30	44,9	123	45,8	2,6
70. Height of ramus	35	56,1	107	57,6	4,5	26	52,4	121	51,8	3,8
71a. Least width of ramus	36	39,31	109	39,54	2,62	28	35,82	125	36,40	2,35
69. Height of symphysis	35	36,37	88	36,96	2,59	26	33,96	93	34,16	2,78
69(1). Height of body below maxilla	34	33,65	95	33,02	2,64	23	31,30	97	30,35	2,46
69(3). Thickness of body below maxilla	36	12,67	109	12,06	1,51	30	11,50	124	10,92	1,34
79. Angle of ramus below maxilla	30	127,4	107	126,1	6,0	28	127,2	121	129,2	5,6
∠ C'. Angle of chin	34	68,6	92	72,4	4,6	27	68,3	107	70,5	5,1
66:68. Breadth-length index	36	137,2	105	137,5	9,3	26	129,3	119	135,6	10,9
66:65. Breadth index	33	93,3	104	90,8	4,4	27	86,1	114	88,0	4,6
71a:70. Index of ramus	35	70,4	107	68,9	5,4	26	68,7	121	70,4	5,8

Table 14. Distribution of some morphological and discretely varying features on skulls from the Ipiutak and Tigara burial sites.

Feature	Expressiveness of feature	Ipiutak				Tigara			
		♂		♀		♂		♀	
		n	%	n	%	n	%	n	%
Norma occipitalis (form of vault)	1*	2	5,6	16	48,5	9	8,0	36	29,0
	2	18	50,0	7	21,2	32	28,6	55	44,4
	3	16	44,4	10	30,3	71	63,4	33	26,6
Norma occipitalis (lateral walls)	1**	2	5,6	0	0	12	10,7	5	4,0
	2	31	86,1	15	45,5	95	84,8	97	78,3
	3	3	8,3	18	54,5	5	4,5	22	17,7
Torus occipitalis	0	9	23,7	22	62,9	39	33,9	70	55,6
	1	15	39,5	12	34,3	39	33,9	47	37,3
	2	11	28,9	1	2,8	28	24,4	9	7,1
	3	3	7,9	0	0	9	7,8	0	0

Table 14 (end).

Feature	Expressiveness of feature	Ipiutak ♂ n	Ipiutak ♂ %	Ipiutak ♀ n	Ipiutak ♀ %	Tigara ♂ n	Tigara ♂ %	Tigara ♀ n	Tigara ♀ %
Sinus sagittalis	right	25	65,8	22	66,7	73	63,5	76	61,8
	left	6	15,8	6	18,2	21	18,25	29	23,6
	indeterm.	7	18,4	5	15,1	21	18,25	18	14,6
Os postsquamosum	lacking	25	69,5	24	68,6	63	55,8	70	56,5
	right	3	8,3	4	11,4	14	12,4	19	15,3
	left	5	13,9	2	5,7	16	14,1	16	12,9
	bilateral	3	8,3	5	14,3	20	17,7	19	15,3
Foramina tympanica	lacking	25	65,8	29	82,8	85	73,9	90	71,4
	right	1	2,6	1	2,9	2	1,8	4	3,2
	left	0	0	1	2,9	9	7,8	6	4,8
	bilateral	12	31,6	4	11,4	19	16,5	26	20,6
Foramina supraorbitalia	lacking	13	37,1	16	47,1	22	19,3	32	26,0
	right	8	22,9	4	11,8	23	20,2	14	11,4
	left	2	5,7	3	8,8	19	16,7	13	10,6
	bilateral	12	34,3	11	32,3	50	43,8	64	52,0
Foramina infraorbitalia (suppl.)	lacking	33	94,3	24	88,9	94	83,2	108	87,8
	right	1	2,85	1	3,7	4	3,5	4	3,3
	left	1	2,85	0	0	9	8,0	8	6,5
	bilateral	0	0	2	7,4	6	5,3	3	2,4
Transverse profile of spine of nose ("spur")	0	19	61,3	17	58,6	48	43,3	68	58,6
	1	7	22,6	9	31,0	22	19,8	21	18,1
	2	5	16,1	3	10,4	41	36,9	27	23,3
Torus palarinus	0	17	47,2	6	22,2	56	48,7	38	30,9
	1	9	25,0	9	33,4	38	33,1	42	34,1
	2	7	19,5	6	22,2	19	16,5	28	22,8
	3	3	8,3	6	22,2	2	1,7	15	12,2
Torus mandibularis	0	14	37,9	11	35,5	39	35,4	68	53,1
	1	12	32,4	13	41,9	51	46,4	43	33,6
	2	6	16,2	2	6,5	12	10,9	13	10,2
	3	5	13,5	5	16,1	8	7,3	4	3,1
Foramina mentalia (supplementary)	lacking	34	91,9	30	96,8	102	92,7	127	99,2
	right	2	5,4	1	3,2	1	0,9	0	0
	left	1	2,7	0	0	6	5,5	1	0,8
	bilateral	0	0	0	0	1	0,9	0	0
Arcus mylohyoideus	lacking	31	79,5	26	83,9	83	75,4	113	88,3
	right	2	5,1	1	3,2	11	10,0	5	3,9
	left	3	7,7	2	6,45	8	7,3	5	3,9
	bilateral	3	7,7	2	6,45	8	7,3	5	3,9

* 1 - flattened; 2 - rounded; 3 - roof-shaped.
** 1 - widening downward; 2 - parallel; 3 - widening upward.

Table 15. Average dimensions of long bones from the Ipiutak and Tigara burial sites.

Features		♂ Ipiutak n	♂ Ipiutak $\bar{x}$	♂ Tigara n	♂ Tigara $\bar{x}$	♂ Tigara s	♀ Ipiutak n	♀ Ipiutak $\bar{x}$	♀ Tigara n	♀ Tigara $\bar{x}$	♀ Tigara s
Femur	1. Greatest length	43	414,4	118	438,4	21,8	38	380,9	122	400,5	16,7
	8. Circumference of middle of diaphysis	43	86,2	118	90,7	5,7	38	77,1	122	81,9	5,1
	8:1. Index of strength	43	20,8	118	20,5	1,1	38	20,3	122	20,3	1,1
	10. Upper sagittal diameter	43	24,2	119	26,3	2,3	38	21,7	122	23,4	1,9
	9. Upper transverse diameter	43	33,1	119	31,8	2,1	38	30,2	122	29,8	1,9
	6. Sagittal diameter of middle	43	28,9	119	31,6	2,5	38	25,2	122	27,9	2,2
	7. Transverse diameter of middle	43	26,6	119	26,9	1,6	38	24,8	122	24,8	1,7

Table 15 (end).

Feature		♂					♀				
		Ipiutak		Tigara			Ipiutak		Tigara		
		n	$\bar{x}$	*n*	$\bar{x}$	*s*	*n*	$\bar{x}$	*n*	$\bar{x}$	*s*
Tibia	1. Complete length	46	326,0	118	357,0	19,4	38	297,1	118	324,3	15,9
	10b. Least circumference	46	74,5	118	74,8	4,2	38	65,4	118	66,8	3,9
	10:1. Index of strength	46	22,6	118	20,8	1,1	38	22,0	118	20,4	1,1
	8a. Greatest sagittal diameter	46	34,3	118	35,3	3,1	38	29,1	117	30,9	2,4
	9a. Transverse diameter	46	22,3	118	23,9	2,2	38	20,6	117	20,9	1,8
Humerus	1. Greatest length	42	302,5	118	310,2	16,7	35	276,8	122	282,4	12,4
	7. Least circumference	42	60,9	118	63,8	4,2	35	53,8	122	55,2	3,6
	7:1. Index of strength	42	20,2	118	20,4	1,4	35	19,4	122	19,4	1,2
	5. Greatest diameter of middle of diaphysis	42	23,3	118	23,9	1,9	35	20,4	124	20,8	1,5
	6. Least diameter of middle of diaphysis	42	17,2	118	17,8	1,4	35	14,9	124	15,5	1,3
Radius	1. Greatest length	39	225,8	114	233,3	12,6	30	204,0	110	207,6	9,1
	5. Sagittal diameter	37	16,4	111	16,0	1,5	30	15,2	108	14,6	1,2
	4. Transverse diameter	37	11,0	111	11,2	1,0	30	9,5	108	9,8	0,7
Ulna	1. Greatest length	39	245,7	109	252,1	12,6	29	221,2	106	227,5	9,2
	14. Upper sagittal diameter	38	24,9	109	25,8	2,0	29	22,3	106	22,9	2,0
	13. Upper transverse diameter	38	19,4	109	19,7	1,7	29	16,4	106	17,0	1,6
Index of proportions	Intermembral	32	71,0	109	68,2	1,7	24	70,3	100	68,4	1,5
	Tibia-femur	37	78,4	116	81,1	2,3	31	78,5	114	80,9	2,1
	Radius-humerus	35	74,8	114	74,8	2,4	27	75,2	110	73,3	2,9
	Humerus-femur	34	74,7	122	70,5	2,0	29	72,6	112	70,9	2,6
	Radius-tibia	38	69,1	112	65,1	2,2	25	67,2	103	64,0	2,1

Table 16. Coefficients of correlation of primary diameters of the skull. Tigara. (right ♂, left ♀).

	1. Long. dia.	8. Trans. dia.	17. High dia.	9. Least breadth of brow	10. Grtest. breadth of brow	11. Ear breadth
1. Longitudinal diameter	–	.094	.507	.313	.121	.349
8. Transverse diameter	.–095	–	.287	.382	.607	.750
17. High diameter	.333	.245	–	.322	.306	.385
9. Least breadth of brow	.231	.308	.251	–	.568	.421
10. Greatest breadth of brow	.–039	.606	.144	.499	–	.447
11. Ear breadth	.134	.646	.392	.391	.425	–
12. Breadth of occiput	.228	.424	.245	.163	.243	.450
45. Malar diameter	.098	.418	.217	.364	.334	.702
48. Height of face	.331	.–090	.139	.099	.–027	.087
46. Average width of face	.244	.314	.152	.349	.333	.511
5. Length of base of skull	.535	.021	.593	.344	.006	.338
40. Leng. base of skull	.429	.–099	.327	.225	.–069	.261

Table 16 (end).

	12. Brdth. of occiput	45. Malar dia.	48. Hght. of face	46. Avge. width of face	5. Length of base of skull	40. Leng. base of skull
1. Longitudinal diameter	.149	.434	.597	.477	.657	.422
8. Transverse diameter	.461	.560	.156	.292	.092	.111
17. High diameter	.166	.367	.467	.272	.466	.252
9. Least breadth of brow	.168	.341	.142	.192	.252	.145
10. Greatest breadth of brow	.188	.282	.111	.092	.076	.051
11. Ear breadth	.422	.755	.400	.362	.445	.329
12. Breadth of occiput	–	.366	.146	.282	.202	.157
45. Malar diameter	.369	–	.453	.573	.448	.315
48. Height of face	.056	.081	–	.339	.617	.465
46. Average width of face	.369	.602	.135	–	.285	.319
5. Length of base of skull	.311	.366	.151	.277	–	.615
40. Leng. base of skull	.255	.341	.408	.400	.587	–

Table 17. Coefficients of correlation of the total dimensions of the brain case with the dimensions of individual bones of the brain case. Tigara.

Sex		26. Brow arc	27. Parietal arc	28. Occipital arc	29. Brow chord	30. Parietal chord	31. Occipital chord
♂	1. Longitudinal diameter	.451	.376	.505	.487	.498	.324
	17. High diameter	.634	.293	.311	.681	.395	.274
	5. Length of base of skull	.284	.038	.156	.347	.093	.080
♀	1. Longitudinal diameter	.243	.393	.399	.427	.531	.406
	17. High diameter	.381	.291	.084	.460	.347	.212
	5. Length of base of skull	.096	.164	.027	.217	.195	.158

Table 18. Coefficients of correlation of the total dimensions of the face with the dimensions of nose, orbits, and maxilla. Tigara.

Sex		55. Height of nose	54. Width of nose	51. Width of orbits	52. Hght. of orbits	60. Length of alveolar arc	61. Width of alveolar arc
♂	48. Height of face	.813	.287	.352	.378	.533	.417
	40. Length of base of face	.296	.402	.124	.126	.773	.509
	45. Malar diameter	.423	.226	.581	.286	.289	.442
	46. Average width of face	.414	.317	.366	.175	.260	.452
♀	48. Height of face	.697	.129	.041	.170	.512	.414
	40. Length of base of face	.236	.358	.269	.090	.662	.419
	45. Malar diameter	.080	.346	.477	.302	.188	.413
	46. Average width of face	.163	.379	.378	.142	.243	.626

Table 19. Coefficients of correlation of the total dimensions of the nose, orbits, and maxilla (right ♂, left ♀).. Tigara.

	55. Height of nose	54. Width of nose	51. Width of orbits	52. Hght. of orbits	60. Length of alveolar arc	61. Width of alveolar arc
55. Height of nose	–	.266	.403	.420	.307	.245
54. Width of nose	.108	–	.195	.101	.405	.341
51. Width of orbits	.043	.280	–	.416	.192	.273
52. Height of orbits	.290	.165	.309	–	.093	.036
60. Length of alveolar arc	.308	.181	.128	.089	–	.559
61. Width of alveolar arc	.338	.226	.169	.044	.366	

Table 20. Coefficients of correlation of the total dimensions of individual bones of the brain case. Tigara.

	♂	♀
26. Brow arc - 29. Brow chord	912	884
27. Parietal arc - 30. Parietal chord	933	938
28. Occipital arc - 31. Occipital chord	889	891
29. Brow chord - Sub. N . Height of curve of brow	586	584
29. Brow chord - 10. Greatest width of brow	369	162
31. Occipital chord - 12. Width of occiput	305	176

Table 21. Coefficients of correlation of the total dimensions of long bones and dimensions of the skull. Tigara, male skeletons.

	1. Longitudinal diameter	8. Transverse diameter	17. High diameter	5. Length of base of skull	11. Ear width
Length of femur	.24	.24	.15	.24	.45
Length of tibia	.26	.33	.17	.23	.44
Length of humerus	.29	.28	.19	.23	.51
Length of radius	.36	.21	.21	.34	.49
Length of arm	.37	.27	.21	.32	.53
Length of leg	.28	.30	.17	.26	.47
Length of both	.33	.30	.19	.25	.50
Circumference of femur	.39	.36	.27	.36	.56
Circumference of tibia	.37	.27	.30	.38	.50
Circumference of humerus	.27	.29	.20	.28	.46
Average coefficient	.316	.285	.205	.289	.491
Average coefficient with 4 lengths	.287	.265	.180	.260	.472
Average coefficient with 3 lengths	.343	.307	.257	.340	.507

Table 21 (continuation).

	45. Malar diameter	66. Angular width of mandible	48. Upper height of face	40. Length of base of face	Average coefficient
Length of femur	.51	.38	.41	.21	.314
Length of tibia	.50	.30	.43	.17	.314
Length of humerus	.56	.47	.52	.20	.361
Length of radius	.56	.40	.45	.13	.350
Length of arm	.60	.49	.50	.16	.383
Length of leg	.49	.37	.44	.24	.336
Length of both	.55	.42	.46	.17	.352
Circumference of femur	.65	.45	.40	.18	.402

Table 21 (end).

	45. Malar diameter	66. Angular width of mandible	48. Upper height of face	40. Length of base of face	Average coefficient
Circumference of tibia	.53	.41	.43	.35	.393
Circumference of humerus	.53	.46	.29	.20	.331
Average coefficient	.548	.415	.433	.201	
Average coefficient with 4 lengths	.532	.387	.452	.177	
Average coefficient with 3 lengths	.570	.440	.373	.243	

Table 22. Coefficients of correlation of dimensions of long bones and dimensions of the skull. Tigara, females skeletons.

	1. Longitudinal diameter	8. Transverse diameter	17 High diameter	5. Length of base of skull	11. Ear width
Length of femur	.18	.02	.01	.34	.21
Length of tibia	.18	.18	.004	.22	.25
Length of humerus	.15	.03	.–04	.20	.12
Length of radius	.30	.–01	.05	.35	.10
Length of arm	.26	.03	.05	.33	.11
Length of leg	.20	.12	.06	.28	.24
Length of both	.20	.07	.04	.30	.20
Circumference of femur	.32	.17	.20	.36	.34
Circumference of tibia	.41	.18	.29	.28	.31
Circumference of humerus	.32	.19	.17	.21	.25
Average coefficient	.252	.100	.091	.287	.213
Average coefficient with 4 lengths	.203	.060	.025	.277	.170
Average coefficient with 3 lengths	.350	.180	.220	.283	.300

Table 22 (continuation).

	45. Malar diameter	66. Angular width of mandible	48. Upper height of face	40. Length of base of face	Average coefficient
Length of femur	.39	.20	.19	.23	.197
Length of tibia	.41	.11	.06	.13	.171
Length of humerus	.30	.13	.14	.16	.141
Length of radius	.23	.18	.22	.26	.189
Length of arm	.28	.19	.20	.21	.184

Table 22 (end).

	45. Malar diameter	66. Angular width of mandible	48. Upper height of face	40. Length of base of face	Average coefficient
Length of leg	.40	.14	.12	.18	.193
Length of both	.44	.22	.13	.18	.198
Circumference of femur	.56	.26	.22	.36	.310
Circumference of tibia	.44	.22	.23	.38	.304
Circumference of humerus	.47	.27	.21	.30	.266
Average coefficient	.392	.192	.172	.239	
Average coefficient with 4 lengths	.332	.155	.152	.195	
Average coefficient with 3 lengths	.490	.250	.220	.347	

Table 23. Coefficients of correlation of lengths and circumferences of the long bones. Tigara.

	♂	♀
Femur	.61 ± .06	.58 ± .06
Tibia	.53 ± .07	.47 ± .07
Humerus	.40 ± .08	.39 ± .08

Table 24. Coefficients of correlation of lengths of bones. Tigara.

	♂	♀
Femur - tibia	.87 ± .02	.82 ± .03
Humerus - radius	.81 ± .03	.64 ± .06
Humerus - femur	.84 ± .03	.80 ± .03
Arm - leg	.82 ± .03	.85 ± .03

Table 25. Coefficients of correlation of indexes of massiveness of long bones. Tigara (right , left). ♂, – ♀

	Femur	Tibia	Humerus
Femur	–	.43 ± .08	.53 ± .07
Tibia	.60 ± .06	–	.49 ± .07
Humerus	.47 ± .07	.41 ± .08	–

Table 26. Coefficients of correlation of indexes of proportions. Tigrar (right ♂, left ♀). ♂, ♀

	Intermembral	Tibia - femur	Radius - humerus
Intermembral	–	.03 ± .10	.05 ± .10
Tibia - femur	.–38 ± .09	–	.34 ± .08
Radius - humerus	.–28 ± .09	.15 ± .10	–

Table 27. Flatness of face and projection of nose. Comparative data.

No. by Martin or designation of biometrics	Dimensions	♂							
		Ipiutak	Tigara	Yukagir	Tungus	Aleuts	American Indians		Georgians
							Kwakiutl	Arikara	
77	Naso-malar angle	146,6 (33)	146,5 (113)	148,7 (18)	149,1 (28)	145,5 (30)	143,0 (27)	140,1 (33)	138,0 (28)
–	Zygo-maxillary angle	135,8 (31)	133,9 (108)	137,0 (17)	141,6 (28)	138,1 (28)	131,3 (27)	126,8 (33)	125,6 (27)
DS	Dacryal height	9,08 (24)	9,30 (106)	7,45 (18)	8,68 (28)	10,20 (35)	9,18 (27)	11,65 (33)	12,54 (28)
DS : DC	Dacryal index	44,8 (24)	47,9 (106)	35,3 (18)	40,1 (28)	49,3 (35)	41,3 (27)	58,7 (33)	57,1 (28)
SS	Simotic height	2,42 (30)	2,54 (110)	2,53 (18)	2,39 (28)	2,92 (35)	2,63 (27)	4,26 (33)	5,52 (29)
SS : SC	Simotic index	36,0 (30)	41,5 (110)	36,0 (18)	32,3 (28)	34,7 (35)	30,8 (27)	51,1 (33)	53,8 (29)
75 (1)	Angle of projection of nose	21,4 (25)	21,1 (93)	17,2 (12)	18,7 (22)	25,8 (24)	–	–	34,3 (18)

Table 27 (end).

No. by Martin or designation of biometrics	Dimensions	♀							
		Ipiutak	Tigara	Yukagir	Tungus	Aleuts	American Indians		Georgians
							Kwakiutl	Arikara	
77	Naso-malar angle	147,2 (27)	147,5 (114)	150,3 (10)	149,9 (27)	146,1 (23)	142,2 (22)	138,2 (30)	138,5 (22)
–	Zygo-maxillary angle	136,6 (22)	134,4 (101)	140,2 (10)	142,6 (27)	136,0 (23)	130,8 (22)	126,3 (30)	127,8 (22)
DS	Dacryal height	8,73 (19)	8,36 (101)	7,18 (11)	7,59 (27)	9,54 (26)	8,10 (22)	9,90 (30)	11,77 (22)
DS : DC	Dacryal index	45,5 (19)	46,2 (101)	35,8 (11)	39,1 (27)	49,9 (28)	38,2 (22)	51,7 (30)	61,5 (22)
SS	Simotic height	2,46 (28)	2,00 (110)	2,18 (11)	1,80 (28)	2,37 (28)	2,09 (22)	3,86 (30)	4,42 (22)
SS : SC	Simotic index	34,6 (28)	36,0 (110)	32,7 (11)	25,7 (28)	30,0 (28)	26,0 (22)	42,7 (30)	46,0 (22)
75 (1)	Angle of projection of nose	18,4 (18)	17,7 (68)	16,3 (8)	14,4 (21)	21,1 (15)	–	–	26,9 (13)

Table 28. Percentage distribution of blood groups among Eskimos and some other peoples.

Ethnic and territorial groups	No. of observations*	O	A	B	AB	M	N	MN	Author
Kolyma Yakuts	192 (187)	37,5	25,0	28,6	8,9	64,2	5,9	29,9	Zolotareva (1964)
Even & Yukagir	234	40,2	40,2	13,7	6,0	41,9	15,8	42,3	Levin (1959) Zolotareva (1964)
Chukchi	309	43,4	38,5	14,2	3,9	26,2	22,0	51,8	Levin (1959)
Aleuts	144 (142)	49,3	44,4	4,2	2,1	71,8	2,8	25,4	Laughlin (1950)
Asiatic Eskimo	205 (204)	40,0	29,3	26,8	3,9	33,8	18,6	47,6	Levin (1959)
Alaskan Eskimos	1208	36,5	47,6	11,8	4,1	58,3	5,2	36,5	Skeller (1954)
Greenland Eskimos	1313	30,2	55,3	8,4	6,1	76,9	1,8	21,3	Corcoran et al. (1959)
Alaskan Indians	977	89,1	9,5	1,1	0,3	71,6	1,1	27,3	Lewis et al. (1961)

* In parentheses - MN group.





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