

Anthropology

Biological Point in Cultural Anthropology

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On the basis of the great experience in anthropological investigations of human bone remains from archaeological excavations (from Neolithic until late Middle Ages) the author makes an attempt to analyze motives for different positions of the buried bodies, artificial skull deformations, symbolic trepanations etc. This was done on the background of the data concerning historical, cultural development and religious understandings during different epochs.

Key words: anthropology, skull deformations, real trepanations, artificial trepanations, ancient rituals.

Anthropology is a science dealing with the human in the spatial-temporal continuum. Man, generator of ideas and creator of spiritual and material culture is the promoter of development. Each person disposes of his/her own longevity, during a definite period and on a territory and lives but once. In this sense, the living man is the outer visible "shell" of its spiritual essence. In contrast to his biological age, man goes on "living" in his "spiritual age". In this is the connection between biology and spiritually, social, cultural existence.

The study of the past renders the possibility to evaluate him, to bring him to a new life looking back through time and to try to understand what and how and why has man been motivated by to get realized and be present in his time.

I shall try to share my impressions from the experience in anthropological studies with intent of throwing some light on the "invisible".

Touching the bones of someone who has lived before me, holding them in my hands has provoked thousands of well-sensed and unconscious questions whose answers would surprise even me sometimes.

What sex was he or she? A man or a woman, a child or an adult, at what age he has passed away and the reason for it, and what he was ill of.

Questions about his height, physical strength, daily rations and his outside appearance would crop up.

Hence other questions and of a much greater difficulty arises: how this man has lived, happily or unhappily, what his attitude towards beauty was and his aesthetical

needs, how he has managed to meet them. Is it right and justified to mechanically transfer the criteria of modern man to the one of the past? Where are our mistakes in this set-up and is there another possibility for a better judgement? What changes have taken place in that respect with modern age?

How can we answer the questions beginning with "why"?

1. Why was the dead body buried in a given posture?
2. Why was the dead man painted in red (iron oxide)?
3. Why was the artificial deformation of the skull made?
4. Why were the symbolic trepanations performed?

What were the concepts and the "ideology" determining the attitude towards the dead? Is there enough ground to assume that the idea and belief in the life after death or reincarnation was existing? And based on that to assess what has changed in modern man, what he has gained and lost in this time span.

1. In the oldest findings from the early Eneolithic period of drawing till the end of the Bronze Age the cuddled (embryonic) posture of the dead body in the burial pit – the so-called "hocker" type was established to be the preferred one.

The most important question is why the dead were buried in that position.

If we compare the burials of the "hocker" type and the positioning of the fetus in the mother's womb we would record a full identity. Two main conclusions can be drawn from that fact. First the ancient man has established the position of the fetus in the mother's womb (both in animals and in the human) and second that this the "starting point" prior to birth i.e. this position precedes delivery. The logical answer to that question is that this way of placing the dead is a preparation for a rebirth i.e. reincarnation. It is much easier to place the body in the so-called "outstretched position" corresponding to the erect posture of man or to be rolled in the grave pit (in Muslims).

In a review of a literature of the Cro-Magnon man it was established that in the "Cave of infants" (the Grimaldi caves near Montana, Italy finding from 1872 to 1894) the double burial of woman's and child's skeletons (the so-called Negroids) is also of the "hocker" type (to the right side); in the Cavillon cave (Italy) a man buried again in the "hocker" type position; in the region of Kostenki XIV, the Markina woods (excavations from 1954) in Russia a burial of a man was found – the "hocker" type (sideways). It thus turns out that even some 40000 years ago man has believed in reincarnation in this (his) world or in another better one, a thesis underlying all religions.

2. Ancient man has established (and why not discovered) in his hunting raids that when bled the animal dies, i.e. that blood is the key to life. This was confirmed in the analogous cases with the human.

The findings from the end of the Eneolithic Period and most often from the Bronze Age show that often the cranial bones and parts of the limb bones were colored in red, sometimes with chunks of precipitated ochre on them 1-2 cm thick. This is ferrous oxide, Fe_2O_3 – red hematite. This effect can be explained by the red color of the ferrous oxide. The red color symbolizes the color of blood, which in its turn symbolizes life. The burials with ochre in the "hocker" type position show a development of the belief in rebirth because during the Neolithic Period such findings of burials with ochre are missing – their beginning is dated back to the end of the Eneolithic period and they are widespread in the Bronze Age. This is the way things are in Bulgaria, what about the "Red Lady" from Paviland, Wales which displays a red coloration of the skeletal bones (the skull is missing) dated to the Orignac culture (45000-26000 years from now). These excavations from 1823 are the first ones with the discovery of a man from the so-called "Cro-Magnon type". Thus the practice for ensuring 'blood' for the new life and the corresponding "embryonic" position has been imposed. Man transfers his observations

on living nature in his own concepts of life and death and hence in his ideas for a second life and the way of achieving it.

The archaeological studies on necropolis and graves pose the question: Why in the epochs that have followed this type of burial has disappeared? Is it replaced by something else? And if so – by what?

3. The production of the first metal (copper-Cu-cuprum) at the beginning of the Eneolithic period (4000 years BC) gives rise to ore mining, metallurgy, crafts, on the one hand, and the stratification of society, on the other. These processes go on in the epochs – the production of the first alloy (3rd millennium BC) called by us Bronze, and Iron (since 11th century BC). Based on that, taking into account the basic, most important material for the production of tools of labour are also the introduced by science period – Stone Age, Stone-Copper Age, Bronze Age, and Iron Age chronologically starting from the emergence and beginning of use of the material. In this train of thoughts we can call our time with great certainty the “plastic” age (i.e. epoch of gluing).

The millions of years of use of tools have also been a process of searching and finding harder and more resilient types – e.g. flint stone. After a usage of thousands of years man having established the brittleness of stone has been alerted to the possibility of overcoming this shortcoming. Maybe incidentally or through observation man has run into a copper lode which had suggested the idea of using copper instead of the stone and flint tools. Whether the found chunk of copper had been of an oval shape (the hammer type) or with pointed edge (the shovel, axe type) has determined the way it had been used. Probably the next step was the purposeful search for copper pieces of the usable shape with even aimed efforts to break such a chunk. When and how was melting of copper achieved? Fire is known and is a part of a everyday human life since the time of the Synanthrop (some 300-400 thousands years from now). It is quite possible for a piece of copper to have fallen into a fire and melted (melting point of copper – 1083°). This marks the beginning of metallurgy – the possibility for a metal to be melted and given the desired shape. If the above-mentioned supposition is accepted plausible man has then acted in concert with nature using copper ore and fire. So man was an environmentalist.

4. Tracks left by a 4-wheel cart have been first found for South-Eastern Europe in the mound necropolis in the village of Plachidol, the Dobrich region dated back to the beginning of the 3rd millennium BC. There was a buried man in the cart in the “hocker” type position profusely splashed with ochre. This is the first wheel aged 5000 years found on our territory.

The discovery of the wheel is an event of an epochal importance the discovery of the ongoing movement into rotational one – i.e. that is the discovery of the axis! Its greatest applications at that time were the creations of the wheel – mediated transportation. This in its turn would result in a communications boom – trade, commercial, cultural and last but not least intense biological contacts. The time span is shortened; possibilities for faster relocation of troops are ensured together with the transportation of goods, etc.

Until that moment man had hauled himself from one place to another either by his own force (on foot) or by the help of animal force or on water which ways were much slower.

Where could the ancient man have seen the rotational movement first, or something turning around? Where could he have noticed the principle of the axis and the wheel?

It is quite possible that for the man dragging his killed game, or wood for fire, descending a slope to have suddenly established that the wooden log had rolled down. Maybe he had even “experimented” rolling logs downhill. Because the wheel is a seg-

ment of a tree trunk. Maybe he had even used trunks of a defined length to haul rolling over heavy stone rocks and big trees. And it is no wonder that the found wheels are of massive wood though metal had been known for a whole millennium already – metal such as copper and bronze in particular. Is this the most plausible way of discovering the wheel? This is a quite probable hypothesis since the undertakings that mimic natural phenomena are most successful.

5. The purposeful change of the shape of the skull achieved by a continuous application of pressure on the head in the early infant age is denoted as artificial deformation. In some of the necropolises in our lands dated various epochs (from the Neolithic period till late Middle Ages) skulls with artificial deformations were found. The phenomenon this registered poses several questions: How is the artificial deformation of the skull achieved? The answer to this question is relatively exact – it is attained by placing of bandages or “apparatus” differing in size and type of construction during the neonatal period, which remain for quite a long time on the head sufficient enough for the desired shape of the deformation. The bandages are usually made of plant tissues; leather straps (belts) especially designed small laths bound together, some kinds of special caps, etc. The principle followed in their application is the provision of pressure forces on the still unossified bone of the brain portion of the skull in the period of its “plasticity” when the bones grow and the sutures are not formed yet. The direction of the force action is from the front backwards, from above downward, sideways, from beneath and from the back forward and upwards thus allowing for the achievement of the desired shape of the skull. This variability of the methods and the way the action of the forces is directed accounts for the various types of skull shapes used for their qualification.

The change in the skull’s shape in an artificial way but not willfully can be the result from the practice of rocking the baby in a wooden cradle whereupon the occipital part and some areas of the parietal bones of the skull are flattened. There are cases when the child’s head is fastened by a band to the cradle, which results in a strongly pronounced cranial deformation with a striking predominance of the breadth sizes.

The second question is: Why and with what exactly purpose is the artificial deformation caused? The answer can only be roughly defined. The artificial deformation of the skull apart from being found in excavated human material is still practised by certain now living primitive tribes on the territory of South America. It is a well-known fact that since ancient times man wherever on the surface of the planet Earth has reached to the conclusion that the brain is the domain where the spirit and will-power reside in the body. Then the necessity of drawing, the attention of surrounding people upon the head and especially the forehead has emerged in the individual person. This could be handled in several ways: by placing the ornaments on the head or sometimes by very sophisticated hairstyles, or by gluing to the forehead of bright and glittering decorations – pieces of glass, valuable gems or pieces of mica. Some of these rituals are being preserved till our day both in primitive, as well as in civilized society.

Some peoples have developed another more permanent way of achieving the same goal – the artificial deformation of the head. All its varieties, however, are aimed at one and the same goal – the frontal part to look higher, wider, bigger. It is assumed that the initial applications of the artificial deformations of the head had been the privilege only of the chiefs and their relatives while somewhat later the practice had been spread among the commoners. So it was converted from a token of social class into a sign of ethnical identity.

The third question is: Whether the bandages thus placed and forcefully pressing the skull damage the child’s brain and if so to what extent. It is hard to answer this question. Indirect data are found in the mass grave of necropolis No 3 by the town of Devnya. Artificial deformation has been recorded in 75.5 per cent of the buried. Among

them deformed frontal bones of the skull have belonged to individuals of all age groups – from 2-3-year-old children to adults in the mature and senile age. Hence the uncertain conclusion can be drawn that the bandages worn with the purpose of causing deformity of the skull have not damaged the brain to a degree jeopardizing life, i.e. the individuals has survived and reached old age.

6. After the conventional viewpoint the medical term trepanation (or trephining) designates a “surgical operation in which the diseased area is reached following a trephine or boring a hole in the bone wall, most often by a special instrument and pertains mainly to the cranial bones”. It is clear that this manipulation is of a therapeutic nature because of which it is called “therapeutic”, “real” or “surgical” trephining. In 1950 the Hungarian anthropologist Bartucz introduced the term “symbolic trephining of the skull”. The symbolic trepanation differs from the real one by the fact that in it only the outer cranial plate is removed together with a part of the spongy intermediate tissue (diploë) without affecting the inner plate of the cranial bones. The “surgical” and “symbolic” trepanations are performed on the living individual by contrast to the manipulation of cutting out a part of the calvaria bones from a dead man’s skull for the acquisition of an amulet or a rondella having a “protective”, “magical” action. This manipulation is denoted as a “ritual trephining”. The real trepanation carried out with a therapeutic purpose is most often applied to the parietal bones area and the temples and more rarely to the frontal bone. The traces left by a symbolic trepanation are found on or round the sagittal suture of the calvaria mainly in the region of its juncture with the coronal suture (Bregma). Symbolic trepanations are usually single and, as an exception (e.g. in the medieval necropolis by the village of Odurtsi, the Dobrich region) they are multiple reaching up to 11 trephining impacts on a single skull. The impacts left by the symbolic trepanations are more frequently of a rounded – oval shape with a diameter from 8 to 20 mm and a depth from 0.5 to 2 mm. They are bordered by thickened bone edges with the bottom of the lesion being slightly rough. The execution of the symbolic trepanation and most probably been carried out by cutting, scratching or scraping with a suitable tool (trephine, wedge, etc.).

In Bulgaria on the territory of the former Soviet Union and Hungary, symbolic trepanations of the skull have been found in the medieval necropolis and their bearers have been probably belonging to the Avarian and Hun tribes. The applications of the symbolic trepanation can be considered as a concrete therapy on the patient or preventive manipulation against a number of diseases or simply as a ritual.

The availability of survived symbolic trepanations of the skull in medieval necropolis shows that in these times there have been well-instructed persons who were able to competently perform the surgical interventions and were displaying the necessary knowledge and skills.

It is well known that since the Cro-Magnon man onwards i.e. 4000 ago man has finished his biological development and sophistication. This fact is proven by the numerous of the forerunners of the modern human. However, the spiritual development of the man is going on incessantly and will continue. The proof for that is the embodiment of human thought and spirit realized in various fields of knowledge and activities. This is the eternal spiral begun by our ancient ancestors and its end is maybe infinite as infinite and boundless is the human spirit.

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