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Anthropologische  
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Newsletter of the Dutch Association of Physical Anthropologists

No. 10, January 2002

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Membership fees: Euro 16.-- (full)

Euro 5.-- (student)

Fees payable to: N.V.F.A., Oude Singel 60E, 2312 RC Leiden

Giro account number: 302 756

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From the editors

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There are changes afoot in the NVFA. Proposals are being put forward to abandon the annual schedule of three to four membership meetings followed by a lecture, and to replace this with an Annual General Meeting in January, lectures/excursion/museum visit in April/May and a symposium in November.

We also plan to go online and have thereto registered the domain name [www.nvfa.nl](http://www.nvfa.nl). The aim of this website is to supply general information about the NVFA, announce meetings, conferences, publications, exhibitions, etc., and to provide references to the individual physical anthropological expertise of members.

This publication is still mainly dependent on the contributions of NVFA members, and we do hope that you will keep the products of your pen/pc coming, be it in abstract, article or book review form.

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Abstracts

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EUGENE DUBOIS AND PUNCTUATED EVOLUTION: LETTERS TO H. ENGEL

Ellen M.A. de Looze

Zoological Museum Amsterdam (ZMA), University of Amsterdam, P.O. Box 94766,  
1090 GT Amsterdam, The Netherlands

In: Contributions to Zoology 70(1), 51-60, 2001, [www.uba.uva.nl/ctz/](http://www.uba.uva.nl/ctz/)

I report on a file containing part of the scientific inheritance of H. Engel, the late professor/director of the Zoological Museum Amsterdam (ZMA), found in the ZMA's Department of Mammals. This file comprises 23 letters written by Engels' famous supervisor Eugene Dubois, together with many papers and press-cuttings written by him or with reference to him.

The 23 letters can be arranged into three groups: 2 letters were written in 1920, 6 letters date from 1931, and 15 date to about 1936.

The first two letters from 1920 reveal the forgotten influence of the Amsterdamsch Studenten Corps (A.S.C.) on the organisation and workings of the University of Amsterdam at the time when Engel was studying under Prof. Dubois.

The letters from 1931 deal with a paper that Engel was writing at the time on the descent of man, as editor for the new periodical 'Natuur en Techniek'. In the letters we read of the comments by Dubois on the manuscript and his strong urges for improvements. Dubois explains to Engel his new views on saltationary evolution which require no need for gradual natural selection as expounded by Darwin. Dubois arrived at this new way of thinking through the development over many years of his cephalisation theory. This was based on the theoretical doubling of vertebrate brain cells during embryological development of an organism as it reached a higher state. He applied his theory to his *Pithecanthropus erectus*, and found it to be exactly halfway between anthropoid apes and humans. In this letter Dubois also rejects his earlier reconstruction of the *Pithecanthropus* which had been made for the World Fair in Paris in 1900. He impels Engel to mention applications of his theory to many different vertebrates and Engel, of course, complies. In a following missive Dubois congratulates Engel gracefully with the appearance in press of his paper.

The last group of letters appear in 1936 when Dubois, aged 78, is in the middle of a crisis. Von Koenigswald had recently claimed to have found another *Pithecanthropus erectus* on Java. Dubois is devastated and defends his sole rights to the *Pithecanthropus* in various papers and newspaper articles. Indeed, when Engel is

going to give a radio lecture on Dubois and asks for advice, Dubois writes the whole speech himself. Following the broadcast Engel is asked by J. Heimans and Thijsse to publish his speech in their periodical 'De Levende Natuur'. Dubois takes exception to almost everything and a flood of letters results. In the end this leads to the paper not being published. In one of the last letters Dubois expresses his regrets about the wasted time and efforts of Engel. Indeed in all the letters Dubois shows his sympathy and high esteem for his pupil.

Dubois remains, however, one of our greatest scientists.



## FACIAL RECONSTRUCTION. A REVIEW AND COMMENT

Maat, G.J.R.

In: *Talanta* 30-31: 247-253, 2000.

The techniques of facial reconstructions from skulls has fascinated scientists, artists and the public for many years. The method has been applied to a wide range, from reconstructions of unknown persons from history and prehistory to the identification of suspects and victims in court cases, which may possibly have serious consequences. By recapitulating briefly the core of the historical development, one is able to evaluate the accuracy of facial reconstructions.



## WILLEM BARENTSZ. THE FLYING DUTCHMAN OF THE NORTH CAPE

Maat, G.J.R.

In: *Heritage of the Russian Arctic. Research, conservation and international co-operation* (B.S. Ebbinge, Yu.L. Mazourov, and P.S. Tomkovich eds), Ecopros Publishers, Moskow, pp. 85-87, 2000 (issued 2001).

A comparison is made between the legend of the flying Dutchman and the story of Willem Barentsz' attempts to find a northeast passage. The many analogous aspects are discussed. Special emphasis is given to the bearing of the story about Barentsz on the way he was buried. In contrast to a sea burial, the assumption of a land burial of him and his companion seems to be the best option for a search on Nova Zembla.

## DIET AND AGE-AT-DEATH DETERMINATIONS FROM MOLAR ATTRITION. A REVIEW RELATED TO THE LOW COUNTRIES

Maat, G.J.R.

In: Journal of Forensic Odonto-Stomatology 19: 18-21, 2001

To elucidate the impact of diet on age-at-death determinations based on molar attrition, a comparison was made between the established rate of attrition in three populations, a pre-medieval (British), a late medieval (Dutch) and a 17-18th century (Dutch) population (western European). It appeared that the rate decreased dramatically during the overall time span and that this change was probably diet related and due to the coarseness of foodstuffs. This result strongly indicated that molar age-attrition tables should only be used for age-at-death determinations if their application is restricted to a particular cultural period and diet.

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## PROFESSIONALIZING FORENSIC ANTHROPOLOGY. A QUARTER CENTURY REVIEW

Maat, G.J.R.

Presentation at the founding meeting of the British Association for Human Identification, October 6, 2001, Glasgow, United Kingdom.

A brief survey is presented on the development of forensic anthropology in the Netherlands since 1976. In addition, based on personal experience over that time span of 25 years, some bottle-necks with respect to the current practice of the profession will be discussed.

In 1976 forensic anthropology did not exist in the Netherlands. From that year on, due to a gradually increasing number of requests for anatomical assistance by the National Forensic Institute and local police forces, the calling slowly developed into a distinct entity. From the onset the forensic anthropology required specialized knowledge and academic training different from traditional human anatomy and forensic pathology. During the first 10 to 15 years, many consultations concerned the identification of contextless human and animal bones. More and more such investigations came to be replaced by true forensic cases. Human identifications for court cases had to be

extracted from skeletal material, corpses and living persons. Since 1990 the number and diversity of forensic requests has risen spectacularly. Especially the investigation of recent national and international mass disasters has strained specialist resources beyond the state of being acceptable. Examples of present-day analytical activities include beside traditional gross anatomical sexing, age-at-death determinations and stature calculations:

- histological age assessments,
- radiological age assessments of asylum seekers,
- assessment of the minimal number of individuals in common graves,
- identifications from combusted remains and cremations,
- identifications from commingled separated body parts,
- development of biometric markers for the identification of the living.

The professionalization of forensic anthropology can be illustrated by a brief review of the trends in age-at-death determination methods for adults. Originally, most of these methods were developed to meet the demands for demographic analysis of burial places by archaeologists. Archaeological anthropology is still an important driving force behind methodological improvements. Overall, the approaches developed from locally accepted less-known methods to more widely accepted standardized methods with quantifiable and reproducible results based on reference collections (Maat 1987).

In the United States this professionalization process already started before World War II. A few prominent scholars such as T.W. Todd, T.D. Stewart, and W.M. Krogman (Krogman and Iscan 1986) set the trend in the 'New World'. Traditionally, age-at-death determination was and is done with the aid of a single age indicator, e.g. the aspect of the symphyseal face of the pubic bone (Brooks and Suchey 1990). In 1985 an attempt was made to introduce the Multifactorial Method, a method using multiple age indicators to compensate for odd scores of single indicators (Lovejoy *et al.* 1985). But, possibly due to a lack of confidence in the utilized reference collections, the method did not become generally accepted.

In Britain very diverse aging methods were applied. Some of the best known are listed by Brothwell (1981) and Cox (2000). Forensic workers relied on these methods as a matter of course, since most of them had routinely been used for many years. Practice showed that, like in the United States, the use of a single age indicator was felt to be sufficient. Scientists refrained from applying methods using multiple age indicators. They were tested but scoring scales were not reset for the characteristics of the local

population (Molleson *et al.* 1993).

In continental Europe the situation showed many similarities with that of Britain. A list of typical continental methods can be found in Knussmann (1988). This state of affairs slowly started to change after the 'Workshop of European Anthropologists' agreed on their recommendations, including the 'Complex Method' for age determination (WEA 1980). The increasing acceptance and use of this method has substantially met the demands for effective mutual comparability of results. Resetting of the related scoring scales for local populations have shown to be adequate (Maat and Mastwijk 1997). Since the resulting age diagnoses come with a simple assessment of the related statistical degree of confidence, the conclusions have become much more accepted by judges, justice departments, insurance companies, the public and amateurish contra-experts. As a matter of course, genuine forensic reports should specify and explain in understandable terms the applied scientific methods with their references.

Related to the tasks of the newly founded British Association of Human Identification some concerns are expressed:

- Institutionalized means to transfer the know-how and scientific interests of the presently experienced forensic anthropologists to the next generation of workers are lacking.
- Accreditation, taking into account the diverse academic training of the present workers, is missing.
- Anatomical staff and training facilities to meet the dramatically increasing demands for knowledge on soft-tissue anatomy are eroding away, while present-day mass disasters are characterized by separated commingled fresh and combusted body parts.
- Close co-operation of the forensic pathologist and anthropologist in the autopsy hall and in final reporting needs further stimulation.

THE SEARCH FOR WILLEM BARENTSZ. REPORT ON THE INTERNATIONAL  
NOVA ZEMBLA EXPEDITION 1998

Maat, G.J.R. and J.-J. Verlaan  
2nd edition, ISBN 90-806456-1-3.  
Barge's Anthropologia 4: 1-23, 2001.

As a continuation of the Nova Zembla expedition 1995, a further search was made for the possible double grave of Willem Barentsz and Claes Andriesz Goutijk who died along the west coast of Nova Zembla while on their return to Holland after their overwintering at "Ijshaven" AD 1596-1597. Willem Barentsz, after whom the Barents Sea is named, was a Dutch explorer who tried to find a northeast passage by sea to Asia in 1594, 1595 and 1596. In our 1995 expedition the coast from Cape Marii to Cape Ermolaev was surveyed at two levels:

the pebble beach with its snow/ice banks, and  
the edge of the coastal plateau.

In 1998, in a similar way, the following additional stretches of coast were searched:  
from the bay between Cape Loshkin and Cape Carlsen, that is opposite the Oransky (Orange) Islands, to Cape Marii,  
from Cape Velken to Cape Bolshoy Ledyanoy,  
from Cape Anna to Cape Otvazhnych,  
from Cape Otvazhnych to Cape Maly Ledyanoy,  
from Cape Medvezhy to Cape Kushakov.

In total a c. 180 km intensive search was accomplished by foot. Neither a 'traditional arctic grave' covered by boulders (a cairn), nor (parts of) an 'ice burial' were found. There is still a possibility that both men were buried into one of the many snow/ice banks along the coast. Much to our regret it is impossible, however, to investigate the interior of these vast structures.

CHILD ANTHROPOLOGY. Child and childhood as biological and cultural construct.  
1st International Mainz Symposium Anthropology in the 21st Century  
Mainz-Germany, 19-22 September 2001

Machteld Roede, Maastricht, the Netherlands

Prof. dr Kurt Alt and dr Ariane Kemkes-Grottenhaler and their staff successfully organised the 1st International Mainz Symposium Anthropology in the 21st Century. The topic covered Child Anthropology; Child and childhood as biological and cultural construct. The audience - mainly from Germany, Austria and Switzerland - could listen to 42 papers, and discuss 13 posters. Interesting was the broad basis of the meeting.

On the first day the focus was on Social Behaviour, with many nature-nurture discussions, such as for instance the discussion on maternal investment. The treatment of Stone Age infants were compared with those of different contemporary cultures up to the Atomic Era.

Detailed Demographic Aspects were presented on family size, infant mortality and infant biological quality. It was interesting that also differences between the old and the new German 'Bundesländer' were compared.

Twelve papers covered Archaeology of Childhood and Infant Burials. For instance, the (changes in) attitude towards children during the Merovingian period was evaluated through burial customs, grave construction and accompanying grave goods. Also discussed were Roman infant burials, either within a settlement context or in a nearby cemetery. Historical sources were presented of infant food supplements, including wet-nurses. Old drawings of orphanages clearly indicated that the latter were not always women, but often cows or goats.

In the part on Historical Sources it was stressed that in order to explain formerly very high infant/child mortality rates a multifactorial scenario, including both biological and socio-cultural factors, should be used. A study of a detailed persons/family register gives clear proof that children born out of wedlock had a much lower survival rate. Pregnant married women received help from their neighbours, extra food and a reduced workload.

Really embarrassing for an auxologist - used to the age classification of physical anthropology - were the age classes used by most speakers: 'infants' up to seven years; 'juveniles' of 14-20 years, 'adults' of 21-40 years and only those older than 40 being the

'mature' ones. It was agreed that this hardly matches with actual biological developments. Different issues were covered in Children and (In)Justice. Most relevant was the survey on the U.N. Convention of the Rights of the Child from 1989. Historically it was unknown to regard children not as imperfect adults, but as personalities.

The last part on Growth and Development included for an auxologist more familiar topics, such as the genes-environment interaction on body height, and the negative implications of gender on the health status of the girl child. We ended right in the middle of the new age with a paper on the need of a child-orientated computer mouse which would fit their physical condition.

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#### MOLECULAR SPECTRUM OF $\alpha$ -THALASSEMIA AND A NEW $\alpha 2$ cd 19 (-G) POINT MUTATION IN THE IRANIAN POPULATION OF HORMOZGAN

Harteveld C.L.,<sup>1</sup> Yavarian M.,<sup>2</sup> Quakkelaar E.D.,<sup>1</sup> van Delft P.,<sup>1</sup> Giordano P.C.<sup>1</sup> Hemoglobinopathies Laboratory, Dept. of Human and Clinical Genetics, Leiden University Medical Centre, The Netherlands.<sup>1</sup> The Thalassemia Medical Centre, Medical Faculty, Bandar Abbas University, Iran.<sup>2</sup>

Abstract of a poster presented at the 8th International Conference on Thalassemia and the Hemoglobinopathies, October 18-21, 2001, Astir Palace Resort, Vouliagmeni, Athens, Greece

Although Hydrops Foetalis and HbH disease are observed in the south Iranian province of Hormozgan, no data on the molecular background of  $\alpha$ -thalassemia in this region are known. In order to assess the frequency of the most frequent  $\alpha$ -thalassemia defects we have analysed 156 independent chromosomes from neonates born in this region, selected for the presence of an elevated Hb-Bart's ( $\gamma 4$ ) at birth.

The hematological indices were measured on the fresh cord blood samples. The Hb fractions were separated on cellulose acetate and measured densitometrically after Ponceau Red staining. DNA was extracted using standard methods. A breakpoint PCR method was used for the detection of the  $-\alpha^{3.7}$ ,  $-\alpha^{4..2}$ ,  $-\alpha^{20.5}$ ,  $--_{SEA}$ ,  $--_{Fil}$ , and  $--_{Med}$ . DNA sequencing methods were used for the analysis of the point mutation defects.

Out of 660 randomly collected blood samples 218 (33%) had visibly elevated Hb-Bart's. DNA was extracted from 78 samples out of this selection. In this cohort the percentages of Hb-Bart's ranged from 1 to 22.4%. At this stage one or more molecular defects have been found in 68 samples while in 10 samples the mutation is still unknown. The  $-\alpha^{3.7}$  (RW) deletion was by large the most predominant defect. 58.% of the 156 alleles studied were carriers of the RW deletion, in 41% of the cases in heterozygous and in 37.% in homozygous form. One RW allele was found in combination with one of the two  $-\alpha^{4.2}$  (LW) deletions found in this cohort. Several point mutations were found. Two alleles carried an Hph I site loss. Four alleles revealed a new cd19 (-G) mutation, which was found in homozygous form in a one case.

The amount of Hb-Bart's expression seems not to correlate in this study with the degree of  $\alpha$ -genes expression. In spite of the cases of Hydrops Foetalis observed in this area only  $\alpha^+$  deletions and point mutations defects have been observed up to now. We still have to complete this survey in order to study the presence of large deletions and or poly-A point mutations with  $\alpha^{o/+}$  phenotypes. These defects could still be present in the 10 samples with Hb-Bart's percentages ranging from 1.5 to 11.8% which were negative for the selected mutation.

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Articles

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TREPONEMATOSIS IN A LATE CERAMIC AGE POPULATION. A preliminary report on the human remains excavated at the site of Anse a la Gourde, Guadeloupe, France

R. Panhuysen and M. Hoogland

*Introduction*

At the site of Anse a la Gourde on the Caribbean island of Guadeloupe (France) a large number of graves was excavated. The graves were situated in and around an extended settlement. Circa 95% of the burials were encountered in the habitation area, and the remaining 5% in the midden area. About 74 burials located in the habitation area have been excavated and date from the 11th to 12th centuries AD. In general, the burial pits had an oval shape measuring about 70 by 50 cm. They were quite shallow, at most 50 centimetres below excavation level. Most individuals were buried in a sitting or half-sitting position with flexed lower extremities. The majority of the individuals was buried facing between east and south, although a minority is clearly orientated towards the opposite direction, namely between west and north. During the field season of 2000, 12 burials were excavated. They were all located in the eastern part of the habitation area. While excavating these 12 inhumations, special attention was paid to the study of pathological changes found in the skeletal remains. This paper presents the preliminary results of the physical anthropological and pathological study of this sample of 12 individuals.

*Material and methods*

Apart from the absence of skulls and a few individual bones, the skeletons excavated in 2000 were rather complete. Unfortunately, most of the bones were poorly preserved. Symptoms of the poor state of preservation were the loss of small bones due to dissolution in the soil, degradation of the outer layer of the bones and severe bone loss at the distal and proximal ends of the long bones. Because of the poor preservation of the skeletal remains it was necessary to collect physical anthropological and palaeopathological data in the field. Most of the data presented here were collected in the field. Sex was determined by means of inspection of the pelvis using the non-metrical morphological method (WEA 1980). Age was estimated using methods recommended by the workshop of European anthropologists (WEA

1980). The long bones were measured in situ. On the basis of these measurements stature was calculated using the regression equations of Genovès (Genovès 1967). All bones were inspected macroscopically for the presence of pathological changes.

### *Demography*

In 9 out of 12 cases sex could be determined: 6 females and 3 males. One individual was too young to allow for the determination of sex and 2 skeletons lacked the necessary bones. Age estimation was in most cases limited to the assessment whether the individual had reached adulthood or not. A majority of 10 individuals was of adult age. Two individuals were categorized as non-adult: a child (aged between 1 to 2 years) and an adolescent female (between 14 and 18 years). For two adult individuals age could be estimated on the basis of one age indicator. These individuals, a male and a female were both aged between 30 to 60 years. In 9 individuals long bones could be measured. The mean stature for females was 150.3 centimetres (n=6), for males it was 161.1 centimetres (n=3).

### *Pathology*

The poor state of preservation impeded pathological examination. Very few joints and vertebrae could be inspected. Therefore, it was difficult to determine the prevalence of pathological conditions which are frequently found in archaeological populations, e.g. osteoarthritis and degenerative disc disease. Osteoarthritis of the peripheral joints was found in two individuals: an adult female and an adult male both with osteoarthritis of the right knee. Degenerative disc disease at the level of the cervical vertebrae was found in a male individual aged between 30 to 60 years. With respect to traumatic injuries, there was an adult male with a healed fracture of the left radius and an adult female with a healed fracture of the left fibula. Furthermore, one adult female had osteochondritis dissecans in the right knee.

Table 1. Distribution of lesions due to infectious disease in twelve skeletons excavated at Anse a la Gourde, Guadeloupe, France.

Number	Sex	Age in years	Stature in cm (Genovès)	Periostitis	Osteo-Myelitis	Gummata	Sabre shin tibia
F1126 A	Female	> 20	152.7	+	+	+	
F1126 B	?	> 20	?			+	
F2106	Male	30-60	≥ 163.1	+	+	+	+
F2107	Female	14-18	153.5	+			
F2109	Female	> 20	≥ 147.0				
F2211	Non adult	1-2	-				
F2212	Male	> 20	156.5				
F2213	?	> 20	154.0 / 149.5				
F2214	Female	30-60	149.0			+	+
F2215	Female	> 20	148.7	+	+	+	+
F2216	Male	> 20	163.6		+		
F2217	Female	> 20	151.0				

In this sample of 12 individuals infectious disease was the most common pathological condition. Seven individuals displayed pathological changes due to infectious disease. In four individuals sub-periosteal new bone formation on the shaft of the long bones (periostitis) was found. Endosteal new bone formation in the long bones (osteomyelitis) had occurred in four individuals. Five individuals had one or more gummata on the long bones or clavicles. Gummatous lesions are characterized by an area of bone resorption in the centre encircled by sclerotic bone. Gummata can occur in the medullary cavity and on the exterior surface of the bone. Three individuals with gummata also displayed signs of deformation of the shaft of the tibia. In these individuals the tibia had a slightly bowed appearance in the anterior posterior direction, which is called sabre-shin tibia.

Feature 2106 is presented below in detail to illustrate the nature of the distribution of pathological changes within the skeleton. The feature consisted of the human remains of one individual positioned in an oval burial pit. Dark soil containing various fragments of refuse, especially large pieces of shell, had filled the pit after burial. The individual was buried in a half-sitting position with flexed lower extremities. Most of the skeletal remains were found to be in a relatively good state of preservation. Still, large parts of the vertebrae were decomposed. Often only the vertebral arches were preserved on the floor of the grave pit. Both the distal and proximal ends of the long bones were so fragile that they could only be studied in situ. The skull was missing

and no remains of a mandibula were found. It could not be established whether the skull was missing due to post-depositional disturbance of the highest part of the grave or whether it was removed in the process of the burial ritual. The individual in the grave was a male aged between 30 to 60 years. His stature was 163.1 centimetres.

One of the cervical vertebrae showed alterations caused by degenerative disc disease. All other pathological changes were related to infectious disease. Lesions caused by infectious disease were found in the left arm, the left clavicle and both legs. The right arm and clavicle did not show evident signs of pathology. Sub-periosteal new bone formation had occurred in the left clavicle, humerus, ulna, both femora and tibiae. Changes due to osteomyelitis were visible in the left clavicle and ulna. These bones both had a swollen appearance. Further proof of the occurrence of an osteomyelitis in the ulna was the presence of a cloaca on the medial surface of the distal half of the ulna. A gummatous lesion was found on the left clavicle. The right tibia was characterized by a slight sabre-shin deformity.

### *Diagnosis*

The combination of extensive sub-periosteal new bone formation with osteomyelitis, gummatous lesions and sabre-shin tibia is considered indicative of an infection with treponema (Steinbock 1976; Larssen 1997). Because of the combined occurrence of these pathological alterations and their distribution within the skeleton, four out of seven individuals were diagnosed as cases of treponematoses, viz. features 1126A, 2106, 2214 and 2215. Treponematoses is a chronic infection caused by microorganisms of the genus *Treponema*. The infection is divided into four types: pinta, yaws, bejel or endemic syphilis and venereal syphilis. Each of the diseases is associated with distinctive geographical, climatic and socio-cultural features. Pinta is nowadays limited to the tropical regions from Mexico to Ecuador, while yaws occurs in populations under poor hygienic conditions in tropical and subtropical humid areas. Bejel is present in temperate and subtropical non-humid areas and venereal syphilis occurs in dense populations in all geographic regions. All of these diseases are characterized by lesions that are frequently destructive, particularly of bone and skin. Only pinta never involves internal organs or bones. Objects, such as clothing, hammocks and utensils and non-venereal contact, commonly contribute to the transmission of pinta, yaws and bejel. In general, it is suggested that in all treponematoses the infecting organisms enter the body through the skin. In yaws, bejel or venereal syphilis the infection generally reaches the bones via the bloodstream. At this moment it is difficult to determine which type of treponematoses was present in the population of Anse a la Gourde. On the basis of the nature and distribution of the bone lesions, yaws and bejel seem to be the most likely causes for the infection. An

extensive study of all human skeletal remains will be aimed at determining the type of the treponemous infection and its distribution in the population.

Clinical studies have shown that bone changes are only found in a small percentage (e.g. 1 to 5 per cent in yaws) of the individuals with treponematosi s and only then when the disease reaches an advanced stage (Steinbock 1976: 142-143). In the examined sample at least 4 out of 11 adult individuals had treponematosi s. This suggests that 36 per cent of the adult population suffered from treponematosi s. If the high prevalence of treponematosi s with bone changes is representative for the whole population, this would mean that almost the complete population of Anse a la Gourde had some form of treponematosi s.

#### *Literature*

Genovès, S. (1967). Proportionality of the long bones and their relation to stature among Mesoamericans, *The American Journal of Physical Anthropology* 26: 67-78.

Larsen, C.S. (1997). *Bioarchaeology, Interpreting human behaviour from the human skeleton*.

Steinbock, R.T. (1976). *Paleopathological diagnosis and interpretation*.

Workshop of European Anthropologists (1980). Recommendations for age and sex diagnoses of skeletons, *Journal of Human Evolution* 9: 517-549.

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Book reviews

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Pat Shipman, *THE MAN WHO FOUND THE MISSING LINK*. Eugene Dubois and His Lifelong Quest to Prove Darwin Right. Simon & Schuster. US \$ 28.00 (but may be sold out).

Also published in the UK as: *THE MAN WHO FOUND THE MISSING LINK*. The extraordinary life of Eugene Dubois. Weidenfeld & Nicolson. £ 25.00.

Ellen M.A. de Looze, Zoologisch Museum, Afdeling Zoogdieren, Universiteit van Amsterdam

A review by me of a curious new biography of Eugene Dubois, one of our most famous scientists, was published in *NRC Handelsblad* of 6th April 2001 in their Science Section.

Remarkably the author of the biography is not a Dutch person, but the well-known American palaeo-anthropologist of Pennsylvania State University Pat Shipman. She spent 10 years doing research among other things in the archives of Dubois which are kept in Leiden, as well as on the fossils he excavated during his stay in the Netherlands East Indies from 1887 until 1895. Also the famous fossils of his *Pithecanthropus erectus*, the Ape Man, found in 1891 and 1892 on the island of Java, are stored there in a safe. These last fossils were the reason for his foolhardy but extremely rewarding adventure "to prove Darwin right" as Shipman calls it in her book 'The Man Who Found The Missing Link'.

Notwithstanding his lucky star, he became a very sad figure indeed, mostly by his own doing, being very suspicious of everything and everybody around him, his colleagues, his friends, even his wife. Perhaps there is one exception: his pupil and later Professor/Director of the Zoological Museum of the University of Amsterdam, the late Hendrik Engel.

I have the honour of reporting elsewhere on a correspondence between Dubois and Engel, of whom I have been a student.

Dubois being a great scientist made him the subject of an earlier excellent biography by Bert Theunissen, 'Eugene Dubois en de Aapmens van Java' (1985), as well as of several other publications.

However, the book by Shipman distinguishes itself by being a brilliant historical biological biography in an easy, compelling style of writing, indeed to be recommended as a must for the general public.

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Forthcoming events

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March 1, 2002

Kroonlezing

Prof. Dr S. Schnurbein, director of the Römisch Germanisch Kommission, on 'Polis and Agora in the Early Roman Period'.

KNAW, Amsterdam.

July 6, 2002

Barge's Forum

Speaker still unknown. Subject: Biometric identification

Vakgroep Anatomie, Leiden.

August 28-31, 2002

14th European Meeting of the Paleopathology Association.

Coimbra, Portugal.

Info: Departamento de Antropologia, Universidad de Coimbra, 3000-056 Coimbra, Portugal. Tel. +351 239 82.34.91. Fax +351 239 82.90.51/2.

e-mail: 14empa02@ci.uc.pt. Web: <http://emppa2002.uc.pt/>

August 30 – September 2, 2002

13th Congress of the European Anthropological Association: A Quarter Century of European Anthropological Association – Reflections and Perspectives.

Zagreb, Croatia.

Info: Pavao Rudan, Institute for Anthropological Research, Ilica 1/VII, P.O. Box 290, 10001 Zagreb, Croatia. Tel. +385 1 4816 903/4. Fax: 385 1 4813 377.

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