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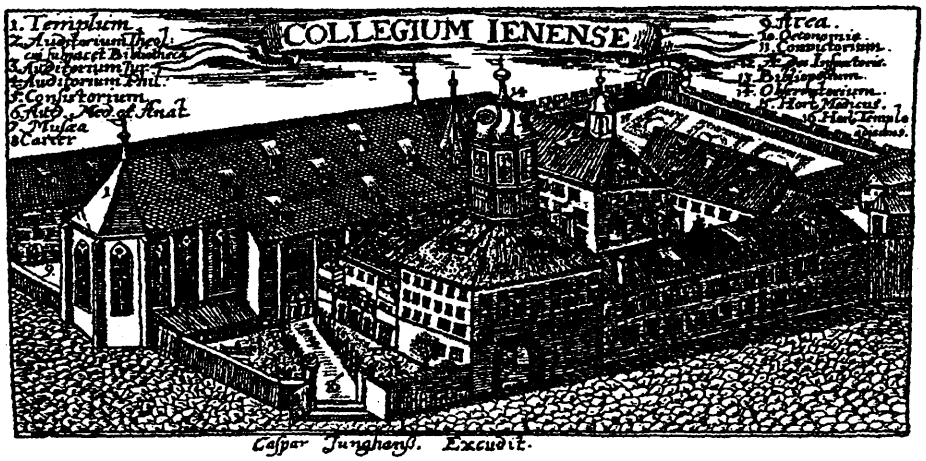

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Abstracts

The grade of the preservation of material is basic to further anthropological analysis. On the basis of a 5-graded scale (1: very well preserved/ 2: well preserved/ 3: medium preserved/ 4: badly preserved/ 5: very badly preserved), we reached the following distribution of the crania (1: 5%; 2: 23%; 3: 14%; 4: 28%; 5: 21%). 9 % of the skeletons had no a cranium. In the case of postcrania we had the following result: 1: 7%; 2: 23%; 3: 26%; 4: 23%; 5: 5%. 16% of the skeletons had no postcranial elements.
The determination of age and sex on the basis of the recommendations given by FEREMBACH, SCHWIDETZKY and STLOUKAL (1979) had the following result:

Non-adults (Infans and Juvenis)	male: 7%, female: 5%: indefinable: 18%
Adultus	male: 17%; female: 15%; indefinable: 3%
Maturus	male. 19%; female: 10%; indefinable: 1%
Senilis	male: 3%; female: 1%; indefinable: 1%

Considering the skeletal material from late Neolithic and early Bronze Age, epidemiological studies, especially on masticatory organs, vertebral column and great articulations are carried out by our department.
Therefore, a lot of findings of the differences of abrasion patterns, the frequency and distribution of paradonthopathics, tartar and caries have come in.
Further investigations are aimed for degenerative changes of the vertebral column and great articulations.

[255] A child a tooth: a look on the cost of reproduction in the Middle Ages
Boldsen J.L. (Odense University, Denmark)

In many countries there is a saying that a child costs its mother a tooth. Recent research both in living populations and in samples of medieval skeletons indicate that there is considerable truth to this supposition. This presentation looks at tooth loss as an outcome potentially related to reproduction and at the possibility of using tooth loss as an indicator of the number of births.
Data for this research were collected in the Tirup skeletal sample. Tirup was a small village community in eastern Jutland, Denmark. The village was founded in the first half of the 12th century as a part of the process of population and settlement expansion in northern Europe from AD 700 - 1200. It was abandoned during the following population crisis in the middle of the 14th century. Analyses of health, demography and biology of the Tirup population indicate that the cemetery was in use during a very difficult period of the history of the population of northern Europe.
The loss of permanent molars was recorded along with estimates on age at death based on cranial suture closure and transformation of the pubic symphysis and the auricular surface. These data were analysed by polynomial logistic regression and the results are presented as curves of the predicted probability of survival of the permanent molars.
In accord with findings in living populations older women have more surviving teeth than older men. In Middle Ages, however, tooth survival is better in men than in women. These findings indicate that women without the burden of bearing and breastfeeding children stood a better chance of keeping their teeth than men did. It is obvious that the cost of children is dependent on maternal age. It appears that young mothers rarely lost teeth whereas older mothers frequently did so. Tooth loss is an indication of successfully surviving a health hazard. The chance of avoiding the hazard altogether is strongly dependent on the quality of the environment, of individual health behaviour and of the nutrition. This means that the number of lost teeth cannot be used directly as an estimate of fertility.

[256] Hominine evolution in a littoral Double Niche Transition- (DNT-) theory, LII
Bujatti-Narbeshuber M. (Department of Archaeological Biology and Anthropology, Natural History Museum, Vienna, Austria)

DNT-theory, contrary to failures of Savannah- and Aquatic-Ape Theories (Langdon, JHE, 33,4,479,1997) predicts nutrition, thermoregulation, socio-sexual signalling and cognition (NTSC) as harmonious, sequential, integration of littoral extremes. DNT-theory is a highly falsifiable, interdisciplinary umbrella hypothesis, with greater explicatory and predictive power as either rival theory. It defines Homo as specialised niche changer selected by DNT. Higher mammal selection in supralittoral-sublittoral DNT led to complexity, not parsimony: e.g. in eco-ethology of meta-rituals (culture) evolution from gene- & learned meme-rituals. Creative Intelligence of meta-ritual evolved in DNT as variable tool-play creativity, integral to Teleo(nomic)-Economic (meme) Selection (TES) from oxygen conserving dive ethology: Pegnio-Kolymbetic (PK) behaviour. Sexual and natural selection of play-plasticity by PK-aggression-block form Hominine smile, flirt, dimorphism, speech, rank inversion as culture. Initial TES of variable tool-use is diving Californian Sea Otter's cracking of exo-skeletons, as in Cetacean hunt TES of variable sound & air-use. TES of variable tool-, plus sound and air-use (in sound conditioned non-aquatic PK-dives) drive

transition-tradition double-culture of Homo as transcendence based reality construction by ritual-language-brain co-evolution.
DNTs manifest in eco-morphology of durophagy and grit resistance: e.g. continuous tooth replacement (Sirenia) or carnassial-reduction (Californian Sea Otter) or canine-reduction in Australopithecus as result of DNT-theory's Dental phase: from dental enamel prism contour optimisation (Oreopithecus) through enamel thickening to placobunodont Hominine crowns. DNT with carnivory is name giving to Crab Eating Macacca of Borneo mangrove swamps. DNT exists in terrestrial-aquatic herbivory (carnivory?) of Lowland Gorilla. Carnivory with tool-use in oyster feeding is observed in extant Cebus apella and blends into DNT-niche of fossil, bipedal, neotenous Hominines with herbivory-carnivory of Miocene African island-bridge swamps (Oreopithecus), evolving - into Australopithecus on Red Sea Danakil island- by durophagy selection during Messinian crisis - and Pan. Dental-, Postural- (Double-Niche split into Robusts and Graciles), Cortical- and Tectoral-phases 1-4, constitute this Miocene strong hypothesis of PK-behaviour origin - and of Homo characteristics besides a Pliocene medium, Pleistocene weak and Holocene null hypothesis (Bujatti-Narbeshuber, 1976, 1991).

[257] Nutritional features in ancient Italian skeletal populations

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Information about social and economic life of ancient populations can be drawn from the knowledge of their nutritional habits. These can be inferred from the study of oral pathologies. For this purpose we examined the ancient Italian skeletal samples from Monte Bibele (V-IV century B.C.) (Bologna), Casalecchio (IV-III century B.C.) (Bologna) and Quadrella (I-IV century A.D.) (Isernia). Monte Bibele necropolis refers to an Etruscan-Celtic population and is located in a mountain area, while the Celtic Casalecchio necropolis is in the lowlands. The other sample examined is from the Roman-Imperial Quadrella necropolis, situated in a mountainous area of Central Italy.
The study focuses on the teeth in order to define possible diachronic and environmental differences in the socio-economic patterns from the nutritional point of view.

[258] Epigenetic traits in some early medieval populations of the Middle-Elbe-Saale-Region.

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The paper presents some first results of the anthropological investigation of six early medieval population (6^{th} –7^{th} century) of the Middle-Elbe-Saale-Region. The aim of our research is the differentiation of such populations by means of epigenetic traits of the skeleton (skull, postcranial skeleton). We compared the frequencies of these traits in six populations and can demonstrate a slightly difference between these groups. It will be discussed some problems of date collection, of the data analysis and of the interpretation of results in small populations. Further investigations including the morphological traits of teeth are necessary to assess the small differences.

[259] Primary cranial deformation and its affect on the frequency of non-metric traits

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44 normal and 22 culturally deformed crania were analyzed for 42 non-metric cranial traits during the summers of 1996 and 1997. The population samples were excavated, beginning in 1961, from the 5th Century Mozs-Icseidulo cemetery near Szekszard in the area known as Pannonia dating back to the late Roman period. These materials were analyzed in the Archaeological Institute of the Hungarian Academy of Science. Of special interest was the frequency difference of recorded non-metric cranial traits between 'normal' crania and crania displaying 'primary cultural deformation'--extensive in about a third of the Mozs collection. Additionally, we tried to suggest family groupings based on sub-sample non-metric data deriving from the work of Salamon and Lengyel (1980) and Lengyel (1968). Results suggest that the frequencies of a number of non-metric cranial traits are significantly effected: mostly sutural traits. Family groupings within the larger sample were more difficult to achieve. While a few non-metric traits showed differences between sub-samples, these differences often appeared random rather than directional as compared with sub-sample differences among other 'normal' skeletal populations. We feel that an extensive, more focused effort is necessary in order to assess the differences seen in these skeletal remains of this earlier human population.