HUMAN SKELETONS FROM TARQUINIA: A PRELIMINARY ANALYSIS OF THE 1989 CIMITERO SITE EXCAVATIONS WITH INFERENCES FOR THE EVALUATION OF ETRUSCAN SOCIAL CLASSES *

Abstract

In 1989 a large number of «chamber tombs» of the late IV and III Centuries, and some of later date, were excavated in that area of the Monterozzi necropolis at Tarquinia lying along the western slope of the hill adjacent to the modern cemetery (the excavation area has been designate as «Tarquinia Cimitero»). The skeletons from these tombs were carefully recovered and studied. These bones provide valuable information about Etruscan social class structure. Elsewhere in Italy the much earlier development of large collective tombs and collective cave burials indicate the emergence of a ranked society (Becker In press A). At Tarquinia the locations of these Etruscan dead within each chamber tomb provide information concerning their positions within the social hierarchy of these interred individuals.

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Physical anthropologists contribute to these studies of social organization in three ways. The basic approach involves the analysis of the human skeletons to determine age and gender, which provides the archaeologists with essential information regarding how the people were distributed within a tomb. Related to this basic information is the study of fragmentary or poorly preserved skeletal remains, to determine which bones are those representing humans and which represent animals. Animals may have been placed in the tomb as food offerings or as sacrificial offerings, or may be later and possibly accidental intrusions. The third approach, based on new analytical techniques, attempts to examine the skeletons with the intent of determining possible status indicators and even biological relationships. This approach enables us to determine whether individuals in certain positions within a tomb were simply young or unmarried, and therefore had low status, or whether they may have been low status outsiders, and possibly slaves. Data on stature also provides us with significant social class indicators. The results of this recent study provide some indication that social classes at Tarquinia can be distinguished on the basis of the skeletal evidence alone.

INTRODUCTION

Increasing quantities of human skeletal remains now are being recovered from Etruscan tombs and can be used to shed significant light on the nature of Etruscan society ¹. Specifically, skeletal studies can help us to understand the relationships between men and women in a society, how those relationships may have been similar or different among the various social classes within that particular society, and how differential access to resources may be reflected in skeletal biology.

Etruscan couples practiced a close public interaction, as known from two categories of evidence: artistic representations and commentaries made by foreign observers about Etruscan cultural behaviors. Since such public interaction was abhorrant to the contemporary Romans and Greeks, who in many aspects of daily

¹ The recovery human skulls from Etruscan tombs has provided considerable information to scholars utilizing craniometric information. Giovannizzi's study (1903) of skulls from Orvieto is one of the first to be published, but a considerable number of pieces have followed (ANGELOTTI 1909; CANTUZÈNE 1909; CIPRIANI 1927; DAVIDE 1959; FRASSETTO 1906, 1907; MESSERI 1953, 1954, 1963; MORANT 1928; PFANNENSTIEL 1955; SCHLAGINHAUFEN 1953; SERGI 1907, 1933/4). Related information on Samnites and Old Romans has been published by CRESTA and VECCHI (1969).

All of these data had been of limited value until Schwidetzky initiated statistical studies of this information. Her efforts gleaned useful information from 26 Etruscan skulls dated from 700 to 300 B.C. (1972:246 no. 45, 251). These data offer a useful base upon which future craniometric studies can be built using computer technology for more sophisticated studies (see BECKER 1982). In 1989 excavations in the settlement area of Tarquinia continued to be the goal of Dott.ssa Maria Bonghi-Jovino (University of Milan).

life maintained a cultural separation («avoidance» in the anthropological sense) between adult males and females, these observers of Etruscan customs were quick to provide written commentary on these interactions (see Bonfante 1981: passim). These close relationships in Etruria, so much a part of daily life, are reflected in Etruscan mortuary arrangements. The evidence suggests that males and females both were placed in the preferred positions in tombs (on benches along the walls), although females may appear less frequently in these locations (cfr. Angle and Gianni 1985).

Bonfante (1981) discusses the nature of relationships between aristocratic Etruscan couples. These relationships, perhaps to different degrees, permeated all classes of their society. If so, such data would tell us a great deal about the structure of the society (cfr. Rapp 1977). This question can be explored directly through studies of the skeletal materials in the tombs of people of all social classes, and through the study of differential placements and treatments of individuals within tombs.

Nielsen's two recent studies (1985, 1988) focus on the question of the status of women in Etruscan society. Her principal concerns have included the importance of women in family dynamics during the period of change, when Roman influence was expanding throughout this area. Nielsen's studies, using data from the elaborately decorated burial chests and inscriptions on them as a direct source of evidence, provide an important basis for the interpretation of the osteological evidence.

In the area of Tarquinia the Monterozzi necropolis, as well as several others (e.g. Calvario, see Cavagnaro Vanoni 1989), have long been major sources of important information from all periods of Etruscan history. Earlier research, however, generally neglected the osteological findings. Pallottino's impressive review of the data from Tarquinia, which includes bibliographic citations for all previous studies, largely ignores the presence of skeletons within the tombs. However, Pallottino (1937: cols. 39-80) provides an important point of departure for subsequent reviews of the excavation on Monterozzi hill and the vast numbers of tombs recovered there (cfr. Hencken 1968: 183-220, 238-243, 258-275, etc.).

More than 30 years were to pass before an excavator in the Monterozzi area of Tarquinia was to recognize the importance of the human skeletal remains. Dr. Lucia Cavagnaro Vanoni (1972, 1977) provided two extensive articles detailing her work in the Calvario section of the Monterozzi necropolis. The second of these studies (Cavagnaro 1977) includes a notable anthropological appendix by Francesco Mallegni (1977), which followed by three years the generalized «craniometric» analysis of Etruscan made by Pardini and Bassi (1974). Mallegni's work focuses on traditional types of craniometric analysis, and does not provide individual measurements. Borgonini's work from nearby Grosseto (1975) also should be noted since it may offer useful comparative data on a regional basis. Mallegni's (in press) data from related work near Orvieto further adds to useful comparative research. All of the basic measurements from these studies, were they to be gathered together, could provide an interesting data base to which we could apply contemporary analytical techniques (Howells 1989; see also Buikstra *et al.* 1990 and Becker 1982).

An even more extensive study of skeletal materials later excavated from the Monterozzi necropolis (Mallegni *et al.* 1980) includes data from many of the burials excavated during the 1970s. However, Coppa and his colleagues found discrepencies in this publication and elected not to include the information in their comparative studies of paleodemography in central Italy during the Iron Age (Coppa *et al.* In press).

Skeletons excavated during the early 1980's are still in the process of being studied. Tomb 6179 at Tarquinia, excavated in 1986, produced a skeleton which I believe to be that of an adult female. Most of the human skeletal material recovered in 1987 now has had at least a preliminary study (Becker 1990; see also below). A complete investigation of these bones should provide extremely important osteological data which will be of use in comparative and microevolutionary studies throughout this region of central Italy.

The Monterozzi tombs excavated in 1989

During the sping and summer of 1989 a series of tombs were excavated at the area of the Monterozzi necropolis identified as Tarquinia Cimitero (Soprintendenze Archeologica per l'Etruria Meridionale). Skeletal material was recovered from many of the tombs in this series, from Tomb 6249 to 6286. These tombs, inlcuding both inhumations and cremations, are dated primarily to the late IV and III centuries B.C. with some of later date. The author was in Italy during May and June of 1989 and was able to schedule periodic visits to the excavations to assist in skeletal recovery and to take measurements of fragile bones and of individuals in situ (Becker Ms. A). Other remains were transfered temporarily to Rome for study. Not all of this material could be evaluated in the short period available in 1989, nor was a complete inventory made of all the skeletal material recovered during that season, but a preliminary report (17 June 1989) provided the skeletal evidence then available. In August and September of 1991 the author returned to Tarquinia to continue this research in the Museo Archeologico Nazionale. At that time I identified several groups of human bone from the 1989 excavations not seen previously. This report includes these new data, providing a more complete evaluation of the human skeletons excavated in 1989. A thorough search of all the archaeological storage areas may produce further examples of human remains from the 1989 excavations.

The cremations, for the most part, were quite difficult to evaluate, as is generally the case with materials from urns in which the urn has been broken or otherwise disrupted. The bones, both creamted and inhumed, were studied «blind», without any information regarding the contexts from they came. Even those skeletons recovered by the author in the field were excavated only after all tomb goods had been removed in other to eliminate the possibility that such information might influence the conclusions based on the skeletal evidence alone. Subsequent to the osteological analysis the field data may be consulted in order to verify the accuracy of the analysis, but this has not yet been arranged. The evaluation noted below derive only from our study of the bones.

The methods employed in this study have been used with considerable success elsewhere in Italy (see Becker and Salvadei, in press). In all cases where adults are present an attempt has been made to evaluate gender. Where the evaluator is confident the conclusion is stated directly. Where doubt exists regarding the evaluation of gender, from 1 to 3 question marks are appended to the result (? = probably, ?? = possibly, ??? = may be). In no case should these evaluations supercede the archaeological (cultural) evidence recovered by the excavators. Stature has been calculated using the formuli published by Trotter and Gleser (1952, 1977), but the basic data from this site is being used to create an independent set of formuli by which Etruscan stature may be calculated (see Becker Ms. A).

No particular orientation of either the ancient tombs or their dromoi is evident, despite their situation along a hillside sloping sharply down to the west. The deep tomb chambers as well as loculi along each dromos had been carefully sealed by the ancients with stones set into a mortar-like material. These «walls» formed the chambers within which the sekeltons demineralized and decomposed to a considerable degree prior to being blanketed with a soft yellow-orange earth. The decomposition of the bone frequently left a thin shell of bone in place, but one which could not be recovered despite extremely careful excavation. Where this earth filtered into these chambers and surrounded the bone, the preservation of the skeletal material is quite good and removal of this earth is extremely easy.

MATERIALS AND METHODS

The burials were recovered from a series of deep tombs, each approached by a dromos, or from loculi sometimes appearing in the walls of these dromoi. Each tomb receives a number in the overall series which identifies tombs in the area of Tarquinia, and the individuals within receive either letter designations affixed to the tomb number or are otherwise identified in realtion to the position within the tomb. Usually the tomb chamber includes a «U» shaped bench around a floor area which is a continuation of the dromos leading into the tomb. The left side bench (*banco sinistro*) when facing into the tomb is distinguished from the right (*destro*) side as well as from the far end bench (*bando a fondo*). Loculi, or chambers along the dromos, are similarly distinguished as right and left from an orientation facing the chamber of the tomb.

Where possible the author made *in situ* measurements of stature and of individual long bones. This was intended to determine the «exact» height of these individuals as well as to serve in a specific program to determine the preferable method of calculating the stature of the Etruscan people base on the measurements of their long bones as compared with actual archaeological data.

Although calculations of stature were made using long bones, both individually and in combinations suggested by Trotter and Gleser (1952), the figure presented here will be that made from *in situ* measurement where it was available. Related data from earlier excavations have been published (Becker 1990), and complete skeletal data on a single female from a tomb excavated in the 19th century is available in Becker (in press B).

Note should be made that tombs 6245 and 6247 are from the Metanodotto 1989 salvage excavations. These bones are located in storage but have not yet been studied.

Findings

Tomb 6250: Male?? age 60-70 +; Adult(?) female.

The dromos entering this tomb leads down towards the east by northeast. The remains of 2 individuals, both in extended positions, were identified. Individual A, on the right bench with his head toward the west, was extremely difficult to identify by gender. During the initial study I tended toward an evaluation as «male» based on large brow ridges, and massive bases to the mastoids, although they both have pointy ends. The skull was still unfilled with earth, but much of the base of the skull and the area around the palate has rotted away, and the teeth had droped away from the upper alveolar area. These were recovered in fair numbers by the author, but the left mandibular area had been eliminated during the initial excavations within this chamber (2 of the teeth were recovered from the fill). The nasal turbinates were still in place when the skull was examined in situ. Recovered in this preliminary field observation were fragments of palate (with slight torus), a section of the basilar portion of the occiput, and fragments of other delicate skull bones as well as a left zygomatic arch. The size of these bones and the teeth led me to suspect that this person might be a female (F???). However, measurements of the postcranial skeleton confirm my original belief that this is a male.

Teeth recovered include the mandibular I1 and I2, and PM1-M3. The first

molar is worn at a sharp angle and right through the dentine, but not to the root. Only a slight bit of wear is noted on the mesial cusps of the M3, but below these cusps on the gum line is a severe carie. No trace of decay is noted on M2.

The maxillary dentition is present from 1I to M3. Both central incisors are shoveled, but the lateral has but a trace plus what appears to be a radical medial groove, giving the tooth almost a peg shape. The premolar roots are *not* bifurcate. M1 is also worn at a sharp angle, but in this example right down into the root on the mesial surface. Wear decreases radically toward the M3.

Suture closure on individual A suggests an age of 60 to 70 years at least, and possibly a great deal older. This person also had a badly repaired fracture of the right tibia below the midshaft (see photograph). The fibula, of which most of the shaft is present, was broken at the same point as would be expected. Only a 78mm. segment survives of the other fibula. The «healing» of the tibia and fibula left the leg some 3 cm. shorter as the bone was not set, but simply fused with an overlap. The pain must have continued to be considerable long after the bones had «rejoined».

Individual B, to the left with head to the east, is represented only below the femural necks. Since I recovered bits of the arm bones from disrupted earth one may infer that the skeleton was relatively complete prior to clearing excavations in this chamber. The surviving bones suggest that this is an adult (?), and amost certainly a female.

Tomb 6252: Three adult females, and a possible male.

This chamber tomb is approached by a dromos which leads down toward the northwest, but then curves slightly towards the north. The exact location of these skeletal remains has yet to be worked aut since much of the skeletal material had been removed prior to my work in this tomb. The material removed before my study and that removed after are not clearly identified. What follows are my observations of the material as I saw it and then the description of the skeletal material as it arrived in the laboratory.

Skeleton A was extended on the west (left) bank with the head toward the north. The entire skeleton from the necks of the femurs up were not present when I worked in this tomb, apparently removed in the course of recent excavations. These removed bones are what I believe to be «Lady X» from the bones of US 180 (see below). Of interest is that the bench seem to have had a slight depression carved into the surface, and the bones were found resting at a lower level than the rim of this bench.

Skeleton B was piled in the northeast corner of the tomb, largely at the extreme right of the bench «a fondo». These bones may represent a person originally deposited on the right (east) bench and subsequently piled into the position in which they were found. All major bones appear to be represented. A brief inspection also revealed a right maxilla missing M3, due to postmortem loss. Present are C-M2, with wear suggesting an age over 50 years. No skeleton was found on the east (right) bench, but the bones piled in the corner (skeleton B) may represent an interment which had been on this flat (right) surface. A second person (male?) may be among these bones.

Skeleton C, extended across the north or rear («a fondo») bench with head to the east, lies in a «crypt» carved some 15 to 20 cm. deep into the bench, more clearly cut into this surface than the depression in which skeleton A was found. Only the lower legs were exposed when I arrived to conduct a field survey, with the upper skeleton hidden beneath skeleton B. A brief exploratory test indicated that the left humerus and shoulder girdle of skeleton C were in correct position and in outstanding condition. Thus the skull and other parts of the skeleton can be expected to be undisturbed and easily recovered.

Examination of skeleton C and some measurements at first suggested that this person might be a female (F???), but possibly this person is a small male (M???). The left calcaneus appears to have the smooth heel of a young adult, age 35 ± 10 years, but evaluation of both age and gender should rely on the more substantial evidence expected when the entire skeleton is available for complete study.

The Remains as Recovered: A Preliminary Laboratory Review.

A large cluster of bones including at least 3 people was identified only as 6252 US 180. I believe that all of these bones, which include only 2 vertebrae, represent remains taken from the tomb before the date of my visit. The mixing of these bones into one unit probably reflect an inability to identify specific individuals during the initial digging in this chamber.

A. Female, age 55 ± 10 years.

The remains designated «Lady Y» include an almost perfect skull (with metopic suture), half of a mandible, the head of right femur, and a right humerus.

B1: Female, age 50 ± 10 years.

These remains, designated «lady X», include a perfectly preserved skull, a right femur, humerus, and radius, and much of the skeleton. These remains may have been on the right bench or perhaps in the pile of bone which I designated above as «B», and they actually may belong with B2 below. These remains may include not only those bones which represent another skeleton (B2, see below), but the right calcaneus (75.4 mm. long) which suggests an individual of about 65 years of age.

B2: Adult, male??

The head of a femur (d = 46.3 mm.) and a skull fragment are all that may represent the person whom I designated as «Mr. Z».

Separately bagged and identified are the following remains:

left Bench A: This includes bits of the legs of a female, which I presume to be the legs of 6252A which I saw *in situ* (Lady Y).

Deposit B: «Banchina al Fondo».

I believe that this includes the extended individual (C) as well as bones from the pile which represents person or persons «B». The skull probably belongs to one of the 2 skeletons I believe represented. Most of 2 sets of skeletons are represented, with a brief review indicating that the leg bones are nearly identical. I have assigned this lot as follows:

C: Female, 55 ± 10 years.

Represented by a nearly intact skull, but with seriously decayed teeth of which many were lost before beath. The slightly shorter set of leg bones have been tentatively put with this person. Another half of a mandible, not matching either of those in 6252 US 180, also is present.

Tomb 6253: Five adults (4 females and a male).

A single mass of bone identified only as «Tomb 6253 US 91» was found to contain a mass of bones which seem to be primarily major long bones. Whether this represents what could be identified by the excavators or what was left after disturbances in antiquity cannot be determined. These bones must be sorted and analysed. No mandibles were among them, nor were any alveolar margins nor teeth. The «5 people» identified were done on the basis of cranial remains alone. These are as follow:

- A: Female, age about 75 years (most of a skull, no face).
- B: Female???, age 65 + (much of the left side of a skull).
- C: Female??, age 22 ± 3 years (calotte).

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- D: Male???, age 65 + (a portion of the top of a skull).
- E: Female, age 70 + (a skull fragment smaller than D above).

Tomb 6254: 7 Adults (3M, 3F, 1?) and a child age 8.

The bones from this tomb were recovered from three different excavation units (102, 104 and 105) now determined to be a single context, presumably mixed through damage from looters. Several joins between broken bones from these 3 units provide the evidence that the distribution of these bones is the result of scattering which probably took place relatively recently. The pattern of damage, the different preservation of individual skeletons, and the absence of certain portions of the skeleton all indicate a disturbance. Unit 104 also contained many long bones of a small mammal, which may have entered this tomb after the scattering of the human bone.

The only child identified among the 8 people in this tomb is represented by portions of a skull and 2 long bone shafts, and is estimated to have been 8 ± 2 years of age.

The adults are represented by small collections of the bones of hands and feet, ribs, 6 each of fibulae, tibia, and radius, 4 ulnae and 4 clavicles, 5 scapulae, 2 calcaneus (1M & 1F), bits of 3 innominates, only 8 vertebrae, portions of 8 humerus (including the only intact long bone, L = 31.2 cm.), and portions of 13 femurs. The femur shafts appear to be in pairs, representing 7 people. and show variations in preservation which suggest that the adults were deposited over a long period of time and in different parts of the tomb. A nearly complete mandible of a male (age est. 35 ± 10) and a fragment of a female's (est. 70 ± 10) provide some indications of age. One skull is somewhat complete (6254A), but lacks the face, basilar area, and much of its right side. The few measurements and observations which could be retrieved were not taken in this preliminary study, but 6254A appears to have been about 60 years of age. However, as other skull and fragments in this series, some of the sutures appear nearly closed externally while others have hardly closed internally!

A: Male, age 60 ± 10 . Much of a skull

B: Male, age 35 ± 10 . Portions of parietals and a mandible.

- C: Female, age 70 ± 10 . Mandible fragment and piece of parietal.
- D & E: Females represented by skull fragments and femur shafts
- F: Male, femur shafts
- G: Child, age ca. 8 years.
- H: Adult

Tomb 6255: Cremation, female?, age 38 ± 10 years.

A great deal of burned material mixed with soot stained earth was collected from this cremation, and identified as US 190, with 3 sub-clusters labeled as 36, 37 and 38. Presumably these 3 units all reflected different parts of the same cremation, but they will be treated as independent elements. This material was sifted to remove the powdery fraction, and all of the «lumps» which remained, uniformly coated with a black, powdery earth so that no objects were recognizable, were washed. This revealed a number of interesting artifacts as follow:

The smallest cluster, designated 38, includes only unidentifiable bone frag-

ments, with the exception of 4 pieces of skull. Two of these come from the area of the occiput, and could be those of a robust female, age 35-40 years. The unit designated as «US 190/36» was somewhat larger in volume, being 3 kgs. of burned or carbon stained earth from which a sample of 900 grams was saved (30%). Some small carbon fleckes were sent to P. Kuniholm at the Institute for Aegean Prehistory at Cornell University for possible tree ring dating. Kuniholm (25 May 1990) identified the larger of the 2 flecks as *Ulmus sp.*, but notes that only 2 rings were present and this cannot be placed in a sequence.

The material recovered from «US 190/36» included only a small amount of bone (listed below) but also a great many interesting objects, such as the 5 bronze button-like objects which may have been studs on a wooden object. The best preserved of these is illustrated in *fig.* 1A. Five other flat pieces of bronze, the largest 25 mm. across, are twisted and without recognizable shape. A bone «pin» with a circular end is illustrated in *fig.* 1B. A small object, of unidentified material, is the size and shape of a human incisor. This has a wood-like color (light brown), but must be of bone, perhaps slightly charred. Some portions of the bones from the cremation have a similar color and texture. The material of which this piece is made appears identical to that from which a collection of pieces found in cluser 37 are made (see below), from which 3 representative pieces are illustrated in *fig.* 1E. Also in this group is a bit of charcoal, 2 small pectin shells, and about a dozen small fragments of pottery, of which the largest is a rim sherd of a large olla (?) with red and black stripes on the rim.

The 35 banrner bone fragment found in cluster 36 appear to be part of the cremated remains of one person. Only 2 phalange and 6 gracile pieces of skull can be identified, but since these cannot individually be placed on the skull they tell us little about gender. One of these 6 includes a bit of suture which suggests a relatively young adult, perhaps age 30-40 years.

The largers unit of earth in this series, Tb. 6255 US 190/37, weighed 24.8 kg. A sample of 2.4 kg. (10%) was saved. Very little material was found by sifting this earth, including more than 25 tiny bits of pottery, all under 2 cm. across, plus the small base of a vessel which appears heat fractured. A tiny fragment of Attic black glazed pottery was recovered as well as 2 bits of what may be local black glazed pottery. Two land snail shells and about 20 bits of marine shell also were recovered. Small bronze fragments are numerus and may be put into 4 categories: pellets, decorative studs, fibula, and other. Three pellets ranging in size from 4.5 to 6.5 mm. in diameter appear to have been spherical at one time. Five small items, 4 of which look like decorative studs, are all under 1 cm. in diameter. Ten bits of bronze appear as if they may come from a single fibula, which may be an artifact which could provide a date. The individual pieces are corroded, but perhaps when cleaned might be fitted together. About 15 small and shapeless bits of bronze may be part of the suspected fibula or could be almost anything else. Five small pieces of material which may be iron also were

separated out of this burned material along with what appears to be a thin steel scalpel blade fragment some 7 by 15 mm in length. A tiny piece of slag, which looks like a melted lump of glass, may be a product of the cremation fire.

Also in cluster 37 is a collection of over 20 small bits of what appears to be bone, the largest 3 being illustrated in *fig.* 1E. Some of these appear to be part of a long, thin bone blade with holes perforating it at intervals. However, no hole actually appears complete and when one segment broke by accident the resulting fracture, on one side, produced the same «hole» like curve in the center of the break rather than being a relatively direct or straight fracture line. Pieces of 2 ornamental bone rings were recovered from this mass (*fig.* 1C and D). Both have finely incised circles, now distorted by age or burning, and one has a series of fine bordering lines as well.

Most of the bones in cluster 37 are too fragmentary to identify. Some 15 skull fragments include only 1 larger than 1.5 cm. across. This piece includes a suture which suggest age, and the size again is that within the female range. A bit of a small fibula and the condyle from a left mandibular ramus all support the identification as female. Three tooth root fragments also appear to come from a female.

Tomb 6256: Human skeletal remains from this tomb were located in storage in 1991, but have not yet been studied.

Tomb 6262: Remains of 5 Individuals.

The main tomb chamber was «severely disturbed» (M: Slaska, pers. com.) and only a jumble of skeletal material was salvaged by the excavators. These bones (Tb. 6262 US 143) include 2 relatively intact skulls and the bones of at least 3 adults and an adolescent of about 15 years, provisionally identified as 6262A through 6262D. Most of the postcranial bones appear to belong to 2 adult males while the 2 skulls are those of the adolescent and a female. The young skull seems to be of an older person (18 years?), while the postcranial bones may be those of a younger person.

The postcranial bones identified, probably belonging to the 2 males (6262A and B), include 2 metatarsals/metacarpals, a few ribs, a corpus sternum, 1 vertebra and a fragment, portions, of 3 scapulae, most of a male innominate. No facial bones were recovered.

6262A: Adult male (see postcranial tables). 6262B: Adult male (see postcranial tables). 6262C: Male?, age 15 ± 2 years. This person is represented by a mandibular fragment, a bit of mentum with 4 worn incisors which appear to be those of an adult male. *However*, both canines clearly are *not* erupted, suggesting that this is part of the skeleton of the adolescent, 6262C, above, and much of the skull. All the sutures are open, and I had originally identified this person as being 18 ± 5 years of age. If this is the same person whose mentum and 5 teeth are noted above, then the age is probably at the low end of this range. The orbital margins are clearly male, and the slight development of the supraorbital torus probably reflects youth. The squamous portions of both temporals are present but not the mastoids. No facial bones were recovered.

6262D: Female, age 25 ± 5 years.

Most of the skull is here, with the sutures all open, but sufficiently united to hold together. The orbital margins are sharp and the left mastoid quite pointy, although it originates in a very broad base. Large bosses appear on the frontal bone. This skull can be largely reconstructed and good measurements should be secured.

6262 loc.: Female, age 70 + years.

The dromos, which leads down to the north, has a long loculus cut into the west wall (left side facing down to the tomb) into which this woman was placed. This loculus was then sealed with a stone wall leaving the body within a small open chamber. However, the individual in this loculus (T. 6262 loc. [US 257]) was not touched despite considerable activity in the area of this chamber in the form of digging of other tombs by these ancient Tarquinians.

This person (T. 6262 loc.) was buried in an extended position with her head to the north and face to the west. Beneath the right ear (right temporal) a small bronze earring was found. In general the skull had rotted to bits, but these sections provide good evidence for gender. The orbital margins are sharp and no supraorbital ridges are present. The right mastoid is both small and pointed. The size of the mandibular M1 (10.3×10.1 mm) also indicates that this is a female. Age is indicated by the complete closure of the cranial sutures, both internally and externally, and the advanced state of dental wear. A green stain over the right auditory meatus marks the position of the earring noted above.

Some alveolar margins remain, with teeth relatively in place. Quite probably some of the missing teeth were lost before death. The maxillary dentition is represented by I1-M2, with the left maxillary teeth (and possibly some left mandibular elements) most certainly lost through excavation. Most important is the fact that the premolars have single roots. The mandibular teeth are represented from 2PM-2I and PM1-M2 (see above). Clearly M2 and M3 had been lost before death. A tooth root, from which the entire crown had rotted, may represent any of the teeth missing from the mandible, except the I2. The left canine has a slight bifurcation in the root, a trait quite unusual even in this population and possibly reflecting an origin for this woman beyond Tarquinia.

Tomb 6268 Bones mixed with sherds in storage. To be STUDIED.

Tomb 6270: Cremation. Male???, age 25±5 years.

The bones are poorly burned (ca. 850 degrees?) and very fragmentary. Almost nothing can be identified except for 3 mandibular fragments, 3 tooth roots, and a very small bit of skull along an open suture. The tooth root size and some long bone fragments give me the *impression* that this just might be a male, but this is really not secure. The fact that only the smallest bit of skull survives leads me to think that this is a young adult.

Two items which appear to be straight pins (24 and 30 mm. long) may be of iron. Each appears to be wrapped or wound with wire or encased in a slag of some type. A small animal toe bone, apparently unburned, may have been in the fill of the tomb, as were the 4 small pottery chips also mixed with these bones.

Tomb 6272: At least 6 and probably seven or more individuals (A-G).

Human skeletal material from this chamber tomb was recovered from 3 principal areas, divided into 6 U.S. units. The largest and primary deposit appears to have been on the left bench (U.S. 215), and cross-fits between these bones from U.S. 215 were found in U.S. 214 (3 fits) and 216 (2 fits). Since U.S. 216 is the area of the right bench (201, 203, 211, and 214 are all from the «dromos»), a great deal of mixing of bone appears to have resuled from an earlier intrusion into this tomb. The types of breaks and the kinds of bones recovered clearly reflect an earlier disturbance. Cross matches have been found between bones from 201 and 214, both of which derive from the dromos.

Despite the disturbance, muche of the surviving bone provides at least some indication of the original positions of the occupants of this tomb. Individuals A-D appear to have been located on the left bench. The right bench appears to have held but a single adolescent (E), while bits of 2 other people (F and G) are indicated by materials recovered from the dromos. These last 2 people are minimally represented and originally may have been located on the benches, but evidence for people being placed on the chamber floor or in the dromos has been recovered from other chamber tombs in this area. In such vulnerable locations fragile skeletal remains easily can be destroyed. The following is an abbreviated listing, followed by a description of the remains on which this list is based.

- A: Adult male of great size (stature = 189.86 ± 4.00).
- B: Adult male (stature = 179.46 ± 4.00).
- C: Adult female??? (stature = 169.45 ± 3.72).
- D: Cremation of an adult, female???
- E: Female, age 15.5 ± 1 year.
- F: Adult female, age 65 + years (fragments only).
- G: Young adult??, female??? (small bits only).

Left Bench: Individual A is represented by a left tibia and most of a left femur of unusual size. Individual B is represented by the distal 2/3 of a right femur and the proximal half of the right tibia (see 214 for matching left tibia) plus a section of the left femur shaft and a right calcaneus. Person C is represented by most of the left femur and the proximal 2/3 of the left tibia (see dromos remains for matching right tibia).

The cremation, «D» is represented by 2 long one shaft fragments, 67 and 80 cm. long, and another shaft fragment, all probably burned at a temperature over 900 degrees. The former may be a humerus and the latter appears to be a fibula. Their condition suggests that no comminution took place, and that these remains must have been placed in a large container. Also among these bones is a skull fragment (Female???) made up of a section of occiput plus left parietal with on ossicle at lambda. The left leg of the lambdoidal suture has ossicles suggested externally, but the 4 grouped at the center of the leg appear as only a single bone internally. Suture closure suggests an age of 25 ± 5 years. Rib sections, bits of a radius, ulna and fibula, as well as some vertebral bits and parts of 2 scapulae and at least one innominate all derive from this context.

Right Bench: A single adolescent (Person «E»: age 15.5 years) is represented by a small piece of skull, scapula, sacrum, sternum (with deep green stain), innominate, and many rib fragments, plus a distal shaft section of femur and the not yet fused distal condyles (not yet 19), and most of the proximal 2/3 of both tibiae (the left proximal condyle is not fused, indicating an age below 18, and is missing) provide good indication of age. Both humeri are represented, with the distal condyles completely fused, thus suggesting an age greater than 15. The proximal condyle of the left ulna also is fused (which occurs by the 16th year), but the distal end is missing. A small section of radius shaft is present as well as half of a clavicle.

Mixed with this adolescent remains are the unburned remains of an adult (person «F») represented by a left maxilla with 7 teeth in place, with wear suggesting a mature adult (65 +) as well as most of a left clavicle shaft (mid-shaft diameters 13.2×9.6) which has the same color and condition as the maxilla.

Dromos 214: Most of a right and the shaft of matching left tibia possibly belong with individual «C». Also present is another tibia bit, a complete distal half of a tibia, and much of a femur shaft. The midshaft diameters are ca. 28.3×28.8 mm., suggesting that this may be a female (cfr. 6282), and this may be the shaft of the distal condyle noted below which is from this unit and *clearly* is female. Also present are a humerus shaft, and parts of 3 fibulae. Most curious is a bit of a massive femur (?) which may relate to individual «A», as well as what appears to be a distorted or diseased humerus shaft, also possibly from individual «A».

Individual «F», however, most clearly is represented by the distal condyles of a small adult female. The gender, and the fact that they were fused, clearly indicated that a sixth person is present.

Dromos U.S. 211: included few bones, but with numerous cross-fits with other units. It also includes a humerus (?) shaft which is larger than those of individual E, but still appears quite gracile. While this bone may relate to those of «F», I suspect that it is of a younger person (person «G») and is indicated as «Female???» only whereas the femur bit from «F» is certainly female.

Tomb 6275: Adult, male???

This tomb, with a dromos extending down approximately toward the northeast, was briefly investigated and found to have the remains of only one person situated on the right hand (eastern) bench, with his «head» to the north. Although damage to the skeleton was extensive some skeletal material from the left side, closer to the wall, was discovered including traces of bone from the middle of the left humerus to below the nutrient foramen of the left tibia. Included are some rib fragments and the left innominate, clearly indicating that this person was undisturbed from his original position within this chamber. What remained of the bone was fragmentary (see tables) and the conclusions are, of course, tentative.

Tomb 6276: 5 Adults and 1 Child [intrusive?].

The 5 people which I saw to be buried in this chamber are arrayed along U-shaped bench and on the floor within, which is a continuation of the floor of the dromos. Four are oriented east-west, while the 5th (E) at the «fondo» of the tomb is oriented north-south with the head north. The first 4 are identified from south to north, with A being on the south side of the south arm of the bench, head to the west. Individual B is to the north, at her left side, with head also to the west. On the floor within the bench lies individual C, head also to the west.

The north leg of the bench has individual D, head to the east, and also the remains of a child (D2). These remains were not seen when I was working in this chamber, and may have been below or among the bones of the adult (D1). They also may have been entirely disarticulated, and even possibly intrusive, but they should be studied in detail to determine possible origins as they are at the very edge of the age for which I believe that Etruscan children are interred in these chambers (ca. 12 years of age).

6276 A: male?, age 70 + . Two large pieces of skull are present and all sutures are completely closed. One molar and some tooth fragments were recovered.

B: Adult, female? Gender based on brief field examination

C: Female, age 28 ± 5 years. Excavated and evaluated by author

D1: Adult, female? The skeletal material is in extremely poor condition, possibly as a result of position within the chamber, or perhaps as a result of being an early interment. Bits of the skull survive, and possibly most of the dentition (which has not been recovered from the mass of earth brought back from the field).

D2: child, age 10-12 years [intrusive?]

E: Adult, female? A fairly well preserved skull, some teeth, and about half of the long bones were recovered. An earring was found at the left ear (cf. loculus burial).

Tomb 6277: Male, age 75 + years.

One old adult male was recovered from T. 6277 (US 273), noted as being «a cappuchina». The bones had severely demineralized, but diaphanous bits of the entire skeleton could be recovered. No *in situ* measurements were made as the skeleton was recovered prior to the arrival of the author. The bones are massive, the brow ridge is strongly developed, and the sciatic notches are acute. The teeth, although worn to the gum line in many case, are large. The right fibula is 19.7 mm. in diameter at the midshaft, and other evidence of size can be found in the tables below.

Age is suggested by the complete closure of all cranial sutures, with the exceptions of the temporals, and the extensive dental wear. Excavation activity appears to have removed the entire left maxillary area, and the 8 teeth presumed to have remained in it. Also missing post mortem are the mandibular 1I and 12. The only teeth clearly lost before death are the mandibular 3M and 2M. The anterior mandibular teeth are worn quite flat, while the distal dentition is worn at an angle down toward the distal ends of the dental arch. The 2I and 1PM are represented by tooth stubs, the former probably due to decay and the latter possibly due to breakage. No caries are noted on adjacent teeth. The M2 has decayed down to the separate roots, and the decay also appears to have severely attacked the M1 on the distal interdental area and beyond.

All 8 right maxillary teeth are present, with extensive wear deep into the dentine. The M2 appears to have lost the mesial-lingual cusp to decay, and caries may be the causes of holes into the roots of both adjacent molars rather than a lack of deposition of secondary dentine. No caries are clearly evident on either of these 2 molars.

Tomb 6279: Three adults (Male age 65 ± 10 ; adult female; and an Adult female??? [although the «associated» skull is male]).

This *buge* tomb is entered by a dromos which extends down towar d the northeast. The large U-shaped bench is in proportion to the scale of the chamber, and the people within also appear to be in proportion to size of the construction. This suggests that status may be seen in size of tomb chamber as well as in stature.

Individual A, an extremely robust male of at least 55 and probably closer to 65 years of age, lay extended on the right bench at the extreme southeast corner and with his head to the southeast (directly next to the entry into the tomb). No skull was with these remains, and much of the upper part of the skeleton was missing, leading me to suspect that this is a result of recente excavation damage. The right linea aspera is not only extraordinarily developed, but flares out laterally along the uppermost part, providing a cross-section similar to that of a steel I-beam. Age has been estimated on the basis of the roughening of the anterior surface of the patella and the dorsal aspect of the calcaneus.

Individual B is a robust female lying extended on the right bench with her «head» to the southwest, and nearly touching the feet of individual A. Her hips are in line with the front of the far bench so that her feet are close to the rear wall of the chamber. As with individual A the skeleton appears intact but no skull is present. While the stature of this woman is considerable, the small size of the heel bones suggests gender at the time of this brief field observation. The sciatic notches are intermediate, but probably feminine. At least 2 of the left metatarsals are fossilized and bronze stained [a mirror was recovered from this position over the left foot]. A bone (ivory?) ring, the size and shape of a small napking ring (29.5 mm. long by 33 mm. diam.) was close to the bones of the left foot but unstained with copper salts. This suggests that it has been between the feet.

Individual C is represented by a skull found in the fill about 30 cm. above the left hand bench at a level about parallel with the midsection of individual A. A bit further to the southwest in the fill, and 25 cm. above the level of the left bench, was a section of robust femur (see tables), but with a low linea aspera suggesting that it might belong to a female. Of course, the femur and the skull may not derive from the same individual. Although Dr. Slaska suggested that this skull may have come from the male (A) found on the right bench, this femur cleraly indicates that at least a third person was present. No remains were identified on the rear or left bench, and these «floating» remains suggest that a disruption occurred in this chamber prior to the recent excavations.

The skull representing person «C» is clearly that of a robust male (and possibly that of individual A). The sutures are entirely closed both interiorly and exteriorly, suggesting an age above 75 years. This also would agree with the data from individual A. The time limitations involved in this preliminary study prevented the full range of measurements and observations from being made, but some initial data appears in the tables and the complete information will be gathered at a future date.

Tomb 6282: Female, age 50 ± 10 years.

The bones of one adult were recovered from this tomb. Most of the remains are the major long bone shafts (see Table), but a fragment of the right frontal and some of the left maxilla also are present. The maxilla has 8 tooth spaces represented, but only I2-M2 are now in place (loss rate 0/8). A small collection of bone labeled «della fossa» includes the right radius shaft matching the left which is with the main group of bone. A second group of bone is a small collection of fragments which may have been gathered in the final cleaning of this tomb.

Tomb 6284: Male, age 70 ± 10 years.

The several small groups of bone recovered from this tomb all appear to derive from this single individual. A pelvic fragment with an acute sciatic notch and robust long bones suggest gender. Ribs are well represented, with many appearing swollen in a pattern that may suggest an anemia generated by malaria or similar disorder. The scapulae, 1 clavicle, 1 ulna, 1 tibia and both femura (see Table 3) are represented. Only 3 small vertebral pieces are present. The skull (Table 4) lacks the face and has significant damage to the basilar area. No mandible nor any teeth were recovered, perhaps reflecting extensive dental loss (cfr. the individual in Tomb 6286).

Tomb 6286: Male, age 75 ± 10 years.

These are the remains of one person, moderately well preserved. The face and base of the skull, like most of the epiphyses, have not survived intact. Yet a number of measurements and observations can be recorded (see tables). Most of the alveolar margin of the mandible is present, indicating that all teeth with the exception of the right canine had been lost before death, with considerable resorbtion having reduced the size of the corpus. The canine, along with a maxillary 1PM with a *trifurcate root*, were found loose. The cranial sutures are barely visible externally. Most of the postcranial skeleton is represented, but the ends of the bones and small elements are relatively poorly preserved. Their size suggests gender, as do the acute angles of the sciatic notches. A rounded concretion among these bones may be a gallstone or other internal formation.

Tomb XXII [provisional number]: In an Amphora from Monterozzi.

Tomb XXII [provisional Tomb number] was excavated in 1987. This tomb [final number to be assigned] contained a fine black-figured amphora, found filled with gray earth of a sandy texture. The skeletal material was separated in the laboratory and was not studied until 1989. The soil remaining in the amphora had been carefully sifted in 1988 to demonstrate that all the skeletal material had been removed (see Becker 1990: 31, n. 21).

In 1989 2 small bags of burned bone from this amphora were examined. Each holds about 75 grams of bone. One includes fragments of leg bones, probably femur, burned to a black color. The other holds smaller and totally unrecognizable fragments, also rather poorly burned (ca 800 degrees C.?).

This individual probably was an adult, but gender cannot be determined from this material. The size of the femur (?) fragments might suggest a male, but the evidence is too weak to permit even speculation on this subject.

MODERN BURIALS

A number of interments of humans and animals were encountered in the excavation area which appear to represent relatively modern intrusions, probably made within the past 100 years. On 14 June 1989 a grave containing the reminans of 2 children was examined. This grave, at a level considerably above the deeply dug Etruscan tombs, had no tomb furniture and contained only the extend skeletons of the children, with their heads to the south and both facing west. The child on the east was about 5 years of age at death, and the child to the west was about a year older. The older child, measuring 106 cm. in length, had the remains of a hair-like material beneath the head, possibly the stuffing from a pillow and even possibly the remains of the child's hair. measurements of the left and right femurs were 27.2 and 25.6 cm., but the epiphyses were slightly askew in both cases. The younger child had a stature of 98 cm. and femural lengths of 21.3 and 23.2 cm. respectively.

The potential for interpretation base on these data

A recently developed program of Etruscan skeletal studies (Pacciani 1989) holds the potential for providing significant data from this region. Many of the

past studies provide only limited data since the populations excavated at any one time tend to be quite small. This is the situation in the study of 6 individuals from Tarquinia done by Fornaciari and Mallegni (1986). Only 1 of these 6 was an adult, and this person was too poorly represented to be of use in comparative research. The craniological work done by Salvi (1986), and the excellent bibliography which he provides, is helpful in conjunction with the studies noted above of these populations.

The data produced by Mallegni *et al.* (1980) from skeletons also recovered from the Monterozzi necropolis at Tarquinia offer clues to these various problems. Their osteological data must be correlated with the archaeological data before we can decode the meaning of their calculations of stature. Our interest in comparing the statures of adults from *fossa* (and *pozzetto*) burials with the statures on individuals from chamber tombs is restricted by the presence of only one male (age 19) from such a context (Tomb 6096) in the non-chamber tomb sample (stature 172.00 cm.) and no females are represented. The computations of stature made Mallegni *et al.* (1980), using the data of Oliver and Tissier (1975), produce generally taller results than we have from the 1987 sample (see Table ²).

Information regarding the position of a skeleton within a tomb can provide a great deal of evidence regarding status *within* a family or household. We generally assume that the principal occupants of a tomb were placed along the major benches at the rear or sides of the chamber. A hierarchy of positions would help us to determine who were the masters and who were the slaves in each of these contexts. The presence of very short people in a high status tomb may reflect their position within the household. Burial in a high status tomb may reflect their association with high status people and not their *own* high status within the society. Since we do not know the specific points of origin within the tombs for any of these people evaluated above, we do not have the ability to infer social class or status from position alone. Furthermore, the 1987 excavation sample is too small to use for comparative purposes.

The information from these tombs excavated in 1987 will be important to any research on the population from Tarquinia, and the complete analysis of the

² In 1988 the study of some fragmentary remains found in 1987 (see BECKER 1990) produced the results which follow. The specific relationship to the tombs will be reported by the excavators F.97. P.68 (30.09.87): Female???, Adolescent???

Saggio IV: Ossa rinvenute sulle terre mista tagli 1 & 2 (de-47e-84). These remains were found together in a single location, but they had been disturbed (not found *in situ*). A very small quantity of burned bones (?), mostly tiny fragments, also were recovered from this context. All appear to be long bone shaft fragments, most of them altered in form although many are charred internally. A few pieces show evidence of curved fractures characteristic of relatively high temperature cremations. Soil conditions may have reduced evidence for porcelainization. One possible tibia fragment suggests a very small person, either a tiny female or an adolescent. The bit of marine (?) shell present may derive from the surrounding soil rather than grave offerings.

intact skeletons, such as 6190, will be essential to future studies. We must also have the archaeological evidence for when individuals were placed within a tomb, whether spaces may have been reserved for individuals, and whether cremated persons tended to be of lower status than those who were inhumed.

The cremations from this group of tombs also provides important information (see Becker 1987)). Bartoloni (1986:11-15, also Bartoloni *et al.* 1987) has provided important data concerning the hut urns from Tarquinia, and in particular noting the wide variations in the shapes found. Whether these variation reflect temporal variations, differing family (kin group) behaviour, or class-status differences may be determined only through the study of the people actually found within these urns.

The importance of the complete study of the inhumations from Tarquinia cannot be underestimated. The bones from the tombs excavated in 1987 have been given e preliminary review (Becker 1990), and now the bones from the 1989 excavations and the 1991 project also have been evaluated. The latter data is still being processed, but we now have here the results of the study of the 1989 tombs. A much more complete evaluation is needed to develop a complete understanding of the biological history and relationships among the Etruscans of various cities and at different times in history, and between the Etruscans and other peoples of central Italy such as the Sabines. A complete study of these and all other inhumations is essential to future research.

The evaluation of status, based on the osteological evidence for stature, provides information of great importance in making archaeological inferences. This technique, used with considerable effect in the New World (e.g. Haviland 1967), requires large numbers of well preserved skeletons, and a good archaeological record to be effective. As is so often the case in the Etruscan world, skeletal preservation rarely provides the kinds of information which we would like to have. The elaborate tomb chambers which were used by these people create environments which are quite destructive of the skeletal remains they were designed to hold.

A Summary of Data from Tombs excavated in 1987:

Number 6152-6209 (not inclusive).

Of considerable interest within the limited context of the 16 tombs excavated in 1987³ is the presence of 3 adult males and no females in Tomb 6183, while Tombs 6184 and 6199 appear to have a more balanced ratio of males to

³ Table 1 lists 16 tombs, most excavated in 1987, from which the skeletal remains recovered from 15 have been briefly reviewed (BECKER 1990). The cremated remains from still another context (F. 97.P.68) also have been studied and are noted in the text as well as at the end of Table 1.

females. Since individual 6183A (at 173.49 cm.) is the tallest person of all those for whom stature could be calculated in this small sample excavated in 1987 (see Table 1), it is possible that this tomb includes the members of a particularly wealthy family. Also possible is that at least one of the three adults in Tomb 6183 actually may be an unusually robust female, also reflecting very high status.

Of the 20 adults represented in these tombs only 4 individuals (3 male, 1 female) were sufficiently well represented by long bones to be able to calculate stature. The male range is from 173.49 to 157.5 cm., with an average of 166.01 cm. Perhaps of note is the observation that these calculated statures for the 3 males decline uniformly through the sequence. The exact spatial meaning of this, in the context of a very small sample, is not known. The correlation of these statures with the tomb distribution, which will require developing a map correlation in status (as determined by stature) as correlated with locations within this necropolis area.

In this regard, of note is the relationship between Tombs 6204 and 6205, which were close together, and the fact that both are near Tomb 6203. All 3 tombs include the remains of what appear to be adolescent males. In addition, both 6203 and 6204 include a bone or bone-like tool. The spacial and biological similarities may reflect use of specific areas for burying specific sets of individuals, a problem which should be addressed by future researchers.

Conclusions from the 1987 Skeletons (cf. Becker 1990)

The materials recovered reflect a relatively small number of individuals of varied ages and both genders. Given the statistical limitations of this sample they appear to reflect a normal population. The very fact that both genders are represented in nearly equal numbers suggests that women were enjoying approximately the same mortuary privileges as men. Comparative data from well preserved inhumations as well as cremations from this region generally are limited.

No evidence for an *os resectum* (Becker 1988a) was found with any of the cremations, but such unburned bones of the fingers might not have survived despite the relative alkalinity of the soil. No evidence for burned phalanges was found, and in general the cremated remains were unusually difficult to identify.

Tomb 6192 contained fragmentary remains believed to be those of a child (cfr. 6262C). Available evidence suggests that Etruscan children under 12 years of age may not have attained «adult» stutus and therefore may have been buried at different locations (cfr. Becker 1986b). Mallegni *et al.* (1980) have 56 skeletons in their sample (31M, 20F, 5 Juveniles), with no one under 12 years represented. The 20 people represented in the sample from the Calvario area of Monterozzi (Mallegni 1977) include only two sub-adults (nos. 14 and 16), and the younger

of these two is 11 to 12 years of age. Tomb 6254 (1989 excavations), however, includes remains from 7 adults and a child who may have been as young as 8 years of age.

Nielsen (1988) hase noted that the higher status individuals in these tombs are probably males, who *appear* to be represented nearly twice as often in recovered tomb contexts [emphasis mine]. As Nielsen notes, the males tend to be buried in stone chests (alabaster, travertine), or in large stone sarcophagi. Women are more likely are buried in smaller chests, and may be the principal occupants of the small pottery urns which appear in Etruscan chamber tombs. These ceramic urns have been the subject of study since 1987, and I now believe that they replaced wooden prototypes at Chiusi, but elsewhere perishable wooden examples, perhaps in variant shapes, continued in use.

Stature may reflect status differences beween males and females as well as social class variations. Some suggestion appears that status differences may be recognized in this cemetery on the basis of statural differences. On the basis of this sparce evidence from this group, women and adolescents may have been more likely to have been cremated than men at this period. Less probable is that the remains of males who where cremated were buried at a different location (see Becker 1986a).

Additional information and tentative conclusions from the 1989 tombs (6250-6286) from the cimitero area.

1. Taller individuals in this population may be associated with the larger chambers in this necropolis, but this can only be confirmed when the archaeological and anthropological data are brought together. Tomb 6272 includes the 2 tallest males in this population as well as the tallest female in the entire sample. The tallest male measures 189.86 cm. in height (6' 2.7'').

If status may be seen in materials buried with these individuals, as well as in the size of the chambers/tombs themselves, then both food and nutrition (as seen in the stature of these individuals) should be yet another variable by which status may be inferred. Recognition must be given to the probability that higher status people most likely had servants/slaves (lowest status) buried with them, so average stature per tomb may not be a useful figure to use.

2. The woman in Tomb 6262 loc. has an unusual bifurcate *canine* root but no evidence of bifurcate maxillary premolars common in this region, leading me to suggest that she may not be a native of the area of Tarquinia. She may be a foreign woman who had married a local person, a tradition which should be investigate through studies of skeletal biology as well as archaeological data (cfr. Becker, in press).

3. Individuals placed in these tombs appear not to have been disturbed in

antiquity. The ancient Etruscans do not appear to have gathered bones of their dead to be placed in other locations, nor do we have evidence that bones were swept to the rear or side of benches, or onto the floors of the chambers. However, this could be an artifact of excavation technique. Since I never excavated an intact tomb, but only did final recovery of skeletons which *had been recognized and given preliminary cleaning*, quite possibly random and mixed bones may have been missed.

4. If no bones were relocated by the Etruscans, this suggests that individuals buried closer to the walls of a chamber were interred prior to those closer to the entry; and that individuals buried on the floor (e.g. T. 6276C) were the last to be placed in the tomb.

5. Of the 40 individuals identified, only 4 (10%) were cremated.

6. Of the inhumations the youngest individual identified is 8 (?) years of age (Tomb 6254) and another is 11 years of age (Tomb 6276 D2). Only 2 adolescents could be recognized (ages 15 and 15.5 years). These 4 are the only subadults in a population of 40, and the next youngest is 22 years of age while most of these skeletons are of mature adults. Clearly children *appear* to have been buried elsewhere, or their skeletons are not being recovered from these contexts.

7. Of these 40 people, 15 are identified as male and 23 as female (with 2 unknown). However, 5 are listed as «F???» and only 2 are «M???» which suggests that some of these females probably are incorrectly identified. Where stature can be calculated, indicating that enought bone survives to take measurements, the gender ration is a perfect 1:1 (10 males and 10 females).

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REFERENCES

Angelotti, G.

1909 Intorno a due tipi cranici del territorio Etrusco. Atti della Società Romana di Antropologia 15:285-307.

ANGLE, M. and A. GIANNI

1985 La morte ineguale: dinamiche sociali riflesse nel rituale funerario. Il caso della necropoli dell'età del Ferro di Caracupa. Opus IV: 179-212.

BARTOLONI, GILDA

1986 La storia del popolamento nell'Etruria meridionale protostorica: aspetti e problemi. Analecta Romana Istituti Danici 15: 7-18.

BARTOLONI, GILDA, F. BURANELLI, VALERIA D'ATRI, and ANNA DE SANTIS

1987 Le Urne a Capanna Rinvenute in Italia. Rome: Giorgio Bretschneider.

BECKER, MARSHALL JOSEPH

1982 Human Skeletal Analysis and the Study of the Prehistory and Early History of Southern Italy: The Development of a Program of Collaborative Research between Physical Anthropology and Archaeology. Studi di Antichità 3: 133-153. Congedo Editore: Galatina.

- 1986a An Ethnographical and Archaeological Survey of Unusual Mortuary Procedures as a Reflection of Cultural Diversity. Par Pass 226: 31-56.
- 1986b Mandibular Symphysis (Medial Suture) Closure in Modern Homo sapiens: Preliminary Evidence from Archaeological Populations. American Journal of Physical Anthropology 69: 499-501.
- 1987 Analisi Antropologiche e Paleontologiche: Soprintendenza Archeologica di Roma, Appendice I (pages 235-246) of Le Urne a Capanna Rinvenute in Italia, edited by G.P. Bartoloni. Roma: Giorgio Bretschneider.
- 1988 The Contents of Funerary Vessels as Clues to Mortuary Customs: Identifying the Os Exceptum. Pages 25-32 of, Proceedings of the 3rd Symposium on Ancient Greek and Related Pottery [Copenhagen, 1987], edited by JETTE CHRISTIANSEN and T. MELANDER. Copenhagen: Nationalmuseet.
- 1990 Etruscan Social Classes in the VI Century B.C.: Evidence from Recently Excavated Cremations and Inhumations in the Area of Tarquinia. Pages 23-35 of, Die Welt der Etrusker: Internationales Kolloquium, October 1988. Edited by Huberta Heres and Max Kunze. Berlin: Akademie-Verlag.
- In press A Giants' Tombs and Collective Burials in Sardinia: Identifying Chiefdoms through Mortuary Practices. Studies in Sardinian Archaeology IV, edited by Miriam Balmuth (in press).
- Ms. A Etruscan Stature as Derived from In situ Measurements in Ancient Tombs.
- BECKER, MARSHALL JOSEPH
- In press B Seianti Hanunia Tlesnasa: An analysis of her skeleton in the Sarcophagus at the British Museum. StEtr.
- BECKER, MARSHALL JOSEPH and LOREDANA SALVADEI
- In press Osteria dell'Osa: An Analysis of the Human Skeletal Remains from an Iron Age Necropolis [working title]. Volume III of the Excavation Report. Rome: Quasar.
- BONFANTE, LARISSA
- 1981 Etruscan Couples and Their Aristocratic Society. Pages 323-343 of, Reflections of Women in Antiquity, edited by Helene P. Foley. New York: Gordon and Breach. (Reprinted 1981 in Women's Studies 8: 157-187).
- Borgognini Tarli, S.M.
- 1975 Studio antropologico di resti scheletrici etruschi rinvenuti nella necropoli di Sovana M. Rosello (Grosseto). Atti della Società Toscana di Scienze Naturali, Memorie, Serie B. Volume 82: 45-96.
- BUIKSTRA, JANE E., SUSAN R. FRANKENBERG and LYLE W. KONIGSBERG
- 1990 Skeletal Biological Distance Studies in American Physical Anthropology: Recent Trends. American Journal of Physical Anthropology 82: 1-7.
- Catuzène, G.
- 1909 Contribution à la craniologie des Etrusques. L'Antropologie 20: 329-352.
- CAVAGNARO VANONI, LUCIA
- 1972 Tarquinia Sei tombe a camera nella necropoli dei Monterozzi, località Calvario. NS 26: 148-194.
- 1977 Tarquinia (Viterbo). Sei tombe intatte nella necropoli dei Monterozzi in località Calvario. NS 31: 157-210.
- [1989] Aspetti inediti della necropoli del Calvario. Pages 311-324 of, Gli Etruschi di Tarquinia, edited by Maria Bonghi Jovino. Modena, Italy: Edizioni Panini.

CIPRIANI, I.

- 1927 Su alcuni crani etruschi della Marsiliana. StEtr 1: 391-405.
- COPPA, A., P. COLAROSSI, M.E. DANUBIO, D. MACINELLI and P.P. PETRONE
- In press A Aspetti paleodemografici in campioni di popolazione adulta dell'Italia Centro-Meridionale durante l'età del Ferro. Antropologia Contemporaea.
- CRESTA, M. and F. VECCHI
- 1969 Caratteri metrici e morfologici in tre gruppi di crani di antiche popolazioni dell'Italia. Riviste Antropologiche 66: 187-198.

DAVIDE, D

1959 Contributo alla tipologia etrusca. ArchAntrEtn 89: 37-90.

FORNACIARI, GINO and FRANCESCO MALLEGNI

1986 I resti scheletrici umani. Pages 197-199 of, Gli Etruschi di Tarquinia, edited by Maria Bonghi Jovino. Modena: Edizioni Panini.

FRASSETTO, F.

- 1906 Crani rinvenuti in tombe etrusche. Riviste Antropologiche 12: 155-182.
- 1907 Crani felsinei del V e IV secolo a. Cristo. Riviste Antropologiche 13: 55-69, 341-362. GIOVANNOZZI, U.
- 1903 Di alcuni crani etruschi della necropoli di Orvieto. ArchAntrEtn 33: 611-613.

HAVILAND, WILLIAM A.

1967 Stature at Tikal, Guatemala: Implications for Ancient Maya Demography and Social Organization. American Antiquity 32: 316-325.

HENCKEN, HUGH

1968 Tarquinia, Villanovans and Early Etruscans. Cambridge, Massachusetts, Two volumes. American School of Prehistoric Research, Peabody Museum, Harvard University. Bulletin No. 23.

HOWELLS, W.W.

1989 Skull Shapes and the Map: Craniometric Analysis in the Dispersion of Modern Homo. Papers of the Peabody Musaeum of Archaeology and Ethnology. Volume 79. Cambridge: Harvard University Press.

MALLEGNI, FRANCESCO

- 1977 Esame dei resti scheletrici umani rinvenuti in sette tombe Etrusche della necropolis di Monterozzi (Tarquinia). Appendix (pages 205-210) of, «Tarquinia» by Lucia Cavagnaro Vanoni. NS 31: 157-210.
- [1979] Note antropologiche dei resti scheletrici umani rinvenuti in 4 tombe etrusce in località «Cannicella» (Orvieto). [in press]
- MALLEGNI, F., G. FORNACIARI, and N. TARABELLA
- 1980 Studio antropologico dei resti scheletrici della necropoli dei Monterozzi (Tarquinia). Atti della Società Toscana di Scienze Naturali, Memorie, Serie B (1979), Volume 86: 185-221.

Messeri, P.

- 1953 Contributo all'antropologia degli Etruschi. ArchAntrEtn 83: 67-80.
- 1954 Studi antropologico di quattro scheletrici etruschi. ArchAntrEtn 84: 5-45.
- 1963 Scheletri etruschi provenienti da Populonia (Piombino-Prov. Livorno). ArchAntrEtn 93: 169-189.

MORANT, E.M.

1928 A preliminary classification of European races based on cranial measurements. Biometrika 20B: 301-375.

NIELSEN, MARJATTA

- 1985 Women in Late Etruscan Society. Pages 192-202 of, Fromhed & Verdslighed I Middelalder og Renaissance. Edited by K. Jexlev. Festskrift til Thelma Jexlev. Odense: Odense University Press.
- 1988 Women and Family in a Changing Society: A Quantitative Approach to Late Etruscan Burials. Analecta Romana Instituti Danici 17: 67-95.

OLIVIER, G. and H. TISSIER

1975 Determination de la stature et de la capacité cranienne. Bulletin et Memorie de Societe Anthrop. Paris. Vol. 1:1-11.

Pacciani, Elsa

1989 Resti scheletrici umani di insediamenti etruschi: Repertorio della collezione giacente presso la Soprintendenza Archeologica per la Toscana. StEtr 55 (1987-88): 221-226. Pallottino, M.

- 1937 Tarquinia. MonAntLine 36: columns 4-616.
- PARDINI E. and P. BASSI
- 1974 Gli Etruschi (Studio craniologico). Atti Società Toscana di Scienze Naturali, Memorie, serie B, Volume 81: 161-196.
- PFANNENSTIEL, D.
- 1955 Studien an etrusckischen Schädeln. Bulletin der Schweizer Gesellschaft der Anthropologie und Ethnologie 31: 85-96.
- RAPP, RAYNA
- 1977 Gender and Class: An Archaeology of Knowledge Concerning Origin of the State. Dialectical Anthropology 2: 309-315.
- Salvi, Florida
- 1986 Pontecagnano e l'Etruria: analisi statistica di un confronto cranioligico. StEtr. LII, 1984: 185-209. SCHLAGINHAUFEN, O.
- 1953 Ein Etruskerschädel aus Montepulciano. Bulletin der Schweizer Gesellschaft der Anthropologie und Ethnologie 29: 17-27.

SCHWIDETZKY, I.

- 1972 Vergleichend-statistische Untersuchungen zur Anthropologie der Eisenzeit (letztes Jahrtausend v.d.Z.) Zeitschirft für die vergleighende Forschung am Menschen (HOMO) 23: 245-272.
- Sergi, G.
- 1907 I sepolcreti di Novilara. Atti della Società Romana di Antropologie 13: 129-142.
- 1933/4 Gli Etruschi Un nuovo studio. Riviste Antropologiche 30: 3-22.
- TROTTER, MILDRED and GOLDENE C. GLESER
- 1952 Estimation of Stature from Long Bones of American Whites and Negroes. American Journal of Physical Anthropology 10: 463-514.
- 1977 Corrigenda to «Estimation of Stature from Long Bones of American Whites and Negroes». American Journal of Physical Anthropology 47: 355-356.

Tomb Number	Date	Cre	/	Inh	Age	Gender	Stature
6152	A* B* C*			XX XX XX	65 + Adult 43 ± 7	M M F	
6179*	[1986]			?	Adult	F	
6183	A* B* C*			XX XX XX	20± 50++ A	M M M	173.49±2.99
6184	A* B* C*			XX XX XX	65 + 48 A	F??? F M???	
6187		XX			35 ± 10	F???	
6188*				XX	35 ± 10	М	
6189*				XX	А	M?	
6190* 6192				XX XX	65 + Juv./Child??	M? ?[see not	167.048±2.99 es]
6194				XX	А	Ş	
6199	/I* II* III* IV*			XX XX XX XX XX	A A A A	M?? F M? F???	154.14±3.72 (est.)
6200	A B			XX XX	60 + A	M F???	157.5 (est.)
6202*	No skelet	al materi	ial st	udied.			
{ 6203 { 6204 { 6205**		XX XX XX			15-17??? Adoles. 13±3	M??? M??? M????	
6209		XX			25	M??	
F.97.P.68		XX			Adol.???	F???	

TABLE 1. - Summary: Data from the 1987 Tomb Excavations (from Becker 1990).

Average Stature: Males (N = 3) : 166.01 cm.; Female (N = 1) : 154.14 cm.

* These skeletons were briefly noted, but remain to be studied. ** These remains were in a simple olla.

Tomb	Number	Cremat. /	Inhumat.	Age	Gender	Stature *
6250 6250	A B		XX XX	68 A?	M?? F	169.6 cm. 152.9
6252	А		XX	55	F	155.37
6252	B1		XX	50	F	161.90
6252	B2		XX	А	M??	_
6252	С		XX	55	F	157.77
6253	A		XX	75	F	
6253	В		XX	65 +	F355	
6253	D		XX VV	22 65 i	F77 M222	_
6253	E		XX	70 +	F	_
6255	_	XX		38	F?	_
6262	А		XX	А	М	168.31
6262	В		XX	A	M	171.32
6262	С		XX	15	M?	
6262	D		XX	25	F	
6262	loc.	3737	XX	/0 +	F	159.57
6270		XX	****	25	M????	-
6272	A		XX	A	M	189.86
	C		AA XX	A	E222	169.45
	D	XX	2122	A	F???	
	E		XX	15.5	F	_
	F		XX	65 +	F	—
	G		XX	YA	F???	_
6275			XX	А	M???	174.44
6276	А		XX	70 +	M?	157.68
6276	B		XX	A	F?	148.3
6276	U D1		XX VV	28	F F2	161.05
6276	D2		XX	л 11	5 T.L	_
6276	Ē		XX	A	F?	151.9
6277			XX	75 +	Μ	167.61
6279	А		XX	62	М	175.6
6279	В		XX	А	F	163.5
6279	С		XX	А	F???	
6282			XX	50	F	—
6284			XX	70	Μ	—
6286			XX	75	Μ	175.1
«Tomb	XXII»	XX		A?	5	_
TOTAL	.S	4	36		M = 15/F = 23	
Average Sta	<i>ature</i> : Males Fema	(N = 10) 17 les $(N = 10)$	2.9 cm. Ran 158.2 cm. Ra	ge: 157.7-18 ange: 148.3	89.9. -169.45.	

TABLE 2. - Summary of Data from the 1989 Tomb Excavations.

* The stature given here is the *in situ* measurement taken by the author, where this information is available. Otherwise the figure given is calculated using the formulae provided by Trotter and Gleser (1952, 1958). Where a considerable discrepency is noted, the figure listed here is that of the calculated stature.

Buria	al Number:	6250 A R - L	6250 B R - L	6252 A R - L	6252 B1* R - L	6252 C R - L	
Clavicle							
Humerus:	Max L. (HuL1) Head d. Distal Br			22.2E -			
	Midshaft A-P. Lat.	- 2.20 - 1.84		2.10 1.98	2.12 - 1.51 -		
Radius :	Max L. /RaL1)			20.8E -			
Ulna :	Max L. (UlL1)						
Femur :	Max L. (FeL1) Subtroc. A-P. Lat. Midshaft A-P. Lat.	44.6 2.52 2.53 3.44 3.40 2.67 2.63 2.96 3.04	40.2E 40.0E 2.42 2.74 2.43 2.58	40.8e 41.0e 2.3 3.3 2.45 2.77	- 43.5 2.62 - 3.02 - 3.00 - 2.50 -	d - 2.70 - 3.20 - 2.70 - 2.60 -	
	Head d. Distal Br.	4.87	-	7.20	7.0e		
Tibia :	Max. L. (TiL1) Nut. For.A-P. Lat.				34.8 34.7	- 34.5	
Fibula :	Max. L. (FiL1)					- 33.5e	
Calcaneus	: Max. length				7.54 -	7.70 -	
Stature :	<i>in situ</i> Calculated	169.6 169.00 ±3.94	152.9 ± 3.72	155.37 ±3.72	161.90 ± 3.55	157.77 ±3.57	
Age Gender		68±10 M??	A? F	55±10 F	50 ± 10 F	55±10 F???	

TABLE 3. - Metric measurements of the post-cranial skeleton in Cms.

Notes: E = rough estimate, e = estimated to within 1 mm.

 \star 6252 B2 is represented only by an intact head of a right femur with a head diameter of 4.63 cm. suggesting a gender of Male? for this ADULT.

Burial Number:		6262 A R - L		6262 B R - L		6262 C R - L		6262 loc. R - L		6275 R - L	
Clavicle:			d		d						
Humerus:	Max L. (HuL1) Head d. Distal Br. Midshaft A-P. Lat.	d 2.3 2.1	2.4 2.2	đ	d		d 1.65 1.8		1.83 1.59		
Radius :	Max L. (RaL1)	d	d	d	d						
Ulna :	Max L. (UlL1)	d	d	d	d					-	26.3e
Femur : Tibia :	Max L. (FeL1) Subtroc. A-P. Lat. Midshaft A-P. Lat. Head d. Distal Br. Max. L. (TiL1) Nut. For.A-P. Lat.	44.3 3.0 3.7 3.0 3.0 4.8 7.9	d 3.0 3.7 2.9 3.1 4.8 d 3.7 2.6	d 2.8 3.4 2.9 2.7 d d 3.5 2.6	45.6 3.0 3.6 3.0 2.7 5.2 d 3.6 2.5	2.3 2.4 d 3.0 2.15	2.4 3.1 2.3 2.4	42.4	42.7 2.58 2.68 2.75 2.68	-	41.5E 3.0 2.7
Fibula :	Max. L. (FiL1)		d	d	d	d					
Calcaneus	: Max. lenght										
Stature :	<i>in situ</i> Calculated	168 ± 3	.31 .94	17 ±	1.32 3.94		-	15 15 ±	53.4 59.57 :3.72		174.44 ±4.72
Age Gender		Adu M	ılt	A	dult M	15 N	±2 {}?	70) + F		Adult M???

Table 3.	- Cont.							
Burial Number:		6272 A R - L	6272 B R - L		6272 C R - L		6272 E R L	
Clavicle:								
Humerus:	Max L. (HuL1) Head d. Distal Br. Midshaft A-P. Lat.						- 17.7 14.5	- 51.3 17.2 15.0
Radius :	Max L. (RaL1)							
Ulna :	Max L. (UIL1)							
Femur :	Max L. (FeL1) Subtroc. A-P. Lat. Midshaft A-P. Lat.	512E d 35.4 31.8	d 27.9 36.7 31.3 28.3	- - -	25.6 37.9 25.4 28.9	467e 25.9 37.7 26.7 30.9		
	Head d. Distal Br.	83e	80.5		-	d d		
Tibia	Max. L. (TiL1) Nut. For.A-P. Lat.	446 40.8 27.4	d 38.9 25.2	403 37.8e 26.7		d 33.6 23.0	29.2 20.8	30.1 20.7
Fibula :	: Max. L. (FiL1)							
Calcaneus	: Max. lenght		82.4					
Stature :	<i>in situ</i> Calculated	189.86 ±4.00	179.46 ±4.00		169.45 ±3.72			
Age Gender		A M	50 + M		A F???		15	5.5 F

+

Human Skeletons from Tarquinia

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Buri	al Number:	6276 A R - L	6276 B R - L	6276 C R - L	6276 D R - L	6276 E R - L
Humerus	: Max L. (HuL1) Head d. Distel Br				-	29.4E -
	Midshaft A-P. Lat.				1.59 - 1.90 -	
Femur	Max L. (FeL1) Subtroc. A-P. Lat. Midshaft A-P. Lat.	2.69 3.22 3.20 2.67	2.23 2.94 2.32 2.53	43.3e 2. 2. 2. 2. 2.	36 96 44 70	40.8
Tibia :	Max. L. (TiL1) Nut. For.A-P. Lat.	31.3	2.88 1.88	33.	6	23.9E -
Fibula :	Max. L. (FiL1)					31.2E
Calcaneus	: Max. lenght					
Stature :	<i>in situ</i> Calculated	155.5(e) 157.68 ±4.00	148.3	149.3 161.05 ±3.72	-	151.9 154.88 ±3.72
Age Gender		70 + M?	Adult F?	28±5 F	Adult F?	Adult F?

Tomł	Tomb Number:		77	6279	A A	627	9 B	6279	"C"
Humerus:	Max L. (HuL1) Head d. Distal Br. Midshaft A-P. Lat.	R -	L 2.4 2.1	R -	L	R -	1.85 1.08	R - May go w skull	L not 'ith ''C''
Radius :	Max L. (RaL1)								
Ulna :	Max L. (UlL1)		28.5ee						
Femur :	Max L. (FeL1) Subtroc. A-P. Lat.	44.0e -	43.7e 2.73 3.55	48.6 3.0 4.0	48.0	44.7	44.8E	2 79	
	Lat.		27.2	3.3	3.1	2.72	2.73	2.78	-
	Head d. Distal Br.	4.7 +	4.8 +		5.40 7.80				
Tibia :	Max. L. (TiL1) Nut. For.A-P. Lat.	4.05	3.21	38.7	38.8 4.00 2.62		35.1		
Fibula :	Max. L. (FiL1)				38.3				
Calcaneus:	: Max. lenght				8.70				
Stature :	<i>in situ</i> Calculated	167 ±3	7.61 .94	1' 1' ±	75.6E 76.49 3.74	163 164 ±3	.5E .51 .72		
Age Gender		75 1	i + M		65 M	Ad F	ult 7	Adı F??	ılt ??

Tomb N	umber:	6. R	282 - L	R	6284 - L	F	6286 - L
Clavicle:		-		d	-	d	d
Humerus: Ma He Di	ax L. (HuL1) ead d. stal Br.	d	d		-	d	ď
Mi	idshaft A-P.	22.2	22.3	-	+	26.0	24.0
	Lat.	19.0	18.9		-	21.1	20.5
Radius : Ma	ax L. (RaL1)	d	d	-		d	d
Ulna : Ma	ax L. (UlL1)	d	d	d		d	d
Femur : Ma	ax L. (FeL1)	d	d	d	d	d	d
Su	btroc. A-P.	24.3	24.9	26.1	26.3	26.8	27.5
	Lat.	31.3	31.8	34.8	35.9	32.6	37.3
Mi	dshaft A-P.	27.1	26.2	32.7	33.3	28.4	28.3
	Lat.	26.5	26.8	27.9	28.6	30.8	31.9
He Di	ead ad stal Br.	d	d	-	1	49.2	47e
Tibia : Ma	ax. L. (TiL1)	-	-		-	385	-
: Nu	it. For.A-P.	d	-	-	40.5	35.8	38.4
	Lat.	d	-	-	25.9	25.4	25.5
Fibula : Ma	ex. L. (FiL1)	-	-			373E	d
Calcaneus: M	ax. lenght	-	-			-	-
Stature : in : Ca	<i>situ</i> lculated						175,1 ±4.00
Age Gender		ŗ	50 722		70 M		75 M

TABLE 4. - Metric measurements of the skulls.

Measurement	Code	6277	6279 C (?)	6284	6286	6262 & D
Glabella-Occipital L.	GOL	198	190	190e	190	Remain
Nasio-Occipital Length	NOL	195e	187	187E	188	to be
Basio-Nasio L.	BNL		106e	107E	d	measured
Basio-Bregma Height	BBH		140e	137	d	
Maximum Cranial Breadth	XCB		140	140	137	
Maximum Frontal Breadth	XFB		125	123	122	
Bistephanic Br.	STB		125	117e	121	
Bizygomatic Breadth	ZYB		128	-	-	
Biauricular Breadth	AUB		Rest	126	-	
Minimum Cranial Breadth	WCB		ot	d	-	
Biasterionic Breadth	ASB		data	112e	-	
Basion-Prosthion Length	BPL		to	-	-	
Nasion-Prosthion Height	NPH		be		-	
Nasal Height	NLH		com-			
Orbital Height-Left	OBH		pleted			
Orbital Breadth-Left	OBR					
Bijugal Breadth	JOR					
Nasal Breadth	NLB					
Palate Breadth-Exterior	MAB					
Mastoid Height	MDH			30	34	
Mastoid Width	MDB			25	33	
Bimaxillary Breadth	ZMB					
Bimaxillary Subtense	555			100	,	
Bifrontal Breadth	FMB			102	d	
Nasio-Frontal Subtense	NAS			1	,	
Biorbital Breadht	EKB				d	
Dacryon Subtense	DK2					
Interorbital Breadth	DKB					
Naso-Dacryal Subtense	NDS WIND					
Simotic Unord	WIND					
Simotic Subtense	515					
Malar Length-Interior	IMB					
Malar Lengnt-Maximum	ANIL					
Charle I Leicht	IVILS					
Supporting Device tion	W MIR			L	(
Clabelle Projection	303			a	2 5	
Giabella Projection	GLS			27-	ر.ر	
Nasion Brooms Chand	FUL			27e	110	
Nasion Brooma Subtance	FRC			11UE	112	
Nasion-Dregina Subtense	FNS			22E 51E	2) 51	
Reame Lambda Chard				112	11(
Bregma Lambda Subtense	DAS			24	26	
Bregma Subtense Erection	DAE			24 45	20	
Lambda Opisthion Chard	PAF			4)	ر ر	
Lambda-Opisthion Subtana	000			105	a	
Lambda Subtense Eraction	OC5			55		
Lambda Subtense Fraction	OUL			, כנ	•	
Age		75	75	70	75	15 25
Gender		Μ	Μ	М	Μ	M? F

No.	Burial Number: Trait	6262 C /R - L	6262 D R - L	6279 C R - L	62 R	84 - L	62 R	86 - L
1.	Highest Nuchal Line	To be		0 - 0	0	0	0	0
2.	Ossicle at Lambda	com-		0	ī)		0
3.	Lambdoid Ossicle ¹	pleted		Rest of	?	1 +	1	2?
4.	Parietal Foramen	1		Data to	1	0	1	1
5	Bregmatic Bone			he com-	()		0
6	Metopism			pleted	()	,	0
7	Coronal Osciala			piereu	2	, S	S	
0	Enintenio Bana				d	; ქ	1	/
0. 9	Epipieric Done Fronto-Temporal articulation				d	d	-	-
10.	Parietal notch bone				õ	Õ	0	d
11.	Ossicle at asterion				?	1	/	d
12.	Auditory torus				0	*	d	-
13.	Foramen of Huschke				0	0	d	
14.	Mastoid foramen exsutural				0	1	?	-
15.	Mastoid foramen				1	1	1	-
16.	Posterior condylar canal				d	d		
17.	Condylar facet double				D L	D L		
10. 10	Anterior condular canal double				d	d		
20	Foramen ovale incomplete				u	u		
20.	Foramin spinosum open							
22.	Accesory lesser palatine foram.							
23.	Palatine torus							
24.	Maxillary torus							
25.	Sygomatico-facial foramen				1			
26.	Supraorbital foramen complete				d	d	1	1
27.	Frontal notch/foramen complete						0	0
28.	Anter. ethmoid foram, exsutural							
29.	Accessory infraorbital foramen							
31	Sagittal bone/s ²				()		Ω
32	Nasal guttering					<i>.</i>		0
33.	Incisor shoveling: Lateral							
34.	Incisor shoveling: Central							
35.	Gender				Ν	Λ]	M
36.	Age				7	0	-	75
Absen	t = 0; Present = 1; Trace = *; Damag	ed = d; Obs	scured = /.					

 1 List the number of ossicles in each leg. 2 List the number of ossicles exclusive of lambdoidal and bregmatic bones, numbers 2 & 5 above.