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Artificial Modification of Skulls and Teeth from Ancient Burials in Armenia

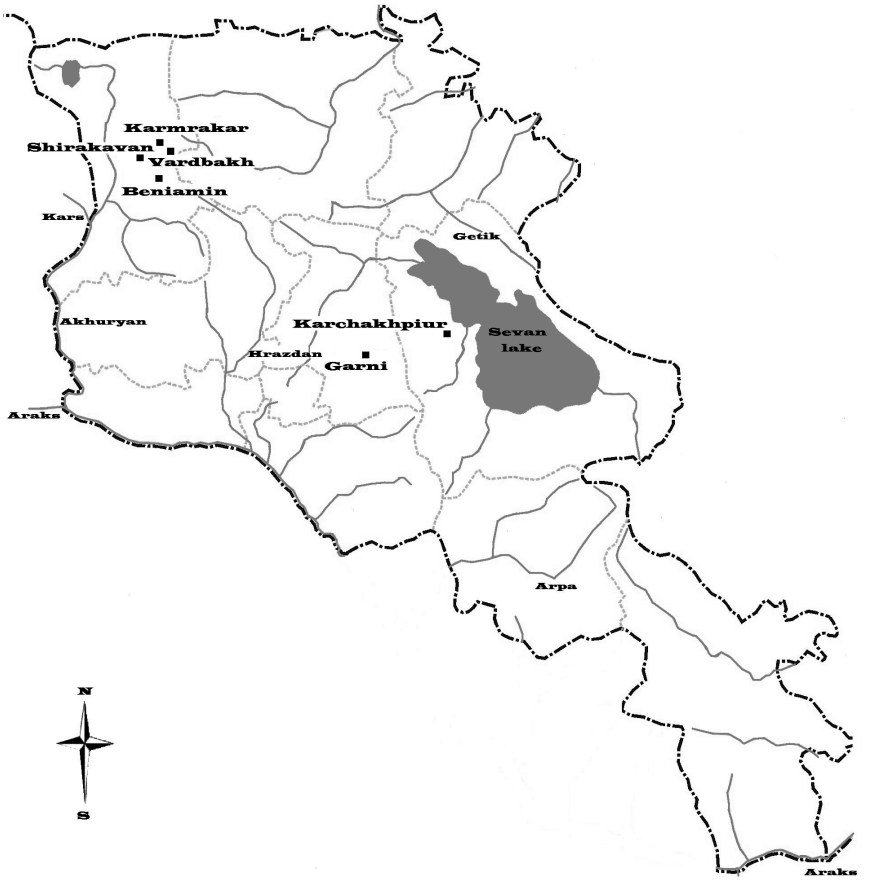
Anahit Khudaverdyan

Although the idea of "creating man in the image and likeness of God" had a worldwide popularity, almost as widespread in traditional cultures was the attempt to "fix the work of the Creator." And if some of these attempts have received a pragmatic interpretation, others still store secrets. In many cultures, and in various socio-cultural circumstances, we find proofs of artificial shaping of the human skull which correspond to the period between 45,000 B.C.E. and 600 C.E. (see also Lorentz 2010). Each category of such deformations contains several sub-types and variations. In this article, I concentrate on artificially deformed skulls from the burial grounds located on the Shirak Plateau in Armenia that date back to the period between 100 and 300 C.E.

Artificial Modification of Ancient Skulls from the Beniamin and Karmrakar Burial Grounds

The number of individual skulls found at the Beniamin burial ground[1] amounts to 218 (Khudaverdyan 2000). Clear signs of artificial deformation are noted in 4 adults and 26 children (Figs. 1–4). The deformation was achieved by various means and methods, such as bandaging and placing wooden, bone, or stone objects on the frontal and parietal bone. In

1 The Beniamin burial ground is located on the Shirak Plateau in western Armenia. The anthropological material presented in this article was collected during the research conducted between 1990 and 1997 by the Institute of Archeology and Ethnography under the guidance of Ter-Martirosova, and the employees of the city museums of Gyumri, with the assistance of Anahit Khudaverdyan.



Map: The distribution of main sites discussed in the text: Beniamin, Shirakavan, Karmrakar, Vardbakh, Garni, and Karchakhpiur.

the case of a one child's skull, traces of modification at an early age are still discernible (Fig. 3).

The artificial modification of those crania falls into three categories: "circular," "high," and "parietal." An example of "high" deformation is the female skull from the burial site no. 142 (Fig. 1). Similar deformation can be also observed in the case of ten infant and two male skulls from the burial sites 11 and 176 (Fig. 2) as well as one female skull from the site number 75. Certain differences between male and female deformations might have existed, but the small sample that we have at our disposal precludes any definite conclusions. The parietal type of deformation, with barely visible sagittal suture, can be observed only on the infant skull from the grave no. 6 (Fig. 4), although in this case one cannot exclude an unintentional physical damage either.

The circular deformation can be seen on the skull recovered at the Karmrakar burial ground. Unfortunately, this is the only cranium found up to date at this site, although future excavatios might throw more light on the practice of deformation in that particular area. Traces of hard objects placed on both sides of the frontal bone close to the coronal suture are clearly discernible. One can also observe a flat area, 2.5 cm wide, on superior temporal lines (Fig. 5). It is possible that the objects used to produce the deformation were removed even before the growth of the skull bones was completed.

Artificial Modification of Skulls Outside Armenia

Early evidence of artificial cranial modification has been also reported for the Near East. Examples are the skulls from the sites Shanidar 1 and 5, in northern Iraq (Trinkhaus, 1982), as well as the specimens dating back to the period between the 7th and the 4th millennium B.C.E., and recovered at the sites of Jericho, Ubaid, Seyh Hoyuk, Khirokitia, Byblos, Eridu, Tell Arpachiyah, Tell Madhur, Telul eth-Thalathat and Kurban Hoyuk (Lorentz, 2010). A male skull showing traces of artificial deformation dating back to the 4th millennium B.C.E., and recovered in Dagestan (Ginchi), has been analyzed by Gadzhiev (1975). On the other hand, Batieva (2008), Firshtein (1974) have found evidence of artificial deformation

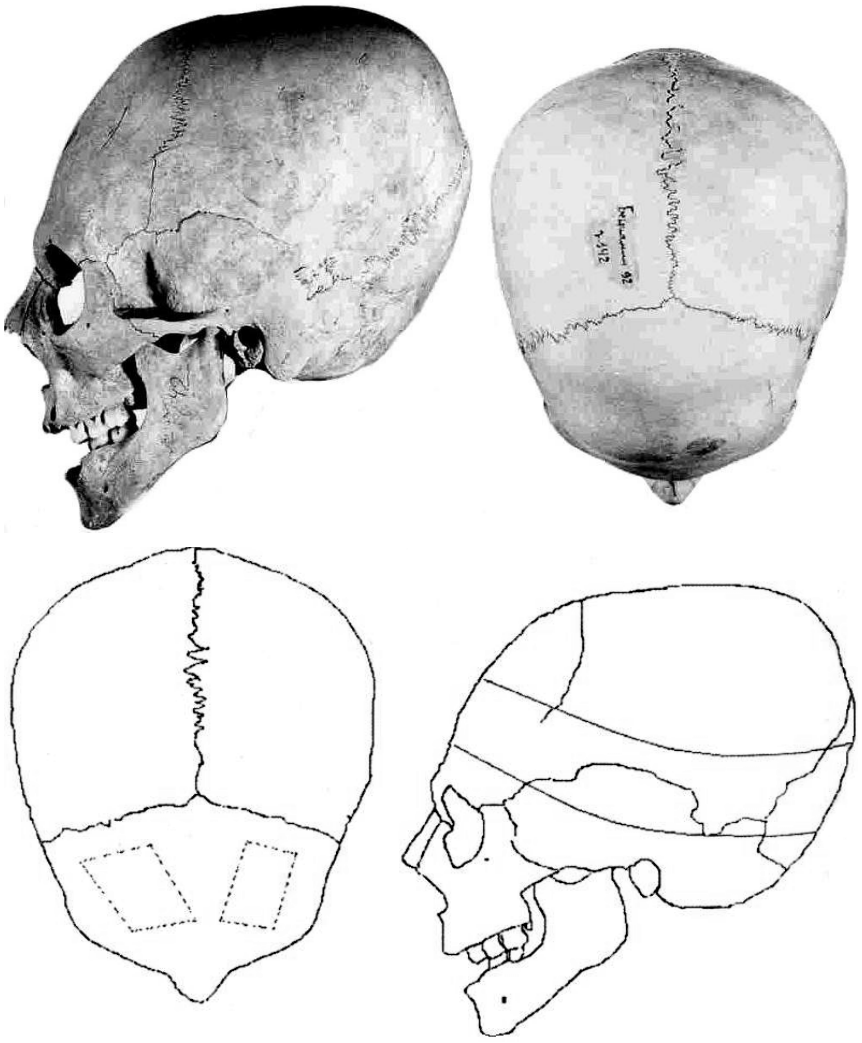


Fig. 1: Artificial skull deformation (Beniamin; burial 142, ♀ 20–30 years).

Fig. 2: Artificial skull deformation (Beniamin; burial 176, ♂ 30–40 years).

Fig. 3: Artificial skull deformation (Beniamin; burial 18, 0.5–1.3 years).

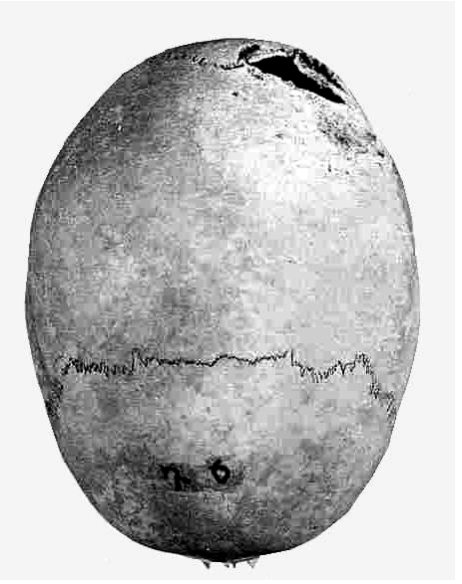


Fig. 4: Artificial skull deformation from the site Beniamin; burial 6, 1.3–2 years.

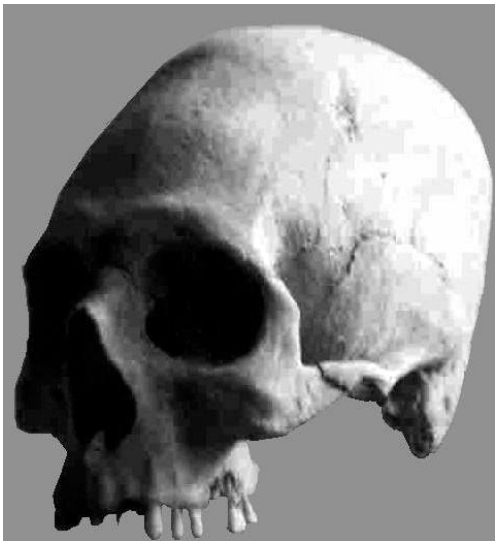


Fig. 5: Artificial skull deformation from the site Karmrakar; burial 1, ♂ 30–40 years.

of skulls during the Bronze Age in the area of Lower Don. Shevchenko (1986) has discovered the presence of skull deformation on the burial sites of the Catacomb culture, in what is today Ukraine (2800–2200 B.C.E.). This author also argues that the practice of skull deformation was brought to the area of the Catacomb culture from the Near East.

Other examples of provoked cranial deformation, dated at the 1st–3rd centuries C.E., come from Georgia (Samtavro) and Azerbaijan (Mingechayr) (see Khudaverdyan 1997). The skeletal material

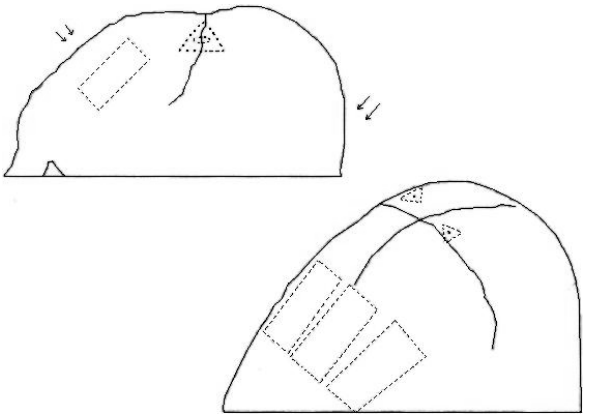


Fig. 6: Artificial skull deformation from the site Vardbakh; burial 3, ♀ 20–30 years

suggests, however, that the practice of cranial deformation have a longer tradition in the Caucasus, and its origin may be again traced back to the Middle East. Clear evidence of skull modification, which produced a significant (5–7 mm) deformation of the frontal and parietal bone, can be also seen on the specimen found at the Vardbakh burial ground (Fig. 6). One interesting feature of this specimen is the application of the pressure on the bones outside the area of sagittal and coronal sutures. Here it is possible to assume that the effect was produced by an object worn as a headdress, perhaps a sign of high social status (Fig. 7). One also needs to mention that skulls from the Beniamin necropolis with signs of artificial deformations show clear similarities to those from the burial sites in Moldova (Nikolaevka) and in Turkmenistan[2] (Khudaverdyan 1999, 2000).

In various archaeological cultures one can also observe evidence of brainbox modification made perhaps for therapeutic purposes (Mednikova 2003). Strouhal and Jungwirth (1981) have found evidence of such practice at Nubian sites. Interestingly, signs of trepanations are more frequently found on male skulls and rather seldom in female and infant cranial material. In Armenia, a case of trepanation was found on the frontal bone of a skull excavated at the Beniamin site, and dating back to the period between 100 and 300 C.E. (Fig. 1).

2 Bregmatic deformations of the skull – that is, those effectuated at the junction of the coronal and sagittal sutures – were identified in the ancient (200 C.E.) population of Meshreti-Takhta in Turkmenistan (Khodjayov 2000).

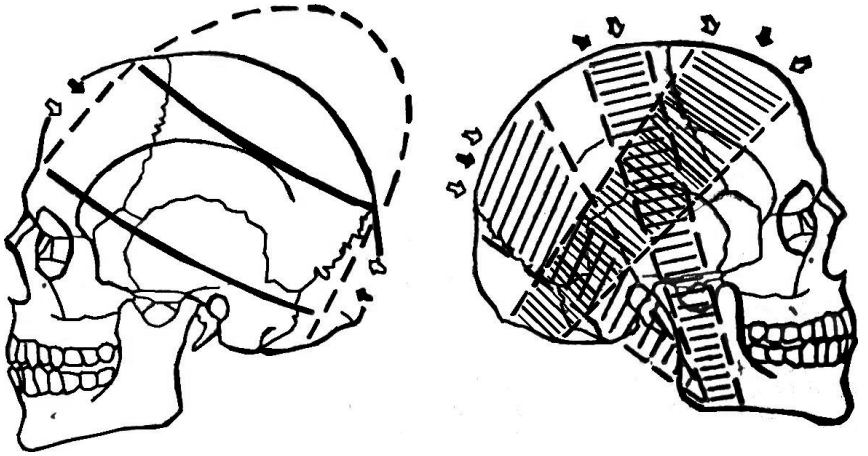


Fig. 7: Artificial skull deformation: a) pointing to a possible use of a headdress; b) showing the placement of sequentially introduced bandages.

Human Figurines Displaying Possible Evidence of Artificial Cranial Modification

A number of stone sculptures showing male and female heads have been excavated at various sites in Armenia (Fig. 8–13). Although a detailed analysis of those objects is beyond the scope of this article, some of their stylistic features merit attention. The conical heads found in Shakhat (Fig. 8), Lysakert (Fig. 11), and Akdzhakal (Fig. 12), for instance, may either feature an artificially modified skull and/or a headdress or hairstyle worn on a deformed skull (Khudaverdyan 1997; Arakelyan 1976). Most likely these images represent ancestors of Armenian rulers which were displayed and venerated in temples of ancient Armenia (comp. Khorenski 1893). Similar objects have been also found in various areas of the Middle East (Daems and Croucher, 2007).

Fig. 8: Sculpture from the village of Shakhat (Arakelyan 1976: table III).

Fig. 9: Sculpture from the village of Shakhat (Arakelyan 1976: table IV).

Fig. 10: Sculpture from the city of Tejshebaini (Arakelyan 1976: table VII).

Fig. 11: Sculpture from Lysakert (Arakelyan 1976: table X).

Fig. 12: Sculpture from the village of Akdzhakal (Arakelyan 1976: table XII).

Fig. 13: Sculpture from Nerkin Dwin (Arakelyan 1976: table XVIII).

Artificial Modification of Teeth in Armenia

Another example of artificial body modification – namely, the filing of front teeth – can be discerned in the bone material excavated at Beniamin. Most likely, this practice was a component of initiation ceremonies. One can identify several instances of artificial deformation of teeth at the Beniamin necropolis. Thus, the upper teeth in the skulls from burial sites 18, 58, and 185 were removed and in one case the frontal teeth were filed (Fig. 14). Similar custom have been identified among several peoples of the Congo Basin and in North Africa (comp. Ivanovski 1901; Khudaverdyan 1997). The described

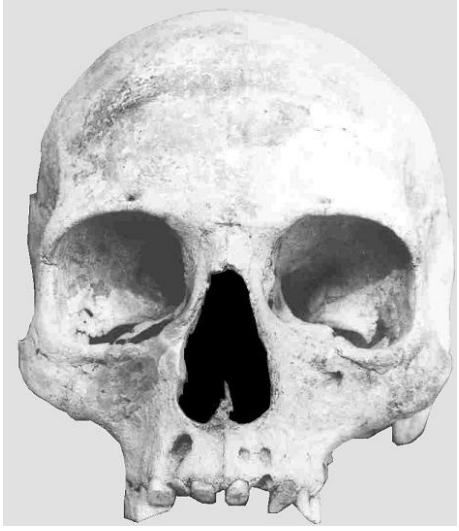


Fig. 14: Artificial deformation of teeth (Beniamin; burial 185).

Fig. 15: Deformation of teeth (Vardbakh; burial 4).

procedures could be performed only by people who possessed specialized knowledge and skills. Other tooth specimens, for instance the one found at the burial site no. 4 at Vardbah (Fig. 15), show signs of tear and wear perhaps resulting from using teeth as a working tool.

Conclusion

The phenomenon of artificial skull and teeth modification identified at ancient burials sites in Armenia certainly points to the emerging social complexity and class differentiation, and hence the need for social distinction, which in this case was accomplished through the use of body markings (Khudaverdyan 1999, 2000; Lorentz, 2010). The data presented and discussed here, particularly if combined with results of historical, archeological, and paleopathological research, are helpful in the reconstruction of that historical process in Armenia and the adjacent territories.

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Helping Australian Aboriginal Youth – In Turn Helping Australia

George J. Toepfer

Since 1967 there has been a concerted effort in some quarters to understand and acknowledge the first inhabitants of Australia, the Aboriginal nation as people. It has taken over forty years for most Australians to realise the rich traditions and vast wisdom of life and connection to the land that has been with the Aborigines for over 40,000 years.

Help has been sourced from many avenues to improve the lot of Aboriginal children and youth to give them a better future. The latest support has come from an interesting quarter with the launch of "Generation One" in March 2010. The date, the 20 March, may thus become a significant date for the future of Aboriginal youth. "Generation One" is an initiative of a group of high-profile entrepreneurs, who were prepared to put in their own financial backing and advance a movement led by Andrew Forrest (Forrest founded Anaconda Nickel Ltd, now known as Minara Resources, and was inaugural chairman of the Murrin Murrin joint venture, one of Australia's largest mineral exporters); James Packer (Packer inherited the family company, Consolidated Press Holdings Ltd, which controls investments in Crown Ltd, Consolidated Media Holdings, and other companies); Kerry Stokes (Stokes is an Australian businessman. He holds business interests in a diverse range of industries including electronic and print media, property, mining, and construction equipment. He is most widely known as the chairman of the Seven Network, one of the largest broadcasting corporations in Australia); Rupert Murdoch (Murdoch, is an Australian-American media mogul. He is the founder, a major shareholder, chairman, and managing director of News Corp); Russell Crowe (is a New Zealander and naturalized Australian actor and musician) to name a few and the movement supported and endorsed by the "Young Australian of the Year" – Tania Major. Their aim is to donate their own money, time, and expertise to encourage corporate Australia and governments to help Aboriginal youth break out of the unemployment cycle.

The question needs to be asked. Why now? Andrew Forrest a reluctant spokesman for "Generation One," said at the launch that he had worked with, lived, and was cared-for by Aboriginal families, and found they have so much to offer if given the opportunity that had been privileged to "the Whites" in our country.

What do we know of these Aborigines that have been *fighting* their way into "our civilisation"? Are they so different as the years of misunderstood perception have indicated? The theory being, that for nearly 90% of Australians it was not necessary for them to know who the Aborigines were, because it was not seen as important in *their* lives. Not many knew, or deemed it necessary to know, of the rich culture, the handed down traditions and beliefs and did not understand the important sense of identity and purpose of life.

The Aboriginal culture of Australia is one of the oldest living cultures in the world and has its origins over 40,000 years ago. Australia was populated by this nation, albeit not one united group, with various cultural beliefs, practices, and traditions across this vast land and including the area between the continent and Papua and New Guinea. In essence, Australia has two indigenous peoples – the continent Aborigines and Torres Strait Islanders. It is also worth considering a third group – namely the Tasmanian Aborigines who came from a different background to the now island from afar, and their isolation for over 12,000 years made them a distinct group too.