Through Eugène Dubois' Eyes



Stills of a Turbulent Life

Paul C.H. Albers & John de Vos

BRILL

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^{By} Paul C.H. Albers John de Vos



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Preface

I can hardly describe my delight and surprise when I first opened a series of emails from my long-time friend and colleague, John de Vos, containing the manuscript of "Through Eugène Dubois' Eyes". When I was researching and writing my biography of Dubois, John's knowledge of and insight into Dubois' fossil collections, archives, and photographs was of immeasurable help. In fact, it was John who first interested me in writing a biography of Dubois by apparently casually making me aware of the rich archives at Naturalis and asking if I cared to "do something" with them. That simple query lead to my many years of obsession with Dubos that culminated in "The Man Who Found the Missing Link". Dubois has been, to me, a tremendously fascinating man whose life story illustrates both the best and perhaps the worst of the results of a scientific obsession. In turn, Dubois and his views invaded my mind in a way I found both disturbing and rewarding.

I became immersed in Dubois' life and thinking. Three examples will show what I mean. Once I was challenged by an alert copyeditor, who remarks that I was writing sentences in English that sounded as if they had first been written in Dutch. Another time, on holiday, I picked up a rather nondescript brownish-grey hat and put it on, asking my husband if he liked it. "That's Dubois' hat," he remarked. "The one in his last photograph." Indeed, without realizing what I was doing, I had selected a hat that very closely resembled Dubois'. On the third occasion, when I was due to give a lecture about Dubois, Ian Tattersall of the American Museum of Natural History introduced me. He commented that my approach to biography as if it were a novel, because that seemed to me to be the best way to convey his life and character. Tattersall said that, of course, we



could never know what had transpired at particular occasions in Dubois' life nor could we know what he has said or thought. My first response – a response that I barely prevented myself from giving out loud – was : "Don't be silly! Of course we know. I was *there*!" Only "I", in this case, was Dubois, not me. I am told this kind of intense identification often happens to biographers. I can only confess it happened to me, with Dubois.

To receive this manuscript from John de Vos and Paul Albers was a completely unexpected bonus. I realize now that, when I examined the glass plate negatives of Dubois' life, some were unavailable as they were being conserved. I had forgotten this fact and so was especially thrilled to see pictures of many places, fossils, and people that I had not encountered in photographs of Dubois' life. Most particularly, I was delighted to "meet" Adam Prentice, Dubois' close friend in the Dutch East Indies (now Indonesia) who, though no scientist, providing Dubois with a sounding board as he developed his ideas about the extraordinary fossil he found. Prentice was in many ways the key to my understanding of Dubois.

It must be remembered that Dubois accomplished the near-impossible in his fossilhunting. He worked out from first principles where the ape-man or "missing link" ought to have lived, and where it might have been preserved as a fossil – and went and found it. He had little help from geological surveys, which had barely been undertaken, or from aerial photographs, satellite imaging, radiometric dating, or any of the other technological tools fossil-hunters use today. He had no airplanes, no rugged four-wheel-drive vehicles, and no fat government grants although he was singularly successful in persuading various Dutch colonial officials to grant him time and labor for excavations. He had no medicines to keep himself, his crew, or his family healthy at a time when the deaths from tropical diseases were appallingly high. In fact, one of his own children died at birth in the Indies, which can only have been a cruel sacrifice for him and his family.

In addition to finding his "missing link", Dubois invented new techniques for photographing and measuring his fossils and for comparing them to other species. He had no library full of similar treatises, no comparative



anatomical collections aside from those items he could beg, borrow, or buy himself. He set the standard and was sometimes criticized for what he did not do, but it would be more fair to remember that he worked in complete isolation from learned colleagues and the resources available in Europe. To do what he did was astonishing; to expect him to have done more is perhaps unrealistic.

Aside from filling in important gaps in the photographic record of Dubois' life and travels, the images reproduced here capture stunning portraits of life in the colonial world. The people, the landscapes, the villages, the geological exposures, and the vegetation are preserved for historians and others in this volume. It is one thing to read collections of colonial letters home and to imagine the life European colonists led; it is another entirely to see for oneself those lives, the clothing, the houses, the roads, the servants, and the elephants.

Finally, the newly-found correspondence between Dubois and the various editors of Brill, the intended publisher of his treatment of the Trinil fauna, is almost painful to read. It is clear that the Dubois Collectie, as it is now known, is of tremendous importance to science and its full potential has not yet been exploited. But the correspondence shows most clearly Dubois' perfectionist nature and his inability or unwillingness to hand over his treasures to the scientific world in writing. He could not finish the work; indeed he hardly began it, and frequently turned his active mind and broad abilities to other projects that were not quite so close to his heart.

If I must summarize what this book offers, it is *more*: more images, more letters, more details, more insight into the workings of a brilliant but unquestionably difficult man of science. We shall not see Dubois' like again so it is doubly fortunate that Albers and de Vos have uncovered so much more about his life.

Pat Shipman State College, PA. USA October 27, 2009

Note from the authors

This book is not intended to be a complete biography on the life of Eugène Dubois. Bert Theunissen and Pat Shipman have preceded us on that path and we will not present more than a short recapitulation of their previous work. We more or less consider, you, the reader of this book, to be acquainted by the knowledge that Eugène Dubois became famous for being the first man to find *Pithecanthropus erectus* (nowadays *Homo erectus*), at that moment in time a missing link between man and ape. The circumstances of his life where extraordinairy enough to have already filled a Ph.D thesis and a biography by the authors mentioned above, but the sheer amount of interesting data still leaves room to add more to his tale. We will just try to fill in some of the gaps we stumbled upon, and will do so by presenting you the outlays of a book that Dubois started very early in his career, in his mind surely already in Indonesia, but which he never finished. Though this fact itself was known, the real impact of this never finished work became only apperent to us when we discovered some 40 hithertho unknown letters directed to Dubois in the archives of his intended publisher, Brill in Leiden.

But next to that we also present an ample choice out of the huge photographic collection in the Dubois archives at Naturalis, the National Museum of Natural History of the Netherlands, all material that Dubois either (had) made or acquired. Out of that collection we particularly chose those photographs that have a story to tell that you might not have heard before or that illustrates what we consider of special (scientific) interest.

Because in the end, that is our ultimate goal: to disclose for you these pictures, which need not be introduced as they will speak for themselves...

Paul Albers & John de Vos

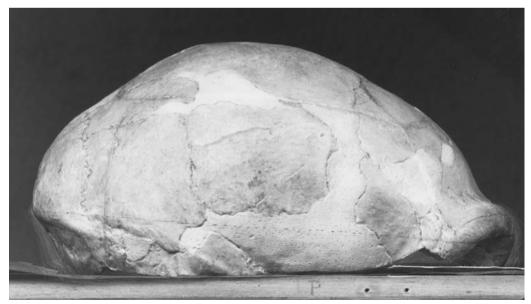
"Le mieux c'est l'ennemi du bien"

words that Frans de Stoppelaar uttered regularly to persuade Dubois to finish his book. (The better is the enemy of the good)

Introduction

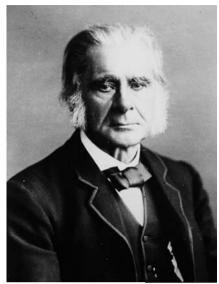
Although the first finds of fossil hominids date back to 1891, thinking about evolution of Man started at least as early as 1844 when Robert Chambers anonymously published his book '*Vestiges of Natural History of Creation*', in which he presented a development theory. Chambers did not stress the point, but his development hypothesis clearly made Man an immediate descendant of the apes. The anatomist Richard Owen used his expertise to disprove the theory of evolution at its most controversial point –man's link with the apes by pointing at the heavy eye-brows of the great apes, which were missing in modern Man. As the eyebrows are independently developed, nor influenced by inner or outer factors, Man must have, if Man was descendent from the great apes, heavy eyebrows; and that, he pointed out is not the case.

However, a decade later in the Neanderthal near Düsseldorf a skull was found with heavy eyebrows. The fossil came into the hands of Hermann Schaaffhausen, professor of anatomy at the University of Bonn, who was convinced that the remains were very old and hominid. Their strange morphology was caused by deformation, but the oligocephalic form of the skull was, according to Schaaffhausen, not comparable to any modern race, not even with the most 'barbarian' races. The heavy eyebrows, characteristic for great apes, were according to Schaaffhausen typical for the Neanderthal. The skull therefore must have belonged to an 'original wild race of North-western Europe'. Some even considered it as the skull of an idiot, an 'old Dutchman' or a Cossack.



DUBO1426 Skull of Spy (Homo neanderthalensis) uncovered in 1887

Charles Darwin published his famous book 'On the origin of species' in 1859, and in it he set out a theory of evolution characterised by a gradual development in which natural selection is the thriving force. Although Darwin at that point chose not to mention the subject but ever so briefly, others were soon drawing the conclusion that there is no separation between Man and apes. In this context the Neanderthal skull became central in the discussion. Two ideas came up, which are still debated today: (1) Neanderthal Man belongs to recent Man; (2) Neanderthal Man is a species of its own. It was Thomas Huxley who set the tone of the discussion describing the morphological bv characteristics of the Neanderthal as primitive, yet definitely human. He also pointed to the large brain capacity as proof of the Neanderthal's human nature. William King, professor of anatomy at Queens College (Ireland), in contrast considered,



DUBO4103 Thomas Huxley

without giving scientific arguments, Neanderthal Man as a new species and called it *Homo neanderthalensis*. Later finds were also generally ascribed to a (primitive) race of modern humans, such as the mandible of La Naulette and the Spy skeletons.



Slide that Dubois used in class of the hypothesized *Pithecanthropus alalus* drawn by Gabriel Max

For Ernst Haeckel fossils were no longer required to prove that Apes were part of the evolution of Man, because the process could be proven already by anatomy and embryology. He introduced the name *Pithecanthropus* to identify the missing link between Ape and Man. The species he called *Pithecanthropus alalus*, the ape-man without speech.

Dubois and his Pithecanthropus

Marie Eugène François Thomas Dubois was born in 1858, a year before Darwin published his *Origin of species*, and two years after the discovery of the first Neanderthal skull. He grew up in a period that witnessed the rapid acceptance and dissemination of the theory of evolution. During his youth the problem of human ancestry was central to many

discussions on evolutionary theory. And by the end of his university studies opponents and supporters of an evolutionary ancestry for humans still agreed that no hominid fossils were known to provide proof of human evolution. Dubois was to be among the first to bring about a change in this climate of opinion. Born in Eijsden in the south of the Netherlands, near St. Peter's Mountain where in cretaceous rocks the remains of mosasaurs had been found since 1766, Dubois had been interested in palaeontology from his early childhood. Anecdotal stories of him roaming around in the area, examining deep pits are still being repeated. He was born in a Roman Catholic family and had two sisters: Marie, later sister Marie-Angelique, and Gerardine and he also had one brother, Victor. His father was a

pharmacist and Mayor of Eijsden. From his father he learned the Latin names of the plants and his mind was set for a scientific career. He was sent to a 'far' away public school as opposed to the more usual and nearby Catholic institutions, and was more likely to have heard there from the discussions and topics in evolutionary theory.

Heated discussions surrounding the ideas of the German anthropologist Carl Vogt, who in the late 1860s lectured in the Netherlands on evolutionary theory and human descent, probably furthered his interest in paleo-anthropology. From 1877 to 1884 Dubois studied medicine at the



Dubois' house of birth in Eijsden

University of Amsterdam; again an institute were Catholic upper class boys were not likely



to go. But he did well and subsequently became a Reader in anatomy in 1886. Although he now was on the brink of a prosperous academic career, his predilection for paleoanthropology made him decide to change course: more and more he became possessed by the idea of beginning a search for hominid fossils that might prove human evolution.

But where should he start looking? Dubois referred to Darwin, Wallace and Lydekker to explain this choice. In his *Descent of Man* (1871) Charles Darwin had reasoned that our human ancestors must have lived in the tropics, since human beings had lost their fur pelts in the course of their development. He had suggested Africa, where chimpanzee and gorilla live, as

The Dubois family

the most probable region of human origins. Alfred Wallace, on the other hand, had stressed the importance of searching for the ancestors of present-day anthropoids in caves and tertiary deposits in both Africa and Southeast Asia. Finally Richard Lydekker had described in 1879 a primate fossil - an incomplete jaw with a number of teeth - from the Siwalik Hills in British India (now Pakistan), which seemed to throw some light on human descent. According to Lydekker, this primate, whom he named *Palaeopithecus sivalensis*, could be regarded as a predecessor of the chimpanzee (*Anthropopithecus*). Yet, he added that the fossil also showed resemblance to both gibbon and human. Dubois concluded from this that "the Gibbon group which in earlier geological periods had developed further" might have played a role in human evolution.

For Dubois the East Indies seemed a suitable area, the more so because this colony of the Netherlands lay wide open to him. And also Karl Martin, geologist at Leiden University had published on the presence of a Siwalik fauna in Indonesia. Adding all this up, the idea to start looking in Indonesia was not as farfetched as it seems now. Following this call, he gave up his position at the university and in order to sustain himself he joined the Dutch East Indies Army as a medical officer, and boarded the SS Amalia with his young wife Anna Lojenga and their firstborn daughter Eugenie to begin his search for the missing link in the Dutch East Indies.

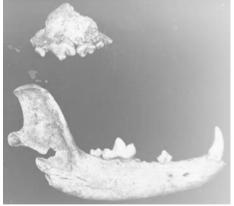


In December 1887 he arrived in Padang on Sumatra. His duties as medical officer initially took much more of his time than he had hoped and it took him quite some time before he could start his geological investigations in earnest. In May 1888, he was

seconded to Pajakombo in the Padang Highlands, where he began a search for caves suitable for paleontological excavation. By August he found some proof that fossil mammals were actually to be found in the caves of Sumatra. Meanwhile Dubois had also

set up a lobby of people that supported his excavation plans amongst which Karl Martin was the most influential voice. Eventually, with the support of this lobby, the colonial government relieved Dubois from his army-duties and enabled him to dedicate all his time to this search and actually put him in charge of carrying out paleontological excavations on Sumatra and, if necessary, on Java.

The Sumatran cave fauna, however, soon proved too young to include any human forerunners. Therefore, in 1890, Dubois decided to continue his excavations on Java, where fossils of supposedly Tertiary age had already been found by, among others, Franz Junghuhn and Radèn Saléh. Moreover, in 1888, the mining engineer Van Rietschoten had found a fossil skull near the village of Wajak on Java, which though fully human, clearly differed from the modern Javanese population. Java thus held promising prospects.



DUBO1092. Mandible and maxilla of the dog from Hoekgrot.



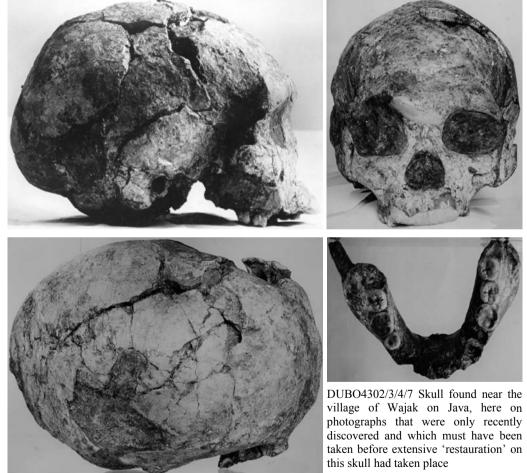
DUBO2115 Dubois was sent this picture by a fellow physician in Indonesia to acquaint him with elephantiasis

At the Hoekgrot ('Corner cave'), very near to where the Wajak Skull was found, he found a red painted human skeleton. In addition to this skeleton he found a partial skeleton of a dog. Java thereby became his main settlement, but it is a very large island indeed, and Dubois did not restrict himself to one site, not even after he had found *Pithecanthropus*. Other material was notably collected in Kedung Brubus, Butak in the Kendeng Hills, the Patiayam, in the north of Java, and, most importantly in Trinil, within a bent of the Solo-river.

When we write that Dubois found

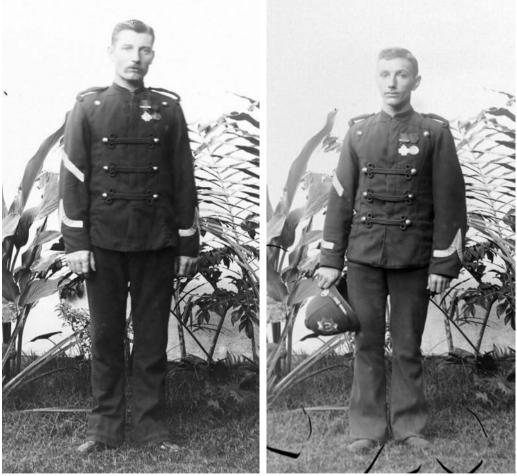
something somewhere, we should make clear that probably 95% or more was not actually found by him at all, nor in his presence. The actual work was done by two members of the engineering corps that were assigned to him, the sergeants Gerard Kriele and Anthony de Winter, along with 25-50 forced labourers (convicts) to help him with the excavation work. They were enduring all the hardship whilst Dubois was mostly at his home studying the fossils that were being transported to him.

The letters of Kriele and De Winter reveal that it was no fun and games and their circumstances were downright miserable. Local governors were not always pleased to see them start working in their neighbourhood as they caused them extra work. Villagers were instructed to misinform them and throw away fossils if they found them. Forced labour was the only possibility to get the work done, payed labour ran off after the first day not wanting to do the hard work required for the income offered. The convicts, whose conditions were obviously even more miserable, were regularly insubordinate, lazy, run off, bribed the overseers that came with them, stole fossils or deliberately destroyed them, and were often ill and even died. Kriele and de Winter often handled the pickaxes themselves as they did not trust their workers to be careful enough when digging in layers where bones were to be expected. And they had their share of illnesses too: frequent fever,



diarrhea, sunstroke and callous growths on their feet. There is also mention of 'women's disease' which no doubt translates to some sexually transmitted disease. They were probably in luck that Dubois was a medic and could supply them with medications, as many a letter ends with such a request.

They were also constantly begging him for money, being ripped off by the locals at every occasion and having to pay for their guides and overseers, materials, equipment and rent for their housing and the convicts'; they were regularly complaining they had not enough money left to buy food. Some of that might have had to do with their drinking habits, or at least de Winters' drinking habits, but the circumstances being as they were, one should say in their favour, that there are less worse circumstances that can make someone start drinking. Their dedication to the job and to Dubois was however enormous and Dubois returned their affection to him with a continued support e.g. writing letters of recommendation, even after he had left Indonesia for good.



DUBO0906 Anthony de Winter DUBO0911 Gerardus Kriele (On these photographs they are posing in new uniforms that had just been issued in 1894.)

After cave exploration in Java proved unrewarding Dubois now turned his attention and workforce to the open field. Success was almost immediate.

In November 1890, near Kedung Lumbu at Kedung Brubus in the Kendeng Hills, he found a fragment of a mandible that he described as follows: "Amidst the remains of typical representatives of the fauna concerned, and in the same layer a human fossil was found, the right side of the chin of a lower jaw with the sockets of the canine and of the first and tooth second premolar....[T]his fossil [iaw] forms a different and probably lower type than any previously known".

In August 1891, during the second digging season in Java, Dubois began excavations at Trinil, a locality that was to acquire historical significance. (Most photographs of the site were made in 1900; amongst them the one on the cover of this book.)

An enormous number of vertebrate fossils were unearthed, and in September 1891, the first remains of a primate, a third molar, emerged from the sediments. At first, Dubois referred the fossil to a chimpanzee (*Anthropopithecus*). In one of his reports to

his superiors he wrote: "This genus of anthropoids, occurring only in West- and Centralequatorial Africa today, lived in British India in the Pliocene and, as we can see from this discovery, during the later Pleistocene in Java".

The skull cap for which Dubois acquired fame was unearthed in October. In Dubois' opinion it was clearly distinguishable from that of the orang-utan and the gorilla. It had to belong to the same fossil chimpanzee from which a molar had been found a month earlier. Despite having designated the find as a 'chimpanzee', Dubois was well aware that he had made an important discovery. The Javanese cranium was higher and larger than that of the recent chimpanzee and



DUBO3985 *Pithecanthropus erectus* jaw fragment from Kedung Brubus found in 1890



DUBO0318 Pithecanthropus erectus molars

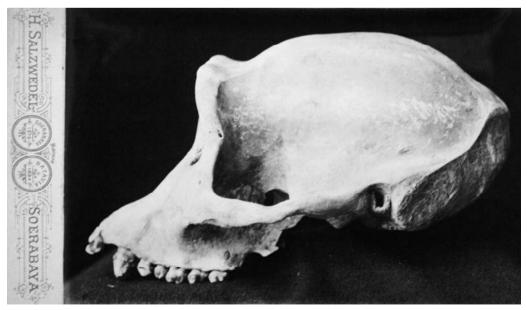


DUBO1303 Skull cap of *Pithecanthropus erectus* photographed before the matrix was removed from the skull cavity

substantially more human-like than any known anthropoid, whether fossil or recent. He does however not have a chimpanzee skull to compare with and writes to his friend and colleague Max Weber in the Netherlands to send him one. Weber tries his utmost but chimp skulls are not easy to get a hold of and Dubois has to postpone his conclusions.

Meanwhile in August of the following year a third primate fossil was discovered, this times an almost completely preserved left femur. "This thigh bone," Dubois stated, "lay at the same level in which both the other parts were found, yet following the direction of the earlier stream which deposited the tuff material 15 m upstream. From the circumstances of the find and [my] comparative research it is evident that the three skeletal elements belong to one and the same individual, probably a very aged female". The almost perfectly human characteristics of the femur indicated that the individual must have walked upright, and this induced Dubois to christen his "chimpanzee" *Anthropopithecus erectus*. Further he stated: "In view of all three skeletal elements, especially the femur, *Anthropopithecus erectus* EUG. DUBOIS approaches modern Man more closely than any of the three great apes, a fact which is in harmony with the thesis of Lamarck, and later of Darwin and others, that the first step in the direction of humanisation of our ancestors was the [acquisition of the] erect position".

In December 1892 the chimpanzee skull that he so desperately needed for comparison finally arrives and soon additional investigation of the remains convince Dubois that they represent an intermediary form between humans and apes. He therefore decides that it is more appropriate to designate his find an "ape-man", *Pithecanthropus*, instead of a "man-ape", *Anthropopithecus* (the name *Pithecanthropus* was coined by Ernst Haeckel for the then still hypothetical link between humans and fossil apes). In 1894 Dubois published the results of his studies under the title "*Pithecanthropus erectus*, eine menschenaehnliche Uebergangsform aus Java".

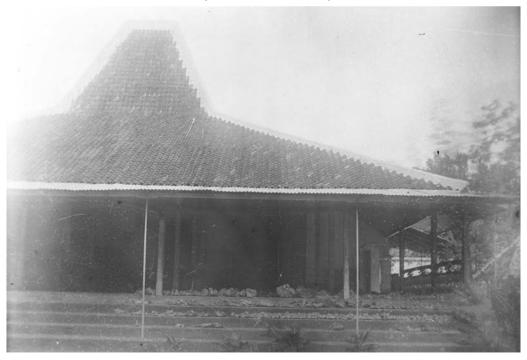


DUBO2113 print of a photograph made whilst in Indonesia of the chimpanzee skull that Dubois acquired to compare his *Pithecanthropus* to.

wen'to women van het beliken die nurvernomm revellestom on de evenwichtstelling van het hoop op dete me meer directe, Doch mit mer now Jakelike gurlen de presidite homine vore. De hersensche vet vasti Inthome Bithema Creetus sons relation vel grotes en dela cerelf da tio by de levente Anthoppide warmont in the the selen welding wind would her White welte, waannier meterraan zienige die deelen der gran we henengelins gelegen zu, welke meer dan de werge achors met de levermeter - vebant stank. De arrus supmorbitales attres wel Weiner day by be chingause, we muit fall after a de Timos frontales

Dramatic high in the Dubois archives: the manuscript in which he changes *Anthropopithecus erectus* into *Pithecanthropus erectus*

During the excavations Dubois stayed in Tulung Agung where he had a house. His wages afforded him several servants, a cook and a nanny. There are just very few photographs with people on them and within the Naturalis collection there are none of his family whilst he was in Indonesia (there is at least one in the family collection shown further on in this book). There are a few of his staff, as of his friend Robert Boyd, and one other portrait, most likely of Adam Prentice. The amount (30.000+) of fossils was so large that he stored them on his veranda (see below: DUBO0910).







DUBO0892 Boy servant at Tulung Agung DUBO0897 Man servant at Tulung Agung. The tree is a papaya, a species carrying its fruit on the stem (caulifloor).





DUBO0168 Bathing facility(?) in nearby brook.

None of the portraits hold names except for the one of Djongos Nassi (DUBO0896). Of most of the portraits we do not have any prints in paper. There is one print of the boy servant (DUBO0892) stating it to have been taken in Tulung Agung. The only other portrait identified without any doubt is the portrait of Robert Boyd, a planter at a plantation called Mringin nearby Tulung Agung, packed in the same box next to the negative of the portrait of Boyd however was another negative of a portrait of a younger man. The negatives are evidently of the same age and suffered the same damage, flaking of the photographic layer possibly due to heat by a lamp coming to close to the negative. Given this 'nearness' we feel confident in assigning the name Adam Prentice to it, who was Boyd's right hand man at Mringin and both became good



DUBO0896 Djongos Nassi



DUBO0901 Robert Boyd

friends of Dubois and exchanged many visits and letters.

We think that the tree depicted DUB01314 on was probably also photographed at Mringin. It has turned out to be a key picture in the collection for at first we thought it to be a tree in the Netherlands but when we asked a botanist to identify the species he pointed out the tree left in the background was a banana and the leaves directly at the back of the tree did not belong to the tree but were probably of a coffee shrub. The tree itself, of which just a few leaves are visible in the top right corner of the photograph, is most likely a *Cynometra* ramiflora, relatively а rare caulifloor (flowering on the stem) species. The outgrowths on the stem are the spots were flowers have been and where a few

DUBO0900 Adam Prentice(?)



DUBO1314 Cynometra ramiflora(?)

seedpods are visible. (When we showed the picture to Pat Shipman she identified a femur of a bovine on the background, to the right of the stem just before the wall, and there are also an atlas and a sacral, just to illustrate that one can only see what you expect to see, other people always see things you had not seen yourself)

Only after it had now been established that this photograph originated from Indonesia, we saw the resemblance between the wall on the background and the wall on the background behind the girl on DUBO0895. Again we had placed this picture first in the Netherlands, in spite of the Indonesian furniture (which many Dutch colonialists took home with them), but now it seemed much more likely that this picture was also taken at Mringin and portrays Robert Boyd's oldest daughter Anna Grace.

Before Dubois was to return to the Netherlands when his tour of duty ended in

1895, he went to visit the Siwalik Hills which we discuss separately will further on. After leaving definitively for the Netherlands his sergeants would continue to collect fossils, in particular at the Trinil site until 1900 Dubois never returned to Indonesia which cannot have been for lack of opportunity. He was to become professor of Geology in Amsterdam and regularly excursions to Indonesia were organized, also from the Geology department. In those days all Dutch universities were very keen on their faraway possibilities and any botanist. zoologist or geologist of any standing would go there and probably even needed to have visits to the colonies on his curriculum vitae to taken seriously. be But Dubois never returned; he had found everything there that he could possibly have hoped to find. No more was to be expected.



DUBO0895 Anna Grace Boyd(?)

Siwalik

Before returning to the Netherlands Dubois takes a trip to the Siwalik Hills in the North of what was then British India, now Pakistan. The elaborate trip to the sites where Richard Lydekker had been collecting fossils about twenty years earlier had one main reason. He had to confirm his thesis that there was no 'Siwalik fauna' on Java by comparing the sites and comparing the Indonesian fossils to the ones curated at the Natural history Museum of Calcutta. In particular he wanted to see *Anthropopithecus sivalensis* and is glad he has as he concludes that Lydekker has reconstructed and depicted the jaw incorrectly. We have an



DUBO0799 Elephant owned by the Maharadja of Sirmoor

account of the trip which was first used by Pat Shipman for her book, but there are also a number of photographs of which she only used one (the elephant). These pictures are intriguing as most of them just depict people, which clearly differ with regard to their social background. These pictures are therefore an interesting document on themselves from an ethnographic point of view. The account of the trip nowhere explicitly mentions that pictures are taken, but

descriptions of certain people clearly fit some of the pictures closely. This brings us to another point altogether, the account we have in the Dubois collection itself: there is something odd about it. It is doubtlessly written in different hands, some parts even, as it seems, by a child. It breaths a very distinct suspicion that some form of censorship has been going on, it has been completely rewritten and it ends abruptly, in the middle of a sentence. It might have been constructed from personal letters, or the original might have contained passages otherwise not fit for publication. It seems odd and not Dubois-like to not have kept specific notes on these photographs (as he did do in Indonesia), but the archives do not currently hold them. The account however is an interesting observation on how the British held office in comparison to the Dutch and the differences between Indonesian and Indian cultures. Generalizations are not sparse and people he meets are by no means always favourably judged upon. British drinking habits are a returning subject of wonder as is their pompous upper-class attitude and the ever returning mutton, beef stew and ice cream. In Calcutta he visits an evening party of the Vice-Roy and in officers dress himself gets to see "hundreds of women dressed up for a ball"... He is very happy to finally leave Calcutta behind him and longs to see forests, mountains and streams. The crew he hires consists of about ten people, at some points he adds one or two, and as he mentions only men and some photo's of what seems to be (part of) his crew also depict women, these women might not even have been counted. He also hires camels, which he describes as ugly wretched beasts. He rides one of them, for want of try, but climbs down after ten minutes and subsequently decides to walk for an hour "to set his spine straight".



Victor Bruce, 9th Earl Of Elgin Vice-Roy of India 1894-1899



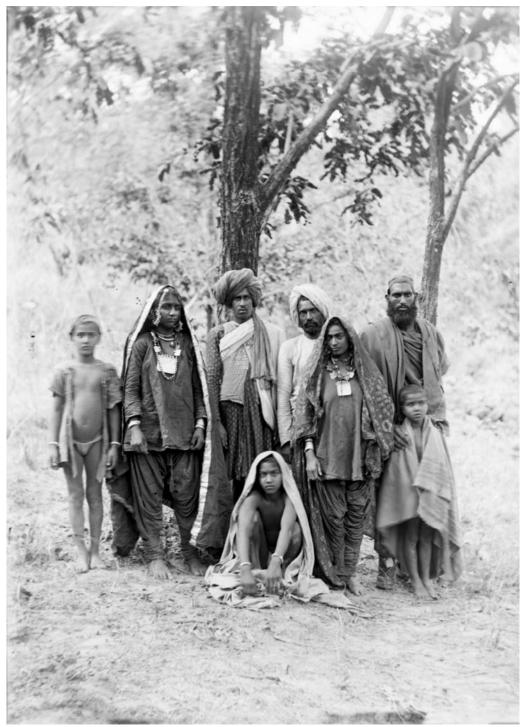
DUBO0833 Camels in Siwalik landscape

Dubois' crew, depicted below in DUBO0843, can partly be identified by the descriptions we have and the objects they are carrying. Second to right is Dalea, a small man from Madras, and Dubois' main man. Left of him is Allay Deva, the water carrier, identifiable by the goat skin filled with water he is carrying. Almost the furthest to the back, fifth from the right, carrying a broom, is the sweeper, Choonee, who also had to empty the pots, a job for the lowest cast (Dubois describes how selecting the crew takes ages as all these different cast aspects need to be considered). The man most to the left is very possibly a Sikh, judging by the tightness of bindings of his turban. As we know Ram Phal had an army history and the man on the photo to the right is the only one fitting that description, in particular because of the belt he is wearing, we ascribe him that name. Not having been present for the 'group picture' might have been the reason for his solo-portrait.

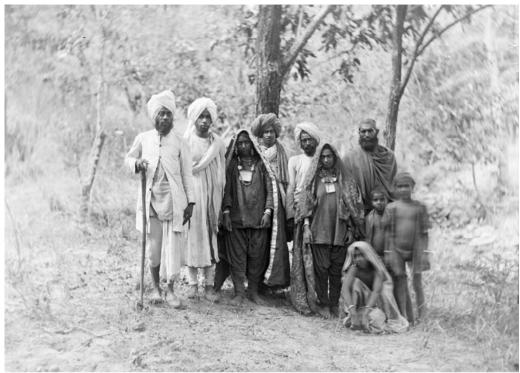


DUBO0800 Ram Phal was hired to take care of the horses (as he had done for the British military)





DUBO0798 Probably two Hindu couples with children to the left, the adult male to the right is a Muslem



DUBO0838 Equals DUBO0798 but with two more males to the left, who look much more self-assured than the rest of the group. They are possibly assigned to Dubois' party by the Maharadja of Sirmoor...



DUBO0832 Typical Siwalik landscape



DUBO1276 Siwalik landscape



DUBO1277 Siwalik landscape





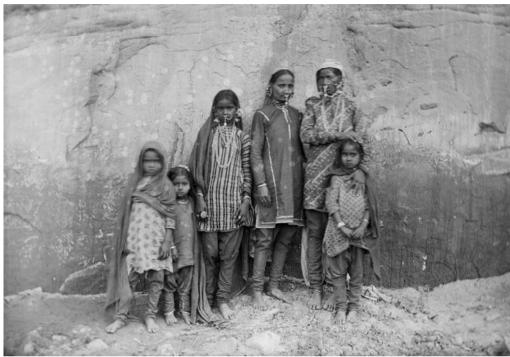


DUBO0840 Women

DUBO0801 Child with shoes

Dubois describes in his travel log some aspects of the native clothing. In general the colours are red and white, he says, whereas in Indonesia the common colours are blue and black. He seems amused by the trousers the women are wearing, tight at the ankles, wide at the hips.

According to Dubois the Hindu women are wearing rings as large as bracelets in their noses, and in general many rings, on fingers and toes. When we showed these pictures to experts of this region they were not at all sure these were Hindu women. In those days these groups lived side by side and are not always that easy to identify from pictures. Dubois seems unaware of such subtleties and should not be taken on his word in this matter. To him as to most colonial whites at that time, the natives were principally all 'black'. Dubois was however interested in racial physiology, which may well have been the reason to photograph these people at all. The following pictures, though seemingly of the same type of women, show something interesting on the background. One can just make out an elephant depicted in the rock. The elephant is facing left and its eye is about at the same height as the eyes of the leftmost adult female. The area is renowned for its pictures on rocks but elephants are not a theme, ibexes are.



DUBO0835 Women group in front of elephant in rock



DUBO0836 Expanded group in front of elephant in rock



DUBO0842 Group of men, maybe offering themselves to carry loads. Dubois describes such a group as wearing almost nothing, except for their bedlinnen, a reddish cloth, which they carried with them always. Shoes seem to be like the ones of the child in DUBO0801, possibly woven.

As there is no account of the last period of the Siwalik trip we can only presume. The trip must have been successful with regard to the main goal of Dubois, establishing a clear difference with the fauna and the geology of Java, thereby dismissing Martin's presumption about the presence of a Siwalik fauna in Indonesia.

But should Dubois have had any hopes of spectacular finds they were not fulfilled. He found lots of fossils, but nothing remotely humanoid or otherwise of earthshaking scientific importance.



DUBO1242 *Hemibos triquetricornis* RGM 3107, Siwalik, location Mahrawala





The discussion about Pithecanthropus

Dubois widely publicized his *Pithecanthropus* finds and after his return to Europe displayed them at several international congresses and scientific meetings although none of his early print publications hold pictures of the fossils nor of the finding sites and only very few particulars of the finding sites were the fossils had been discovered. The picture on the previous page shows the participants of the Third International Zoological Congress in Leiden 1895. Most of the players in this book were present at that congress, but only very few can be identified in this picture with certainty. Opinions on his discovery varied, but essentially the critics were divided into two camps. Some gave the *Pithecanthropus* remains the same treatment the Neanderthal fossils had received forty years earlier: they regarded them as primitive, though fully human. Others, however, ascribed the bones to an (upright-walking) ape. Dubois did not fail to exploit this difference of opinion. He pointed out that for some of his colleagues the fossils were apparently too primitive to be regarded as human, while for others they were too human-like to be assigned to an ape. Consequently, *Pithecanthropus* must have been something in between.

In general there was also doubt if the specimens, the femur, skull cap and the molar belonged to one individual. Leonce Manouvrier considered the femur from a *Homo*

sapiens, the molar from a great Ape, a gibbon, or an orang utan, and the skull cap looks like a young gibbon. Further, the femur has the size of a normal human being. If the skull cap belonged to the same individual as the femur. according to Manouvrier, then the size of the individual was of a normal human being. However, a normal human being with such a small brain size must have been an idiot or a microcephalic. That is also Lvdekker what and Cunningham thought; the skull cap was from a microcephalic idiot. That the bones were belonging to one individual Cunningham excluded.



DUBO1459 Skull of a microcephalic man that Dubois acquired and used to point out to his opponents the differences between a microcephalic man and *Pithecanthropus erectus*.

Rudolf Virchow, who had also discussed Neanderthal the skull. considered the skull cap of an Ape, and the femur human. Also Waldever considered the skull cap as belonging to an Ape and the femur as belonging to Man. But there were more scientists who considered Anthropoid. Pithecanthropus as an Representatives of those are Ramström, Boule and many others. Others considered Pithecanthropus a giant Gibbon, like Krause and Bumüller.

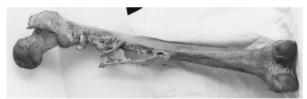
Turner and Topinard considered the molars to belong to large Orang utan. The most extreme interpretation is from Mahaudeau who thought *Pithecanthropus* to be a bastard from Man and Ape.

After Dubois had clarified several points, and especially after being on congresses, held during 1894-1900, where they had been able to examine the fossils for themselves, a growing number of scientists recognised that they were dealing with a transitional form linking



DUBO4292 Rudolph Virchow

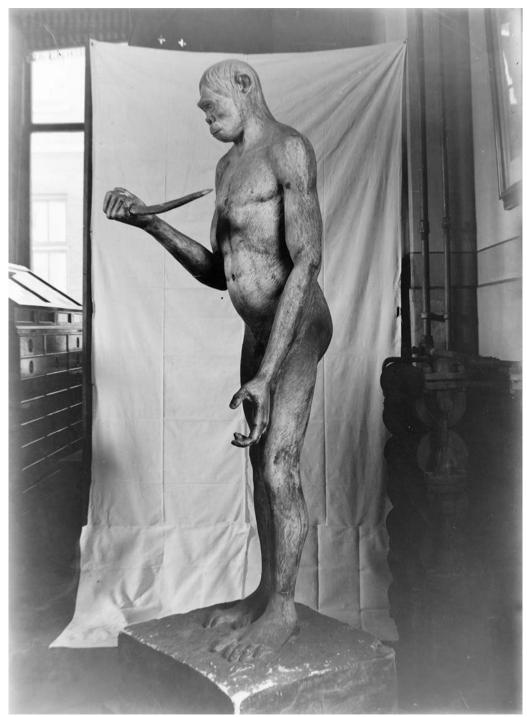
humans with their ape-like ancestors. Thus, they accepted Dubois' belief that a phylogenetic significance could be ascribed to the fossils. Most of them, however, did not



DUBO1312 Femur of a comedian who had exitocis compatable with the femur of *Pithecanthropus*. The man apparently did not suffer/notice this during his life and Dubois therefore used this example to rule out the argument of Virchow, who said that anyone with such exitocis must have been fully human because he must have had substantial social support to survive such disease.

agree with Dubois' contention that *Pithecanthropus* stood exactly halfway between human and ape.

In 1900 Dubois made a reconstruction of his transitional form for the World Exhibition of Paris informally referred to as 'Pete' ('Piet' in Dutch.)



Reconstruction of *Pithecanthropus erectus* nicknamed 'Piet' made by Dubois for the 1900 World exhibition in Paris using his son as model. (Negative in Collection Geological Museum Artis, Amsterdam)



DUBO0001 Horse kept still by someone holding rein as the shadows reveal...



DUBO0548 Dogs are less easily kept still...(& Dubois' son Victor)

Personal stuff

The letter

When Eugène Dubois died in 1940 within the first year of World War II, his daughter Eugènie wrote to the Leo Brongersma, curator of Naturalis, the Museum of Natural History in Leiden, begging him to come and help sort out her father's affairs. Shortly before Dubois had definitely moved from Haarlem to his estate 'de Bedelaar' in the South of the Netherlands. The moving house however had been chaotic and lots of things had got mixed up. Eugenie was troubled by what awaited her. There was a war, her father's death, the chaos in the estate she inherited and the last will of her father which urged her to keep the estate which she could not afford. And now she had to beg Brongersma for help, although she knew that her father had fallen out with his former employee. She apologizes for her father's behaviour writing that Brongersma must surely know how mistrusting her father had always been to everybody and how he had always needed to have someone to blame for anything that went wrong. (Hooijer-Dubois, 1941). Brongersma had already become the curator of the Dubois collection in Naturalis, but now he also had been asked to go through Dubois' personal belongings to pick out those items that needed to be preserved for posterity. Alas, his view on what to keep and what not can in retrospect be regarded as regrettable (to say the least) and as a consequence after this first sifting many letters marked personal were burned. Whereas Eugènie may have done part of the selecting, and may have decided to burn the letters marked personal, a large part of the selection to be burnt has been made by Brongersma. He had not grasped that historians very much need that personal side as without it many aspects of an individuals' life just cannot be

understood. We assume that the negatives of Dubois photographs have remained largely untouched, some for about a hundred years, but we do not know if any selection has taken place in these early years of the Dubois-collection. The fact that so few photographs of his personal life are among them makes one assume it might have.

Many, mostly glass negatives, were separately packed and numbered, and it seems only justified to start off with number one (left page), which is probably the most enigmatic photograph in a way, as we have no clue whatsoever why this horse has been photographed.

There are, except for a few family snapshots with dogs in it, no other photographs with just a live animal as a subject, which makes this one all the more peculiar. Maybe at some point someone will provide us with, what will no doubt be a clue of a personal nature, why this horse was kept still to have its picture taken.



DUBO2481(excerpt) Dubois and Eugènie at a meeting celebrating his 70th birthday (University of Amsterdam)

The letter of Eugènie played another role later when Bert Theunissen started his dissertation on the life of Dubois. Brongersma was not at all pleased that this 'young boy' started swimming in what he considered his private pool and he used the letter to legitimize his claim on the Dubois-collection and archives. As a consequence a substantial amount of data was kept hidden from the first biographer.

The second biographer, Pat Shipman acknowledged the important consequences of the letter in her preface, but did not mention the crucial role Brongersma had played and thereby suggests it was all due to Eugènie. We also tend to forget nowadays that burning of personal letters was probably a common practice, e.g. after the death of Charles Darwin the same happened with many of his personal letters.

Family

Amongst the glass-negatives in the Duboiscollection the picture of a woman standing under what appears to be a sun cover on the deck of a ship is most likely the oldest one. It is a reasonable assumption that we are looking at Dubois' wife Anna Lojenga on the boat close to arriving in Indonesia, but the preservation of the negative is very poor and the facial features of the woman cannot really be made out. On the whole the quality of the negatives in the collection is rather good, but some, and particularly amongst the older ones, have suffered true time, faded, thumbed, and the photographic layer has sometimes come off. A few are broken, sometimes mended with sticky tape or have paper glued on them. Some of the family pictures are not on glass but on nitrate.

Of Anna's family we do not know a lot, but we do know she was the youngest of DUBO0393 Anna Lojenga on boat? ten siblings, two brothers and seven sisters,



the oldest being twenty years older than she was. Both her brothers served and died in Indonesia, as did her sister Margaretha Dingena, "Diete", who was married to a highly placed civil servant, Dirk Pieter Jentink, assistant resident on Borneo, present day Kalimantan.

Her mother, Willemien Jentink was related to the director of the National Museum of Natural History in Leiden, Frederik Anne Jentink, so all in all Dubois married into a family which had good contacts both in the scientific world and in Indonesia. Dubois used the contact to both Jentinks as becomes clear from a number of letters, but Diete dies already in 1887, shorly after the first letter exchanges which then cease entirely. F.A. Jentink keeps supporting and exchanging letters with Dubois extensively.



Jean, Victor & Eugènie Dubois in Indonesia (June 1892, collection N. Hooijer)

The lack of pictures of family members whilst in Indonesia has long suggested a quirky side of Dubois' character, that he regarded his family of much less interest than his fossils, but this needs to be corrected as it turns out family pictures did at some point exist: one is kindly provided by his great-grand-daughter depicting his children in June 1892 in Indonesia at the ages of 5, 4 and $1\frac{1}{2}$.

After his return to the Netherlands at first a tour along family members appears to have been made (in a relatively short time judging by the age of the children) and furthermore a few portraits remain, of which some at the occasion of the holy communion of Eugenie, as well as a sea-side visit, some gardens and houses, a few indoor pictures, and two family x-ray pictures to end with. Most of them speak for themselves and will be presented without comment, names and places will be given when identified. Unidentified people are abbreviated as Woman A, Woman Child А etcetera, using the same B. abbreviations if the person(s) on different photographs appear identical.



DUBO0119 (nitrate) Eugenie, WA & WB

DUBO0120 (nitrate) WB, Eugenie & WA

For a number of years after they had returned to the Netherlands, Eugènie went to a private boarding school in Beverwijk where three of Anna's sisters were employed. WA and WB might well be two of these sisters with Eugènie in the school grounds.



DUBO0121(nitrate) Eugènie, WA & WB

The identification of grandma Lojenga is tentative and based on her being in traditional mourning clothes of the area in the Netherlands where Anna's parents originated from. Her father was a Protestant minister and had several subsequent constituencies, also in Elburg, where Anna was born. Mixed marriages between Roman Catholics (Dubois) and Protestants were not at all common in those days and in the Netherlands and in particular for а



DUBO0122(nitrate) WA & Eugènie



DUBO0123 (nitrate) Eugènie

Protestant to marry a Catholic was considered degrading. Catholics were very much discriminated against and had much more difficulty in acquiring status and positions with political influence.

There is one more identification we want to suggest based on likeness: WD is very possibly yet another of Anna Lojenga's seven sisters and given that she seems to be of Anna's age it is possibly Willemien (Jr). Consequently, but less obvious in likeness, WC is likely to be her sister Ypke, who was married to Willem Dumortier, who according to the marriage certificate was witness to Dubois' marriage.



DUBO0559 Grandma Lojenga, Victor, Jean & Eugènie



DUBO0542 Grandma Lojenga, Victor, Jean & Eugènie



DUBO0545 Grandma Lojenga & WE





DUBO0544 Jean, Eugenie, Victor & Grandma Lojenga DUBO0560 WG, Eugenie, WC, Victor, Jean



DUBO0553 Dubois'brother Victor and his wife, Marie Canoy, WA and her husband



DUBO0561 see pict 553 (left)



DUBO0546 WF, Eugenie, WC, Jean, Victor & WH



DUBO0549 CA, Jean, WC, Eugenie



DUBO0550 CA, Jean, WC, Eugenie



DUBO0547 Anna? & Victor



DUBO0551 Eugenie & Anna?



DUBO0552 Eugenie, CA, Jean, WC, Victor, CB



DUBO0554 Trinette? & grandchild



DUBO0993 Anna Lojenga



DUBO0543 Victor, WC, Eugenie, WD & Jean



DUBO0891 Gerardine and her kids



DUBO0983 Anna Lojenga

Dubois distanced himself from his Catholic background later in life (very probably because of vicious attacks from church officials because of his views on evolution and human descent) but was apparently embedded enough in the Catholic Church to have his daughter attend Holy Communion on the 10th of May 1898. For this ceremony the girls are dressed up like little brides. It is considered important enough to have his sister Mere Marie-Angelique be allowed to attend. Nuns were rarely allowed to visit their family except for catholic festivities like these and often did not visit their families for years...



DUBO0988 Mere Marie-Angelique





DUBO0985 Eugènie

DUBO0992 Eugènie



DUBO0894 Daughters of Gerardine?



DUBO0990 Janet Boyd(?)



DUBO0987 Willemien Lojenga-Jentink: mother of Anna, Victor, Anna Lojenga (dated 20-4-1898)



DUBO0989 Willemien Lojenga-Jentink: mother of Anna, Victor, Anna Lojenga CC, Jean (dated 20-4-1898)







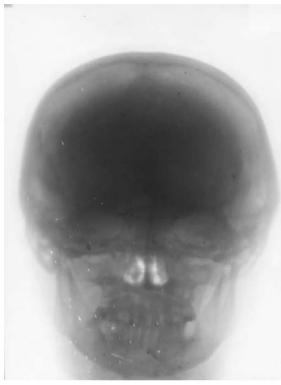
DUBO0984 Eugènie, August 1909

DUBO0893 Victor, Eugènie, Jean



DUBO1300 Eugènie

The pictures of his children in the Naturalis collection represent roughly three phases: shortly after their return from Indonesia, a bit later on occasion of Eugènie's Holy Communion, and the last three, on this page, where Eugènie is adult.



DUBO1515 X-ray of Anna Lojenga's head

the hand would not belong to the same body as the head, as it was clearly subadult, which can be seen by it having clearly visible growth-discs at the tarsal ends. The negative of the head carries the description 'Mrs. Dubois', so no doubt to whom that belongs. The hand carries two rings hence we describe it to the most obvious female subadult: his daughter Eugènie. As her age can be estimated relatively accurately at about eleven-twelve, the photograph can be dated at about 1899-1900. It seems a bit odd nowadays that anyone should want to keep an x-ray picture of his wife's head or his daughter's hand, but it was not as macabre as it seems now. X-rays only just been invented had (Wilhelm Röntgen published his find first in 1895) and just a few years later anyone with money could get his or her head or hand x-rayed at a carnival or any other large gathering of marketers just for the fun of it. We asked a specialist if she could see any medical reason why these x-rays would have been made, but she could find no fault with the subjects. She remarked however that



DUBO1325 X-ray of Eugènie Dubois' hand





DUBO0905 View possibly made out of Dubois'house at Sweelinkplein 12 The Hague at about 1896



DUBO1304 Formal garden in wintertime

DUBO0898 Garden see also DUBO0983 page 42

Dubois had an interest in gardens, at least in his later life he spent a lot of time (and money) in recreating in his garden at his estate 'de Bedelaar' an environment holding those plants that would have been around before the last Ice Age, the time where the fauna from Tegelen originates from. Some of the plants depicted are by all means extraordinary for that time in the Netherlands, the *Araucaria* centering DUB00983 (page 42) with his wife rather in the background being the most explicit example, but also the *Oleander* in the background of the communion pictures would not have been a common plant in every household.

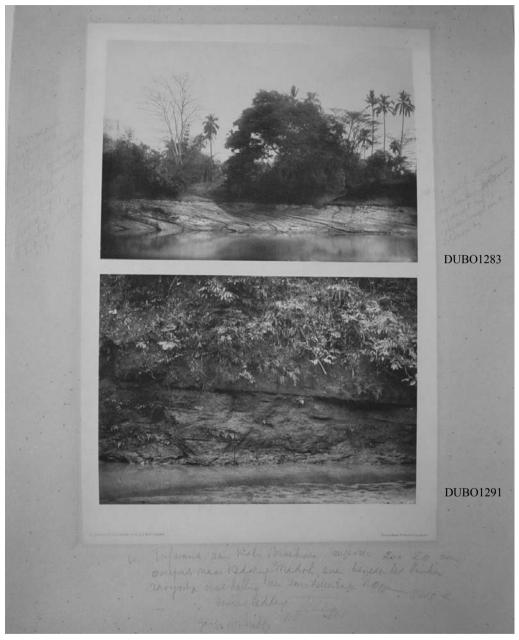
Two negatives are broken and both persons on them have not been identified. Sometimes the negatives have been written on as can be seen at the top of DUBO0557. It reads as Hoek or Holk, but it holds no clue to us to whom or where we are looking.



DUBO0557

DUBO0558

We intend to create a website via Naturalis on which we will log an up to date account of the pictures in this book, in hope you will be able to help us identify the people and places that we have not been able to identify yet. Do visit us at: http://science.naturalis.nl/dubois



First page with plates of the intended book on the Indonesian collection with Dubois' remarks in the sideline. Photo negatives remain in the collection.

The book part I: The Indonesian collection

Understatements

On December 15th 1913 Dubois writes a letter to the firm Brill, publishers in Leiden since 1683:

Dear Sír,

although this year I have done the impossible to finish a first and most important part of my publication, which is to be published by you, on the Indonesian collection, I am' not been allowed to succeed. One circumstance that impeded me was the obligation to fulfill the wish of the Government, to receive a catalogue of the collection, which has taken much of the time available to me.

But also I could not have foreseen the size the field of aforementioned publication has amounted to over the past years. Much needs now to be examined from new points of view.

I request your trust, that I will do my utmost, to bring progress into this matter and I believe I can assure you that the long delay has not resulted in a decrease of interest. Interest now is surely larger than it has ever been.

In hígh esteem, your servant, Eug. Duboís

This work would never finish. And when this letter was written it had already taken more than 15 years from the onset. We recently got access to the copybooks of the firm Brill in which all outgoing letters were copied and found a large number of letters² directed to Dubois that were hitherto unknown. From these letters it became soon clear that a contract had been made, which subsequently also turned up in the Brill archives. This very interesting document, handwritten in twofold by Dubois himself states that the Ministry of Colonial affairs will pay a sum of 6350 guilders for the completion of a book on the fossils of Indonesia, of which \mathcal{F} 2000,- can be claimed by Brill at the end of 1899 and the rest, \mathcal{F} 2350,- upon finishing of the whole lot.

Strangely enough there seems to be nothing in it for Dubois himself other than the honour of having the book in his name, but no financial incentive to him is stated. The Dubois archives hold a small booklet in which Dubois documented his expenses for Brill but as the ministry never got to see anything worthy of the money they reserved for it, Brill never got a penny and money becomes a serious issue in the relationship between Brill and Dubois. At that time, even F 2000,- is a fair amount of money, equaling the annual income of a member of parliament at that time. So it is no wonder that at first Dubois is treated with the utmost respect and in particular Frans de Stoppelaar, one of the two managing directors at Brill, tries to endorse Dubois' every whim and even pays house visits to Dubois

¹ 'Am' instead of 'have' (which looks as odd in Dutch as it does in English) allows Dubois to express a personally felt responsibility (PA).

² All added in appendix I as is also the contract between Brill and Dubois.

to keep this project going. De Stoppelaar was involved in the organization of the Third International Zoological Congress in 1895 (he is probably one of the persons depicted at page 28) and must have noted the impact Dubois and his finds had on the scientific community. But that would all change and De Stoppelaar and later his companion Peltenburg would write many letters persuading, pursuing, arguing, and despairing but

without coming anywhere closer to the goal they set themselves in 1897.

Meanwhile similar projects of Brill were very successful. For instance the famous Siboga expedition (1899-1900) to the Indonesian archipelago headed by the biologist Max Weber, resulted in a series of no less than 142 publications, well into the nineteen seventies. But there are also reports on expeditions to New Guinea and Borneo and even reports on American expeditions to Alaska and Siberia that were successfully published by Brill.³

However, to anyone who knew the extent of material Dubois had shipped to the Netherlands it must have been quite clear from the start that Dubois underestimated the amount of work needed. But furthermore, he was not the man to fiddle about with details, as having to deal with details slowed him down. If the Government had not insisted on a detailed catalogue of the 45000+ items he had put in the museum, the whole collection would now have been of little or no value. Lots information necessary of to understand the fossils and to interpret them for research would have been lost and taken to the



Max Weber, headed the Siboga expedition and supported Dubois on many occasions

grave by him. He understood the importance but if he had not been forced to accept assistance the catalogue would have suffered the same fate that the book did, and by the time the letter to Brill was written in 1913, the catalogue would still take more than 20 years to finish. But it did finish (solely through the work of his assistant, the Jesuit father Sanctes Bernsen) and the whole collection is therefore still of great importance today. As an example, his great nemesis of later days, Ralph von Koenigswald, who also collected a large amount of fossils in Indonesia, which are now in the Senckenberg Museum in Frankfurt, did not provide any decent catalogue to his finds. As a consequence many are now in essence lost for science as much of the necessary information on the location and circumstances of these finds has been lost. In fact only by comparison to the Dubois collection some of this lost information is now being retrieved (by the diligent work of Christine Hertler), a fact Dubois will surely be gloating about to Von Koenigswald should they both have been wrong about there being no afterlife...

³ Brill has printed a book celebrating its 325th anniversary which is the source of many details like these in this text; the book is, however, not commercially available. (ISBN 978 90 04 17031 5)

Contents

The intended contents of the book to be can only be partially reconstructed. There is just one notebook that seems to contain manuscripts that might have been first drafts of ideas and a small booklet with texts accompanying the photos made in Indonesia. Next to that there are the plates that were printed by Brill, some printed proofs of text and a number of photographs that seem to be made for publication but never used. The printed proofs of text are not really interesting, they are repetitions of his work on the *Pithecanthropus* material and his ideas on the relation between brain volume and body size (This subject is treated extensively by Bert Theunissen).

The notebook states on the first page that it contains notes and texts for the manuscript on the fossils from Java, but the actual contents are disappointingly dull and do not add anything useful to what is already on the printed pages.

The plates however only partly match the text, numbers 1-13 covering sites where Dubois surveyed and 14-24 covering *Pithecanthropus* and material used in comparison. But it is seems only logical that also the species that had been found should have been treated. Dubois made a small start and it seems he wanted to start with the lower land vertebrates: there are some printed skulls of crocodiles and gavials. We will just start with a selection from the pictures of the species that he brought home with him. Subsequently we will deal with some of the pictures we have of sites, part of which are on the plates that Brill had printed and part of which we only have negatives/printed photographs. Information belonging to these sites is generally sparse.

We will end with the material of *Pithecanthropus* and the material to which it was compared and used as subject on the plates printed by Brill.

Species

Dubois considered the fossil remains found by him in the various localities together to represent faunas of similar age to which he applied the name Kendeng or Trinil fauna. Later in the early 80ties of the last century the so-called Trinil fauna of Dubois was split up into the Trinil fauna sensu stricto and the Kedung Brubus fauna, based on differences in faunal composition. The two faunas were considered to be of different ages: Kedung Brubus with an age of 800.000 younger than the Trinil fauna sensu stricto with an age of one million years.

One of the problems Dubois had was that he did not have the space available to lay out his collection in such a way that he could get a good overview. Surely Dubois wanted to describe and figure the fossils himself for the book he had planned. But although photographs were made, they seem only preliminary. The pictures we have selected in this section are only from those of which we are certain that they are early ones made or commissioned by Dubois himself. There are more pictures in the collection which probably and sometimes certainly have been made by Brongersma or Hooijer, and alas not always can be distinguished anymore from the original Dubois collection, but of the ones presented here we are 'pretty sure'...





DUBO0279 molar of porcupine *Acanthion brachyurus* LINNAEUS 1758, a porcupine. Only a few specimens were found at Trinil.

DUBO0823 upper jaw of *Rhinoceros sondaicus* DESMAREST, the Indian rhino. This species is represented in the Dubois collection by various specimens.



DUBO0928 Lower specimen hemi mandible of Panthera trinilensis

Panthera tigris LINNAEUS, 1758, the tiger. According to Dubois there were two species of fossil tigers in the collection; the one from Trinil, he called *Panthera (Felis) trinilensis* and one from Kedung Brubus, he called *Panthera (Felis) oxygnatha*. Later they became synonym for *Panthera tigris*, however as extinct subspecies: *Panthera tigris trinilensis* and *Panthera trigris oxygnatha*.



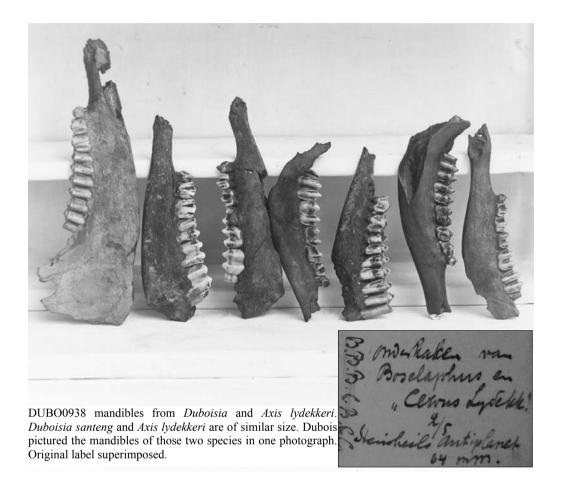
DUBO0936 *Stegodon trigonocephalus* MARTIN mandibles (top) DUBO0937 molars (bottom) *Stegodon* is an extinct proboscidean (elephant like creature) of which the molars are low crowned. Remarkable of this species is that the tusks are not spreading, but lie so close together that the trunk cannot fit in between anymore A lot of specimens from this species are found.



DUBO0977 Skull (middle) and antlers of *Cervus (Axis) lydekkeri* MARTIN Hundreds of antlers, mandibles etc. of this extinct species are present in the Dubois collection. Dubois named it *Cervus liriocerus*, but it is now a synonym of *Cervus (Axis) lydekkeri* MARTIN



DUBO0981. Skulls and horn core of *Duboisia santeng* DUBOIS, 1891, extinct *Boselaphide*, related to the Nylgau. First this rather small extinct species, with the size of a goat, was named *Anoa santeng* by Dubois, later he named it in honour of Kroesen, who was the Governor of the Dutch East Indies, *Tetraceros kroesenii*. On the label is written: Boselaphus Kroesenii van Trinil (af. Kgawi, Res. Madioen, Java) This species is only known from Java.

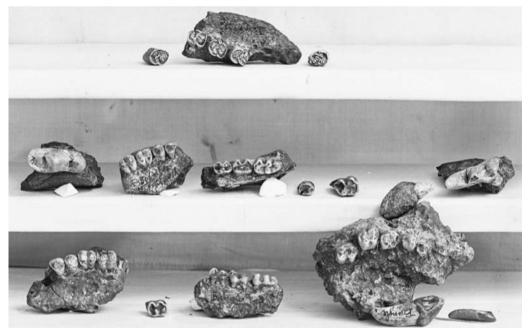




DUBO0978 skull and horn core of *Bibos palaesondaicus*, 1908, an extinct banteng. This fossil banteng has oval horn cores in cross section.

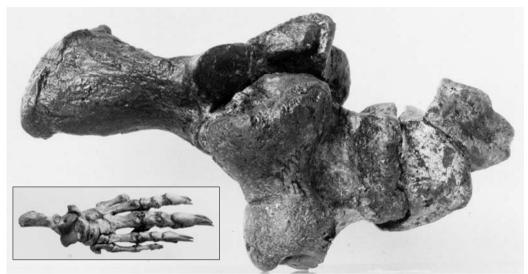


DUBO0976 Skull and horn cores of *Bubalus palaeokerabau* DUBOIS, 1908, extinct water buffalo. This extinct species is very well represented. The horn cores can be easily determined, as the outline of their cross section is trianglar in shape. The horn cores can have a width from tip to tip of more than 2 and a half meter. Thousands of molars have been found of the bovid species *Bubalus palaeokerabau* and *Bibos palaesondaicus*, which are difficult to separate.



DUBO0923 Upper row: molars of *Acanthion brachyurus*; middle and lower row: all the specimens of monkeys, *Macaca* sp./ *Trachpithecus cristatus robustus* HOOIJER, 1962, in the Dubois collection, with the exception of the most left and most right molars of the middle row, which are from *Panthera tigris*.

Whereas afore mentioned species are from the Trinil site, the following are from Kedung Brubus and not present in Trinil sensu strictu.



DUBO0958. Articulated foot bones of *Manis palaeojavanica* DUBOIS, 1907: the scaly anteater. From this extinct species material from one animal was found. This is remarkable, as it is the only skeletal material in association and is also the only species which was extensively described by Dubois in 1926. It has twice the size of the recent scaly anteater *Manis javanica*. Insert: DUBO0959 complete foot of a recent *Manis for comparison of shape (not size)*



DUBO0925. *Hyaena brevirostris bathygnatha* DUBOIS, 1908, mandible in occlusal and lateral view. Only a few specimens of this extinct species were found.



DUBO0940. *Duboisia* maxilla's, with, in the middle, lower row, part of maxilla from *Lutra palaeoleptonyx* DUBOIS, 1907, an otter. From this species only one specimen was found. Inserted: part of the original label.



DUBO0945 *Elephas hysudrindicus* DUBOIS, 1908, molars. Although thousands of fossils were found in Trinil, this species is not present in Trinil sensu stricto. Based on this the fauna from Kedung Brubus is considered to be younger.



DUBO0929. *Tapirus indicus* DESMAREST molars: Upper row, 4th of left side a lower molar; in the lower upper and lower molars, with the exception of the 4th of the left which is a molar of tiger. This species was described by Dubois as *Tapirus pandanicus*, but Hooijer considered the specimens to be from *Tapirus indicus*. In the photograph all the specimens of *Tapirus* which are found are present.

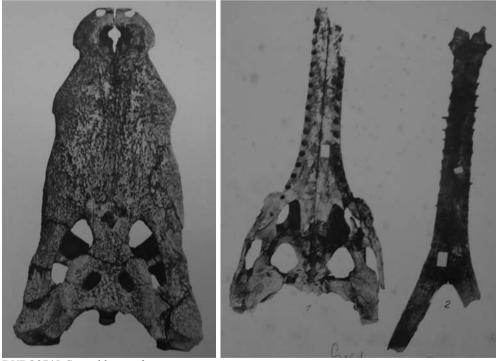


DUBO0822. Mandibles of Hexaprotodon sivajavanicus DUBOIS, 1908. Hexaprotodon is an extinct hippopotamus. It differs from the recent hippopotamus (Hippopotamus amphibius) in having 6 incisors, instead of 4 (see the middle mandible). Hooijer considered the hippopotamus to be the same as the one from the Siwaliks: Hexaprotodon sivalensis FALCONER AND CAUTLEY. Dubois named the species Hippopotamus (Hexaprotodon) sivajavanicus, which is its name again today. DUBO0830 right, shows a partial maxilla of Hexaprotodon





DUBO01022. *Isoclina hardella* a tortoise in lateral view. Only one nice complete specimen of this species is present.



DUBO2745 Crocodilus ossifragus

DUBO2832 Gavialis

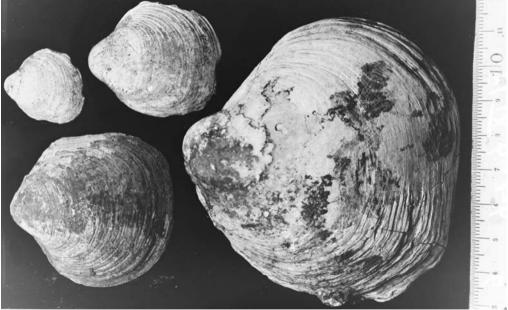
Besides the mammal species mentioned so far, also a lot of specimens from crocodiles, gavials, tortoises, birds and molluscs are found. In particular a lot of material from crocodiles is present and at some point this material was considered for publication, most

likely for the book, as we have a few proof-like prints from which the two figures below here are examples.

Several species have not been depicted here because they either were not present in the Dubois collection at all or, if they are present, we think they are post 1920, hence not made with the intention to be in the book. Of the Trinil species these are e.g. *Prionailures bengalensis* (Kerr) a small cat: from this species only one specimen, a mandible, was found in the trench made in 1900 and was indicated by Dubois as *Felis microgale. Sus brachygnathus* DUBOIS, 1908; an extinct pig. The pig with the short face, is reasonably represented in the Dubois Collection. *Muntiacus* sp. This species is represented only by a few specimens. And finally there is also a rat: *Rattus trinilensis* MUSSER, 1982.

The Kedung Brubus fauna also holds more specimens of *Panthera tigris* LINNAEUS, 1758, the tiger. The species from Kedung Brubus was called *Felis oxygnatha*, but turned out to be an extinct subspecies of *Panthera tigris*: *Panthera tigris oxygnatha*. Next to that there are also a rhinoceros, *Rhinoceros kendengindicus*, DUBOIS, 1908 and an extinct pig, *Sus macrognathus* DUBOIS. This species is larger than *Sus brachygnathus*.

Again the deer like *Muntiacus* sp. and an extinct bovid, *Epileptobos groeneveldtii* DUBOIS, 1908, depicted on page 121. Compared to *Bubalus* and *Bibos* this species is rare. The cross section of the horn cores is round. It was named by Dubois after Willem Groeneveldt, director of the Department of Education, Religion and Industry, who supported Dubois and was responsible for the scientific research in the Indies.



DUBO0504 Eamesiella aff. corrugata DESHAYES

The molluscs he collected require special attention. Dubois fully acknowledged their importance in establishing the age of the layers he had collected them from but lacks the knowledge to make any sense of this particular subject. In 1928 he is being sent a reprint of the work of Tera van Benthem Jutting on the "Marine molluscs of the island of

Curaçao". He immediately writes to her to congratulate her with her great achievement and asks her if she would not also be willing to work on the Trinil and Kendeng molluscs.

In this letter later in his life it is particularly interesting to note that Dubois is not being paranoid about his finds at all, he freely gives up his material for research and explicitly states that the work be published under her name and not his. His paranoia seems very much only to be limited to his *Pithecanthropus*, he equally easily has parted from the carnivore fossils in favour of Brongersma, and the Tegelen-fauna in favour of Bernsen and Schreuder.

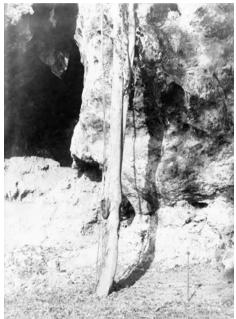
All finds of Dubois' expedition are still of great importance and help reconstructing the environment in which *Homo (Pithecanthropus) erectus* must have lived. Based on the large quantity of fossils of bovids, *Stegodon* and rhinoceros, the environment must have been savanna-like. The occasional tree would have provided shelter for the odd monkey and a river must have crossed the savannah, where the crocodiles and the hippos would have found their repose. The mollusks were described by van Benthem Jutting in a booklet published by Brill in 1937: "Non marine mollusca from fossil horizons in Java with special reference to the Trinil fauna." And even the interest in these mollusks has still not tanned as proved by the publication of Joordens in 2009: Joordens, J.C.A., et al., Relevance of aquatic environments for hominins: a case study from Trinil (Java, Indonesia), J Hum Evol (2009), doi:10.1016/j.jhevol.2009.06.003



DUBO0500 Pseudodon vondembuschianus trinilensis DUBOIS

Locations

Next we present most of the pictures that Dubois had made of locations in Indonesia. Many were surely intended for future publications. The plates were intended for his book.



DUBO1100 Location (marked with little stick) where a red painted skull (skeleton) was found in front of the hoekgrot site (entrance of the cave left).(1890)

DUBO1101/5/6/7/8/9 are all views on the same ridge where the cave is located described by Dubois as views on Gunung Låwå near Tjermee as seen from the south edge of the dessa Tjampoer. On the edge of the negative of DUBO1106 the numbers indicate 1) The west cave (with human remains)

2) Cave in the steep rock (contains just tenacious låwå)

3) Location where the Rietschoten-skull has been found

These sites were extensively treated in the dissertation of Paul Storm: 'The evolutionary significance of the Wajak skulls'. Scripta Geologica 110 (1995)







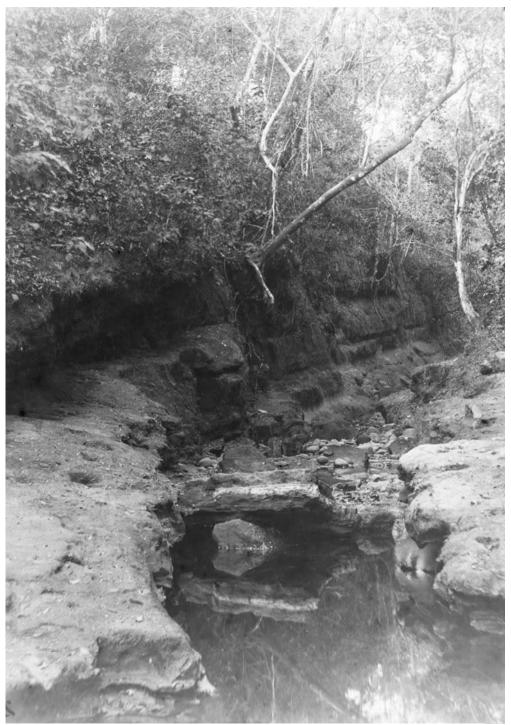
DUBO1108



DUBO1102 and DUBO1103/4 on the next page are all views from Hoekgrot site looking down, of no particular scientific interest, but no doubt for the photographer to good an opportunity for a landscape photograph to let pass...



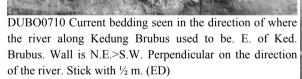
DUBO1104



DUBO1272 Ravine of the Kali Brubus about 1 km N.E. of the Kendeng Brubus, sloping layers



DUBO0707 Tuff wall 100 m N.E. of Kedung Brubus (ED)







DUBO1263 Tuff wall at Kali Ngeto (Kedung Ampel) 470 m N.E. (along the direction of the slope) of the wall B by Kedung Brubus N.E.-N > Sandstone above Claystone > S.W.-S, Stick = 1 m (ED)



DUBO1308(left) and DUBO1289 (right) Tanah cleft, 12 m high wall at a bit more than $1\frac{1}{2}$ km N.W. of Bangle. Claystone beneath a stony tuff. Claystone with layers of hardened chalk. Contains freshwater shells known from elsewhere and pieces of bone NE > SW (ED) (not all words could be deciphered...)





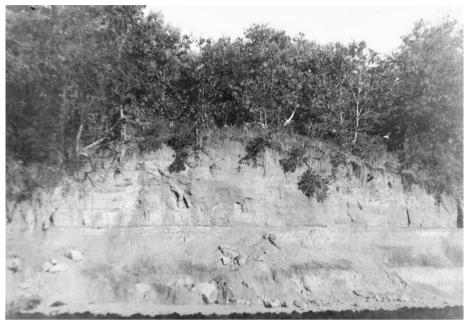
DUBO1259 Tanah cleft, Bangle, sloping of tuff layers.(ED)



DUBO1283 Top of plate 1. Andesite tuff holding bones overlying Pliocene marls along the Solo river(ED)



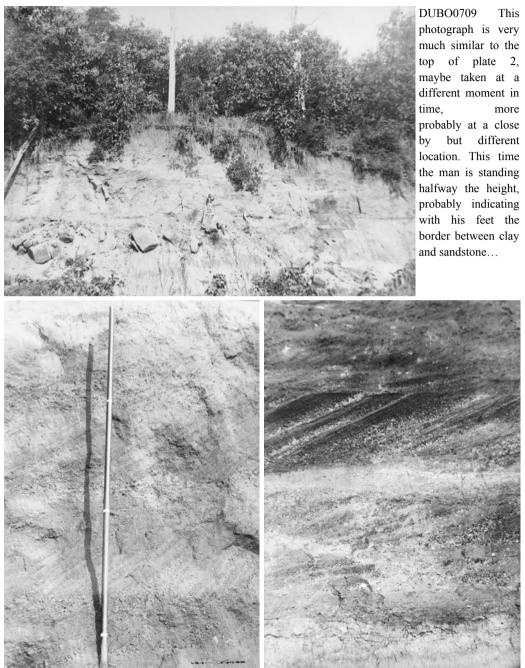
DUBO1257 Bottom of plate 1. Tuff wall bordering Kali Brubus about 200 m SE of crossing towards Kedung Madoh, slightly beneath the left little ravine. Sandstone is sloping from N. N.E. towards S. S.W. and the current bedding is N.E.-S.W. Little holes are made by crabs (ED)



DUBO1274 Top of plate 2. Tuff wall about 150 m N.E. of Kedung Brubus, along the Kali Ngeto. Yellowish sandstone 8 m to the top, amber grey clayloam 5 m until the little river. The man is about 1.65 m. (ED)



DUBO1269 Bottom of plate 2. Sand-claystone wall close to the mouth of the Kali Ngeto near Kedung Brubus. Current bedding N. N.W. Sitting man is 0.90 m high. The horizontal line behind his neck is the border with the claystone (ED)



DUBO1137 Left on plate 3. Tuff wall along the Kali Ngeto near Kedung Brubus with beautiful diagonal banding. S. S.E > N. N.W. The band with the diagonal layers is parallel to the border with the clay stone. Stick with $\frac{1}{2}$ m marks. (ED)

DUBO1175 Right on plate 3. Current bedding in wall near Kedung Brubus. (N. of the total view) S. S.E > N. N.W.



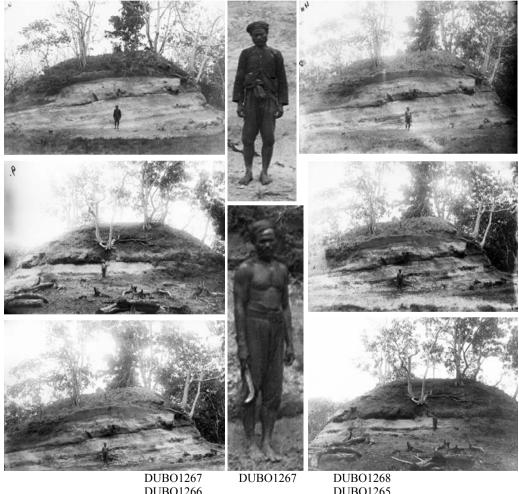


DUBO1254 Top of plate 4. Small hill of 'bone'tuff near Boetak. (About 380 m S. down) View from the N.E. Slope 10,5° N. N.E. > S. S.W. 6-12 m height. Sandstone on top. Clay/loam below. Beneath this an andesite breccia, invisible on the photograph (ED)



DUBO1278 Bottom of plate 4. Small hill near Boetak. View from S.E.

The small hill near Butak is a geological oddity in the landscape that was the subject of some discussion but was not of great significance to the fossil collection. Dubois however gave it considerable attention as there are 8 different negatives of the same location. The difference in dress suggests two different dates for these photographs. The one man is on most photographs openly wearing a klewang, the Indonesian machete, which was also a useful weapon. This could have had some political significance that Dubois only understood after the pictures had been made and thus forced him to make new ones with someone more neatly dressed. Another reason may have been his naked torso, but neither reason would have mattered much to Dubois himself, as long as he knew the man's length. They were both 1.65 m. (Maybe it is the same man after all)



DUBO1266 DUB01255

DUBO1282

DUBO1265 **DUBO1282**



DUBO1279/87 Top of plate 5. As the quality of these negatives is poor, we used the (retouched?) print here instead. Maybe the used negative is lost. — Current bedding in sandstone of small hill near Boetak. S.E. > N.W. Lines of wear by roots. (ED)



DUBO0562 Bottom of plate 5. Current bedding near Kebon (along the Bengawan) District Sapteh Ngawi (ED)

The fact that Dubois notes all these current beddings and stratigraphies indicates that he is very much aware of the importance of these data for the interpretation of his material. The diagonals within the horizontal bands indicate the ancient direction of the water flow of the river. The geological work of Dubois, however, has not received much attention yet.

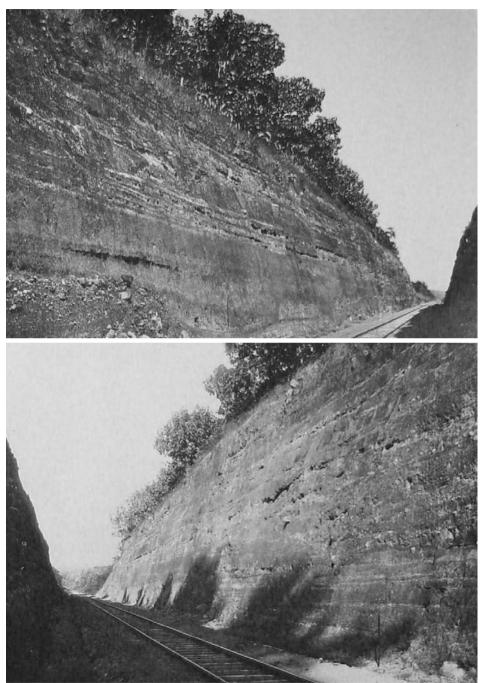
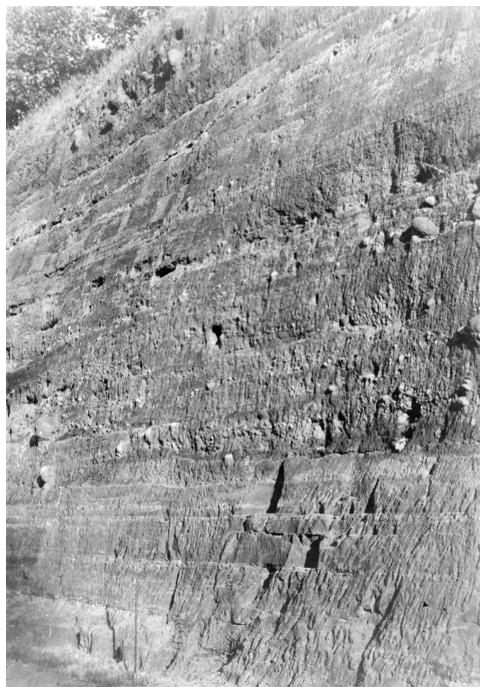


Plate 6. Railway cut about 3 km W. of Wilangang station. Total length about 500 m. Beautiful layers of tuf and rolled stones. Top — View from near the east end westward. Bottom — view from the near the middle eastward (ED) Corresponding negatives (DUBO1135/36) are of poor quality and probably not original (photocopied of a print)



DUBO1133 Plate 7. Railway cut about 3 km W. of Wilangang station. Near the middle. Stick length $\frac{1}{2}$ m. (ED)



DUBO0690 Plate 8. The Trinil site along the Solo-river on Sept 5th 1894. View from near the monument.



DUBO1494 Plate 9. Overview of the Trinil site along the Solo-river. Photograph made by a photographer arranged by Kriele on Dubois' request at 19-11-1900. Again made from near the monument. This perspective is the same as of the photograph used for the cover (DUBO1402).



DUBO1399 Plate 10. Overview of the Trinil site along the Solo-river from yet another perspective (1900).



DUBO1400 Plate 11. Last overview of the Trinil site along the Solo-river.



DUBO1134 Plate 12. Monument that Dubois had erected on September 5th 1894.



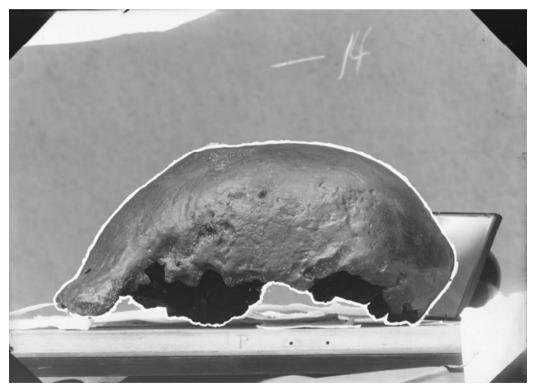
DUBO1273 Plate 13. Overview over the Kendeng (ED) This is the last plate that Dubois intended for his book as far as the descriptions of locations are concerned. The white line is the retouch accentuating the skyline of the mountain range. The printed version (below) is much enhanced. The significance of this particular view is not clear: it may well express some sentimental touch.



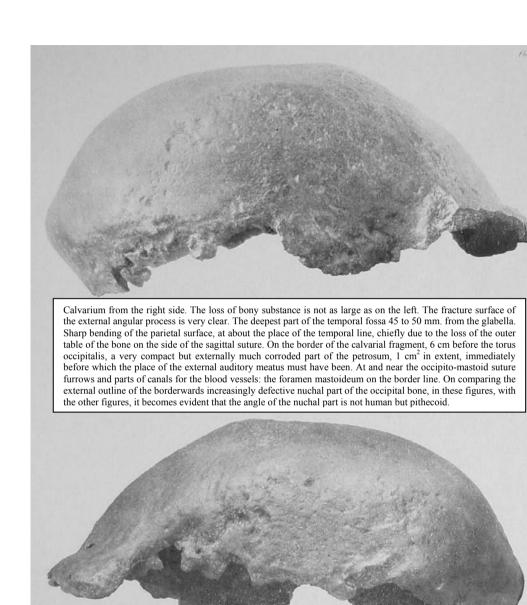
Pithecanthropus and its comparative material

Whereas for the previous material finding the correct negative with plates for the book is relatively easy, for the skull material this is not the case (nor is it very relevant). Dubois photographed the key material dozens of times with ever so slight variations in position or lighting. Whenever a DUBO source number is mentioned you need to keep in mind that after close examination we might not have come up with the exact fit but just something very close. The prints are more relevant here than the photographs, and have been extensively retouched and commented on by Dubois before being printed in their final stage. The prints are what he considered a truthful representation, more so than the photographs themselves. We will therefore show the plates rather than the numerous photographs.

Eventually, as we will describe later, 30 years after Dubois found the fossils, he finally publishes photographs with descriptions. The descriptions given on the plates in boxes are derived from those publications.



DUBO1359 Skull cap of *Pithecanthropus erectus*, view from left side. This photograph seems to be the one used for the bottom of plate 14. The white line is retouch to accentuate the outline for printing purposes.



Calvarium from the left side. Sagittal (median) glabella-inion plane. This side, especially in the temporal fossa, deeply corroded, in some places even to the vitreous table, at the border even to perforation.

Plate 14 (Top DUBO1362, Bottom DUBO1359) *Pithecanthropus erectus*



Plate 15 (DUBO1358) *P. erectus* Calvarium from above. Transversal glabella-inion plane. Extensive corrosion of the surface. The white-spotted areas behind the coronal suture, on both sides of the sagittal suture, are places where the outer wall of the parietal bones has entirely disappeared and the diploë laid bare. The same at the much worn off left in an oblique line. The natural constriction of the frontal is only conserved on the right side. Evident trigonocephalism. The obliquity of the occiput is due to corrosion. The smooth area on the hinder part of the parietal bones is artificial.



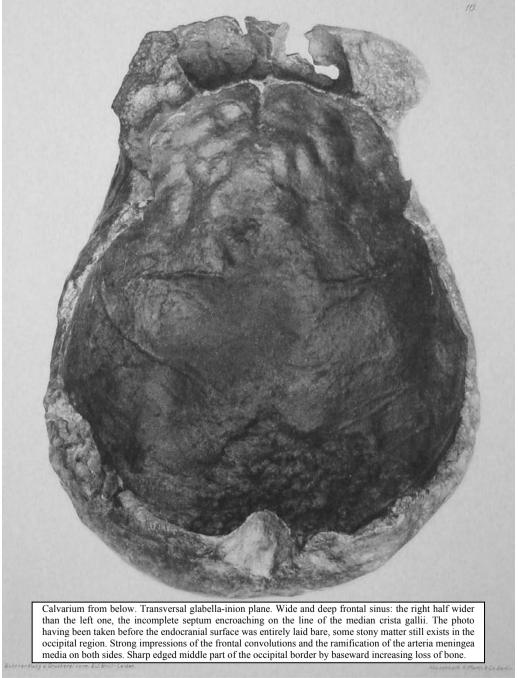


Plate 16 (DUBO1361) Pithecanthropus erectus



Plate 17 (Top middle DUBO1408) Pithecanthropus erectus

Calvarium in front view. Perpendicular to the transversal glabella-inion plane. Glabellar region defective and corroded. On the right side, 28 mm from the middle, a supraorbital foramen. The swelling at the bregma exaggerated by the mentioned lost of the outer table of the parietal bones. Keel of the frontal bone. (DUBO1360)

Calvarium in occipital view. Perpendicular to the transversal glabella-inion plane. Inion evident, but still a little bony substance lost here. (DUBO1357)



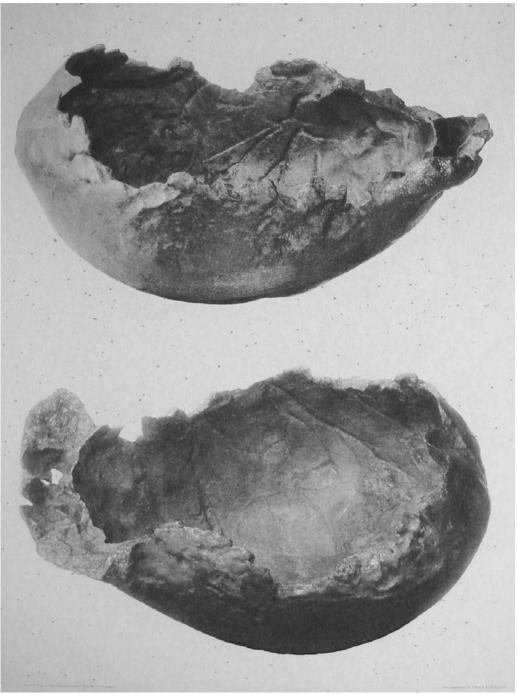


Plate 18 (Top DUBO1425, bottom DUBO1428) *Pithecanthropus erectus*. Tilted views from the side exposing the inside wall.



Plate 19 (Top DUBO1424, bottom DUBO1427) Homo neanderthalensis (Specimen from Spy)



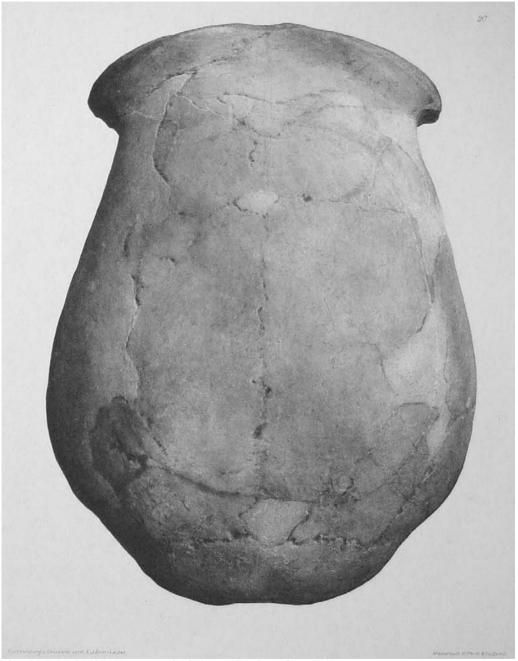


Plate 20 (DUBO1423) Homo neanderthalensis (Specimen from Spy)

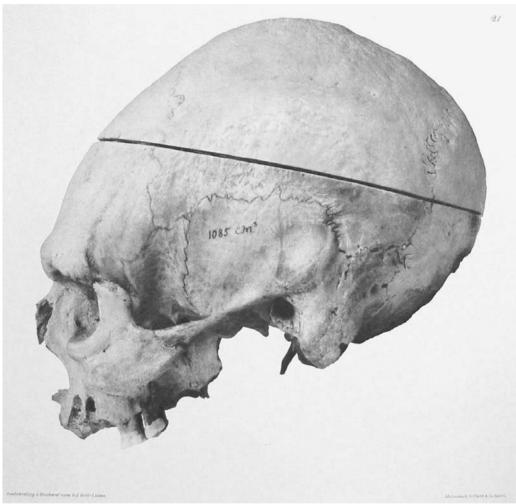
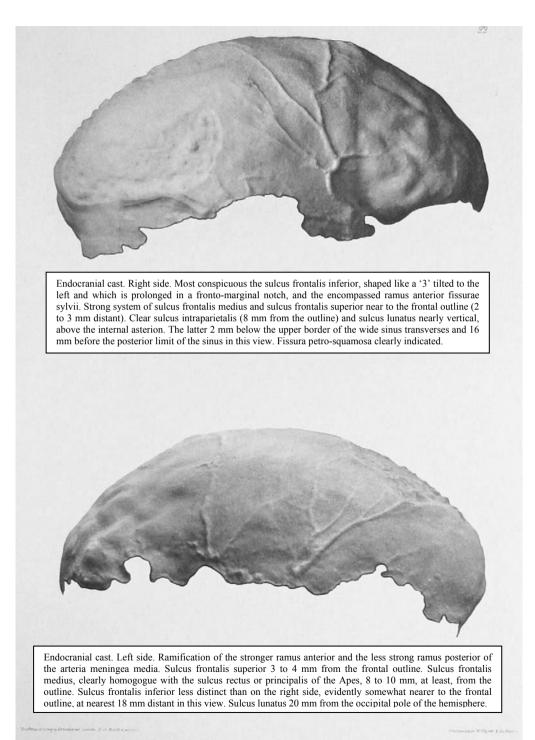


Plate 21 (DUBO1324) Microcephalic man (see also page 299)



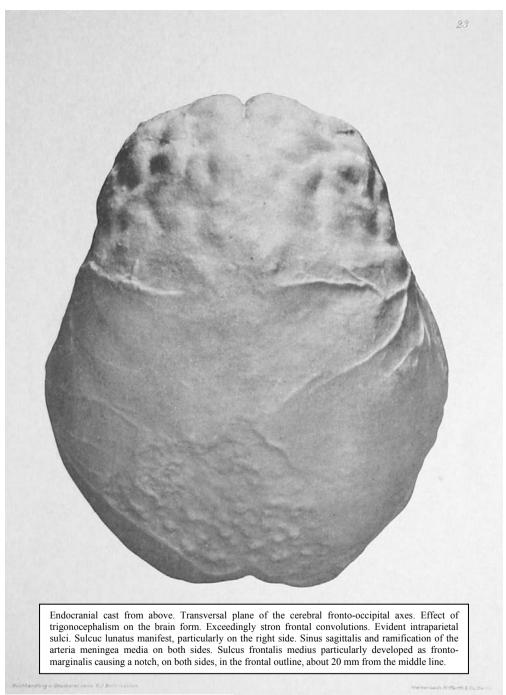


Plate 23 (DUBO1320) Pithecanthropus erectus

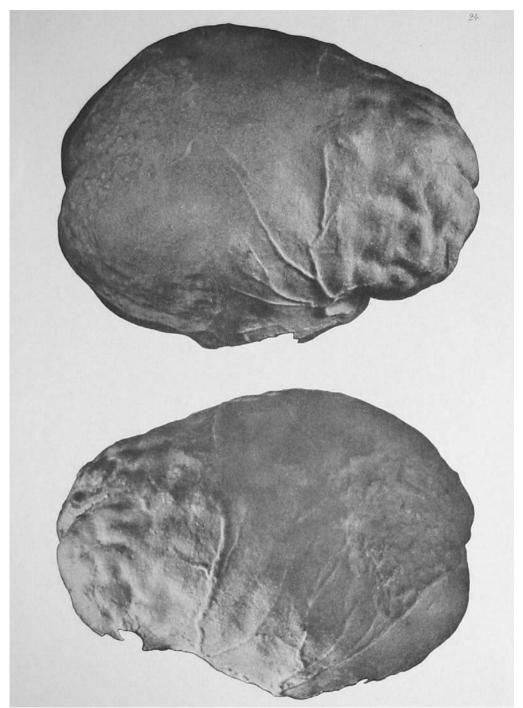
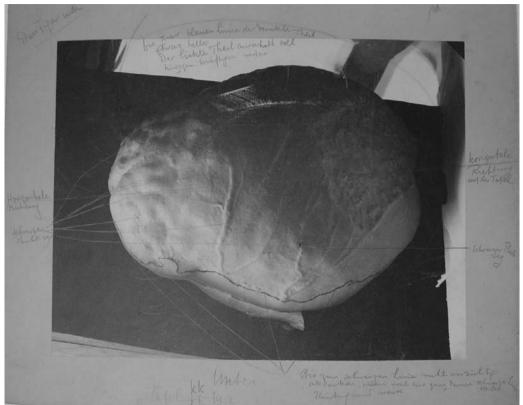


Plate 24 (Top DUBO1322, Bottom DUBO1321) *Pithecanthropus erectus*. Endocranial cast tilted view from side/above.

Plate 24 concludes the plates that Brill had already printed for Dubois' book. Obviously the femur and the molars are missing and would have been depicted also at some point. Of the femurs a large fold out proof exists (below) which as a plate is present in his later publication on the looks of the femur.







A proof of plate 22 of Dubois' book of an endocast of *Pithecanthropus erectus*. Comments of Dubois are in German (Brill had it printed in Berlin) and concern the direction this endocast is facing, parts that need to be slightly lighter, spots that need to be removed and the background which needs to be white: "...Until the black line, do cover really careful..."

Character

The reasons that Dubois gave to Brill in 1913 for not having finished his book were true enough but by no means complete. There were many more and a number can be attributed to Dubois' troublesome character. Dubois did not understand human behavior very well and as a result had great difficulty getting on with people. His empathic abilities were heavily skewed towards distrust and by treating people accordingly he not only saw enemies everywhere but created them 'en masse' along the way.

He was also meticulously precise and adamant in his objections to the smallest of flaws if he could find one. No doubt this was due to him as he not wanted to give his opponents any ammunition at all. With regard to his book many problems arose from this because he just could not agree with the proofs of prints and photographs as he could always find something wrong with it.

Although when they started the project in 1897 Dubois' standard was too high to be met by the technical possibilities of that time, these possibilities were developing rapidly, and De Stoppelaar, upon having seen the latest on a publishers congress in



Skull ascribed to Johann Sebastian Bach, reproduction made by the firm Meisenbach, Riffarth & Co, Leipzig, shortly after 1894 (Dubois collection).

Germany writes to Dubois in 1898, that the firm Meisenbach, Riffarth & Co. would be able to meet his demands. Meisenbach is even prepared to send a photographer (*with* camera!) from Berlin to Leiden to photograph the objects provided they will be lying ready. The photographer is sure he will be able to make 10-20 photographs a day...

Clinching the deal were probably the reproductions of the prints of the skull of Johann Sebastian Bach that had shortly before been made by Meisenbach and which Dubois must have acquired via De Stoppelaar. In 1894, the church counsel of the Johannes-kirche in Leipzig had decided that the bones of JSB needed a more honourable burial than they had received after his death. They decided unearth them and although they were not very sure where to dig, an educated guess was made and the skull they decided on was JSB's was photographed before putting it in a tomb in the church. The reproductions of these photographs were made by Meisenbach and the very good quality of these prints advertised their standard of work which at that moment could not be approached in the Netherlands nor probably anywhere

else in Europe or even the world; they had won many prizes for their work worldwide and were to win their largest prize a few years later at the world exhibition in Paris in 1900. De Stoppelaar therefore decides to have the photographs reproduced by Meisenbach and thus Dubois sends some of his material to Berlin, though hesitantly.

As was to be expected he is not at first pleased, Meisenbach is also not fulfilling all of his obligations, but being convinced they can't get anything better elsewhere he finally agrees in sending him all the material (with strict restrictions that negatives need to be returned) and by the end of 1901 finally prints are being made. Already four years further by then, De Stoppelaar must have given a sigh of relief for getting to that point, expecting to soon see the end of the tunnel. He did not realize he had only just left the harbor and there was a whole ocean of trouble to follow. Dubois may have consented but he was not pleased with the results. From then on he did not wholeheartedly cooperate anymore and the project was doomed...

De Stoppelaar feels the project slipping out of his fingers and seeks further support from his friend Karl Martin.

Martin

Karl Martin got his PhD in 1874 at the University of Göttingen and came to Leiden to study the collection of Winand Staring, a geologist famous for his work on the geology of the Netherlands. In 1877 Martin was offered the chair of professor in Geology in Leiden and became in 1880 the first director of the newly created Geological Museum. The geology of the Dutch colonies was a primary focus of this museum and the main subject of his research. He was a very successful and highly esteemed member of society and could consider her Majesty Queen Wilhelmina amongst his private students. Martin could have become Dubois' most powerful ally, but they did not get along from the start, or rather; Dubois quickly took a dislike to him after some regrettable incident and never could be persuaded to change his mind. "Reconciliation" just wasn't a word in Dubois' vocabulary.

The prize Dubois paid for his stubbornness was high. The fact that by the end of his career most of the scientific community had turned on him and



Karl Martin on expedition to the Moluccas in 1892

considered him a maverick or worse has a lot to do with his paranoia-driven rejection of people like Martin.

Martin had supported Dubois from the go. When Dubois arrived in Indonesia he was an army doctor first. Martin was amongst the people whom Dubois specifically approached for support to persuade the politicians and army staff to allow him time and people to dig. Martin gave that support full heartedly but did expect one thing in return: he wanted the fossils that were to be collected to go to the new museum he had become director of, the Museum of Geology and Mineralogy. Many of the letter exchanges between the two revolve around that issue. Martin clearly states to Dubois that he is happy to support him even if he is not going to give the fossils to his museum, but makes clear that his appeals to the Government will have more force if he does them from his position as professor in Geology stating the importance of paleontological research in general. Dubois

understands and agrees to it. He promises that the fossils will go to the Geological Museum and frequently expresses his thanks to Martin for his diplomatic support.



Well known photograph of Dubois' veranda

Trying to find out what the incident could have been that led to Dubois' everlasting distrust has proven to be difficult. Rumour has it that Martin would have described a fossil of the Dubois collection without Dubois' consent but this is virtually impossible. In fact Dubois prevented that from happening by keeping all fossils with him in Indonesia in spite of repeated requests of Martin to send them to the Netherlands.

The exchanges reveal a dispute about ascribing species and 'the Siwalik fauna'. Martin had published that he had found a Siwalik fauna on Java, Dubois did not agree. He argued that the species he found were a fauna on their own, key species of the Siwalik fauna were lacking, others were here that were not reported in Siwalik. Martin argued that the certainty with which Dubois ascribed species names to fossils whilst in Indonesia without the possibility of comparison to specimens in the British Museum and the Museum of Calcutta was simply not possible. Dubois stated that some of Martin's determinations had been wrong and that he had ample material in support of his claims. They decide to stop fussing about this in their letters, both understanding that the other had valid points. It is therefore no surprise that Dubois' first move after Indonesia was to go and visit the Calcutta Museum and the Siwalik site. But this dispute was a scientific dispute and would (or should) on itself not have been a reason for personal distrust. Martin however kept requesting Dubois to send his material to the Netherlands instead of leaving it all on his doorstep (where it was quite literally).





DUBO0909: Last of the four 'veranda collection' photographs (DUBO0907 & DUBO0910, see page 15)

And this is probably where Dubois' paranoia kicked in; he could not imagine any other reason for Martin to ask that other than wanting to steal his data. Martin senses this distrust immediately for what it is and states as officially as possible that he will leave any crate unopened until Dubois will return. He has that letter copied and added to the museum archives with the specific notion to Dubois that he does so in order for Dubois to be able to fall back on that if need be. But the jinnee was out of the bottle and nothing Martin could do or say could put it back in. After Dubois had died Martin stated in an interview to Brongersma that he thought the distrust of Dubois had been caused because Dubois had heard that whilst in Indonesia Martin supposedly had said at the Royal Academy of Sciences that *Pithecanthropus* was an ape.

When Dubois had returned Netherlands to the he had immediate problems. He had sent the fossils ahead to Leiden where they arrived one afternoon at Martin's doorstep, without anybody knowing they would arrive. Not that there was anybody other than Martin who would even wanted to have these fossils. The government was not that interested at all: they owned everything but were not eager to spend money on it. They even offered everything to Martin to work on. Martin made clear to the Government that surely Dubois



The first caretaker for the Dubois collection started off to become a complete lineage: sons following in the footsteps of their fathers of which this is one of the early "de Koning"s

should be allowed to work on the fossils that he had collected and subsequently Martin arranged a deal whereby he even declined part of the subsidy to his Museum in order to make that money available for the Dubois collection. In a rush a house was rented to store the (unopened) crates, but the amount was thus that they immediately had to look for some other place as the owner feared the floors would not support the enormous weight of these crates. When Dubois arrived in Leiden he started off with quarreling with Martin and accusing him of trying to steal his finds. Martin immediately sent for his correspondence, which he had carefully kept as he had foreseen this moment, and Dubois had to eat his words and admit that Martin had always supported him. He had taken on and housed the collection, a room was provided for Dubois in the museum where he could work on the collection.

Even after this incident Martin did not stop supporting Dubois: the money for the contract that Dubois had for his book, the 6350 guilders, was also deducted from Martins funds. As a consequence, though, Martin was in on all moves, he was always consulted on anything that had to do with Dubois or his collection. In 1895 Martin writes, again in official style, stating all he will do for the collection, it to be brought under a roof, etcetera, but with regard to the book he ends:

.... I shall therefore propose to the Gentlemen Curators, to have the funding, that is exclusively intended for your report {the book on the Indonesian collection that is}, to be awarded to you personally, with particular regard to the fact that you have recently pointed out to me, in words that could not have been misunderstood, that you were not sure whether you could put trust in me.

I think that the agreement I propose now has a favourable chance of receiving your approval and hope you will acknowledge that this writing is objective and in your best interest. Whatever the scientific dispute and whatever the personal differences, Karl Martin saw the importance of Dubois' work and the importance of the collection very clearly. He was in a position to seriously damage Dubois if he had wanted to, but kept supporting him for a long time in spite of the openly uttered distrust from Dubois' side. Furthermore Martin also read out some of Dubois' papers at the Royal Academy of Science, again something one would not do for his enemies.

The Dubois archives hold a letter of professor Lorié in which Martin is blackened, and which states that he (Lorié) would not put it past Martin to use dirty tricks to get at Dubois' fossils. There is also a curious slither of paper, which seems to be cut out of a letter, and which is unmistakably written in Karl Martins hand. It makes clear that Martin at some point also got frustrated with Dubois as he writes:

As far as the elephants are concerned, it might interest you to know, that my research on the stegodonts etcetera has been the immediate cause for the collection of Dubois (....) such as he stated to me himself BEFORE his departure to Indonesia. But Dubois would not have told you that, as he also will not have told you that the {money for the} report on the Dubois collection has only been awarded to him on my instigation - that was not something fitting in the mindset of this nervous man.

We have no idea where this slither originates from. Martin outlived Dubois about a year and we know Brongersma interviewed him after Dubois died in particular to question Martin about these matters and may have thus acquired it and added it to the archives. But if someone has passed it on to Dubois during his life it will surely have aggravated the situation between them. We have no idea who, in that case, the culprit could have been, although Lorié is a likely suspect. When Dubois however turns to Lorié for support, as we will see later, Lorié burns Dubois down completely, hence Lorié did not end as the best of friends to Dubois either, (nor would he have been before, meddling like he did).

The death of De Stoppelaar

De Stoppelaar had known Martin for over twenty years and Martin visited him regularly and the subject of Dubois book was always on the agenda. The first years Martin must have eased De Stoppelaar's mind by explaining to him how Dubois must have underestimated the task ahead of him. Martin had seen the sheer amount of material that Dubois had brought in and which could not possibly have been



Frans de Stoppelaar (1841-1906) Director of Brill (1872-1906) (Courtesy of Royal Brill, publishers)

dealt with in two or three years. But Martin also notices that far less is happening than what should have been done. The room he vacated in the museum for Dubois to work in is only rarely visited, so rarely that he asks Dubois to sit in the library during those few days he is there and he gives the room to somebody else. Martin even suspects Dubois of sending false bills for costs he claims to have made for his work on the collection but he can never prove it.

Meanwhile De Stoppelaar worries. A big project of his, an illustrated bible, has been a complete financial disaster. The company as a whole is not doing badly at all but the expensive failures along the way tend to fall on his side and Dubois' book is going to be a very expensive failure indeed if it is not going to be published. And all the time Dubois apparently is doing nothing. He always claims to be working, but at the same time he is on the front pages of the newspapers regularly with many other projects, distracting him from his book. And then there are the problems with Martin. This first became apparent to De Stoppelaar in 1900. The intention was that "the book" would be an issue in the series of the Geological Museum, the "Sammlungen", which was under editorship of Martin. Dubois

however did not want Martin's name anywhere on the front cover, not even as editor-in-chief! Martin subsequently made very clear, if Dubois wants it in the series, he would have to put up with him as editor-in-chief, the cover will be as it always has been with his name on it, and he will get to see the last draft. If Dubois does not want my name on it, Martin stated, fine with me, no problem at all, but then it will not be in the Sammlungen. De Stoppelaar had become the go-between of these exchanges and had to put up with an exploding Dubois, who was absolutely furious when realizing that Martin would get to see his last version before publication. Another letter had to be written to explain that the task of the editor-in-chief in this case would not be to change anything to the actual contents but that he was only overseeing the continuity of the appearance of the journal. De



Dubois at about 40 years of age

Stoppelaar writes to Dubois that it does not matter to him whether he decides to put his work in the series or not, as publisher he is partial to it. But all this quarreling is not doing his health any good. Also people regularly come to his office to ask about Dubois' progress, not just Martin, but also people from the ministry, journalists, and clients that have subscribed in advance to this issue of the Sammlungen which has been advertized and is expected to be an important contribution to science. In 1903 he falls seriously ill and is absent for five weeks.

On October 30th, 1903, De Stoppelaar sums up what Dubois has gathered in the six years previous:

.....We have got now: $\underline{1}^{t}$ these 40 pp. $\underline{2}^{rd} \pm 44$ pp. which are currently in print $\underline{3}^{rd}$ a considerable collection of plates. - Should these be assembled to become a first issue than, of course, a title should be added - which should

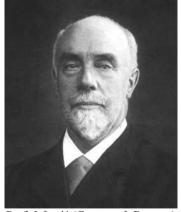
be easy enough - but also, in my opinion, a preface, explaining your methods, which can be changed in a later stage, but for now will serve its purpose for the Ministry.- Finally, to underline your wonderful plates, a clarification that can be folded out, which could be printed in a smaller letter.

Maybe these propositions are {superfluous}, if so blame that on my ignorance. - The sole intention of this letter is to be armed and ready, when we face the Ministry.-

So in 1903 there is still no more than a vague outline of what could be a first issue of a series of volumes. The same letter reveals that the order of the pages is not certain and both De Stoppelaar and Dubois understand there is in fact no book. However, to receive any funding from the Government something has to be done. Apparently Dubois is in fear of losing the funding altogether if he does not produce his first part before a deadline at the end of 1903. Brill on instigation of De Stoppelaar has spent thousands of guilders to get these plates printed, so both parties agree to make a dummy to send to the Ministry to fulfill their obligation to present a volume and receive part of the funding. But Dubois panics. He has his second set of 44 pages printed without page numbers (he does not know yet where the text will go). Brill agrees (everything to get the dummy ready in time) but they are not pleased, it means all pages have to go through the presses again at a later stage to add the page numbers. And then Dubois backs out. He probably does not trust the dummy to be accepted and renegotiates his deal with the government, and gets an extension, hence the funding remains available but the deadline is moved. De Stoppelaar despairs. He begs Dubois to send him the "missing link" of his monograph. Again he has been led by the nose into printing material that may never be used. He finally must have realized that Dubois just cannot be trusted and starts to change his attitude. Trving to be more businesslike he refers to his duties as director, his responsibilities towards the company and tries to put pressure on Dubois by explaining that questions are being raised by members of the executive board. Dubois simply ignores him and does not even bother to answer his letters.

After a year of being ignored De Stoppelaar raises the stakes and sends Dubois notice that he will no longer wait, he will simply take all the plates and the text which are there, bind them in a cover and publish it. On the cover he is to write a short note stating, that without it having been the responsibility of the company, this publication has been delayed, and that he hopes soon to be enabled by the author to publish a sequel. Should Dubois wish to comment or should he have another proposition he will have to reply within 8 days. De Stoppelaar is even willing to go to him should he wish to discuss this man to man. But this year, 1904, something has to be published...

Dubois seems to be cornered. He turns to his friend Lorié for support but gets an unexpectedly blunt reply. Lorié dishes him all the dirt that is going around



Prof. J. Lorié (Courtesy J. Reumer)

about Dubois in particular that he is stalling publication in order to keep receiving paychecks from the Ministry⁴. On top of that Lorié writes that he agrees with the claims of Brill, he understands that the minister of Colonies does not pay up, and that Dubois is only getting what he has been soliciting for. Surely Dubois should understand that if he gets into the newspapers with all his other activities Brill is not going to be pleased?

....What is it with those metamorphoses of you anyway, which just keep coming? 1- Medic, 2- Comparative anatomist, 3- Paleontologist, 4-Geologist, 5- Hydrologist, 6- Civil engineer. Next year you'll might as well be heading a machine factory, who knows?...

It is a blow below the belt to which Dubois writes Lorié a furious response, but that does not help him much with his immediate problems with his publisher and on that front he concedes to a meeting.

The meeting is man to man but De Stoppelaar afterwards sums up a kind of historical overview of the events leading to the meeting and its outcome in an emotional letter. How the initial financial problems to publish such a work were lifted by the support of the Government and Prof. Martin who gave up on part of his funding for it. How people kept coming to his office to inquire after the progress on it, and though in the first years he could answer that the plates were being made or text was being printed, the book never appeared and Prof. Dubois was always otherwise occupied, of which the newspapers gave ample account. How this al saddened him and had cost him a lot of money ...for thow art also mortal, and who will finish it after you're gone?...

And how Dubois stopped answering his letters and he decided to write that he was going to publish, just to provoke a response, which he was pleased to see Dubois did. De Stoppelaar ends:

....everything can still turn out well, if you stick to what you have said, that you see this book as a part of your life's work. Truly, not a triviality! That people are gossiping about it, you know that as well as I do, but let us proof by the deed that the book will be there, as you have promised <u>now</u>, and all voices will be silent. "Le mieux c'est l'ennemi du bien". Give what you have got; it is such <u>valuable</u> material, which you have collected at the expense of large sacrifices, do let it be published under your name, and in your words.

But whereas De Stoppelaar had given in to Dubois good intentions, the ministry was not so easy to win over. De Stoppelaar seems to think he is in a winning mood and sets himself to write to Dubois to overcome what he thinks is the final hurdle that needs to be taken to get to the end line: reconciliation between Dubois and Martin. Martin must have been in on it and willing to support the publication of the book anyway he could, but, he also wanted his prize: the Dubois collection in his museum. De Stoppelaar writes Dubois how he has been working with Martin for 30 years, how he always has been honest and loyal and of good will, whatever other people might say. He proposes a conference with the

⁴ Dubois was officially still in service as officer of the army when in November 1904 he is being ordered back to Java. Thereupon he requests to be discharged on medical grounds which results in his honourable discharge in February 1905.

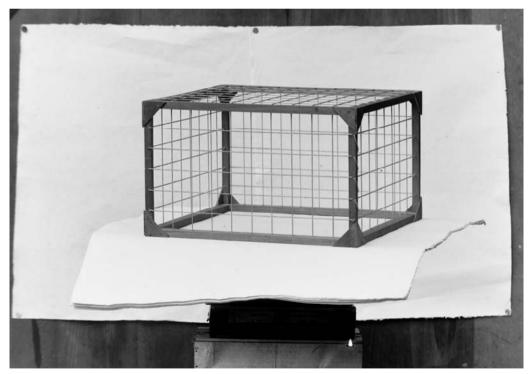
three of them, where all differences should be openly discussed and a plan to rescue the funding should be made.

But his request is in vain. De Stoppelaar completely underestimates the loss of face that would have meant to Dubois and does not see that he is only feeding Dubois' paranoid suspicions about his own loyalty towards Dubois. There are two more letters from De Stoppelaar's hand from which it becomes clear that for 1904 Dubois again negotiated an extension for the subsidy. November the 9th Frans de Stoppelaar writes his last known letter to Dubois in which he says that he will patiently wait and has new hope but the archives of Brill are void to Dubois' name for the next one and a half years. De Stoppelaar regularly falls ill again and by June 1906 his disease takes a turn for the worst. His fellow director Peltenburg writes to people like the famous Dutch politician Domela Nieuwenhuis and the eminent arabist Snouck Hurgronje about the state of his dear friend, that he has been brought to Amsterdam to undergo surgery of the stomach by Professor Rotgans. The surgery goes well, there is a brief moment of hope, but two days later, the 8th June 1906, De Stoppelaar dies at the age of 65. People around Dubois apparently need to have a strong stomach, as father Bernsen would find out to his regret almost exactly 25 years later.

Distractions

In this chapter we lead you away from the storyline of Dubois' book, just as Dubois was continuously led away by what we now tentatively call 'distractions'. Pat Shipman used the word 'diversions' but we feel distraction is more to the point (surely arguably) as the many other occupations took him off track from writing his magnum opus. But some of these distractions were very important to him and would not have been seen as distractions by himself at all, but rather as main topics.

On arriving back in the Netherlands he was soon in need of money and accepted in 1899 a professorship in Geology at the University of Amsterdam. This came as a surprise to some, as it was obvious that this would not facilitate the work on his collection. But the obvious, a professorship in Leiden, was probably not feasible, as there was already a professor of Geology in Leiden, Martin, who was not about to leave anytime soon. Hence Dubois had little choice but to accept and settled himself in Haarlem which was well connected both with Amsterdam and Leiden. The job brought new things on his path, students, teaching and new insights in many directions...



DUBO1280 This 'cage' or stereorthoscope, as Dubois calls it, is specially constructed by himself and photographed to judge the extent to which the distance towards the lens and the quality of the lens itself influenced the measures that could be taken from the photograph. He used it to align the subjects he photographs within a particular viewing angle by placing the cage over the subject while focusing the camera after which he removed it while the negative plates were being exposed.

Photography

We stated earlier that Dubois' standard for the quality of his reproductions was higher than the technical possibilities in early 20th century would allow. This does not do right to the marvellous lithographs that could also have been made and were common in scientific publications in the centuries before. They were sublime and very accurate but around 1900 they were just outdated. Any serious scientist would have to use the best method available: photography. Photography was considered a representation of the truth and therefore more suitable for science than an artist's representation of that truth. However, as Dubois very soon realized, there was very little 'truth' in photographs at all. The position, the lighting and the quality of the lenses did not automatically construct a true image, but far more often a distorted one. And he could not have that, the measures on his photographs needed to be absolutely spot on.

Nobody in his right mind will after he has taken a picture of his child check whether the distance between the eyes matches relatively to the distance between nose and chin. But Dubois must have done exactly that with the pictures of his fossils, and his measurements in all dimensions had to fit.

A further complication of that time was that photographic enlargers were not yet being used to make prints. Prints were made by putting the negative directly onto the photographic paper and then lighted, to create a so called contact print. Photographic enlargers had already been invented but they were merely used to make larger glass negatives from smaller ones. Without an enlarger it is particularly difficult to print

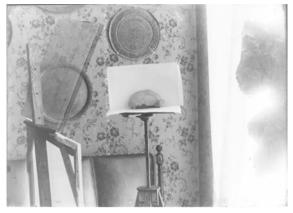


DUBO0454 (left) and DUBO0456 (right) Photographic experiments in progress: to photograph a skull, like from this horse, without any distortion due to perspective, quite some distance is needed (more than would be readily available indoors it seems, although the lighting could also have been a reason to go try outdoors. However with a lens of limited capacity like used here (probably his 64 mm lens but certainly one with less than 100mm focal distance) the object itself becomes too tiny to be useful.

something exactly at life-size because then you need to get the image at exactly the right size on your negative first. The same difficulty also holds if you want half-size or any set size in advance.

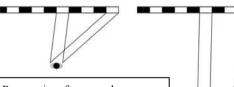
On many photographs it is very obvious that Dubois is dealing with these issues. First of all distance is needed. Distance is the only variable to influence the distortion you would get because of simple perspective. You need to be at least 2 metres from an object to let a centimetre in the middle of an object appear equally large to a centimeter at the edge of that object (see fig. 1)

On some pictures he mentions the use of a 64mm Steinheil Antiplanetic Group Lens which in



DUBO0956 Experimenting in progress. A mirror and a white canvas have been set up to reflect more light to the subject from the left. But notice how the wall is visible through the mirror: apparently the mirror was added whilst the photograph was made or in between two separate bouts of lighting the negative.

those days would have cost him \$95,- to buy as we know from an advert from that time. It was advertised as especially good in avoiding distortions of any kind (though in fact it can produce a coma: a kind of hazy ring around at the edges). We know however, that Dubois



Perspective: from up close a centimetre in the middle of an object seems much wider than a centimeter on the edge. From further away this distortion becomes hardly noticeable



Figure 1.

also used a lens with a focal length of 1500 mm and a distance to the object of three metres. If you want a 1:1 image the maths of optics teach us that Dubois must have concluded he needed a camera that also was 3 metres long from lens to the negative. He built such a camera himself for the purpose, but alas it was destroyed after he died, so the exact features of this apparatus will remain unknown. We do not know for instance where he would have got the lens from that he needed. A good 1500 mm lens would have set him back substantially more than \$95,- if he would have had to buy it. But we just have the pictures to show that he was experimenting trying to solve the problem to get pictures in 'true' size.

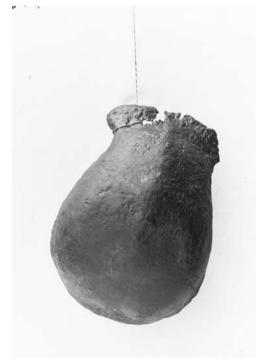


DUBO0302 (left) This gibbon skull (*Hylobatis agilis*) is hanging by a thread to accommodate the huge camera Dubois had build and with which it was not possible to photograph an object from above: there was simply not enough room between the floor and the ceiling.

DUBO0762 (bottom left) Dubois even dared hang his precious by a thread...

DUBO0882 (bottom right) The thread by which the *Pithecanthropus* femur is hanging has been (partly) scratched away from the negative.

We have learned that recreating these photographs nowadays will not meet approval of the staff currently responsible for these fossils...







DUBO0325 Pieces of dark paper are being used to DUBO0728 On the negative of this picture the contrast the white enamel of Dubois' Pithecanthropus skull cap of Pithecanthropus is carefully bordered premolars. It did not bother Dubois that the picture as a with red paint. In photographic darkrooms red whole was not very exciting as it would only have light was being used which did not influence the been made for a publication. The publisher would turn photosensitive layers. This way Dubois ensured everything irrelevant to white.



DUBO0788 Aluminium foil is being used to create a DUBO0706 Photographing through diffuse light on the left side of this braincast



that the outline of the picture appeared in print exactly as he wanted it to.



а tube. possibly to create a slide to be used in a 'magic lantern'.



DUBO1533 Pithecanthropus erectus femur. Some of the glass negatives are huge, about 60 cm wide and about 40 cm high, to accommodate lifesize contact prints on photographic paper. These pictures were intended to be fold outs in the book that was to be. Surrounding the subject with dark paper prevents the white haze that otherwise would fall over a relatively small subject against a large white background.

Fool's errands



DUBO1437 the plaster cast that had been send to the Netherlands

Being famous, as Dubois certainly was in his days, you are being expected to respond to anything remotely in your area of expertise. The first big thing however started off very promising. News came from Indonesia that another *Pithecanthropus* skull had been found on the Trinil site. The finder, Heberlein, immediately went to the local press announcing the big news. The government was notified of this find of great importance. Press and Heberlein himself contacted immediately the Netherlands to receive Dubois' opinion on the subject, and in no time all newspapers in

Indonesia and the Netherlands were buzzing about the new find. It took a bit of time before Dubois got to see what he had actually been commenting on, and it proved not to be a *Pithecanthropus* at all, it was not even a skull, but instead part of the cap of a joint in the front leg of a fossil elephant. Old yes, interesting no, in fact the finder probably got it from a rubbish dump of the original site where it had been left behind as not even worthy to ship back.



DUBO0674 what this particular bone looks like when complete

Dubois felt uncomfortable with the whole situation, though he was not at fault, but still sought reassurance of his scientific friends like Max Weber, to express that he really could



DUBO4232 cast of footprint of orang pendek

not help having been part of this hype.

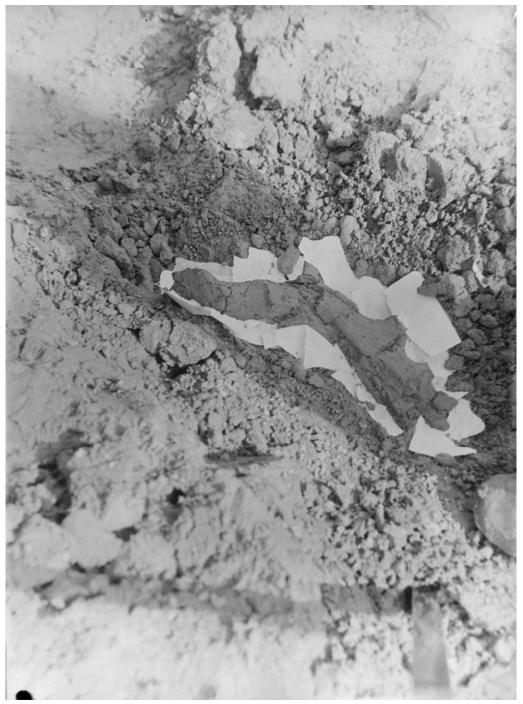
But on the other hand Dubois was a willing target for journalists who wanted a comment on some find from here or there. He even commented on the footprint of the legendary 'orang pendek' (short man), a 'yeti'like creature that is supposed to roam the forests of Kalimantan, and that, as Snouck Hurgronje in those days pointedly put it, "is always one day length of travel further into the forest than the traveler is willing to go....". A cast of the footprint was sent to the Netherlands and ended up on Dubois' desk. He was however more careful with his statements this time, and described it as probably being of a Malavan bear. In the light of the recent finds of the small erectoid Homo floresensis it is noteworthy to realize that for more than a hundred years in Indonesia their mystery beings were not large

impressive beast like yeti's, Sasquatchwans and Loch Ness monsters, but small men or men talking rubbish like orang pendek and orang letjo and it is no wonder these beings have been brought back into the limelight. We can certainly help that cause by presenting here the photograph that Dubois had made of the orang pendek footprint.

We are pleased however to not have to report any comments of Dubois to the following pictures. But they were sent to him nevertheless: all paleoanthropologists probably attract weird skulls.



Closer to home matters were no different. The archives hold several letters reporting finds of skulls in clay pits along the river Meuse, in particular in the Tegelen vicinity, but never anything thus old to be interesting.



DUBO1039 Though it may not be obvious on first sight, this picture is a very spectaculair find: surrounded by pieces of white paper you are looking at an *in situ* photograph of a partial antler of the famous giant deer, *Eucladoceros tegulensis*, of Tegelen.

Tegelen

Eugène Dubois originated from the province of Limburg, the utmost southeast part of the Netherlands, in many respects different from the rest of the Netherlands and by no means part of 'Holland'. And although he had been to the other side of the world and his work remained mostly on the other side of the country, his heart must have stayed in Limburg, where he bought a large piece of land, built himself a second home and spent as much time there as he



DUBO0747 Quarry Canoy-Herfkens 1904

could. In that era large pieces of hitherto barren land, mostly heather, were being brought into cultivation and the need for building materials made people explore for clay and gravel along the Meuse, the river which 'defines' Limburg. The area had been renowned for its quality clay since Roman times (the names Tegelen originates from the Roman *tiglia:* roof tile) and had at that time a booming ceramics industry.



August Canoy (Courtesy of Mrs C. Canoy-Dankelmans, his daughterin-law)

And lo and behold, in these clay quarries, fossils were being found, in Dubois' back garden, so to speak, and as he was by now the obvious specialist to be consulted on fossil matters, he acquainted himself with these sites, only to find that they were in some aspects not so different from the situation he had encountered in Indonesia. In fact, on occasion of the anniversary of Dubois' hundredth birthday, Ralph von Koenigswald stated in an interview that what Dubois really was after in Tegelen was to find his Dutch *Pithecanthropus*, and although, to our knowledge, Dubois has never said it as such, this seems to be a fair assumption (Folia Civitatis 11:16, 24-1-1958).

For a long time it has been assumed that this all started off with the brother in law of Dubois' brother Victor, August Canoy. But there is an error in this that has been repeated in publications since 1941. August Canoy was NOT the brother in law of Dubois' brother Victor. Victor was married to Maria Carolina Barbara Canoy and August had a sister Maria Bernardine Adolphine Hubertine Canoy and both were called Marie but they differed 18 years in age and there family relation was not that close: the great-grandfather of Victors wife was the great-great-grandfather of August, hence Dubois' relation to August was in the sixth grade on the in-law side.



DUBO1394 Eucladoceros tegulensis



DUBO1395 Cervus rhenanus

However they lived thus close to each other and both were from the local respectable upper class that they surely must have met occasionally. August Canoy owned one of the quarries in the Tegelen area, the quarry Canoy-Herfkens. He noted that bones were being found and was aware that a nice collection had been assembled by a student of medicine Laurens Steijns. Dubois was already aware of finds in Tegelen in 1897 but is still busy with his Indonesian fossils and only visits the sites first with two students in 1902. Soon pressure is being put on Steijns to part with his collection for science' sake, but Steijns does not yield immediately. He sees himself acquiring an academic position because of his collection, much like Dubois had done with his Indonesian collection. Dubois has to set him straight and explains that chances for an amateur medicine student to get a position at the university are not realistic as there is hardly any money to hire staff at all and as there are already

fully trained paleontologists with successful digs on their names who are unemployed. Via Canoy also local pressure is rallied and it ends up with the Steijns collection being donated to the Teylers Museum in Haarlem, the oldest museum of the Netherlands with a world famous collection of fossils amongst which are best known the *Homo diluvii testis* and an *Archaeopteryx*.

The contacts that Dubois built up with the local quarry owners amount in a large collection of fossils from Tegelen that all end up in the Teylers Museum where Dubois had become curator. In 1904 Dubois publishes a first paper on this matter: On an equivalent of the Cromer Forest-Bed in the Netherlands, followed the next year by a description of *Eucladoceros tegulensis*, the large deer of Tegelen and *Cervus rhenanus*, the small deer of Tegelen. Pieter Tesch, later head of the National Geological



DUBO1023 Plant seeds from Tegelen

Department, did not agree with Dubois' dating of the strata and prompted Clement Reid and his wife Margaret to contact Dubois to be able to examine the plant material. By 1906 Dubois arranges a borehole to be made at the Canoy-Herfkens quarry and the results lead him to conclude that there had to have been a prediluvial ice age. This was a remarkable conclusion at that moment as until then the Pleistocene had been defined as being the ice

age and Dubois now told that there had to have been another ice age *before* the Pleistocene. On 'invitation' of Dubois Reid studies the plant seeds that had been collected from the clay. These finds lead to the conclusion that the layers in Tegelen were not compatible to the Cromer-forest bed as Dubois had published, but were something entirely different altogether, which is subsequently being named by Reid and Reid in 1914 as the Teglian (= Tiglian).

Tegelen fossils and the dating of the Tiglian as such are nowadays still being debated. Dubois was certainly not



DUBO0749 Stratigraphy at quarry Canoy-Herfkens

correct in the layers he all assigned to be Tiglian as was already muttered in his day by people who had worked in the field and had seen the differences between the types of clay



DUBO0751 Quarry Maalbeek east of Belfeld

in the different quarries that according to Dubois were all yielding Tiglian material. Later pollen research however initially more or less confirmed Dubois' hypothesis. This stance was regretfully defended by the pollen researchers with a zeal that can hardly be considered scientific and at the cost of anyone skeptic to their views. Only recently the two groups are coming a bit closer to each other as the body of evidence against the pollen confirmation has become thus large that the zealot side is starting to give in. Dubois has been at the root of this controversy as for many Tegelen fossils it was never entirely sure where they originated from. There were six odd quarries in the vicinity of Tegelen, but none of the original sites exposes outcrops anymore, and none of them were examined at the time in such a way that the disputes of today could be settled. In fact, hardly anything of the actual stratigraphy of that time had been recorded in a way useful to current research.

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Had collecting been done in a more organized way many problems would have been avoided. But as it was the local workmen just handed over their finds to the quarry owners and once every now and then they were picked up and/or sent to Haarlem. The Dubois collection turns out to hold a number of photographs of the original stratigraphy of the type locality of the Tiglian that were hitherto unknown and might spark of some new



DUBO0744 (16 May 1904) Dubois: "Upright and wrinkly layer of loam in the sandpit in Maarn, the loam is beautifully layered, 20 cm wide at the top, 80 cm below near the rails..."

insights for future research. The archives also turned out to be holding a number of photographs that Dubois did not make himself but acquired as they were probably sold being as souvenir snapshots (see appendix III, page 182). Amongst these there are also some on which the original stratigraphies of several quarries have been depicted. Aside to Tegelen Dubois also took an interest in other locations in the Netherlands where geological phenomena could be observed that where linked to the ice age, like in Maarn and 'de Hondsrug' in the province of Drenthe



DUBO1084 (9 December 1904) 'de Hondsrug'

As was the case with the Indonesian collection, Dubois did not have the patience to make extensive descriptions of all the species in the fauna of Tegelen. These descriptions were being done by his assistants in Leiden and Amsterdam: Father Sanctes Bernsen wrote his dissertation on rhinoceros finds in Tegelen and Antje Schreuder wrote her dissertation on beavers from that location. Bernsen continued the description of the mammals in a series of publications until his untimely death in 1932, after which the work was finished by Schreuder. Antje Schreuder became highly esteemed worldwide for her knowledge on Pleistocene mammals.



Antje Schreuder (collection Geological Museum Artis)



Sanctes Bernsen surrounded by his fellow friars in Heerlen who awaited him to celebrate his promotion after a cum laude defense of his dissertation on the Rhinoceros from Tegelen. Courtesy of KDC/KLIB Nijmegen.

Saving the Netherlands from thirst

With the industrial revolution well on his way and the mechanization of the agricultural work driving people from rural areas to the towns, the cities in the West of the Netherlands were expanding rapidly. The population growth around Amsterdam brought with it a problem of obtaining clean drinking water. The open surface water was hardly useable anymore as the sewers all ended up in there, so clean water had to be pumped up from deep ground levels far away from any sources of pollution. Although in the Netherlands there is hardly a spot without access to groundwater at some depth, good quality water is not so easy to access. However it was soon discovered that water of exceptional quality could be harvested in dunes near the coast.

'Water'-companies launched plans to start extensive pumping in these areas without thinking too long about the long-term consequences. Dubois was consulted as professor in Geology and rapidly realized the risk over-exploitation of these resources. Although he agreed with the exploitation of these resources he clearly pointed out that the water in the underground depots originated from rain and not as his opposition supposed from underground waterways seeping through from further inland. Any pumping therefore should never exceed the rain influx as emptying these depots so close to the coast would result in drawing salt water in from the sea which would spoil the aquifers and would render the water undrinkable for a very long time. It also would have drastically changed the ecology of the area and might well have had consequences for the functionality of the dunes as a buffer against the sea, although that was probably not on Dubois' mind at all. But Dubois started campaigning against the water-industry and acquired funds to drill in many places in the Netherlands to investigate how the subsurface hydrology of the Netherlands worked and how it was depending on rain. Though at first ridiculed and fiercely attacked by those who wanted to make money out of this water, he was very much correct in his assumptions and proved it adequately. If the water companies had had their way at the start of the twentieth century, people around the cities of Haarlem and Amsterdam would even now still have had to deal with brackish water. Although the whole issue got substantial newspaper coverage at that time. Dubois nowadays is rarely credited for his contributions on this front. He was however credited literally: he made quit some money examining the underground with his drilling samples throughout the Netherlands.

Even now the dunes at the Dutch coast are still an important source of clean drinking water due to careful management. Most of these areas are now also designated and popular nature reserves of unique ecological value. Whereas *Pithecanthropus* was his most significant contribution to science, mapping the underground hydrology of the Netherlands and thereby (unintentionally) saving the dune-ecology was probably his most important contribution to Dutch society.

Kallilimne

After being settled in again upon his return to the Netherlands and gaining financial security based on his professorship in Amsterdam, he bought himself a piece of land with a large fen on it which was called 'de Bedelaar'. The house he built there and the whole

estate are since commonly known by that name, but Dubois in fact called it 'Kallilimne' which translates back from Greek into 'beautiful lake'.

He decided to turn the thirty-eighthectare property into a theme garden: he wanted to bring back the landscape which must have been there before the Ice-age. The fossil plant material that had been found in the clay pits from Tegelen provided the data on which he based his planting schemes and to acquire them he had to import all kinds of exotic trees and plants.

The little lake itself was at that time probably already an example of a very rare oligotrophic fen with its own very specific ecology, but that was sacrificed to his greater good, plants and fish were introduced and from a conservation point of view he completely ruined it and turned it into a eutrophic fen in no time. Suggestions that Dubois had some higher ecological landscape goal in mind are largely overrated: The exotic plants he wanted just would not grow without a huge amount of

clay, chalk and fertilizer, which he happily applied without any regard to the natural habitat. He closely monitored the changes/devastation he brought on to the indigenous landscape e.g. accidently killing of thousands of fishes in his fen as a consequence of the suppletion of some heavy metal he considered lacking in the ground.

This is not to say that Dubois was not very nature minded. He was involved very early on in the Natuurmonumenten society, the first society for the protection of nature-reserves in the Netherlands and on his estate he was particularly involved in erecting bat-towers to aid bat-populations to expand (but also very much because he thought this would help him get rid of mosquito's). (Voute and Lina treated the history of Dubois' bat-towers extensively in an article in Natuurhistorisch Maandblad 72(9)1983)

Nevertheless, Kallilimne was his retreat from the academic west of the Netherlands and he spent most of his money in turning it into his dream estate. After his death it stayed but a short while in the family: during the Second World War his daughter Eugènie was forced to leave her own house and retreated to the estate where she subsequently kept a number of people in hiding from the Germans. But shortly after the war the house and part of the grounds were sold.

The larger part of the grounds still remains in the family with a restored shed carrying the name 'Kallilimne' painted on a board by Dubois himself, but the exotic trees that Dubois planted have all withered away except for a very few.

DUBO3271 Dubois (second from right) next to Jac. P. Thijsse (with hat), the iconic nature protector of the Netherlands, in front of the large fen 'de Bedelaar', on Dubois' estate. (Thijsse proclaimed on that occasion that he would have much preferred to have seen local plants instead of Dubois'exotics.)







The book part II: The Peltenburg era

Selenka

After De Stoppelaar had passed away Corneille Peltenburg became the sole director of Brill and he was much more businesslike than his friend. He immediately put the pressure back on Dubois, in particular by pointing out that a new situation was about to develop now Selenka was going to dig in Trinil. We make a small step back in time to introduce this new face: Margarethe Leonore Selenka. She was an extraordinary person in many respects. Born in 1860 she divorced her first husband to whom she married in 1886 to marry again in 1893 with Emil Selenka, who was the widower of her sister. Under his influence she studied paleontology, anthropology and zoology, and worked as his assistant and was an active participator on several scientific trips through the East-Indies that her husband had organized. When he fell ill and had to return to Germany, she successfully took over his leadership of the expedition in Borneo and stayed



C. Peltenburg, director of the bookshop and publishers E.J. Brill in Leiden, upon the 75th anniversary of the company. (Courtesy of Royal Brill, publishers)

there several months to study orangutans. Back in Germany she became involved in women's rights activism and women's pacifism movements and she was in fact the first women to launch an international peace protest in 1899, with a petition at the peace-court in The Hague.

Now Emil Selenka, who had been professor of Zoology for some time in Leiden, and she herself were fascinated by Dubois' results in Indonesia and decided to launch an expedition to Trinil and continue the work on the spot where Dubois had finished, to settle the scientific disputes that had arisen around *Pithecanthropus* by gathering more material and more information on the age of the strata. Emil exchanged letters with Dubois and they were in a fairly good spirit. In one letter Emil even asks Dubois to act as a "postillion d'amour" for a "friend" of his who met this nice lady in Celebes, who was now living only three houses away from Dubois in The Hague... So there is very little doubt that they were on good foot and probably met each other whilst the Selenkas visited The Hague on one of her peace missions.



Emil Selenka probably at about 1870 whilst in Leiden

Regretfully Emil Selenka died in 1902, and never came to go to Trinil. Margarethe however did not let this misfortune withhold her from her aspirations. She decided to continue the plans, in honour of her husband, and to lead the expedition herself, even if it

meant paying for it herself. She managed to pull this off, the expedition took place in 1907-08, in spite of someone opposing her in any way he could: Eugène Dubois.

Dubois did not take the plans too seriously at first, and exchanged friendly letters with Margarethe, but when it actually looked like it was going to happen, he rallied people like Hubrecht, the famous comparative anatomist, (and also befriended to Emil) to persuade her not to go. Hubrecht understood very well why Dubois was opposed to anyone



Margarethe Lenore Selenka-Heinemann

digging in "his" pit, not only would they have a chance of finding something even more nice, but moreover, they might write it up before Dubois would have, and thereby gaining priority on material on which Dubois was the first to find anything. For that was where it was going to hurt the most, the book that had to be finished and until now never had. At the publishers house the Selenka-expedition also did not pass unnoticed, De Stoppelaar already briefly mentions the threat shortly before he dies and his successor Peltenburg fully puts the argument into words: you will lose priority so finish up! Dubois starts fighting the expedition any which way he can, and writes official letters to the minister of Colonial affairs. How can it be that Germans are allowed to dig in our colonies? How can a woman be allowed to head the expedition? This woman in particular, without any proper qualifications? But the government is not at all opposed to the idea of

Selenka digging at Trinil. They may well have realized that this could be THE incentive to get Dubois to finally start writing. They in fact support her with everything except money, even Dubois' assistants Kriele and de Winter are put at her disposal, as are his original maps. An election half way these skirmishes results in a new minister at the department of Colonial affairs and new letters of Dubois, but the new minister answers his lengthy letters with the shortest of replies: having read your letters I see no reason to change the policy of my predecessor. Meanwhile Margarethe Selenka keeps exchanging friendly letters with Dubois and remarks that she has followed the elections in the Netherlands with interest. She is not so sure yet whether to be pleased or not with the new minister, but, she remarks, he is a liberal, and liberals are in general good for science.

dawns As it on Dubois that Selenka has too much support and the expedition cannot be halted, Dubois changes his strategy. The Germans have shown some sensitivity to the matter of his of priority and seem open to some deal. But what he (supported by Hubrecht) puts on the negotiation table is naive if not downright offensive 1. He demands all



DUBO1243 Bibos palaesondaicus DUBOIS, Kendeng fauna.

finds to be sent to Leiden first to be inspected by him. 2: He will immediately return to them any new *Pithecanthropus* finds (which he can promise them easily because he is pretty sure they are not going to find any) 3: Any other material which he needs for comparison to material to which he holds priority should stay in Leiden on an indefinite loan until he has described his material. The Curatorium of the Berlin University responds to this in utmost decent terms: they cannot agree but offer him that as soon as the material has arrived he can come to Berlin on their costs to inspect the material as part of a



DUBO0827 *Hippopothamus sivajavanicus* DUBOIS, Kendeng fauna.

awaits (or pretends to await) being invited, but as he never accepted their offer they do not feel obliged to do so, and don't. After inquiring with a 'have you forgotten me' letter they do allow him to come and visit and will allow to loan him this or that, but now only for a short time, as they have already ordered the finds into the museum. Again Dubois seeks legal advice, this time to enforce the offer that he did not accept at first. Again he is being told he stands no chance at all and his legal advisor Groenveldt adds in a last sentence: you better hurry up with your own publications. And so he does. No extensive descriptions though, the bare minimum to gain the priority. In the twelve years since his return he has not written one word about the fauna of Trinil and Kendeng, now he describes most of the new species in two publications, one in Dutch, 10 pages and one in German, 36 pages, with

committee that will decide who is to work on what. Any material other than Pithecanthropus finds that are new and that he wants on loan will be transported to Leiden on their costs and can stay in Leiden for a maximum of three vears after which it will be transported back to Berlin, again on their costs. Dubois does not agree and does not respond to this offer. He seeks legal advice to start a legal procedure to enforce his demands but is being told that he has no chance at all. When the material arrives in Berlin he the descriptions so short and in a matter of fact style that it drives taxonomists into despair. As scientific descriptions they are worthless, but they do just contain the bare minimum information to make them valid as species descriptions and thereby ensured his priority. Stremme, who is describing the mammals found in the Selenka-expedition writes in his report: "Whilst I was working on this material in the autumn of 1908 a publication of Eugène Dubois came out.... in which he for the first time gave a description of almost all the mammals of the Kendenglayers. In Dubois' view they got new names and verv short. but to the point characterizations. This work I had to deal with first. But as skeptical as I was, with regard to Dubois' new species descriptions, I have to admit now that I agree with almost all of his conclusions."

Although the Selenka expedition had been a success, no *Pithecanthropus* was found. Margarethe thought she had some teeth but Dubois dismissed those correctly as



DUBO0970 Skull of *Epileptobos groenveldtii* DUBOIS, part of the Kendeng fauna, named after W.Groenveldt, highly placed civil servant in the colonies and supporter and later also occasional legal advisor of Dubois.

much more recent than *Pithecanthropus*. His own publications ensured his priority for almost all species unearthened. Dubois had come out on top. But he must have realized that luck had played a major role; Margarethe might just as well have found a nicer skull than his', which would have put him way back out of the limelight.

Finale

Whilst all the Selenka business is going on Corneille Peltenburg puts pressure on Dubois to

finish his book. His first letter to this purpose dates 25th of July 1906 and remains unanswered, the second more pressing letter dated 25th September 1906 urges Dubois to respond to the threat of Selenka. Dubois writes back that he has a deal with Selenka so Brill should not worry. This was, as we know now, not entirely true but this statement buys him some time and some respect of Peltenburg who had not expected this reply. Dubois must really have thought about finishing up but even after all these years there is still the matter of Martin's name on the front cover as Editor-in-Chief of the 'Sammlungen' and his right to view the last version. Dubois writes in 1907 to Hubrecht and Weber for support to have Martin's name removed and to ensure Martin has no possible influence on the contents.



Ambrosius Hubrecht

Hubrecht and Weber reply shortly that they see no problem in Martin's name being on the cover and that Dubois should not bother about that. He can't disregard them, they are too important to lose as supporters, and no doubt their refusal has played a part in Dubois' decision to publish his short notes on the Kendeng fauna in which he secured his priority on the new species as we seen on the previous pages. Surely that subject ought to have been a major part of his book, but now they are published elsewhere the publication date of the book is further away than ever. In 1907 Dubois seems to need money and asks Brill to pay for the expenses of the photographs that have been made for the book such as the Stoppelaar has promised him. Peltenburg does not fall for that and the copybooks of Brill proof their worth: he produces the letter of De Stoppelaar that clearly states that money is only to be paid after the government money has come in. Dubois has no claim and with this action has lost a lot of credibility. Peltenburg puts the screws on and demands a definitive date when the work shall be finished. When Dubois does not adequately reply Peltenburg makes clear that as far as he is concerned Dubois has two options: finish the book or pay for the expenses incurred so far. In October 1908 Dubois promises that he will do his best to finish but he doesn't do anything. Peltenburg tries again three years later, although in his mind he must have already given up and write off the sums due to the firm. Another few letters of good intention are written by Dubois, the last one being the 1913 letter with which we started this story earlier. Peltenburg launches his final attack, threatening as De Stoppelaar did to publish everything that is in his possession without



Corneille Peltenburg behind the desk at the Brill offices which he held as sole director since De Stoppelaar's death in 1906 until shortly before his own death in 1934 (Courtesy of Royal Brill, publishers).

Dubois' cooperation. Dubois thereon (without literally stating it in so many words) threatens Peltenburg to go to court should he do SO. Dubois complains that Peltenburg does not want to discuss the matter in private. for then it would all have been resolved a long time ago (\ldots) and he ends that he will next year come with a major part to be published. Peltenburg however throws the towel and does not respond...

The finale of this drama comes rather grotesquely two years later in

1915. Dubois receives an advertisement of Brill in which he sees two articles of his own hand offered for the very low price of 60 cents. Brill had in those days next to their publishing activities also their own book shop and Dubois had a long time ago supplied some publications to De Stoppelaar to be sold in their shop. But now the price had gone down so much he decides to inquire after the cause of this and sends a letter to the firm, maybe not even realizing that this letter would end up on Peltenburg's desk. Peltenburg replies:

Most learned sír,

In immediate reply to your honoured letter of yesterday, we inform you that the works you refer to are antiquarian examples and as such are not part of the supplies we have in our depot that belong to you and which are for sale for the prices of 2 guilders and 25 cents for the English article and 90 cents for the German article. In store are still 271 exemplars of the German and 109 of the English article which we will be happy to return to you should you demand so.

On arrival of your letter we anticipated to hear from you that the manuscript, on which we have been waiting for so many years now, would finally be ready. You should be able to understand the disappointment not receiving any mention of it at all. Sincerely

C. Peltenburg

I fear I have not been able to sufficiently express into English the utter contempt that Peltenburg must have felt for Dubois, and which is still dripping from the page of this Dutch letter...

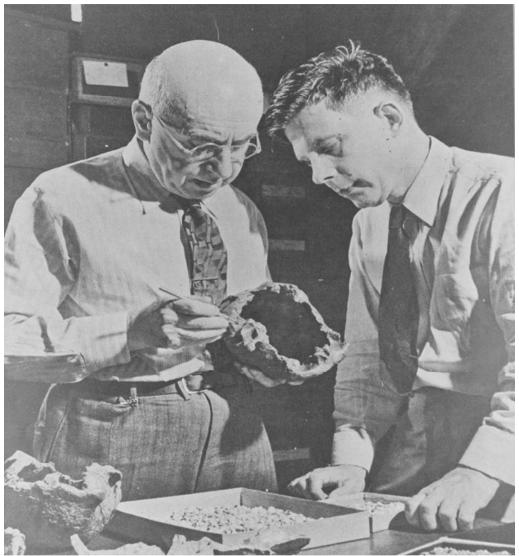


DUBO0777 Henry Fairfield Osborn

In 1924 Dubois finally publishes illustrations of *Pithecanthropus* after enormous pressure from scholars worldwide headed by Henry Fairfield Osborn, as has been extensively documented by Bert Theunissen and Pat Shipman. Some of these illustrations are of the ones originally intended for his book and were amongst the plates of which Brill had 600 in print: not very elegant to say the least. Peltenburg is than still in office at Brill, but no response of his side to these publications was given that we know off. He remains director until shortly before his death in 1934 at the age of 80 years.

Until his death Dubois kept defending the special position he thought his *Pithecanthropus* had and he debunked every other *erectus* find. Not the Peking man and not even the skulls from Indonesia, which were

found by Von Koenigswald, were to be considered *Pithecanthropus* in Dubois' eyes and he was very wrong and unjust in his judgment about them and the people who discovered them. He just could not see how the other finds strengthened his own find as being the first found missing link in the evolutionary tree of the humanoids, just for want of being the only one. Bert Theunissen showed us that his theory on saltatory cephalization more or less forced him in the end to announce that his *Pithecanthropus* was more gibbon like. His adversaries, Von Koenigswald in particular, used this to declare that Dubois had now completely lost his marbles and that he denounced the humanoid status of his own missing link. Meanwhile the Second World War had started, people had other concerns, Dubois had moved out of his house in Haarlem to completely retreat on his estate where he died shortly after, complaining of the cold in his last letters to his daughter Eugènie.



DUBO0139 Weidenreich (left) and Von Koenigswald (right)

Epilogue

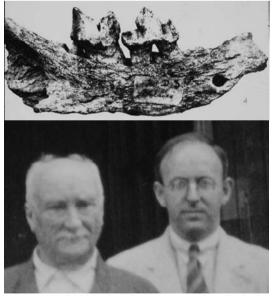
The Dubois collection in the Netherlands

Since 1894 the fossils were packed in 400 crates and sent to the Netherlands where they were kept at the 'Rijksmuseum van Natuurlijke Historie', Leiden. The idea was to store them temporarily in the gallery of the building at Rapenburg, where the 'Rijksmuseum van Natuurlijke Historie' was housed. This gallery was in earlier times used for the geological collections, but after the separation of Zoology and Geology it was empty. This gallery was appointed by the Ministry of Internal Affairs for storage of the collection. However, the director of the museum had the space already occupied. So, as first emergency storage the collection was stored in a house on the grounds of the Vreewijk estate at the Witte Singel. However the owner was afraid that the building could collapse under the weight of the



Father Bernsen (collection Geological Museum Artis)

collection and then there was decided to store the collection in 'het koetshuis' at the Doelensteeg that belonged to notary Obreen. In 1915 the collection moved to the former building of the Rijksmuseum van Natuurlijke Historie, and in 1919 it moved on to Breestraat 22. In 1925 it moved to the Psychiatry building of the Academic Hospital, and in 1930 to the Boerhave Laboratorium.



Top: DUBO0096 *Panthera tigris* described by Brongersma from the Dubois collection, below Dubois and Brongersma in 1935

From then on father Sanctes Bernsen was appointed assistant to Dubois in which capacity he catalogued almost the entire collection. The tragic death of Bernsen, who died on the 5th of June 1932 of acute stomach bleeding, has been attributed to the stress that Dubois Proof had caused him. of these accusations will never be obtained but we can be sure that the stress Dubois caused the people around him would not have helped cure anybody with a weak constitution

Bernsen was succeeded by Miss Margaretha Sanders, who later wife became the of Leo Daniël Brongersma who himself became an assistant to Dubois from 1933 until Dubois' death and subsequently remained curator of the Dubois collection until 1946 Brongersma described the Carnivora of the Dubois Collection.

In 1934 Dubois placed his definitive coup to ensure that his collection would stay within the realm of natural history as opposed to the geology museum of Martin. Not that Martin was still in office. The new director of the Geology Museum, Escher, tried his best to get/keep the Dubois collection, but seems not to have been at the base of this battle. The archives preserve a letter of Ralph von Koenigswald in which he makes plausible that it all started with a dispute between Dubois and Isaäk van der Vlerk, conservator at the Geological Museum. Martin might well have been pulling the strings on the background but whatever the cause was, Dubois secretly initiated a petition of 25 colleagues to persuade the responsible Minister to definitively bring the whole collection into the Natural History Museum. As was to be expected this drama took



Karl Martin aged 75 (1926)

place with all kinds of possible subplots, people breaking the secrecy, people pointing fingers at each other, animosity between the geologists on the one side and zoologists/anatomists on the other side, but when the smoke had cleared Dubois had his way. (Much, much later both musea fused, probably causing over fifty odd players in this pre-tv-soap-opera to turn over in their graves)

During 1939 and 1940 the collection was moved to the main building of the Rijksmuseum van Natuurlijke Historie. In 1946 Dirk A. Hooijer became curator of the



Dubois collection, and described the fossils one by one in a series of papers, like the



DUBO0178 *Stegodon* molar from the Dubois collection described by Hooijer

Proboscideans.

Hooijer's taxonomical work enabled the study of the faunal composition of the hominid 'type localities'. Whereas he did not use the fossils in a biostratigraphic way, this became now possible and was the starting point for a new look at the old collection.

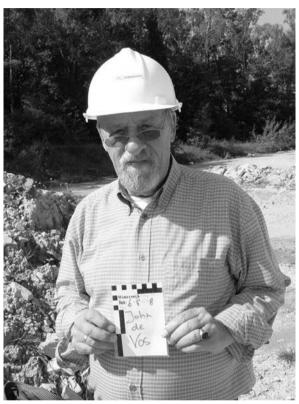
Dirk A. Hooijer

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Hooijer retired in 1979 to be succeeded by John de Vos. In 1979 the collection was partly stored in a room of the building of the Douzastraat belonging to the Rijksmuseum van Natuurlijke Historie and partly in the store-rooms of the dependence of the Heerengracht at Leiden. In 1981 the whole collection moved to the former 'Rijkszuivelstation' in the Vreewijkstraat, where De Vos also was housed. In 1997 the

collection moved to the 16th floor of the tower of what now is Naturalis.

Although John de Vos is coauthor of this book, this part is solely written by Paul Albers as it needs to be stated somewhere that John de Vos has been the driving force on the background of our current appreciation for Dubois. He very much initiated the biographies of Bert Theunissen and both Pat Shipman. In his own research he picked up on the biostratigraphy where Hooijer left off, and identified the different faunas from the different locations where Dubois had been sampling. The archives, which were hardly more than a bunch of cardboard boxes when he started have since slowly but surely been inventorized and are now on the brink of being completely disclosed and publicly accessible on the internet. In the course of this book more than 2300 photo negatives have been digitized.



The future will still hold new views on Dubois' remarkable life. In particular Dubois' geological contributions have not yet received much interest and would be a nice project for someone with an interest in geology and the history of science.

Appendix I: The Brill correspondence

The copybooks from the Brill archives are now stored in the library depots of the Amsterdam University, and are safe now, but they have not always been stored with the care needed to ensure future preservation. Some have suffered water damage and one is lost entirely. The lost one holds two relevant letters, which luckily can be reconstructed as from those letters the replies of Dubois still exist in drafts in the Dubois archives. Presented here are the English translations, essentially unabridged, but as some parts or words are undecipherable, translation is sometimes hampered and for the sake of readability I (Paul) have not always given account of uncertainties. The Dutch originals will in the near future be accessible on Naturalis website. *Indecipherable/unclear* areas are placed against a grey background and when with text this means it says what I *think* is there. Dots indicate missing word(s).

One extra remark needs to be made about the letter beginnings. In English it is very much a custom to almost in every case start your letter with Dear Sir and avoid all frivolities indicating rank, status or the pretence of those, as well as the mockery. I did choose to at least try and incorporate an indication of this in the translation, though I realize it must seem very odd to anyone with an English background.

Very learned sir, Dr E. Dubois The Hague The costs of your reprints are for your 7 and plate f13,25 post package <u>-.40</u> f13,65 May I politely request this sum to be sent to me Regards, Your Leiden Fr. de Stoppelaar ⁸/₉ '96

Telegram 15-9-1897 200 or 250 copies would cost 55 gulden per plate, to make drawings or clichés and typesetting are the most costly

Stoppelaar

(Answer to telegram Dubois: What would the costs be per plate for 200 or 250 copies under otherwise equal conditions)

{28-9-1897}

Míster Duboís

Attached our supplement. I hope I have understood your intentions correctly. Should this not be the case, please send it back to me with your annotations. To your account, which elucidates the matter at hand very well, I have no objections whatsoever.

Included in the price of f 60,- is f 5,- to be restituted to you by us after receipt of the subsidy for every plate; and f 2,- idem ,idem for every photograph for the clichés.

I have no further remarks. Should you need me for help, please let me know: and I shall drop in at the Rapenburg, when you are there.

Telegram 8-10-1897

Question is not quite clear to prof Martin nor to me. Verbal explanation desired. Impossible to already decide on the number of deliveries.

Stoppelaar

(Possible answer to telegram Dubois: Please send me the received corrections [by] Buttikofe. Will you work tomorrow)

6 nov

Highly esteemed Mr Dubois Thank you for your letter that just arrived. I am happy the matter is progressing I was convinced nothing have asked, but when your response did not arrive for some time, I feared Mr Bach had asked a contract, with an extensive calculation.

Now my fear has proved to be unfounded. I hope we will be able to go to The Hague soon, when your cold has cured, which won't be easy with this weather. with kind greetings

> Regards your Fr. de Stoppelaar

The Hague. 11.XI.97. Highly esteemed Mr de Stoppelaar, Hereby I send to you, attached, as official record, proof of authorization by the Minister of Colonies for the publication we have discussed repeatedly. The matter is now completely arranged.

I am still very busy experimenting with photography, and start to succeed quite well. For the moment my own house will suit me best for that purpose, to which my cold, that still has not left me, is restricting me anyway. I hope you are well and will stay, after polite greetings also to Mr Van Oort and Mr Pleyte, with the highest esteem, Your loyal servant, Eug. Dubois.

The Hague, the 10th of November 1897

I am honoured to announce to you, that the Minister of Colonies has authorized me, as noted in Missive dd 9 November j.l. Lett $A^I N^o$ 9, to compile the descriptions of fossils in a book to be printed by your firm for the amount of max f6350,-, to be divided over three years.

At first in the year 1898, after the Indonesian Account for that year has been approved, your firm can draw on the amount of f2000,- by handing over a declaration in twofold.

Equally for the year 1899 the amount of f2000,- will be made available, whilst the rest will be paid out after the complete work has been delivered, but not before 1900. Legally signed, Eug. Dubois

To The bookshop and publisher previously E.J.Brill at Leiden

Leiden 12 Nov. 1897

Very learned Sír, Dr Eugène Dubois, The Hague

Highly esteemed Sir,

Very gratefully I acknowledge the receipt of the favourable decision of the Minister of Colonies. We can now start our venture. When you are in Leiden at the Rapenburg buildings, I'll be happy to pass by, to make some definitive arrangements, will you please announce your presence by postcard?

Friendly greeting, with high esteem

Your

Fr. de Stoppelaar

Most learned Sír,

Without wanting to hasten you I'd be pleased to hear from you when we can start with the drawings for your book. I am asking you this also in connection to the planning of

Believe me greeting with pleasure and highly esteeming, your

Fr de Stoppelaar

Leíden 4 Jan '98 {1898}

15/3 8 {1898}

Highly esteemed Mr Dubois, With regard to my journey to Germany - which I have set for now on the 20th of April - I'd like to receive notice, whether I could before that time count on thephotographs and further information needed to discuss the reproductions that are to be made. If you prefer to add your comments in person I could briefly pass by on Sunday morning at your home in The Hague, with friendly greetings,

> your Fr. de Stoppelaar

produced by them, and seemed excellent to me. He is prepared to send his photographer with camera to Leiden, if necessary, and given everything is thus prepared, that he can subsequently record all plates. He assumed to be able to make 10 to 20 recordings a day. The price as a consequence will increase substantially, but in return we will getprecise work. The can wait in my opinion until they have received a proof and the negatives.

Of all as sharp and as increasing the quantity... went well in all cases photograph at the original size.

Once the photographs have been prepared he can deliver everything within six weeks.

We need to confer how to address this. It is reasonable to expect galley proofs of the negatives you have sent in the course of next week. There are no further remarks to be made. The plates, as we discussed, I have all explained to him, and he understood perfectly.

I will tell you more about it when you visit Leiden. Meisenbach will wait first the

Believe me please, with high esteem

> your Fr de Stoppelaar

²⁴/₂ 1899 Highly esteemed Mr Dubois, As soon as we have received your text we will immediately start typesetting and as far as we are concerned this can be ready fairly quickly. The letter you intended seen on Prof. Martin's is at the moment very much occupied with different work. I could in the meantime take a certain amount away from those works to have your oration typeset, but only on the condition that it will be printed very soon.

I do dare to suggest to you to choose another or new letter, which we have used to print amongst others the speech of Prof. Veih, which I am sending you under This is als a very fine and apt letter for this purpose. I gladfully leave the decision to you.

I regret not having known, that you have delivered your oration last Monday, I would certainly have come if I had. I only heard in the afternoon; the gentlemen Schuchat Knol and my son, with whom I had diner at my brotherin-law Lutap, had been there and were still very impressed by the many and large numbers you have summed up-I hope I will now be able to read it

Greetings from the heart and with high esteem

Your Fr. de Stoppelaar.

Leiden ¹¹/₁ '900 Highly esteemed Mr Dubois, This afternoon I had the opportunity to speak to Prof. Martin, who has returned from Berlin for a couple of days and discuss Of the text. The conlusion was, that Prof. M. for several reasons can<u>not</u> agree, to have only "Sammlungen" mentioned without his name there as editor, because the volumes are always cited in full in geological publications with his name present, and are as such known everywhere. I have to agree with him on this that this is indeed the case with other volumes also from other societies.

Prof. Martin thus claims for your work to be excepted in the "Sammlungen" that the title will remain unchanged and that he will get to see the final version, to ensure uniformity, ... the editorial board, obliging him not to change anything with regard to the contents, even if he would not agree with it; You are thus completely free in that respect.

If that is not to your liking, it will not reflect on the friendship between you, but in that case Prof. Martin must object to it being published in the "Sammlungen". It should then appear as a separate publication. You will have to discuss this with the Ministry of Colonies and get it approved. Prof. M. from his side will not take the matter up with the Ministry, nor cause any trouble.

.....

To you the decision how to deal with this. Not accept, the compromising proposition I made, of Prof. M., for reasons mentioned above, being that the book will be reckoned as having been written under his editorship. As far as I am personally concerned, it is equal to me. Whatever decision you will make; I will put up with it, be it that I will have to deal with a number of clients that have already subscribed to the "Sammlungen" in anticipation of your submission. I hope that we now soon can

start printing. From the ministry of Mr Loudon wrote me that His Excellency is by no means going to pay anything as long as not 1/3 has been found okay..... the Ministry for...... So on that we also have to wait patiently. Let's hope 1901 will create the opportunity to will go, and the With fr. greeting signed Your Fr. de Stoppelaar

¹⁸/, '00 Leíden Highly esteemed Mr Dubois,

The day before last Prof. Martin came to visit me to inform me on the outcome of the talk between the two of you; I you me in as it was decided, and I promised Prof. M. to write to you again, that as to the matter of the proofs, you have misunderstood my writing. What I intended with the final version was the fully cleaned up definitive proof corrected by you. This is subsequently being sent to Prof. M.; he writes his remarks on them. Sends it to me, and I send it to you. So you see it again, and by you the 'go ahead" is given without Prof. M gets to see it again. So you have the last word in every way. Yesterday I was absent, and

díd not have - also because two of my employees have fallen ill - any

opportunity to write this to you. I regret this now very much, because I am currently surprised by your message that you at last have decided to have your book published separately. The matter is, as you know, equal to me. As Publisher it does not matter to me whether it will be in the "Sammlungen" or not. This book will find its way. That I am writing again about it, is because of the promíse I made to Prof. M., as I stated at the start of this letter, and the remorse that my neglect might have caused your changed opinion. May I add as my private opinion, that you, in my eyes, overestimate the interferences of Prof. M. in this matter. I have been dealing with him for over twenty years now in all kinds of matters, often also under difficult circumstances. Often we have had differences of opinion, as is only common, but it has never influenced our friendship, because as far as my experience goes, I have come to know him as honest and true, putting his business , and what is of particularly great value, he always keeps his agreements. If Prof. M. has given you written and verbal affirmation that he will not make things difficult for you, nor abuse his position as editor, then you can believe this without a second thought.

It is my intimate conviction — be it very personal - that you, working together with Prof. M. will be saying that this cooperation has become one that will leave the fondest of memories. Prof. M. – he may be a bit excessively accurate in some cases — stays the same, is pleased to help, without a hidden agenda.

> Your Fr. de Stoppelaar

Leíden, 20/, 1900 Highly esteemed Mr Dubois. Don't think ill of me when I come to bother you with the question whether we can soon expect the next part of your work. I ask this keeping in mind the Assurance given to Mr Loudon, that the first volume of your work would be ready at the exhibition in Paris. As this is being opened at the 14th of April, and according to messages in the newspapers one will not be allowed to add new items after that date. If there are chief reasons or causes, that will not allow you to finish the First volume, it seems to me that it would be good that Mr Loudon is being notified, either by you or by me

Believe me truly, with friendly greetings, Your Fr. de Stoppelaar

Leiden 18 May 1900 Highly esteemed Mr Dubois,

This morning I returned to Berlin from my trip to Leipzig. Your letter

has thus reached me in good order; I was happy to find it coincide with my presence there. What turned out to be the case? I was speaking to the Head-Chief (pleonasms like one sees nowhere) in the Berlin House on the "Meise", and heard that Mr. Ríg..... left the Leipzig house months ago already; (this) could be found rather irregularly, and e.g. the last of your proofs had never reached the studios in Berlin. Mr Spiess apologizes for this and requested me to confer his apologies also to you. I will tell you more when I see you. They even did not tell him about, that Ríg had brought you. I hope now that the drawing has not already been sent to you: if this is the case, please inform me directly: I'll request him their questions don't bother you too much - you might yourself Heer Spiess, or simply write to the chef of Meisenbach, Riffarth & Co when you send the plates and explain to him what is going wrong. Mr Spiess has promised me extensively that he would deliver them tadellos and as genau wie möglích⁵.

I am sorry for the trouble this has caused, but nobody is to blame. At least we now have the assurance that everything will be all right, because Mr Spiess repeated to me with stress, that he hoped that we would not be put off by the incomprehensible behaviour of Rig..., and that the time that had

neat and as accurate as possible

been lost, would be made up by them.

Will you send him all your remarks, then he will answer. He will have everything related brought over from Leipzig. With fr. greetings, and....., with high esteem Your Fr. de Stoppelaar

Leiden 20/4 1901 Esteemed Mr Dubois

Monday evening I could visit Haarlem briefly to talk with you about your book. Would that be convenient to you, and at what time? I could take the train at 5.40 = 6 hours or 6.{0}7 = 6.27 Haarlem, hence about 7 o'clock at your place. Should you wish another day, fine with me, but not on Tuesday or Thursday.

Monday would suit me best Greeting with high esteem Your Fr de Stoppelaar During the day anywhere next week would suit me

Leiden, 8 June 1901 Highly esteemed Mr Dubois, I forgot to take up the matter of the expenses in Berlin, but I don't consider it worthwhile to even try get them reduced, as I could not agree with myself in what way I should present it. It is difficult to write to a chef that his employees have either been lazy or not up to their jobs; and that <u>that</u> has been the cause of the expenses increasing. My plans to go to Berlin one of these days have

now become a certainty. There is an international publishers congress in Leipzig starting next Sunday: I will be going there. The congress...... [closed] in Berlin, where we will arrive at the 14th of June and I to go to Spiess and go about the business. It would be of great service to me if either you or Mrs. [Dubois] who is also well informed, would present me a líst, befóre Fríday(when I will be leaving) with all the points that we have discussed, and of which I still remember for the most part, what it is all about. I promise you, as is obvious, that I will use it discreetly, as is in the interest of the cause. To cut off a couple of hundred Marks, only to pay the same amount to somebody else, thereupon rísking, not to be served well is not the diplomatic way. I'm rejoicing, that we now will be able to start soon. With you I trust, that both yours and our success will be good.

If there is anything else I can bring up in Berlin: please let me know. Either way I hope that we will succeed with the continuation in Amsterdam. Believe me truly, with fr greetings,

also to your wífe Wíth hígh esteem your

Fr de Stoppelaar

Leiden, 8 Oct. 1901 Highly esteemed Mr Dubois As I was absent yesterday, this is my First opportunity to answer your letter dd 5/10 last - I regret very much that your wife has travelled to Leiden in vain, the more as my wife and daughter also happened to be just out.

I have written a pressing letter to Meisenbach. I hope he will now keep his promises. I can imagine that you are getting worried about the way things are going, but if I were you I would not get agitated too much. As all worldly things, it will be all right. I just hope that you will now find the time, [and] and the opportunity to give what you got. By always looking for better the good might stay hidden, and that would, after all that has been done already, be a shame.

......I regret that you haven't sent the drawings or rather photographs to Berlín. I wrote hím, as we agreed, they would follow within days. Now he will say; I did not hurry as you díd not send what you promísed. If I'm correct, you had planned to have this be part of the volume that is to appear: if this is so, then I think it is justified, to send this also to him (Meisenbach) as soon as possible. He will help us now quickly, and then he won't have an excuse not to. - I understand very well why you did not do it, but I think it better, that he is to receive them as quickly as possible with your instructions, to not give him any motive for further delay.

Once we have this First part ready, I promise I will do the impossible to get things done here in Holland. When we started all this there was no studio that could satisfy your demands: now there is.- Let's for the moment just carry on with Meisenbach, but without giving them reason to complain, so we can get rid of them as soon as possible. If you help us in this, everything will be fine. You do have to trust me, I will hurry up very much, if we only got a partial volume ready for the ministry, all will work out: Mr Loudon is willing enough. With fr. greetings, also to your wife

Truly with high esteem, your Fr de Stoppelaar

Leiden, 10/10 1901 Highly esteemed Mr Dubois, This morning I received letterI from Meisenbach, followed at 1 o'clock by letter 2. So there is some delay from their part.

I will notify you when the post package arrives (I expect within a few days). I hope you have sent the other material or will do so now ... "Frappez le fer pendant qu'il est rouge" - they are now in good, let's keep them that way by answering soon

> With high esteem, greeting your

Fr de Stoppelaar

Leiden 11 oct. 1901 Highly esteemed Mr Dubois, As you have

read from the letter, the post package with the plates from Meisenbach has been sent - So you will be receiving it within a couple of days. After that you can establish which negatives still need to be sent to them. As far as the line drawings are concerned: please be so good as to send them to me in Leiden the first time. I will then see what method of reproduction is best suited. Subsequently they can be sent directly to Amsterdam, but the first [version] I prefer to do myself. Where the clichés in between the text are concerned: these I would also prefer to see myself first. If necessary I will take them to Amsterdam, and have proofs sent to you from there.

It seems, I think, best to agree, that unless we say otherwise, everything will go passed my office. That way I will stay better informed, and it will never cost more than one day. With high esteem and greetings

> your Fr de Stoppelaar

Leíden 18/10 1901 Highly esteemed Mr Dubois, In response to both of your letters I have this morning -I was absent yesterday - written a long letter to Meisenbach, and dotted the i's. I hope it will help. I have asked now, to, as suggested by Mr [Winckelmans], to send you prints of everything you left in their hands. I will keep you appraised and send you written account of our correspondence. I have no secrets for you in this respect: I prefer to deal with this in the open. The drawings I am sending to Roeloffsen & Hübner in Amsterdam, t... ícal reproduction: as soon as you have further drawings, I'll be pleased to **.**

Tuesday I will be visiting Amsterdam, and forementioned Gentlemen, and tell them they can be expecting more work from you. Today I have no time, as I will be leaving for Paris for business for a couple of days on Monday, when I return I'll be pleased to take you to this firm some day, to acquaint you with them. Believe me truly, greetings with high esteem

> your Fr de Stoppelaar

Leíden 13 Nov 1901 Highly esteemed Mr Dubois, Your letter dated $\frac{12}{\gamma_{T}}$ last has arrived in good order with the enclosed drawings. Given the needed accuracy for their reproduction, I do not consider zíncography desírable. When I have two zíncos made-one for [black] and one for red accurate printing is surely possible, but we need to take into account the paper, which stretches or shrinks due to temperature, minimal as it may be, which would just spoil the correct distances. Therefore I gave the drawings to the lithographer, who completely controls accurate reproduction, and he can, what you have drawn in red, by giving it a different width, create a clear difference. I have put to him the importance of being very precise, and we will get neater lines than if he would used zincography: [with] a tiny width still more beautiful than any other reproduction. I will write to Riffarth again. Excuse just these few words. I am in the middle of the mess of

reconstructing my house. Greetings truly

> your Fr. de Stoppelaar.

Leíden, 31/12 1901 Highly esteemed Mr Dubois I will not let this year end before having replied to your letter of $^{23}/_{_{XII}}$, and your reminder of ³⁰/_{vir}. But first of all my best wishes for you and your beloved for the soon arriving 1902. As to your proposition, to have one plate reproduced by another method: I am prepared to do everything feasible to get as close to the original as possible, but I stand by my opinion that by far the best results are achieved by means of photo engraving. The prints of these are at least much better than by any other photographic method. I am thus convinced of my case that I would propose to you to give me the negative of the plate in question and allow me to make a proof of it at my risk and my costs. The plates in Lavoisier's book are good, but certainly not better than those made for you by Meisenbach & Ríffarth. The dífference líes in thís, that you judge other people's work, I would almost say with a more [lenient] eye than your own. The tiniest of errors or impediment in your plates you wish to have removed, and I agree with you on that, as far as is possible; but I suspect, if you were the author of Lavoísíer's book, you would look at those plates with a different eye. Don't think ill of my explanation: it is only human, my experience has

brought me to this conviction. I am quite sure, if I had shown your plates, the [proofs]I mean, of Meisenbach & Riffarth to one of your colleagues, they would not have liked them, not being there own work

Fríday afternoon I will be leaving for Germany for about ten days. I might stop over in Berlin? Is there anything I can do there for you? With greetings, your

Fr de Stoppelaar.

15 Januarí 1902 The most learned Sír Professor Dr. E. Duboís Haarlem

Most learned Sír. As agreed I went with the negative to the firm Roeloffzen, Hübner & Van Santen - building "News of the Day" to discuss the possibility of a good kind of reproduction. According to them the only method for good results is "photo-engraving". The print provided with the negative they considered insufficient due to poor developing. I have now agreed with them that their technical director for zinc-engraving, collotype, photo-engraving etc., a German, a very capable man, will visit you if you such desire, or if that would suit you, you could go visit him some day, after which you could determíne your preference.

With the highest esteem remaining

.....[servant] C Peltenburgh

Leíden, 28 Nov. 1902 Highly esteemed Mr Dubois, The crates with the prints of the 24 plates for your book have just arrived. Matters are now becoming serious. I hope you will now be willing and able to cooperate and have a volume ready as soon as possible. Soon we will have to pay for these plates and the expenses, and I am counting on it to be, at least for part of the sum, covered by the subsidy of the Government. I will have the crates opened within the next couple of days and will send you a few and I would like to propose to visit you at the start of next week in Haarlem, to set up a scheme which you and we mutually need to stick to. If this convenes with you, please let me know by postcard which time would suit you best at what day? Every day will be fine with me except for Tuesday, which is fully booked. With friendly greetings to your wife and you,

> Yours truly Fr. de Stoppelaar

Dear Mr Duboís,

I have just-8 o'clock - come home from Amsterdam, to find in my office your postcard. Tomorrow, Sunday, I regret will be completely impossible to come and visit you as I will be getting visitors myself. So I will settle for Wednesday next. I'll be arriving by the 9.14 = 9.34 train and will be in Haarlem at about ten so at about half past ten at your place. I had written you directly when I arrived from Berlin. I hope to receive your answer before Wednesday. Díd you read the papers this morning something about your work, that about 1/3 ready, to be published soon. With fr. greetings, with high esteem your

Fr. de Stoppelaar Leíden, ²⁹/₁₁ 1902

Leiden 14 Januari 1903 Highly esteemed Mr Dubois Did you receive the prints of Meisenbach and of Roeloffsen, Hübner & v.Santen ? The clichés of the last I mean.

I would so much like to start printing, as......, so much work is not just.... a loss to us, but I also fear we are getting into trouble with the Ministry. I had hoped that Mr Loudon by soon back....... And before Tuesday 18 I'd be pleased to have the first print. Help us and yourself. With fr. greetings, pleased with high esteem,

> your Fr. de Stoppelaar

With fr. Greet. and high esteem

your Fr, de Stoppelaar

20 January 3. {1903} The most learned Sír Professor Dr. Ed. Duboís Haarlem

Most learned Sír, We are pleased to send you the enclosed answer of the firm Meissenbach Riffarth & Co as well as the sketches for Tables 25 & 26. We expect you will return the letter to us after you have used it. With the highest esteem remaining

your..... C. Peltenburgh

Leiden, ¹⁸/₅ 1903 Highly esteemed Mr Dubois,

Although reluctantly, in service of my firm I am obliged to bring up again the matter of the publication of your book. With the closing of the books it became again apparent to me how large the is, to which we have committed ourselves, without any assurance to see anything of that returned, without your cooperation. The Ministry of Colonies will not pay out before it has received a copy. And if I tell you that we have already paid 6000 Marks to the firm Meisenbach, Ríffarth & Co, about 3500 guilders, and it has already been a couple of years since we printed, then I am not exaggerating to have a total sum, including the rent, of 4000 Guilders of advanced money. As I mentioned to you before: "Le mieux est l'ennemi du bien"; it is indeed necessary for you to

publicize your results and finds, which you have gathered until now; obviously there will still be gaps, but you will have the opportunity, as we may hope, to fill those in later. The interested parties are allowed to demand to finally get

Therefore, help us and by that also yourself. Once the first volume is published, the others will surely follow. we are pleased to cooperate. With fr. greet. and high esteem,

> your Fr. de Stoppelaar.

Leiden, ⁵/₁₀ 1903 Highly esteemed Mr Dubois, After an absence of more than 5 weeks, which I have spent in Ems for my health, I have returned to my office a couple of days ago. I was hoping amongst other things to find an answer from you, but I regret to have been disappointed. I thought you would have had the opportunity to use the holidays to work on your Standardbook, and that we would now be able to start printing. Would you please be so kind as to inform me, how things are going? I am not just sustaining, as I have written to you earlier, large financial damage, but now also a daily returning grief, of having to give evasive answers or half ones to the question that keeps being asked: when will your book finally appear? One assumes that we, being the publisher, are the ones to know, but the curious situation is that we

know nothing of our own publication.

I repeat: help us and yourself With fr. greetings and high esteem

> your Fr. de Stoppelaar.

Leiden, ³⁰/₁₀ 1903 Most learned sir Prof. Dr Eug. Dubois Haarlem

Highly esteemed Sir, As I had written below the proofs we will be ready with typesetting this week or early next week latest. - At the moment I have no idea what the first part of your book, that we ought to be sending to the Ministry, is going to look like. What is being typeset now is being done so without page numbers - I discussed this also with your wife -, but what to do with the already printed 40 pp., of which some next are already in proof? In other words, in which order are these going to be put?-

We currently hold: 1st these 40 pp. $2^{nd} \pm 44$ pp. which are currently in print $\underline{3}^{rd}$ a considerable collection of plates. - If these are to be assembled into one volume then there will have to be, obviously, a title - which should be easy enoughbut also, in my opinion, a preface, explaining your methods, which can be changed at a later stage, but for now will serve its purpose for the Ministry. - Finally, to underline your wonderful plates, a clarification that can be folded out, which could be printed in a smaller letter.

Maybe these propositions are {superfluous}, if so blame that on my ignorance. - The sole intention of this letter is to be armed and ready, when we face the Ministry.-

A separate note from your hand could add some more particulars about how the continuation is going to be, and how you are going to go about it. -If you think a conference is needed I am prepared to come to Haarlem, if I have to, whenever it suits you. In half an hour we can make a lot of arrangements, so I will not take much of your time. With high esteem, greeting, also to your wife

Your Fr. de Stoppelaar

Leíden, */₁₁ 1903 Híghly esteemed Mr Duboís,

Fr. de Stoppelaar

Leiden 18 Nov. 1903 Highly esteemed Mr Dubois, I received your postcard this morning, but I don't understand the Ministry's answer. Is the second term now available without us having to submit anything? We have sped up typesetting and printing, printing these pages

without numbers, which means they

have to go through the presses again, and now they end up being put next to the other pages and plates. - It seems to me, that we are now entitled, having such a large amount of plates ready, and a large part of the text printed, to go the Ministry , and say, that we have fulfilled an obligation, and we request payment. The interest, that we will be charging, will all be at the account of the country, whilst it should how we too, and how much we would like to help, to subtract such an amount of money from our company for just one book.

Once again: please help us by sending us the "missing link" of your Monograph, to make it complete.

Believe me truly greeting with high esteem

Your Fr. de Stoppelaar

Leiden 18 Mei 1904 Highly esteemed Mr Dubois, For several years now, when the books are closed, I have encountered the sum of more than 4000 guilders paid the interest, which now has increased again with the reprints of the pages, which last year had to be printed in such a hurry. - As director of our company I can no longer justify this for our board of commisionaries and one way or another this will have to end. - As your wife and you know I have had enough patience, and have truly not been unwilling or untrue, and That is not

to be as long as a start can be made with the publication. With high esteem and greeting Your

Fr. de Stoppelaar

Leiden 9 Sept. 1904

Míster Prof. Dr Eugène Duboís Haarlem Wíth high esteem,

On several letters of me, though polite, I have lately not even received an answer anymore. I don't think I have done anything to deserve this. I have started my venture with you in good trust. No financial sacrifices have been too large; I have always met your personal desíres, but now I am <u>no</u> longer cf the company, dírector I am One way or the other this has to end. are lying without interest in my storage rooms as are plates, that I have paid for years ago. Do take steps to enable us to have the first part of the plates publicized. Enclosed letter and you have said to me once The plates have been ready for ages and are still not being finished. Why? You have ordered them, haven't you? ; and I have taken the rísk the fírm.

I demand a categorical answer, how is the progress on your book and what am I to expect?

> Wíth hígh esteem Your Fr de Stoppelaar.

Leiden ¹⁴/₁₀ 1904 Highly esteemed Mr Dubois, I <u>have to</u> write you again,

how annoying it will be to you and how unpleasant it is to me: - As dírector of our firm, I can and may no longer leave I will get into trouble if I do. Therefore I hereby politely notify you, that I will collect the printed plates, as well as the printed text and bind these into a volume, which I will subsequently publish. On the cover I will mention briefly, that, through no fault on our side, have delayed this publication, but that we hope, that the author will soon enable us to publish a sequel. Should this not be according to your wishes or if you have another proposition, I will await your answer within 8 days. I am prepared to vísít you ín Haarlem íf you want to treat this matter in person, but this year something must appear. With high esteem and friendly greetings Your Fr. de Stoppelaar

Letter of Lorié to Dubois (filed MM774C-000033-490) in which Lorié completely lets Dubois down when he seeks support in response to the above letter.

Dubois' answer to that (not amused) filed in MM774C-000033-486.

Leiden 3 Nov. 1904

Esteemed Mister Dubois, As Mr. Peltenburg has told you,I did not have an opportunity to answer you yesterday, with regard to the postcard sent to me by Mr Lorié.

It is obvious, ,, , after one, that publication of your work about Píthecantr. had become a fact. generally put, that by support of the government Financial difficulties had been lífted, to whích means several gentlemen, e.g. Prof. Martín, gave up a part of his subsidy, and the Cooperation for Advancement of Scientífic Research in our Colonies. have cooperated - we have spoken often about the publication of your book, and I have been contacted too, being the publisher, if there was progress or not. - Whilst in the first years I could say: we are busy; the plates are in production whilst printing of the text has started, I had to explain later- as the book díd not appear - that Prof. Duboís was otherwise occupied, as duely noted by the newspapers, by working on other projects, and I will no doubt have added - which I don't remember anymore - , that this saddened me: "this costs me a lot of money, that I have already spent on the plates", for thou art also mortal, and who will finish it after you're gone? You will not blame me for that. - Lately I have heard nothing from you. My letters have remained unanswered. And when, quite unexpected, again two Gentlemen came to call on me inquiring on the progress of the publication, I have given the same reply: "The plates are ready, a part of the text has been printed, but I can't get the rest out of Prof. Dubois' hands".

Therefore I wrote to you that I was going to publish what I got so far, hoping to provoke a response from you. I am pleased this has happened. We are now on speaking terms again, everything can still turn out well, if you stick to what you have promised, that you see this book as a part of your life's work. Truly, not a triviality! That people are gossiping about it, you know that as well as I do, but let us prove by the deed that the book will be there, as you have promised <u>now</u>, and all voices will be silent. "Le mieux c'est l'ennemi du bien". Give what you have got; it is such valuable material, which you have collected at the expense of large sacrifices, do let it be published under your name, and in your words.

Greeting, with high esteem, your Fr. de Stoppelaar

Leiden 5 Nov. 1904 Highly esteemed Mr Dubois,

I sincerely regret - though I feared it would happen - that the publication of your book has again been discussed at the Ministry with regard to their balance sheet. Apologizing again, because of lack of time, and because of being indisposed (which has surely been a factor lately), without doubt, I agree this with you, not. Therefore something else will have to be written or said. But what and how? I am a bit hesitant advising you on this matter, but I will do it nevertheless, risking that you might take this the wrong way, and start suspecting me too, whilst I - I wish I could convince you on this

primarily have your personal interest at heart, before that of your publication Let me speak freely, and add my proposition to it. There is a matter of urgency, and as far as I am concerned, I consider this the best only, and in many respect also the best solution, which will preempt future questions on this subject and will make the matter progress to everyone's satisfaction if you are able, in your turn, to cast off all your suspicions. To business...

Yesterday Prof. Martin came to visit me, also having been subject to inquiry by the Home Office, about the budget of his museum and matters in his care - also about subsidies, that with his approval, for your collection, under his responsibility, are being spent on your servant, present here. - He asked me what the answer should be: he'd be pleased to do everything to avoid difficulties, but

being responsible. I _____ that in the course of 1905 most certainly part of your work will be published and I requested him, at least for the balance sheet of 1905 to not arouse any suspicion.

you will continue to have the collection at your disposal, until you have finished describing it; only after that if will fall to the Ríjks Geolog. Museum under of Prof. Martín. Now no progress has been made, there will be a collision between both interests. the more serious now Berlin also is going to excavate in our colonies; and which might result in that you by that lose priority. This not only annoys Prof. M., but every scientist and every Dutchman. This is the cause - solely - this is being discussed, and you the world is, a tiny falling pebble, becomes a rock, and ends up being a mountain. This cán all be prevented - even now - if you two would start cooperating. Dear Mr Dubois, please believe me. I have known Prof. M. for 30 years; I worked with him a lot, spoken to him frequently, I have needed his help and cooperation on many occasion involving others, and whatever other people might say, he is loyal and honest, of good will, for those who confide in him. This is my case: come to Leiden as soon as possible, let's have a conference the three of us, in which the whole case is discussed openly and which results in a joint report to the Home Office by the both of you, forecasting, that by your mutual cooperation, arrangements will be made, starting in 1905 to publicize regularly. Then - as you will see everybody will be satisfied; rest will be restored for you, and you will be enabled to calmly work on.

I am writing this immediately after receipt of your letter without prior contact to Prof. M. himself, but I am That he will cooperate, although he is very much occupied with all kinds of If you can decide to this - and I hope and trust so - send me a telegram or write to me, when you are arriving, and I will deal with Prof. M.

> Greeting with high esteem Your Fr de Stoppelaar –

> > Leíden 7 Nov. 1904

Esteemed Mr Duboís,

Only yesterday evening did I find your reply, which I had feared, although I had a small hope, that you would agree to my proposal. I will have to, though with regret, put up with your decision - Regretfully_, as I am truly convinced, that your judgment on the person in question is wrong. - He does have a high opinion of you and of your knowledge and of the way you have conducted your research and Nothing would have pleased him, to see your results published and noted, and your name mentioned with honour. <u>I know</u> this, whatever other people may have told you. But I do understand that I will not be able to convince you and I will therefore never bring this subject up again. I hope one day the day will come, that you will be convinced that he is your best friend. He can and will

help you by word and deed, and now 7 years have passed without any result, which would have been so much different, if a Cordial had existed between the two of you: for your peace and quiet, and for good progress of our cause. But now something has to be done. Would you agree, if I were to go to The Hague on to speak to the Gentlemen Dupare and Royer? Before anything else we have to avoid that either unfavourable remarks end up in the account or an interpellation in the House of Commons will take place. I am prepared to do so, but only if it meets your approval, and if you tell me, which promises I can make, also on your behalf. I could go Wednesday morning. Greeting with high esteem Your Fr. De Stoppelaar

Highly esteemed Mr Dubois, In response to both of your letters of the 7th and 8th of Nov., for which I thank you, I am happy to say, it pleased me, that for now in The Hague all has been arranged to your satisfaction: this was intention too, when I made proposal to you. You have reached the same goal along another road; and this had more your sympathy, thereby resolving the matter, in which I, on your request, advised you, to the best of my knowledge. The result is good: your wishes.

According to our agreement, let us together make your book see the light. I will from

my side <u>do</u> everything possible, to make it easy on you. Trust, in the good sense of the word, I will have in you. I know, here is nothing you rather wish for than to see you work finished, but a year passes very guickly, and I hope, that you, in time will meet with the demands. that anybody would expect from you, that you will find opportunity to regularly work on it for a couple of days every week. I will wait for now, and absolutely speak to nobody about it - what I have never done unasked for and what I did say I can justify - and I will just, if I haven't heard from you in let's say, three months, to ask you, also taking other work into account, how things are developing. This does not exclude trust; on the contrary, I believe this is the right way to go about it. -Thus we go forward with new courage, with that expectation truly greeting with high esteem,

> your Fr de Stoppelaar

25 July 1906 The most learned Sír Prof. Dr. Eug. Duboís Haarlem

Most learned Sir, During the meeting of the directors and the board of commissioners of our company, which has just taken place, the President of the commissioners, Professor de Goey, has posed the question, what the progress of your publication was. -The considerable amount of money which this Publisher has advanced for......, has drawn the attention of the Commissary charged with reviewing the account of the company. - As this publication has been dealt with in particular by the late Mr de Stoppelaar, it was not possible for me to adequately answer the question posed to me and I was therefore instructed to make further inquiries.

I would therefore be very pleased if you were to inform me when this publication is due.

Should you wish to discuss the matter with me personally could you please politely respond and inform me on day and hour at which you could welcome me

With the highest esteem remaining

C. Peltenburg Dír.

25 September 1906 The most learned sir Prof. Dr. Eug. Dubois

Haarlem

Most learned Sír. I regret that my letter to you, dated the 25th of July, has remained unanswered, therefore I allow myself to be so bold as to politely remind you of the question asked therein, when we can expect to start the publication of your work. Since then it has been brought to my attention, that Mrs. Selenka has left for Indonesia, to start scientific explorations in the same area, through which the possibility cannot be excluded that further delay could have the consequence that their results are going to be published before yours, you will

understand that I am currently expecting a positive reply. Meanwhile as always with the highest esteem

> Your C. Peltenburg

6 October 1906 The most learned Sír Professor Dr. Eug. Duboís Haarlem

Most learned Sír,

I have received your honoured letter dated 12th last in good order and have taken the contents to heart. I was very pleased with the announcement, about the agreement you have made with Mrs Selenka.

Whilst I am fully confident, that we will now be going to publish the first volume of your work within the time limit you have set, I am giving you the assurance that from my side I will do my utmost to that cause and have now the honour to be with the highest esteem

> Publísher Dr C Peltenburg

Letter of Dubois to Hubrecht 24-1-1907 (filed under MM774C-000033-120) confidential In which he seeks support from Hubrecht and Max Weber against Martin being Chief-editor of his publication in the "Sammlungen". Hubrecht also on behalf of Weber answers to him 29-1-1907 (filed under MM774C-000033-122) in so many words that he is seeing ghosts...

Apríl 1907 The most learned Sír Professor Dr. Eug. Duboís Haarlem

Most learned Sír,

Thanks to your clue I have found the copy of the letter of the late Mr de Stoppelaar, concerning the restitution of the photo-expenses. The letter is dated the 28th of September 1897 and goes as follows:

Attached our supplement. I hope I have understood your intentions correctly. Should this not be the case, please send it back to me with your annotations. To your account, which elucidates the matter at hand very well, I have no objections whatsoever.

Included in the price of f 60,- is f 5,- to be restituted to you by us after the receipt of the subsidy for every plate; and f 2,- idem ,idem for every photograph for the clichés. Thus the matter has been resolved to complete clarity. After polite greetings I have the

honour to be with the highest esteem

> Publísher Dr C Peltenburg

20 September 1907 The most learned Sír Professor Dr. Eug. Duboís Haarlem

Most learned Sir, I am pleased to comply with your request and acknowledge to have received in our depot 272 copies of "Die Klimate der Geologische Vergangenheit", of which 72 are sewn and 200 loose page, and also 109 copies of "The Climates of the geological Past", all sewn. With the highest esteem remaining, after greeting,

> Publísher Dr ... C. Peltenburg

——————— 17 Julí 1908 The most learned Sír Professor Dr. Eug. Duboís 45 Zýlweg Haarlem Most learned Sír.

In the recent General Meeting of Stock keepers the question was posed again when your book is finally going to be published of which the plates are ready and paid for since years and which are every year are responsible for a considerable loss of interest! Again I was not able to answer thís. Last year I was full of cheer as you had personally assured me soon to be able to start printing and even requested my cooperation for a speedy result. Since then I have had no word from you and it is by no means indiscrete to request you now politely but urgently to give me a definitive account about your publication. matter has to come to an end. Our firm cannot affirm this situation and the capital we have invested in this publication has to be returned. In expectation of your

honoured explications remaining

Publísher Dr C Peltenburg

4 October 1908 The most learned Sir Professor Dr. Eug. Dubois 45 Zýlweg Haarlem

Most learned Sir, You have not answered my letter of the 17th of July , and I really cannot understand why not. We have never been impolite towards you and surely are entitled to be treated in an equally polite way. The matter must be brought to an end whatever which way. If you do not allow us to publish your work then the only solution is that you will repay us the expenses that we made.

Expecting your honoured decision, remaining With high esteem.......

C Peltenburg

November 1911 The most learned Sír Professor Dr. Eug. Duboís 45 Zíjlweg Haarlem

Most learned Sír. More than three years have passed again since your last letter dated the 15th of October 1908, in which you give me the assurance "that the matter has been forcibly taken in your hands and the work has progressed!" I hope you agree with me, that I am now entitled to a certain explanation stating when it will be ready and the text is to be sent to us. I can no longer satisfy the commissioners of our company with promises, they demand a definitive answer, which I politely and urgently request you to send me.

In expectation of your honoured further response, remaining

C Peltenburg sr.

Dear Sir,

although this year I have done the impossible to finish a first and most important part of my publication, which is to be published by you, on the Indonesian collection, I am not been allowed to succeed. One circumstance that impeded me was the obligation to fulfill the wish of the Government, to receive a catalogue of the collection, which has taken much of the time available to me.

But also I could not have foreseen the size the field of aforementioned publication has amounted to over the past years. Much needs now to be examined from new points of view.

I request your trust, that I will do my utmost, to bring progress into this matter and I believe I can assure you that the long delay has not resulted in a decrease of interest. Interest now is surely larger than it has ever been.

> In high esteem, your servant, Eug. Dubois

Haarlem, Zijlweg 77, 30 -1-'13 To the Firm E.J. Brill, Bookshop and - Publishers, Leiden.

Dear Sir,

In response to your letter of the 11th last I have the honour to notify you that I cannot agree to the alternatives you propose. The first proposition I can't agree to for reasons best conveyed in person. The second proposition not, because for scientific reasons, both for you and for me, that would be the least desirable that could be chosen. I am certain that such a publication would have no value whatsoever, neither in scientific nor from a mercantile point of view. The good name of your firm would not be served by it, nor would mine, and allow me to point out the following to you.

By exercising the second option you would release me from any moral obligation to you, which I am obviously pleased to acknowledge, and I would be free to publish anywhere, how and whenever I wish. The plates published by you would not stop that publication, nor would they profit from it, as it would not be difficult for me to replace them.

December 15th 1913

Also I have to remark, that the plates are not solely your property, as – apart from the intellectual property, which rights I can assert – I^{st} the photographs were made by me during my stay, for that reason, in Berlin for several months. The costs for that stay were not charged to your account. 2^{nd} You owe me a rather large sum of money for the other expenses I made, without taking into account those which are in the contract we have concerning the publication for the Government.

It has always estranged me, that you have never preferred personal contact on this matter over written inquiries. Had you decided to do so, then our difficulties might have long vanished.

Meanwhile I can tell you, that I will soon (after the Easter holidays) take the utmost measures, as possible under the given circumstances, to see finished by the end of this year the main part of the meant publication (for which the plates in your possession are intended).

> With high esteem, Your loyal servant. Dr. Eug. Dubois

Haarlem, Zijlweg 77, 15 February 1915 To the Firma E.J. Brill, Boekshop and - Publishers, Leiden.

Dear Sir, referring to the catalogue No. 71 you have sent me, for which I thank you politely, I have the honour to make you aware of two errors in it concerning the numbers 6949 and 6950 (p. 11). Both small publications were written by me in 1893 and 1895 respectively and not published in Leiden. They were published in Nijmegen and Leipzig and in London, for my account, by intervention of the firm H.C.A. Thieme in Nijmegen. The editions in your possession are my property and were at the time handed to the late Mr de Stoppelaar, previous director of your firm, to be traded for my benefit. In view of this I may be allowed to politely ask whether the price of 60 cts for the sewn English publication is not a bit low.

I would be obliged to you if I were to be informed about the mentioned errors and the motive for the low price of the second publication. With high esteem, Your loyal servant, Eug. Dubois

16/2 1915

Most learned sír,

In immediate response to your honoured letter of yesterday, we inform you that the works you refer to are antiquarian examples and as such are not part of the supplies we have in our stocks which belong to you and which are for sale for the prices of

2 guilders and 25 cents for the English article and

90 cents for the German article.

In store are still 271 copies of the German and 109 of the English article which we will be happy to return to you should you demand so.

On arrival of your letter we anticipated to hear from you that the manuscript, on which we have been waiting for so many years now, would finally be ready. You should be able to understand the disappointment not receiving any mention of it at all.

> Sincerely C. Peltenburg

The most learned Sír Professor Dr. Eug. Duboís Haarlem

Appendix II: Catalogue of glass negatives and (lantern) positives

The left column states the number under which the negative can be traced in Naturalis, Leiden. The second column if 'empty' indicates an original photograph; '()' indicates the positive of a photograph of anything printed or drawn, hence a very literal photocopy, often to be used for projection. ()' indicates the same but than a negative. 'H' indicates that we assume the negative not to be originally from Dubois but from Dirk Hooijer, one of the later curators. 'X' indicates X-ray.

If the description mentions endocast, it concerns a cast made of the inside of a skull, in Dubois' case mainly for the purpose of estimating the brain size. Dubois had a large collection of endocasts, we did not attempt to bring them all to name yet. The website, http://science.naturalis.nl/dubois, will update these data in future.

EDp-year refers to a publication of Eugène Dubois + year in which this picture is

present.

DUBO0001	Horse (page 32)	DUBO0024	skull <i>hystrix</i>
DUBO0002	Homo mojokertensis VON	DUBO0025	skull <i>hystrix</i>
	KOENIGSWALD 1636	DUBO0026	skull <i>hystrix</i>
DUBO0003	Homo mojokertensis VON	DUBO0027	🗇 skulls crocodiles
	KOENIGSWALD 1636	DUBO0028	🗇 skulls crocodiles
DUBO0004	Pithecanthropus brain vs Homo	DUBO0029	🗇 skulls crocodiles
	neanderthalensis	DUBO0030	🗇 skulls crocodiles
DUBO0005	Pithecanthropus brain size	DUBO0031	🗇 skulls gavialis
DUBO0006	Homo mojokertensis VON	DUBO0032	🗇 skulls gavialis
	KOENIGSWALD 1636	DUBO0033	🗇 skulls gavialis
DUBO0007	Homo mojokertensis VON	DUBO0034	skulls crocodiles
	KOENIGSWALD 1636	DUBO0035	skulls crocodiles
DUBO0008	Pithecanthropus brain size	DUBO0036	skulls crocodiles
DUBO0009	Pithecanthropus brain size	DUBO0037	skulls crocodiles
DUBO0010	Homo mojokertensis VON	DUBO0038	🗇 skulls gavialis
	KOENIGSWALD 1636	DUBO0039	Skulls gavialis
DUBO0011	Homo mojokertensis VON	DUBO0040	skulls gavialis
	KOENIGSWALD 1636	DUBO0041	skulls crocodiles
DUBO0012	endocast of brain	DUBO0042	skulls crocodiles
DUBO0013	Pithecanthropus brain size	DUBO0043	Frog (Field Museum)
DUBO0014	Pithecanthropus brain size	DUBO0044	I skull frog
DUBO 0015	Homo mojokertensis VON	DUBO0045	Giant salamander with eggs.
	KOENIGSWALD 1636 vs recent	DUBO0046	It is a salamanders fig from Gunther
	skull		Hecht
DUBO0016	Homo mojokertensis VON	DUBO0047	() mandible of Larval salamander
	KOENIGSWALD 1636	DUBO0048	I frogs
DUBO0017	Pithecanthropus brain size	DUBO0049	Homo diluvii testis
DUBO0018	deeply eroded surface in	DUBO0050	mandible tooth of larval
	compacta femur of Engelschman	DUBO0051	Eryops megacephalus COPE
	plaat, under UV lighting	DUBO0052	modification of manus
DUBO0019	Pithecanthropus brain size	DUBO0053	Larval giant salamander
DUBO0020	Skulls crocodiles	DUBO0054	Sperm whale
DUBO0021	Iower aspect skull spalax	DUBO0055	Whale hunter boat
DUBO0022	skull <i>hystrix</i>	DUBO0056	feeding pattern egg snake
DUBO0023	skull <i>hystrix</i>	DUBO0057	Snake eating egg

DUBO0058	Snake eating egg	DUBO0101	crocodile
DUBO0059	Snake eating egg	DUBO0102	anatomic slide through
DUBO0060	Snake eating egg		mouthopening
	Snake eating egg	DUBO0103	tooth histology Mastodontosaurus
	imnopithecus jaw	DUBO0104	gut of frog, Rana esculanta
DUBO0063		DUBO0105	Medial cut through head of
DUBO0064	Ape maxillae		Eurycea
DUBO0065	(a) mandible sangiran VON	DUBO0106	gut of Siren lacerta
2020000	KOENIGSWALD	DUBO0107	© fish?jaws
DUBO0066	Skull sangiran VON KOENIGSWALD	DUBO0108	© gut
DUBO0067	Skull sangiran (Paleontologica	DUBO0109	O sex differences <i>Eurycea</i> skulls
DODOOOO	Sinica)	DUBO0110	 gut of Proteus anguineus
DUBO0068	\bigcirc list of skeletal parts from Trinil	DUB00111	 in the second sec
DODO0008	Beds	DODOUIII	KOENIGSWALD
DUBO0069	2000	DUBO0112	crocodile
DUBU0009	skull cap <i>Pithecanthropus</i> vs		crocodile
	sangiran	DUBO0113	
DUBO0070	Skull humanoid	DUBO0114	crocodile
DUBO0071	🤄 jaw humanoid?	DUBO0115	crocodile
DUBO0072	() jaw humanoid?	DUBO0116	Homo rhodesiensis
DUBO0073	ape skulls (hylobatidae?)	DUBO0117	Homo rhodesiensis
DUBO0074	Plate 2 Kedung Brubus	DUBO0118	Homo rhodesiensis
DUBO0075	plate 9 Trinil site	DUBO0119	(nitrate) Eugènie, WA &
DUBO0076	I world map hylobatidae eoceen-		WB(page 35)
	recent	DUBO0120	(nitrate) WB, Eugènie &
DUBO0077			WA(page 35)
DUBO0078	jaws parapithecus	DUBO0121	(nitrate) Eugènie, WA &
DUBO0079	jaws apes		WB(page 36)
DUBO0080	🗇 jaws apes	DUBO0122	(nitrate) WA & Eugènie(page 36)
DUBO0081		DUDO0101	$(\cdot \cdot \cdot \cdot) = \cdot \cdot$
	🗇 femur	DUBO0123	(nitrate) Eugènie(page 36)
DUBO0081 DUBO0082	Sivapithecus	DUBO0123 DUBO0124	(nitrate) Eugenie(page 36) view in Haarlem or Leiden? See
DUBO0082	Sivapithecus		view in Haarlem or Leiden? See
DUBO0082 DUBO0083	 Sivapithecus Sivapithecus 	DUBO0124	view in Haarlem or Leiden? See appendix III.
DUBO0082 DUBO0083 DUBO0084	 Sivapithecus Sivapithecus Taung child vs Young ape jaw Dryopithecus 	DUBO0124	 view in Haarlem or Leiden? See appendix III. skull cap Pithecanthropus vs sangiran.
DUBO0082 DUBO0083 DUBO0084 DUBO0085	 Sivapithecus Sivapithecus Taung child vs Young ape jaw Dryopithecus lower jaws apes 	DUBO0124 DUBO0125	 view in Haarlem or Leiden? See appendix III. skull cap Pithecanthropus vs sangiran. molar <i>Pithecanthropus</i> Dubois
DUBO0082 DUBO0083 DUBO0084 DUBO0085 DUBO0086	 Sivapithecus Sivapithecus Taung child vs Young ape jaw Dryopithecus 	DUBO0124 DUBO0125 DUBO0126	 view in Haarlem or Leiden? See appendix III. skull cap Pithecanthropus vs sangiran. molar <i>Pithecanthropus</i> Dubois spec., EDp-1924f
DUBO0082 DUBO0083 DUBO0084 DUBO0085 DUBO0086	 Sivapithecus Sivapithecus Taung child vs Young ape jaw Dryopithecus lower jaws apes world map parapithecidae eoceen-recent 	DUBO0124 DUBO0125	 view in Haarlem or Leiden? See appendix III. skull cap Pithecanthropus vs sangiran. molar <i>Pithecanthropus</i> Dubois spec., EDp-1924f molar and premolars
DUBO0082 DUBO0083 DUBO0084 DUBO0085 DUBO0086 DUBO0087	 Sivapithecus Sivapithecus Sivapithecus Taung child vs Young ape jaw Dryopithecus lower jaws apes world map parapithecidae eoceen-recent comparison molars from lower 	DUBO0124 DUBO0125 DUBO0126 DUBO0127	 view in Haarlem or Leiden? See appendix III. skull cap Pithecanthropus vs sangiran. molar <i>Pithecanthropus</i> Dubois spec., EDp-1924f
DUBO0082 DUBO0083 DUBO0084 DUBO0085 DUBO0086 DUBO0087 DUBO0088	 Sivapithecus Sivapithecus Sivapithecus Taung child vs Young ape jaw Dryopithecus lower jaws apes world map parapithecidae eoceen-recent comparison molars from lower jaw 	DUBO0124 DUBO0125 DUBO0126 DUBO0127 DUBO0128 DUBO0129	 view in Haarlem or Leiden? See appendix III. skull cap Pithecanthropus vs sangiran. molar <i>Pithecanthropus</i> Dubois spec., EDp-1924f molar and premolars molar and premolars
DUBO0082 DUBO0083 DUBO0084 DUBO0085 DUBO0086 DUBO0088 DUBO0088	 Sivapithecus Sivapithecus Sivapithecus Taung child vs Young ape jaw Dryopithecus lower jaws apes world map parapithecidae eoceen-recent comparison molars from lower jaw Lower jaws apes 	DUBO0124 DUBO0125 DUBO0126 DUBO0127 DUBO0128 DUBO0129 DUBO0130	 view in Haarlem or Leiden? See appendix III. skull cap Pithecanthropus vs sangiran. molar <i>Pithecanthropus</i> Dubois spec., EDp-1924f molar and premolars molar and premolars crocodile crocodile
DUBO0082 DUBO0083 DUBO0084 DUBO0085 DUBO0085 DUBO0087 DUBO0088 DUBO0089 DUBO0090	 Sivapithecus Sivapithecus Sivapithecus Taung child vs Young ape jaw Dryopithecus lower jaws apes world map parapithecidae eoceen-recent comparison molars from lower jaw Lower jaws apes molars Dryopithecus 	DUBO0124 DUBO0125 DUBO0126 DUBO0127 DUBO0128 DUBO0129 DUBO0130 DUBO0131	 view in Haarlem or Leiden? See appendix III. skull cap Pithecanthropus vs sangiran. molar <i>Pithecanthropus</i> Dubois spec., EDp-1924f molar and premolars molar and premolars crocodile crocodile X jaw fragment Kedung Brubus
DUBO0082 DUBO0083 DUBO0084 DUBO0085 DUBO0086 DUBO0088 DUBO0088	 Sivapithecus Sivapithecus Sivapithecus Taung child vs Young ape jaw Dryopithecus lower jaws apes world map parapithecidae eoceen-recent comparison molars from lower jaw Lower jaws apes molars Dryopithecus molar Gigantopithecus from 	DUBO0124 DUBO0125 DUBO0126 DUBO0127 DUBO0128 DUBO0129 DUBO0130 DUBO0131 DUBO0132	 view in Haarlem or Leiden? See appendix III. skull cap Pithecanthropus vs sangiran. molar <i>Pithecanthropus</i> Dubois spec., EDp-1924f molar and premolars molar and premolars crocodile crocodile X jaw fragment Kedung Brubus endocast
DUBO0082 DUBO0083 DUBO0084 DUBO0085 DUBO0086 DUBO0087 DUBO0088 DUBO0089 DUBO0090 DUBO0091	 Sivapithecus Sivapithecus Taung child vs Young ape jaw Dryopithecus lower jaws apes world map parapithecidae eoceen-recent comparison molars from lower jaw Lower jaws apes molars Dryopithecus molar Gigantopithecus from Hooijer 	DUBO0124 DUBO0125 DUBO0126 DUBO0127 DUBO0128 DUBO0129 DUBO0130 DUBO0131 DUBO0132 DUBO0133	 view in Haarlem or Leiden? See appendix III. skull cap Pithecanthropus vs sangiran. molar <i>Pithecanthropus</i> Dubois spec., EDp-1924f molar and premolars molar and premolars crocodile crocodile X jaw fragment Kedung Brubus endocast <i>Homo soloensis</i>
DUBO0082 DUBO0083 DUBO0085 DUBO0085 DUBO0087 DUBO0088 DUBO0089 DUBO0090 DUBO0092	 Sivapithecus Sivapithecus Sivapithecus Taung child vs Young ape jaw Dryopithecus lower jaws apes world map parapithecidae eoceen-recent comparison molars from lower jaw Lower jaws apes molars Dryopithecus molar Gigantopithecus from Hooijer molars orang from Hooijer 	DUBO0124 DUBO0125 DUBO0126 DUBO0127 DUBO0128 DUBO0129 DUBO0130 DUBO0131 DUBO0132 DUBO0133 DUBO0134	 view in Haarlem or Leiden? See appendix III. skull cap Pithecanthropus vs sangiran. molar <i>Pithecanthropus</i> Dubois spec., EDp-1924f molar and premolars molar and premolars crocodile crocodile X jaw fragment Kedung Brubus endocast <i>Homo soloensis</i> drawing of endocast
DUBO0082 DUBO0083 DUBO0085 DUBO0085 DUBO0087 DUBO0088 DUBO0089 DUBO0090 DUBO0091 DUBO0092 DUBO0093	 Sivapithecus Sivapithecus Sivapithecus Taung child vs Young ape jaw Dryopithecus lower jaws apes world map parapithecidae eoceen-recent comparison molars from lower jaw Lower jaws apes molars Dryopithecus molar Gigantopithecus from Hooijer molars orang from Hooijer femur 	DUBO0124 DUBO0125 DUBO0126 DUBO0127 DUBO0128 DUBO0129 DUBO0130 DUBO0131 DUBO0132 DUBO0133 DUBO0134 DUBO0135	 view in Haarlem or Leiden? See appendix III. skull cap Pithecanthropus vs sangiran. molar <i>Pithecanthropus</i> Dubois spec., EDp-1924f molar and premolars molar and premolars crocodile crocodile X jaw fragment Kedung Brubus endocast <i>Homo soloensis</i> drawing of endocast outline brain
DUBO0082 DUBO0083 DUBO0085 DUBO0085 DUBO0087 DUBO0088 DUBO0089 DUBO0090 DUBO0091 DUBO0092 DUBO0093 DUBO0094	 Sivapithecus Sivapithecus Taung child vs Young ape jaw Dryopithecus lower jaws apes world map parapithecidae eoceen-recent comparison molars from lower jaw Lower jaws apes molars Dryopithecus molar Gigantopithecus from Hooijer molars orang from Hooijer femur femur 	DUBO0124 DUBO0125 DUBO0126 DUBO0127 DUBO0128 DUBO0129 DUBO0130 DUBO0131 DUBO0132 DUBO0133 DUBO0134 DUBO0135 DUBO0136	 view in Haarlem or Leiden? See appendix III. skull cap Pithecanthropus vs sangiran. molar <i>Pithecanthropus</i> Dubois spec., EDp-1924f molar and premolars molar and premolars crocodile crocodile X jaw fragment Kedung Brubus endocast <i>Homo soloensis</i> drawing of endocast outline brain orang utan kiezen
DUBO0082 DUBO0083 DUBO0085 DUBO0086 DUBO0087 DUBO0088 DUBO0089 DUBO0090 DUBO0091 DUBO0092 DUBO0093 DUBO0094 DUBO0095	 Sivapithecus Sivapithecus Taung child vs Young ape jaw Dryopithecus lower jaws apes world map parapithecidae eoceen-recent comparison molars from lower jaw Lower jaws apes molars Dryopithecus molar Gigantopithecus from Hooijer molars orang from Hooijer femur femur See DUBO0018 	DUBO0124 DUBO0125 DUBO0126 DUBO0127 DUBO0128 DUBO0129 DUBO0130 DUBO0131 DUBO0132 DUBO0133 DUBO0134 DUBO0135 DUBO0136 DUBO0137	 view in Haarlem or Leiden? See appendix III. skull cap Pithecanthropus vs sangiran. molar <i>Pithecanthropus</i> Dubois spec., EDp-1924f molar and premolars molar and premolars crocodile crocodile X jaw fragment Kedung Brubus endocast <i>Homo soloensis</i> drawing of endocast outline brain orang utan kiezen endocast
DUBO0082 DUBO0083 DUBO0085 DUBO0085 DUBO0087 DUBO0088 DUBO0089 DUBO0090 DUBO0091 DUBO0092 DUBO0093 DUBO0094	 Sivapithecus Sivapithecus Taung child vs Young ape jaw Dryopithecus lower jaws apes world map parapithecidae eoceen-recent comparison molars from lower jaw Lower jaws apes molars Dryopithecus molars Oryopithecus molar Gigantopithecus from Hooijer molars orang from Hooijer femur femur See DUBO0018 jaw Panthera tigris, Dubois spec. 	DUBO0124 DUBO0125 DUBO0126 DUBO0127 DUBO0128 DUBO0129 DUBO0130 DUBO0131 DUBO0132 DUBO0133 DUBO0134 DUBO0135 DUBO0136 DUBO0137 DUBO0138	 view in Haarlem or Leiden? See appendix III. skull cap Pithecanthropus vs sangiran. molar <i>Pithecanthropus</i> Dubois spec., EDp-1924f molar and premolars molar and premolars crocodile crocodile x jaw fragment Kedung Brubus endocast <i>Homo soloensis</i> drawing of endocast outline brain orang utan kiezen endocast drawing of endocast drawing of endocast drawing of endocast drawing of endocast
DUBO0082 DUBO0083 DUBO0084 DUBO0085 DUBO0086 DUBO0087 DUBO0088 DUBO0090 DUBO0090 DUBO0091 DUBO0092 DUBO0093 DUBO0094 DUBO0095 DUBO0096	 Sivapithecus Sivapithecus Taung child vs Young ape jaw Dryopithecus lower jaws apes world map parapithecidae eoceen-recent comparison molars from lower jaw Lower jaws apes molars Dryopithecus molar Gigantopithecus from Hooijer molars orang from Hooijer femur femur See DUBO0018 jaw Panthera tigris, Dubois spec. Kedung Brubus (see page 125) 	DUBO0124 DUBO0125 DUBO0126 DUBO0127 DUBO0128 DUBO0129 DUBO0130 DUBO0131 DUBO0132 DUBO0133 DUBO0134 DUBO0135 DUBO0136 DUBO0137	 view in Haarlem or Leiden? See appendix III. skull cap Pithecanthropus vs sangiran. molar <i>Pithecanthropus</i> Dubois spec., EDp-1924f molar and premolars molar and premolars crocodile x jaw fragment Kedung Brubus endocast <i>Homo soloensis</i> drawing of endocast outline brain orang utan kiezen endocast drawing of endocast drawing of endocast weidenreich and Von
DUBO0082 DUBO0083 DUBO0085 DUBO0086 DUBO0087 DUBO0088 DUBO0089 DUBO0090 DUBO0091 DUBO0092 DUBO0093 DUBO0094 DUBO0095	 Sivapithecus Sivapithecus Taung child vs Young ape jaw Dryopithecus lower jaws apes world map parapithecidae eoceen-recent comparison molars from lower jaw Lower jaws apes molars Dryopithecus molars Oryopithecus molar Gigantopithecus from Hooijer molars orang from Hooijer femur femur See DUBO0018 jaw Panthera tigris, Dubois spec. Kedung Brubus (see page 125) upper jaw Panthera tigris Dubois 	DUBO0124 DUBO0125 DUBO0126 DUBO0127 DUBO0128 DUBO0129 DUBO0130 DUBO0131 DUBO0132 DUBO0133 DUBO0134 DUBO0135 DUBO0136 DUBO0138 DUBO0139	 view in Haarlem or Leiden? See appendix III. skull cap Pithecanthropus vs sangiran. molar <i>Pithecanthropus</i> Dubois spec., EDp-1924f molar and premolars molar and premolars crocodile x jaw fragment Kedung Brubus endocast <i>Homo soloensis</i> drawing of endocast outline brain orang utan kiezen endocast drawing of endocast drawing of endocast weidenreich and Von Koenigswald (page 124)
DUBO0082 DUBO0083 DUBO0084 DUBO0085 DUBO0087 DUBO0088 DUBO0090 DUBO0090 DUBO0091 DUBO0092 DUBO0093 DUBO0094 DUBO0095 DUBO0097	 Sivapithecus Sivapithecus Taung child vs Young ape jaw Dryopithecus lower jaws apes world map parapithecidae eoceen-recent comparison molars from lower jaw Lower jaws apes molars Dryopithecus molars Oryopithecus molar Gigantopithecus from Hooijer molars orang from Hooijer femur femur See DUBO0018 jaw Panthera tigris, Dubois spec. Kedung Brubus (see page 125) upper jaw Panthera tigris Dubois spec. nr. 1495 	DUBO0124 DUBO0125 DUBO0126 DUBO0127 DUBO0128 DUBO0129 DUBO0130 DUBO0131 DUBO0132 DUBO0133 DUBO0134 DUBO0135 DUBO0137 DUBO0138 DUBO0140	 view in Haarlem or Leiden? See appendix III. skull cap Pithecanthropus vs sangiran. molar <i>Pithecanthropus</i> Dubois spec., EDp-1924f molar and premolars molar and premolars crocodile x jaw fragment Kedung Brubus endocast <i>Homo soloensis</i> drawing of endocast orang utan kiezen endocast drawing of endocast
DUBO0082 DUBO0083 DUBO0085 DUBO0086 DUBO0087 DUBO0088 DUBO0090 DUBO0090 DUBO0092 DUBO0093 DUBO0094 DUBO0095 DUBO0097 DUBO0098	 Sivapithecus Sivapithecus Sivapithecus Taung child vs Young ape jaw Dryopithecus lower jaws apes world map parapithecidae eoceen-recent comparison molars from lower jaw Lower jaws apes molars Dryopithecus molars Oryopithecus molar Gigantopithecus from Hooijer molars orang from Hooijer femur femur See DUBO0018 jaw Panthera tigris, Dubois spec. Kedung Brubus (see page 125) upper jaw Panthera tigris Dubois spec. nr. 1495 Plate 2 Kedung Brubus 	DUBO0124 DUBO0125 DUBO0126 DUBO0127 DUBO0128 DUBO0129 DUBO0130 DUBO0131 DUBO0132 DUBO0133 DUBO0134 DUBO0135 DUBO0136 DUBO0137 DUBO0138 DUBO0139 DUBO0140 DUBO0141	 view in Haarlem or Leiden? See appendix III. skull cap Pithecanthropus vs sangiran. molar <i>Pithecanthropus</i> Dubois spec., EDp-1924f molar and premolars molar and premolars crocodile X jaw fragment Kedung Brubus endocast <i>Homo soloensis</i> drawing of endocast outline brain orang utan kiezen endocast drawing of endocast endocast
DUBO0082 DUBO0083 DUBO0084 DUBO0085 DUBO0087 DUBO0088 DUBO0090 DUBO0090 DUBO0091 DUBO0092 DUBO0093 DUBO0094 DUBO0095 DUBO0097	 Sivapithecus Sivapithecus Taung child vs Young ape jaw Dryopithecus lower jaws apes world map parapithecidae eoceen-recent comparison molars from lower jaw Lower jaws apes molars Dryopithecus molars Oryopithecus molar Gigantopithecus from Hooijer molars orang from Hooijer femur femur See DUBO0018 jaw Panthera tigris, Dubois spec. Kedung Brubus (see page 125) upper jaw Panthera tigris Dubois spec. nr. 1495 	DUBO0124 DUBO0125 DUBO0126 DUBO0127 DUBO0128 DUBO0129 DUBO0130 DUBO0131 DUBO0132 DUBO0133 DUBO0134 DUBO0135 DUBO0137 DUBO0138 DUBO0140	 view in Haarlem or Leiden? See appendix III. skull cap Pithecanthropus vs sangiran. molar <i>Pithecanthropus</i> Dubois spec., EDp-1924f molar and premolars molar and premolars crocodile x jaw fragment Kedung Brubus endocast <i>Homo soloensis</i> drawing of endocast orang utan kiezen endocast drawing of endocast

DUBO0144	🗇 skull Sangiran	DUBO0191	femur distal, Hylobates
DUBO0145	(a) molar Giganthopithecus		syndactylus
DUBO0146	Meganthropus jaws	DUBO0192	femur distal, Hylobatus
DUBO0147	Gigantopithecus teeth		syndactylus, left
DUBO0148	Skull Pithecanthropus robustus	DUBO0193	femur distal, Hylobatus
DUBO0149	(molar Giganthopithecus		syndactylus, left
DUBO0150	@ Meganthropus jaws	DUBO0194	femur distal, Papio cynomolgus,
DUBO0151	Glaucopis varians (bird)		left
DUBO0152	peaty soil	DUBO0195	femur distal
DUBO0153	Glaucopis varians (bird)	DUBO0196	femur distal, Macaca
DUBO0154	tortoise		cynomolgus, left
DUBO0155	tortoise	DUBO0197	femur distal, Macaca
DUBO0156	snake		cynomolgus, left
DUBO0157	snake	DUBO0198	femur distal, Ateles paniscus,
DUBO0158	tortoise shell		right
DUBO0159	I skull crocodile	DUBO0199	femur distal, Ateles paniscus,
DUBO0160	Skull crocodile	DUBO0200	femur distal, Semiopithecus
DUBO0161	Sivatherium giganteum		maurus, left
DUBO0162	Tapir	DUBO0201	femur distal, Semiopithecus
DUBO0163	\odot orang utan		maurus Pandan 3
DUBO0164	H pachypleurosaurus maxilla	DUBO0202	femur distal, <i>Macaca cynomolgus</i>
Debooloi	Winterswijk	0000202	ð
DUBO0165	tiger	DUBO0203	femur distal, <i>Homo sapiens</i> , from
DUBO0166	tiger	0000205	Java
DUBO0167	reconstructie <i>Pithecanthropus</i>	DUBO0204	femur distal, <i>Homo sapiens</i> , from
DODOOIO/	Dubois 1900 location Raamsteeg	0000201	Java
DUBO0168	river Indonesie (page 16)	DUBO0205	skull Ursus torquatus
DUBO0169	molar Stegodon	DUBO0206	skull Ursus torquatus
DUBO0170	molar Stegodon	DUB00207	skull Ursus torquatus
DUBO0171	molar Stegodon	DUBO0208	jawfragment Kedung Brubus
DUBO0172	jaw <i>Stegodon</i> nr 1646	D0D00200	spec. Dubois
DUBO0172 DUBO0173	molar Stegodon	DUBO0209	premolar
DUBO0174	molar Stegodon	DUBO0210	jawfragment Kedung Brubus
DUBO0175	molar Stegodon	D0D00210	spec. Dubois
DUBO0176	molar Stegodon	DUBO0211	jawfragment Kedung Brubus
DUBO0177	molar Stegodon	DODO0211	spec. Dubois
DUB00177	molar Stegodon (page 126)	DUBO0212	teeth
DUBO0179	molar Cryptomastodon	DUBO0212 DUBO0213	tooth
DUBO0180	femur distaal, EDp-1926m	DUBO0213	jawfragment Kedung Brubus
DUBO0180	femur distal, chimpansee, left	D0D00214	spec. Dubois, EDp-1924f
DUBO0181	femur distal, gorilla	DUBO0215	jawfragment Kedung Brubus
DUBO0182 DUBO0183	femur distal, gorna femur distal, orang utan	D0D00215	spec. Dubois, EDp-1924f
DUBO0185 DUBO0184	femur distal	DUBO0216	jawfragment Kedung Brubus
DUB00184 DUB00185	femur distal, <i>Hylobates leuciscus</i> ,	D0D00210	spec. Dubois, EDp-1924f
D0D00185	right	DUBO0217	jawfragment Kedung Brubus
DUBO0186	femur distal, <i>Hylobates agilis</i> ,	D0D00217	spec. Dubois, EDp-1924f
DUBUU180	right	DUBO0218	premolar Dubois spec.
DUBO0187	femur distal, <i>Hylobates agilis</i> , left	DUB00218 DUB00219	skull crocodile
DUBO0187 DUBO0188	femur ??? , Hylobates agilis, right		skull crocodile
DUB00188 DUB00189	femur distal, Hylobates	DUBO0220 DUBO0221	skull crocodile
D0D00189			
	<i>syndactylus</i> femur distal, <i>Hylobates</i>	DUBO0222	skull <i>gavialis</i>
DUBO0190	syndactylus	DUBO0223 DUBO0224	skin crocodile skin crocodile
	synuuciyius	D0D00224	Skill Clocodile

	DUDOOD	
DUBO0225 skull gavialis	DUBO0270	rat <i>fabe</i> ri a. skull
DUBO0226 skin crocodile	DUBO0271	rat <i>faberi</i> a. lower jaw
DUBO0227 scale patterns of snakes	DUBO0272	skull and lower jaw crocodile
DUBO0228 skull gavialis	DUBO0273	Acanthion brachyurus LINNAEUS
DUBO0229 skull gavialis		1758
DUBO0230 skull crocodile	DUBO0274	Schematic cross-cut viper lung
DUBO0231 skull crocodile	DUBO0275	snout crocodile
DUBO0232 skull crocodile	DUBO0276	snout crocodile
DUBO0233 skull crocodile	DUBO0277	
DUBO0234 skull Hylobates	DUBO0278	basic lung types
DUBO0235 jawfragment Kedung Bru	bus DUBO0279	Acanthion brachyurus LINNAEUS
spec. Dubois		1758 (page 50)
DUBO0236 jawfragment Kedung Bru	bus DUBO0280	③ 3 lizards
spec. Dubois, EDp-1924f	DUBO0281	Iizard head and foot
DUBO0237 jawfragment Kedung Bru		plate 9: Trinil site
spec. Dubois, EDp-1924f		
DUBO0238 skull Hylobates		Sangiran.
DUBO0239 skull Hylobates	DUBO0284	
DUBO0240 skull Hylobates agilis 3		🔅 femora <i>Pithecanthropus</i>
natural size, small lens, A		🖄 skull humanoid
la Pate	DUBO0287	
DUBO0241 skull <i>Hylobates agilis</i> , <i>A</i>		skull Hippopotamus
natural size, Steinheils A		skull <i>Hippopotamus</i>
planet 64mm	DUBO0290	skull Hippopotamus
Diaphr. 5mm	DUBO0291	skull <i>Hippopotamus</i>
DUBO0242 endocast, EDp-1940b	DUBO0292	skull <i>Hippopotamus</i>
DUBO0243 endocast, EDp-1940b	DUBO0293	skull <i>Hippopotamus</i>
DUBO0244 endocast, EDp-1940b	DUBO0294	lower jaw ape
DUBO0245 endocast, EDp-1940b	DUB00295	lower jaw ape
DUBO0246 femur ??? compare DUB		lower jaw ape
DUBO0247 femur ???	DUBO0297	premolar
DUBO0247 femur	DUBO0298	
DUBO0249 Femur	D0D00276	Beds
DUBO0250 femur???	DUBO0299	Pithecanthropus vs sangiran
DUBO0250 rendring P	DUB00300	 I unecuminopus vs sangiran drawing brain
DUBO0251 crocodile vertebrae DUBO0252 molar of small carnivore	DUB00300 DUB00301	lower jaw ape
DUBO0252 molar of small carnivore		
	DUB00302	skull <i>Hylobates agilis</i> (page 106)
DUBO0254 fish jaws DUBO0255 fish jaws	DUBO0303 DUBO0304	skull <i>Hylobates agilis</i>
		femur (UV light?) femur <i>Pithecanthropus</i> Dubois
DUBO0256 fish jaws	DUBO0305	-
DUBO0257 crocodile vertebra		spec.
DUBO0258 fish jaws	DUBO0306	femur Pithecanthropus Dubois
DUB00259 molar of small carnivore	DUDO0207	spec.
DUBO0260 molars bear	DUBO0307	femur Pithecanthropus Dubois
DUBO0261 bone with crocodile bite	DUDO0200	spec.
DUB00262 molar of small carnivore	DUBO0308	femur Pithecanthropus Dubois
DUBO0263 crocodile vertebra	DUDOAAAA	spec.
DUB00264 molar of small carnivore	DUBO0309	femur (glass broken)
DUBO0265 jaw crocodile	DUBO0310	femur (glass broken)
DUBO0266 \textcircled{O} fossil extinct having	DUBO0311	femur
DUBO0267 schematic cross-cut viper		femur
DUBO0268 world map	DUBO0313	femur Pithecanthropus Dubois
DUBO0269 rat <i>faberi</i> a. skull	I	spec.

DUBO0314	femur Pithecanthropus Dubois	DUBO0352	crocodile
	spec.	DUBO0353	jawfragment Hippopotamus
DUBO0315	molar Pithecanthropus Dubois	DUBO0354	lower jaw Prionailurus
	spec.		bengalensis
DUBO0316	molar Pithecanthropus Dubois	DUBO0355	fragment fossil?
	spec., EDp-1924f	DUBO0356	fragment fossil?
DUBO0317	molar Pithecanthropus Dubois	DUBO0357	crocodile
	spec., EDp-1924f	DUBO0358	carnivore canines
DUBO0318	Molar Pithecanthropus Dubois	DUBO0359	crocodile
DUDOAAAA	spec., EDp-1924f (see page 12)	DUBO0360	crocodile
DUBO0319	premolar Pithecanthropus Dubois	DUBO0361	crocodile
	spec.	DUBO0362	crocodile
DUBO0320	premolars	DUBO0363	cross-cut (of cast of THE) femur
DUBO0321	molar roots Pithecanthropus	DUBO0364	cross-cut (of cast of THE) femur
	Dubois specs, EDp-1924f	DUBO0365	drawing of brain on paper
DUBO0322	jaw fragment Kedung Brubus		between glass
DUBO0323	premolar	DUBO0366	drawing of brain on paper
DUBO0324	wortels molars Pithecanthropus		between glass
	Dubois specs, EDp-1924f	DUBO0367	X lower jaw
DUBO0325	molars Pithecanthropus Dubois	DUBO0368	premolar
	specs (page 107)	DUBO0369	premolar
DUBO0326	premolars	DUBO0370	jawfragment Kedung Brubus
DUBO0327	molars and premolars		spec. Dubois
	Pithecanthropus Dubois specs,	DUBO0371	surface femur Trinil
	EDp-1924f	DUBO0372	surface femur Trinil
DUBO0328	molars and premolars	DUBO0373	surface femur Trinil
	Pithecanthropus Dubois specs,	DUBO0374	surface femur Trinil
	EDp-1924f	DUBO0375	jaw fragment Kedung Brubus
DUBO0329	molar roots Pithecanthropus	DUBO0376	jaw fragment Kedung Brubus
	Dubois specs, EDp-1924f	DUBO0377	jaw fragment Kedung Brubus
DUBO0330	Molars	DUBO0378	molars Pithecanthropus spec.
DUBO0331	molars Pithecanthropus Dubois		Dubois
	specimns	DUBO0379	jawfragment Kedung Brubus
DUBO0332	Premolars		spec. Dubois, EDp-1924f
DUBO0333	Premolars	DUBO0380	jawfragment Kedung Brubus
DUBO0334	Premolars		spec. Dubois, EDp-1924f
DUBO0335	2 bear skulls	DUBO0381	molars, EDp-1924f
DUBO0336	2 bear skulls	DUBO0382	jawfragment Kedung Brubus
DUBO0337	2 bear skulls		spec. Dubois
DUBO0338	2 bear skulls	DUBO0383	jawfragment Kedung Brubus
DUBO0339	2 bear skulls		spec. Dubois
DUBO0340	O drawing hersenen fig. uit boek	DUBO0384	jawfragment Kedung Brubus
DUBO0341	evolution according to Dubois,		spec. Dubois
DUBO0342	endocasts	DUBO0385	jawfragment Kedung Brubus
DUBO0343	Skulls carnivores		spec. Dubois
DUBO0344	Skulls carnivores	DUBO0386	molars ?
DUBO0345	femur juvenile????	DUBO0387	molars?
DUBO0346	femur juvenile????	DUBO0388	molars Pithecanthropus spec.
DUBO0347	femur juvenile????		Dubois
DUBO0348	femur juvenile????	DUBO0389	jawfragment Kedung Brubus
DUBO0349	skull crocodile		spec. Dubois, EDp-1924f
DUBO0350	vertebra crocodile	DUBO0390	jawfragment Kedung Brubus
DUBO0351	lower jaw van tapir		spec. Dubois
	-		

DUBO0391	molar Pithecanthropus spec.
DUBO0392	Dubois
DUD00392	molars <i>Pithecanthropus</i> spec. Dubois
DUBO0393	Anna on boat (page 34)
DUBO0394	endocast, EDp-1940b
DUB00395	endocast, EDp-19406 endocast, EDp-1924f
DUB00396	surface femur recent
DUB00390 DUB00397	surface femur recent
DUB00397 DUB00398	\odot crocodile
	•
DUBO0399 DUBO0400	crocodile crocodile
DUBO0401	jaw hyena?
DUBO0402	jaws carnivores
DUBO0403	🗇 skull 285 tapir + drawing
DUBO0404	leer skulls
DUBO0405	© endocast
DUBO0406	lendocast
DUBO0407	endocast
DUBO0408	skull crocodile
DUBO0409	skull crocodile
DUBO0410	molar tapir
DUBO0411	fish scale?
DUBO0412	skull crocodile
DUBO0413	jaw crocodile
DUBO0414	jaw crocodile
DUBO0415	skull crocodile
DUBO0416	jaw crocodile
DUBO0417	fish scale?
DUBO0418	skull crocodile
DUBO0419	skin crocodile
DUBO0420	skin crocodile
DUBO0421	horncore 11201 Bibos
DUBO0422	horncore 11201 Bibos
DUBO0423	horncore 11201 Bibos
DUBO0424	2 lower jaws tiger recent
DUBO0425	lower jaw tiger recent
DUBO0426	twee skulls tiger recent
DUBO0427	????
DUBO0428	????
DUBO0429	????
DUBO042)	I orang utan molars
DUBO0430	\bigcirc orang utan molars
DUB00431 DUB00432	premolar Dubois spec. hyaena
DUB00432 DUB00433	jaw hyaena fossil
DUB00433 DUB00434	premolars hyeaena fossil
	premolar Dubois spec. hyaena
DUBO0435	
DUBO0436	premolar Dubois spec. hyaena
DUBO0437	premolar Dubois spec. hyaena
DUBO0438	premolar Dubois spec. hyaena
DUBO0439	premolar Dubois spec. hyaena
DUBO0440	Stegodon molar??/premolar
	Dubois spec. hyaena

DUBO0441	premolar Dubois spec. hyaena
DUBO0442	premolar Dubois spec. hyaena
DUBO0443	lower jaw hyeana fossil
DUBO0444	2 premolars hyaena fossil
DUBO0445	incisors?
DUB00446	incisors <i>Hippopotamus</i> recent
DUB00447	© drawing jaw??
DUBO0447 DUBO0448	incisors <i>Hippopotamus</i> recent
DUB00448 DUB00449	(© <i>Hippopotamus</i> teeth and molars
	fossil rhino molar
DUBO0450	fossil rhino molar
DUBO0451	
DUBO0452	fossil rhino molar
DUBO0453	fossil rhino molar
DUBO0454	skull horse outside home (see
DUDONASS	page 104)
DUBO0455	skull horse outside home
DUBO0456	skull horse outside home (see
DUDONASS	page 104)
DUBO0457	Song on <i>Pithecanthropus</i>
DUBO0458	song on <i>Pithecanthropus</i>
DUBO0459	song on <i>Pithecanthropus</i>
DUBO0460	Song on <i>Pithecanthropus</i>
DUBO0461	Eugène Dubois (cut from
	photograph Cambridge congres)
DUBO0462	Kriele (damaged negative)
DUBO0463	Skull Ngandong
DUBO0464	🗇 skull Ngandong
DUBO0465	recent femur with exostocis
DUBO0466	🗇 skull Ngandong
DUBO0467	wadjak 2
DUBO0468	wadjak 2
DUBO0469	jaw Wadjak, spec. Dubois
DUBO0470	jaw Wadjak, spec. Dubois
DUBO0471	jaw Wadjak, spec. Dubois
DUBO0472	I drawing brain on paper between
	glass
DUBO0473	recent femur with exostocis
DUBO0474	molar Pithecanthropus Dubois
	spec., EDp-1924f
DUBO0475	molar Pithecanthropus Dubois
	spec., EDp-1924f
DUBO0476	molar Pithecanthropus Dubois
	spec., EDp-1924f
DUBO0477	X lower jaw
DUBO0478	X lower jaw/
DUBO0479	molar Pithecanthropus Dubois
	spec.
DUBO0480	molar Pithecanthropus Dubois
	spec.
DUBO0481	premolar Pithecanthropus Dubois
	spec.
DUBO0482	premolars
DUBO0483	molar Pithecanthropus Dubois
	_

			~ ~ ~ ~ ~ ~ ~ ~ ~
	spec.	DUBO0511	Shells publ. van Benthem Jutting
DUBO0484	molar Pithecanthropus Dubois	DUDOASIA	1937
DUDO0405	spec.	DUBO0512	skull cap Dubois van binnen
DUBO0485	X lower jaw	DUD00512	gezien, EDp-1924f
DUBO0486	molar <i>Pithecanthropus</i> Dubois	DUBO0513	Molar <i>Pithecanthropus</i> Dubois
DUBO0487	spec. drawing of ?sun-calendar????	DUBO0514	spec. tarsius
DUB00487 DUB00488	Shells publ. van Benthem Jutting	DUB00514 DUB00515	© captured/killed Gorilla
D0D00488	1937	DUB00516	Heberleins fake skull
DUBO0489	Shells publ. van Benthem Jutting	DUBO0517	femur <i>Stegodon</i> , EDp-1917b
Deboolo	1937	DUBO0518	Molar <i>Pithecanthropus</i> Dubois
DUBO0490	Shells publ. van Benthem Jutting		spec.
	1937	DUBO0519	H molar Stegodon (Sulawesi)
DUBO0491	Shells publ. van Benthem Jutting	DUBO0520	H molar Stegodon (Sulawesi)
	1937	DUBO0521	H molar Stegodon (Sulawesi)
DUBO0492	Shells publ. van Benthem Jutting	DUBO0522	H molar Stegodon (Sulawesi)
	1937	DUBO0523	hoektanden Celebochourus
DUBO0493	Shells publ. van Benthem Jutting		Sulawesi Hooijer
	1937	DUBO0524	© pigs kiezen
DUBO0494	Shells publ. van Benthem Jutting 1937	DUBO0525	H pig Sulawesi
DUBO0495	Shells publ. van Benthem Jutting	DUBO0526 DUBO0527	H pig Sulawesi H pig Sulawesi
D0B00493	1937	DUB00527 DUB00528	H pig Sulawesi H pig Sulawesi
DUBO0496	Shells publ. van Benthem Jutting	DUB00528 DUB00529	rat Sulawesi
D0D00470	1937	DUBO0530	rat Sulawesi
DUBO0497	Shells publ. van Benthem Jutting	DUBO0531	rat Sulawesi
20200.07	1937	DUB00532	Mimomys
DUBO0498	Shells publ. van Benthem Jutting	DUBO0533	Mimomys
	1937	DUBO0534	Mimomys
DUBO0499	Shells publ. van Benthem Jutting	DUBO0535	Mimomys
	1937	DUBO0536	Mimomys
DUBO0500	Shells publ. van Benthem Jutting	DUBO0537	Stegodon molar??/premolar
DUDOASAI	1937 (see page 60)		Dubois spec. hyaena/Stegodon
DUBO0501	Shells publ. van Benthem Jutting	DUDO0520	molar
DUDO0502	1937 Shallan hi na Dauthan Latin	DUBO0538	Stegodon molar
DUBO0502	Shells publ. van Benthem Jutting 1937	DUBO0539 DUBO0540	<i>Stegodon</i> molar <i>Stegodon</i> molar
DUBO0503	Shells publ. van Benthem Jutting	DUB00540 DUB00541	<i>Stegodon</i> molar
DODO0303	1937	DUB00541	Grandma Lojenga, Victor, Jean &
DUBO0504	Shells publ. van Benthem Jutting	00000042	Eugènie (see page 37)
Debottor	1937 (see page 59)	DUBO0543	Victor, WC, Eugènie, WD &
DUBO0505	Shells publ. van Benthem Jutting		Jean/Jean, Eugènie, Victor (see
	1937		page 39)
DUBO0506	Shells publ. van Benthem Jutting	DUBO0544	Jean, Eugènie, Victor & Grandma
	1937		Lojenga (see page 37)
DUBO0507	Shells publ. van Benthem Jutting	DUBO0545	Grandma Lojenga & WE (see
	1937		page 37)
DUBO0508	Shells publ. van Benthem Jutting	DUBO0546	WF, Eugènie, WC, Jean, Victor
DUDO0500	1937 Shalla ankl son Dantham Latting	DUDOAS	& WH (see page 38)
DUBO0509	Shells publ. van Benthem Jutting 1937	DUBO0547 DUBO0548	Anna? & Victor (see page 38)
DUBO0510	Shells publ. van Benthem Jutting	DUB00548 DUB00549	girl with dog (see page 32) CA, Jean, WC, Eugènie (see page
D0D00010	1937	D0D00349	38)
		I	20)

DUBO0550	CA, Jean, WC, Eugènie (see page		
	38)	DUBO0589	
DUBO0551	Eugènie & WI (see page 387)	DUBO0590	
DUBO0552	Eugènie, CA, Jean, WC, Victor,	DUBO0591	
	CB (see page 38)	DUBO0592	4
DUBO0553	Victor(brother) + his wife Marie	DUBO0593	<
	Canoy, WA and her husband (see	DUBO0594	
	page 39)	DUBO0595	~
DUBO0554	Trinette? & grandchild (see page	DUBO0596	<
	39)	DUBO0597	
DUBO0555	double exposed negative city	DUBO0598	
	view. See appendix III.	DUBO0599	
DUBO0556	Haarlem? See appendix III.	DUBO0600	<
DUBO0557	girl and garden ornament (see	DUBO0601	<
	page 45)		
DUBO0558	Man seated in profile (see page		
	45)	DUBO0602	<
DUBO0559	Grandma Lojenga, Victor, Jean &		
	Eugenie (see page 36)	DUBO0603	<
DUBO0560	WG, Eugenie, WC, Victor, Jean		
	(see page 37)	DUBO0604	
DUBO0561	see DUBO0553 (see page 37)	DUBO0605	<
DUBO0562	Current bedding near Kebon	DUBO0606	<
	(along the Bengawan) District	DUBO0607	
	Sapteh Ngawi (see page 72)	DUBO0608	
DUBO0563	endocast	DUBO0609	
DUBO0564	endocast	DUBO0610	<
DUBO0565	skull deer	DUBO0611	
DUBO0566	Skull Procamelus occidentalis	DUBO0612	
DUBO0567	brain ?Procamelus occidentalis?	DUBO0613	<
DUBO0568	skull ape	DUBO0614	<
DUBO0569	skull recent (lagopus?)	DUBO0615	<
DUBO0570	skull recent	DUBO0616	
DUBO0571	skull recent	DUBO0617	<
DUBO0572	skull recent	DUBO0618	•
DUBO0573	I brain size Pithecanthropus vs La	DUBO0619	
	Chapelle	DUBO0620	
DUBO0574	skull recent	DUBO0621	
DUBO0575	cast skull Moeritherium	DUBO0622	
DUBO0576	skull Equus caballus (horse)	DUBO0623	
	recent	DUBO0624	
DUBO0577	cast skull Moeritherium	DUBO0625	
DUBO0578	endocast	DUBO0626	
DUBO0579	🗇 gibbon	DUBO0627	<
DUBO0580	skull recent	DUBO0628	•
DUBO0581	Skull Procamelus	DUBO0629	
DUBO0582	🗇 brain	DUBO0630	
DUBO0583	skull ape	DUBO0631	<
DUBO0584	skull dog recent	DUBO0632	<
DUBO0585	skull dog recent	DUBO0633	•
DUBO0586	skull recent	DUBO0634	<
DUBO0587	skull recent	DUBO0635	<
DUBO0588	skull Equus caballus (horse)	DUBO0636	<

	recent
DUBO0589	skull recent
DUBO0590	skull seal recent
DUBO0591	skull recent
DUBO0592	🗇 gibbon
DUBO0593	La chapelle
DUBO0594	skull chimp
DUBO0595	Skeleton of australian
DUBO0596	Skull Rhodesia man
DUBO0597	skull cap Pithecanthropus
DUBO0598	skull cap Pithecanthropus
DUBO0599	skull cap Pithecanthropus
DUBO0600	💿 human skull
DUBO0601	🗇 brain size comparison La
	Chapelle, Pithecanthropus,
	hylobates
DUBO0602	③ arrangement for photo of drawing
	of Neanderthal skull
DUBO0603	© comparison cranium chimpanzee
	, La Chapelle and French guy
DUBO0604	endocast
DUBO0605	© orang utan
DUBO0606	Homo sapiens jaw vs Hylobates
DUBO0607	anatomical drawing
DUBO0608	endocast
DUBO0609	endocast
DUBO0610	<i>Hylobates</i> brain
DUBO0611	endocast
DUBO0612	endocast
DUBO0613	© comparison brain sizes
DUBO0614	© comparison brain sizes
DUBO0615	© comparison brain sizes
DUBO0616	comparison brain sizes
DUBO0617	Comparison brain sizes
DUBO0618	comparison brain sizes
DUBO0619	endocast
DUBO0620	endocast
DUBO0621	endocast
DUBO0622	endocast
DUBO0623	endocast
DUBO0624	endocast
DUBO0625	endocast
DUBO0626	endocast
DUBO0627	© comparison brain sizes
DUBO0627	 Approximation of an sizes Map Residence Kediri
DUBO0628	Map Residence Kediri
DUB00629 DUB00630	
	Map Residence Kediri Map Residence Kediri
DUBO0631	Map Residence Kediri Map Residence Kediri
DUBO0632	Map Residence Kediri Map Residence Kediri
DUBO0633	Map Residence Kediri
DUBO0634	Map Residence Kediri
DUBO0635	💿 skull
DUBO0636	🗇 skull Rhodesia man

DUDOA	~	Ì	10046
DUBO0637	© comparison cranium sizes	DUDOO(01	1924f
DUBO0638	skull chimpanzee	DUBO0681	skull cap <i>Pithecanthropus</i> , EDp-
DUBO0639	skull <i>Bibos</i> recent. See appendix		1924f
	III. alasti Dukaisis faasii Dukais	DUBO0682	skull cap <i>Pithecanthropus</i> , EDp- 1924f
DUBO0640	skull <i>Duboisia</i> fossil Dubois	DUBO0683	skull cap <i>Pithecanthropus</i> , EDp-
	spec. skull <i>Duboisia</i> fossil Dubois	D0B00085	1924f
DUBO0641		DUBO0684	skull cap <i>Pithecanthropus</i> , EDp-
DUBO0642	spec. skull primitive man	D0B00084	1924f
DUBO0643	skull primitive man	DUBO0685	skull cap <i>Pithecanthropus</i> , EDp-
DUBO0644	\odot skull Neanderthaler	D0D00005	1924f
DUBO0645	Skull Rhodesia man	DUBO0686	skull cap <i>Pithecanthropus</i> , EDp-
DUBO0646	Skull La Chapelle	Debouco	1924f
DUBO0647	anatomy orang utan	DUBO0687	skull cap <i>Pithecanthropus</i> , EDp-
DUBO0648	ⓐ anatomie chimpanzee		1924f
DUBO0649	figure brainweight vs	DUBO0688	skull cap Pithecanthropus, EDp-
	bodyweight, EDp-1922f/1923a		1924f
DUBO0650	© figure, EDp-1922f/1923a	DUBO0689	skull cap Pithecanthropus, EDp-
DUBO0651	figure, EDp-1922f/1923a		1924f
DUBO0652	figure, EDp-1922f/1923a	DUBO0690	Trinil plate 8 (page 75)
DUBO0653	🗇 skull La Chapelle, EDp-	DUBO0691	endocast
	1922f/1923a	DUBO0692	endocast
DUBO0654	I figure	DUBO0693	femur Pithecanthropus
DUBO0655	I figure	DUBO0694	femur Pithecanthropus
DUBO0656	💿 skull ???	DUBO0695	X Pithecanthropus, EDp-1926m
DUBO0657	limbing man, EDp-1926c	DUBO0696	X Pithecanthropus, EDp-1926m
DUBO0658	femur Stegodon?	DUBO0697	(inside skull (von Koenigswald?)
DUBO0659	climbing man, EDp-1926c	DUBO0698	Skull sangiran in pieces
DUBO0660	femur man	DUBO0699	tortoise fossil Hardella isoclina
DUBO0661	femur Stegodon, EDp-1917b	DUBO0700	X humerus
DUBO0662	femur Stegodon?	DUBO0701	\bigcirc skulls and brains
DUBO0663	femur man	DUBO0702	Skull Cynohyenodon cayluxi
DUBO0664	femur man	DUBO0703	Molars and premolar
DUBO0665	Climbing man p-Henry F. Osborne	DUBO0704	<i>Pithecanthropus,</i> specs Dubois skull cap <i>Pithecanthropus,</i> EDp-
DUBO0666	femur man	D0B00/04	1924f
DUB00667	femur cast <i>Pithecanthropus</i>	DUBO0705	endocast
DUBO0668	femur cast <i>Pithecanthropus</i>	DUBO0706	endocast (see page 107)
DUBO0669	femur recent	DUBO0707	Tufwall at Kedung Brubus (see
DUBO0670	femur cast <i>Pithecanthropus</i>	Debouror	page 65)
DUBO0671	femur cast <i>Pithecanthropus</i>	DUBO0708	skull cap <i>Pithecanthropus</i> , EDp-
DUBO0672	femur Stegodon		1924f
DUBO0673	femur Stegodon	DUBO0709	along Kali Ngeto (see page 69)
DUBO0674	femur Stegodon, EDp-1927b	DUBO0710	East of Kedung Brubus (see page
	(page 108)		65)
DUBO0675	femur prox	DUBO 0711	Detail of DUBO0709?
DUBO0676	femur prox	DUBO0712	Homo mojokertensis VON
DUBO0677	skull cap Pithecanthropus		KOENIGSWALD 1936
DUBO0678	skull cap Pithecanthropus, EDp-	DUBO0713	Homo mojokertensis VON
	1924f		KOENIGSWALD 1936
DUBO0679	skull cap Pithecanthropus, EDp-	DUBO0714	endocast
	1924f	DUBO0715	endocast
DUBO0680	skull cap Pithecanthropus, EDp-	DUBO0716	endocast

DUBO0717	endocast		(see page 113)
DUBO0718	molar Elephas hysudrindicus	DUBO0752	Hypolohus sephen 2475
	Dubois spec.	DUBO0753	Hypolohus sephen 2475
DUBO0719	molar Elephas hysudrindicus	DUBO0754	Trygon polylepis 2470
	Dubois spec.	DUBO0755	Hypolohus sephen 2475
DUBO0720	molar Elephas hysudrindicus	DUBO0756	Hypolohus sephen 2474
	Dubois spec.	DUBO0757	Hypolohus?
DUBO0721	molar <i>Elephas hysudrindicus</i>	DUBO0758	skull cap <i>Pithecanthropus</i> , EDp-
D0D00721	Dubois spec.	D0D00738	1924f
DUB00722		DUBO0759	
D0B00/22	molar <i>Elephas hysudrindicus</i>	D0B00/39	skull cap <i>Pithecanthropus</i> , EDp-
DUDOATAA	Dubois spec.	DUDOOTCO	1924f
DUBO0723	molar Elephas hysudrindicus	DUBO0760	skull cap <i>Pithecanthropus</i> , EDp-
	Dubois spec.		1924f
DUBO0724	skull cap Pithecanthropus, EDp-	DUBO0761	skull cap Pithecanthropus
	1924f	DUBO0762	skull cap Pithecanthropus (see
DUBO0725	skull cap Pithecanthropus, EDp-		page 106)
	1924f	DUBO0763	skull cap Pithecanthropus
DUBO0726	skull cap Pithecanthropus	DUBO0764	femur Pithecanthropus
DUBO0727	skull cap Pithecanthropus, EDp-	DUBO0765	femur Pithecanthropus
	1924f	DUBO0766	skeleton Hippopotamus recent
DUBO0728	skull cap Pithecanthropus, EDp-	DUBO0767	molar Elephas hysudrindicus
20200120	1924f (see page 107)	20200101	Dubois spec.
DUBO0729	skull cap <i>Pithecanthropus</i>	DUBO0768	crocodile?
DUB00730	Molars and premolar	DUBO0769	canines Celebochoerus hekereeni,
D0D00730	Pithecanthropus, specs Dubois,	D0D00707	Sulawesi
DUDO0721	EDp-1924f	DUBO0770	jaws Celebochoerus ?
DUBO0731	() brain	DUBO0771	H Nothosaurus Winterswijk
DUBO0732	endocast	DUBO0772	H humerus Nothosaurus
DUBO0733	anatomic drawing Hippopotamus		Winterswijk
	skull	DUBO0773	H lower jaw Nothosaurus
DUBO0734	endocast		Winterswijk
DUBO0735	Is brain medial view	DUBO0774	Stratigraphy Foulkes Gravelpit
DUBO0736	(medial cut skull <i>Hippopotamus</i>		H Kempston. Photo van Heekeren.
DUBO0737	🗇 brain		See appendix III
DUBO0738	Image: Book stateImage: Bo	DUBO0775	femur Wajak, marble quarry near
DUBO0739	😟 brain Hippopotamus		Wajak, Java
DUBO0740	endocast	DUBO0776	femur Wajak, marble quarry near
DUBO0741	endocast		Wajak, Java
DUBO0742	endocast	DUBO0777	Henry Fairfield Osborne (see
DUBO0743	X femur	DODOUTT	page 123)
DUBO0745	stratigraphy sandpit Maarn (see	DUBO0778	 page 1257 reconstruction fauna Tegelen
DUDUU/44	page 114)	DUBO0779	Winckler
DUD00745			
DUBO0745	stratigraphy sandpit Maarn	DUBO0780	2 pieces of bone
DUBO0746	stratigraphy sandpit Maarn	DUBO0781	tortoise <i>Hardella isoclina</i> Dubois
DUBO0747	Canoy Herfkens clay quarry (see	DUDGG	spec. nr. 2722
	page 111)Tegelen	DUBO0782	schildpad Hardella isoclina
DUBO0748	Stratigraphy at quarry Canoy-		Dubois spec. nr. 2722
	Herfkens Tegelen	DUBO0783	schildpad Hardella isoclina
DUBO0749	stratigraphy at quarry Canoy-		Dubois spec. nr. 2722
	Herfkens Tegelen (see page 113)	DUBO0784	tortoise recent (stereophoto)
DUBO0750	stratigraphy at quarry Canoy-	DUBO0785	endocast
	Herfkens Tegelen	DUBO0786	endocast
DUBO0751	quarry Maalbeek east of Belfeld	DUBO0787	endocast

DUBO0788	endocast (see page 107)		Kedung Brubus
DUBO0789	endocast	DUBO0832	Siwalik 1894 expedition (see
DUBO0790	endocast		page 23)
DUBO0791	endocast	DUBO0833	Siwalik 1894 expedition camels
DUBO0792	endocast		(see page 20)
DUBO0793	endocast	DUBO0834	Siwalik 1894 expedition camels
DUBO0794	endocasts	DUBO0835	Siwalik 1894 expedition women
DUBO0795	endocast		(see page 26)
DUBO0796	endocast	DUBO0836	Siwalik 1894 expedition women
DUBO0797	Siwalik 1894 expedition camels	DI ID O OOA	(see page 26)
DUBO0798	Siwalik 1894 expedition group	DUBO0837	Siwalik 1894 expedition camel
DUD00500	(see page 22)	DUBO0838	Siwalik 1894 expedition group
DUBO0799	Siwalik 1894 expedition elephant	DUDO0020	(see page 23)
	(see page 19)	DUBO0839	Siwalik 1894 expedition women
DUBO0800	Siwalik 1894 expedition Ram	DUBO0840	Siwalik 1894 expedition women
	Phal (see page 21) Siwalik 1894 expedition girl (see	DUBO0841	(see page 25) Siwalik 1894 expedition group
DUBO0801		DUB00841 DUB00842	Siwalik 1894 expedition men (see
DUBO0802	page 25) endocast	DUD00042	page 27)
DUB00802 DUB00803	Phenocodus primaevus	DUBO0843	Siwalik 1894 expedition team
DUB00804	anatomic preparate	D0D00045	(see page 21)
DUB00805	endocast	DUBO0844	(see page 21)
DUB00806	\odot table on taxonomic order	DUBO0845	world map middle Jurassic
DUB00807	femora <i>Pithecanthropus</i> Dubois	DUBO0846	(a) world map upper Devone
DUBO0808	(a) map of Eocene Europe	DUBO0847	(world map Portland period
DUBO0809	(a) map of Oligocene Europe	DUBO0848	(a) world map lower Carbone
DUBO0810	🖄 world map middle devoon	DUBO0849	
DUBO0811	i map of Pliocene Europe	DUBO0850	world map middle Silure
DUBO0812	i map of Pliocene Europe	DUBO0851	world map lower Miocene
DUBO0813	Difference map of Pliocene Europe	DUBO0852	(world map middle Carbone
DUBO0814	🗇 wereld kaart midden devoon	DUBO0853	I world map lower Jurassic
DUBO0815	map of Oligocene Europe	DUBO0854	World map upper Jurrasic
DUBO0816	🗇 world map Triassic	DUBO0855	world map lower Triassic
DUBO0817	le world map Cretaceous	DUBO0856	world map ? middle Devone?
DUBO0818	Different map of Plioceen Europe	DUBO0857	log world map upper Silure
DUBO0819	Difference map of Mioceen Europe	DUBO0858	Digocene Europe
DUBO0820	upper jaw Hippopotamus fossil	DUBO0859	antropological death mask
DUBO0821	skulls fossil Dubois	DI ID O OO CO	Melanesian male circa 20 y
DUBO0822	fossil Hippopotamus jaws (see	DUBO0860	antropological death mask
DUDOAAAA	page 57)	DUBO0861	antropological death mask
DUBO0823	upper jaw fossil rhinoceros (see	DUBO0862	Micronesian female circa 18 y ⓒ cover van Recherche ossement
DUD00924	page 50)	D0B00862	· · · · · · · · · · · · · · · · · · ·
DUBO0824	fossil <i>Hippopotamus</i>		fossiles
DUBO0825 DUBO0826	fossil upper jaw rhinoceros rhinoceros skulls recent	DUBO0863	antropological death mask Micronesian female circa 38 y
DUB00820 DUB00827	fossil <i>Hippopotamus</i> lower jaws	DUBO0864	antropological death mask
DUDU002/	(see page 120)	0000004	Micronesian female circa 18 y
DUBO0828	fossil <i>Hippopotamus</i> skull Dubois	DUBO0865	antropological death mask
	Kedung Brubus		Micronesian female circa 38 y
DUBO0829	skulls fossil Dubois collection	DUBO0866	antropological death mask
DUBO0830	fossil rhinoceros upper jaw (see		Melanesian male circa 20 y
	page 57)	DUBO0867	antropological death mask
DUBO0831	fossil Hippopotamus skull Dubois	DUBO0868	orang utan molars

	antlers Axis lvdekkeri	DUBO0914	Anthronomith cours two alo dutus
DUBO0869	skulls Duboisia		Anthropopithecus troglodytus
DUBO0870 DUBO0871		DUBO0915	Anthropopithecus troglodytus
	skull Bibos palaeosondaicus	DUBO0916	Anthropopithecus troglodytus
DUBO0872	skull Bibos palaeosondaicus	DUBO0917	twee skulls monkeys
DUBO0873	endocast	DUBO0918	skull Papoea
DUBO0874	endocast	DUBO0919	Anthropopithecus troglodytus
DUBO0875	Shell publ. van Benthem Jutting	DUBO0920	bovine upper jaws
DUDO007(1937	DUBO0921	skull <i>Hippopotamus</i> fossil
DUBO0876	endocast	DUDOMAA	Kedung Brubus
DUBO0877	endocast	DUBO0922	fragmenten skull Bibos
DUBO0878	endocast	DUBO0923	jaws several species (see page 54)
DUBO0879	femur Pithecanthropus	DUBO0924	lower jaw Hyaena
DUBO0880	femur Pithecanthropus	DUBO0925	lower jaw <i>Hyaena</i> (see page 55)
DUBO0881	femur Pithecanthropus	DUBO0926	lower jaw Hyaena
DUBO0882	femur Pithecanthropus (see page	DUBO0927	lower jaw Hyaena
	106)	DUBO0928	lower jaw Panthera tigris (see
DUBO0883	femur Pithecanthropus		page 50)
DUBO0884	femur Pithecanthropus	DUBO0929	fossil tapir lower jaw molars (see
DUBO0885	femur Pithecanthropus		page 57)
DUBO0886	femur Pithecanthropus	DUBO0930	fossil Gavialis Trinil Dubois
DUBO0887	femur Pithecanthropus		specs
DUBO0888	femur Pithecanthropus	DUBO0931	fossil Gavialis Trinil Dubois
DUBO0889	femur Pithecanthropus		specs
DUBO0890	femur Pithecanthropus	DUBO0932	Crocodilus Trinil
DUBO0891	Gerardine and her kids? (see page	DUBO0933	Crocodilus Trinil
	39)	DUBO0934	Crocodilus 3978
DUBO0892	boyservant (see page 15)	DUBO0935	Crocodilus
DUBO0893	three kids (see page 42)	DUBO0936	jaws Stegodon(see page 51)
DUBO0894	Daughters of Gerardine? (see	DUBO0937	tanden Stegodon (see page 51)
	page 41)	DUBO0938	lower jaws Duboisia and Axis
DUBO0895	Anna Grace Boyd?? (see page		(see page 53)
	18)	DUBO0939	lower jaws Duboisia and Axis
DUBO0896	Djongas Nassi (see page 16)	DUBO0940	upper jaws Duboisia and Lutra
DUBO0897	Manservant (see page 15)		(see page 56)
DUBO0898	garden Netherl. (see page 44)	DUBO0941	skull Stegodon Kedung Panas
DUBO0899	streetscene \pm 1900 (see appendix	DUBO0942	skull Stegodon Trinil
	III)	DUBO0943	lower jaws Stegodon
DUBO0900	Prentice (see page 17)	DUBO0944	lower jaws Stegodon
DUBO0901	Boyd (see page 17)	DUBO0945	teeth Stegodon (see page 56)
DUBO0902	Dubois, excerpt from Cambridge,	DUBO0946	femur Pithecanthropus
	Smith and Keith	DUBO0947	femur Pithecanthropus
DUBO0903	O Dubois peinting at the age of 70	DUBO0948	cross-cut femur?
DUBO0904	De Winter	DUBO0949	femur Pithecanthropus
DUBO0905	houses in Den Haag, Duinoord +-	DUBO0950	skull Hylobates?
	1900	DUBO0951	lower jaw monkey
DUBO0906	De Winter (see page 11)	DUBO0952	skull ape
DUBO0907	veranda with fossils (see page 15)	DUBO0953	skull ape
DUBO0908	Kriele	DUBO0954	femur Pithecanthropus
DUBO0909	veranda with fossils (see page 96)	DUBO0955	skull cap Pithecanthropus spec.
DUBO0910	veranda with fossils (see page 14)		Dubois in foto opstelling
DUBO0911	Kriele (see page 11)	DUBO0956	skull cap Pithecanthropus (see
	© gorilla skull		page 105)
DUBO0913	twee skulls ape	DUBO0957	skull cap <i>Pithecanthropus</i>
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DUB00958 DUB00960Footbones Mains (see page 55)DUB01004 DUB00961cut mough cast? footbones Manis DUB00962Emur distal femur proximalDUB00963 DUB00964footbones Manis dotones Manis additional DUB00965buB01007 femur proximal DUB01008femur and skeleton man cut through cast?DUB00964 DUB00965skeleton Manis aurita DUB00964DUB01010 skeleton Manis aurita DUB01011DUB01010 endocastDUB00965 skeleton Manis aurita DUB00967skeleton Manis aurita DUB00970 skull Epileptobox skull Epileptobox skulls BuboistaDUB01012 buB01015endocast endocast DUB00976DUB00976 skulls Buboista DUB00976 skulls Buboista DUB00976 skulls Buboista DUB00977 skulls Buboista DUB00977 skulls Buboista DUB00977 skulls Buboista DUB00977 skulls Buboista DUB00977 skulls Buboista Sulls Buboista DUB00977 skulls Buboista Sulls Buboista DUB00977 skulls Buboista Sulls Buboista DUB00977 skulls Buboista bubalus palaeokerabaut (see page 53) DUB00978 skulls Buboista (see page 52) DUB00977 skulls Buboista (see page 52) DUB00978 skulls Buboista (see page 52) DUB00978 skulls Buboista (see page 52) DUB00978 skulls Buboista (see page 52) DUB00980 man Lojenga, lean (see page 42) DUB00981 Anna Lojenga, lean (see page 41) DUB00985 Fugenie (see page 41) DUB00986 Mere Marie-Angelique (see page 41) DUB00987 Mullemien Lojenga, CC, Victor, Anna Lojenga, lean (see page 41) DUB00988 Mere Marie-Angelique (see page 41) DUB00992 Humien Lojenga, CC, Victor, Anna Lojenga, See page 42) DUB00987 Mullemien Lojenga, CC, Victor, Anna Lojenga, See page 42) DUB00997 Skul	DUDOAA50	(DUD01002	
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DUBO1053	X femur, EDp-1926m		Dubois
DUB01055 DUB01054	X femur, EDp-1926m	DUBO1099	skull wadjak 1 spec. Dubois
DUB01034 DUB01055	X teeth and jawfragment Kedung		Hoekgrot (see page 61)
D0B01033	Brubus	DUBO1100 DUBO1101	view on Hoekgrot (see page 61)
DUBO1056	X femur, EDp-1926m	DUB01101 DUB01102	view from Hoekgrot (see page of)
DUB01050 DUB01057	X femur	DUBUI102	62)
DUB01057 DUB01058	X teeth and jawfragment Kedung	DUBO1103	view from Hoekgrot (see page
DUBUI038	Brubus	DUBUIIUS	63)
DUBO1059	X femora	DUBO1104	view from Hoekgrot (see page
DUB01059 DUB01060	unknown quarry	DUBUI104	63)
DUB01000 DUB01061	unknown quarry	DUBO1105	view on hoekgrot (see page 61)
DUB01001 DUB01062	unknown quarry	DUB01105 DUB01106	view on Wadjak (see page 61)
DUB01062 DUB01063	unknown quarry	DUBO1100 DUBO1107	view on Wadjak (see page 61)
DUB01063 DUB01064	unknown quarry	DUB01107 DUB01108	view on Wadjak (see page 62)
DUB01064 DUB01065	unknown quarry	DUB01108 DUB01109	view on Hoekgrot (see page 62)
DUB01065 DUB01066	unknown quarry	DUB01110	endocast
DUBO1000 DUBO1067	unknown quarry	DUBO1111	endocast
DUBO1067	endocast	DUBO1112	endocast
DUBO1069	endocast	DUBO1112 DUBO1113	endocast
DUBO1009	endocast	DUB01114	endocast
DUBO1070 DUBO1071	endocast	DUBO1114 DUBO1115	endocasts
DUBO1071	endocast	DUBO1116	skull cap vs ape
DUBO1072	endocast	DUB01117	two cat skulls
DUBO1075	endocast	DUBO1118	two cat skulls
DUBO1074	figure	DUB01119	Gavialis
DUBO1075	maxilla Wadjak 2	DUBO1120	Gavialis
DUBO1077	maxilla Wadjak 2	DUB01121	<i>Gavialis</i> skull
DUBO1078	skull man ??	DUB01121	<i>Gavialis</i> skull
DUBO1079	Homo modjokertensis VON	DUB01122	skull crocodile
Debelon	KOENIGSWALD 1936	DUB01124	skull crocodile
DUBO1080	Homo modjokertensis VON	DUB01125	two cat skulls
Debereet	KOENIGSWALD 1936	DUB01126	skull crocodile
DUBO1081	jaw Pithecanthropus VON	DUB01127	two cat skulls
	KOENIGSWALD uit boek	DUBO1128	endocast
DUBO1082	quarry	DUBO1129	endocast
DUBO1083	Hondsrug	DUBO1130	endocast
DUBO1084	Hondsrug (see page 114)	DUBO1131	Sketch brains A. troglodytes
DUBO1085	stratigraphy near Savelsbeek, see	DUBO1132	sketch brains <i>H. agilis</i>
	appendix III	DUBO1133	stratigraphy near railroad (see
DUBO1086	erratic boulder from Moorbeek		page 74)
DUBO1087	erratic boulder from Moorbeek,	DUBO1134	monument Trinil (see page 77)
	see appendix III	DUBO1135	♦ stratigraphy near railroad (see
DUBO1088	reconstruction Java Man		page 73)
DUBO1089	Manouvrier	DUBO1136	Stratigraphy near railroad (see
DUBO1090	X femur, EDp-1926m		page 73)
DUBO1091	crocodile vertebrae	DUBO1137	stratigraphy near railroad (see
DUBO1092	kaken van een dog (see page 9)		page 69)
DUBO1093	(text on <i>Manis</i>	DUBO1138	X femora
DUBO1094	femora Pithecanthropus	DUBO1139	X femur
DUBO1095	femora Pithecanthropus	DUBO1140	X femora
DUBO1096	reconstruction Java Man	DUBO1141	X femur
DUBO1097	reconstruction Java Man	DUBO1142	X femora
DUBO1098	Lower jaw Wadjak 2 spec.	DUBO1143	X femur

DUBO1144	X femur	DUBO1194	skull Pithecanthropus, EDp-
DUBO1145	X femur		1924f
DUBO1146	femur Pithecanthropus	DUBO1195	skull Pithecanthropus, EDp-
DUBO1147	femur Pithecanthropus		1924f
DUBO1148	femur Pithecanthropus	DUBO1196	skull Pithecanthropus, EDp-
DUBO1149	femur distal		1924f
DUBO1150	femur distal, EDp-1926m	DUBO1197	skull Pithecanthropus, EDp-
DUBO1151	femur Pithecanthropus		1924f
DUBO1152	femur Pithecanthropus	DUBO1198	teeth carnivore
DUBO1153	femur Pithecanthropus	DUBO1199	teeth carnivore
DUBO1154	Protoceratops andrewsi	DUBO1200	fossil Gavialis Trinil no 9?
DUBO1155	🔅 Ngandong skull	DUBO1201	fossil Gavialis Trinil no 9
DUBO1156	🕉 skull Wajak	DUBO1202	fossil Gavialis Trinil no 9
DUB01157	The reconstruction Java Man	DUBO1203	skull fossile crocodile, Trinil, no
DUBO1158	skeleton Manis		12
DUBO1159	veranda met fossilen (see	DUBO1204	skull fossile crocodile, Trinil, no
Debeller	DUBO0907)	00001201	12
DUBO1160	fossils <i>Manis</i> Dubois specs	DUBO1205	skull fossile crocodile, Trinil, no
DUB01161	endocast	D0D01203	12
DUBO1162	femur	DUBO1206	lower jaw crocodile fossil, Trinil,
DUB01162	skull fragments <i>Duboisia</i>	D0D01200	no. 15
DUB01164	endocast	DUBO1207	skull fossil crocodile, Trinil, no
DUB01165	endocast	D0B01207	12
DUB01165 DUB01166	femur	DUBO1208	skull fossil <i>Gavialis</i>
DUB01160 DUB01167	endocast		skeleton recent man
	endocast	DUBO1209 DUBO1210	
DUBO1168	endocast		skeleton ape
DUBO1169		DUBO1211	skeleton ape
DUBO1170	endocast	DUBO1212	skeleton ape
DUB01171	endocast	DUBO1213	skeleton ape
DUB01172	endocast	DUBO1214	skull crocodile
DUB01173	endocast	DUBO1215	© crocodile
DUBO1174	endocast	DUBO1216	head crocodile
DUB01175	endocast (see page 69)	DUBO1217	skull and lower jaw crocodile
DUBO1176	femur, photo cranium, skull	DUBO1218	crocodile
	Hylobates (broken negative)	DUBO1219	crocodile
DUBO1177	antler Eucladoceros tegulensis	DUBO1220	skull crocodile fossil Trinil
DUBO1178	antler Eucladoceros tegulensis	DUBO1221	skull crocodile fossil Trinil
DUBO1179	antler Eucladoceros tegulensis	DUBO1222	skull crocodile
DUBO1180	antler Cervus rhenanus	DUBO1223	objects carried
DUBO1181	antler fragments Eucladoceros	DUBO1224	
	tegulensis	DUBO1225	H bovine molars in sediment
DUBO1182	antler Eucladoceros tegulensis	DUBO1226	🗇 two lizards
DUBO1183	lower jaw Wajak 2	DUBO1227	upper jaw rhinoceros fossil
DUBO1184	lower jaw Wajak 2	DUBO1228	upper jaw rhinoceros fossil
DUBO1185	lower jaw Wajak 2	DUBO1229	H lower jaw sabertooth tiger
DUBO1186	Endocast	DUBO1230	H lower jaw sabertooth tiger
DUBO1187	Endocast	DUBO1231	H lower jaw sabertooth tiger
DUBO1188	Endocast	DUBO1232	H lower jaw Elephas celebensis
DUBO1189	lower jaw Wajak 2		with tooth
DUBO1190	femur ???	DUBO1233	H lower jaw Elephas celebensis
DUBO1191	antler Cervus rhenanus		with tooth
DUBO1192	lower jaw Wajak 2	DUBO1234	H lower jaw Elephas celebensis
DUBO1193	skull cap ventral view unprepared		with tooth
-		•	

DUBO1235	H lower jaw <i>Elephas celebensis</i>
DUBO1236	with tooth H lower jaw <i>Elephas celebensis</i>
	with tooth
DUBO1237	H lower jaw <i>Elephas celebensis</i> with tooth, Tjeleko
DUBO1238	H Fossil
DUBO1239	H Fossil
DUBO1240	H lower jaw Elephas celebensis
DUBO1241	H lower jaw Elephas celebensis
DUBO1242	rund Siwaliks spec. Dubois nr
	3107 (see page 27)
DUBO1243	skull Bibos paleosondaicus nr.
	2812 (see page 120)
DUBO1244	skull <i>Epileptobos</i> spec. Dubois
DUB01245	skull <i>Epileptobos</i> spec. Dubois
DUB01246	skull <i>Epileptobos</i> spec. Dubois
DUB01247	skull <i>Epileptobos</i> spec. Dubois
DUB01248	skull <i>Epileptobos</i> spec. Dubois
DUBO1249	skull <i>Epileptobos</i> spec. Dubois
DUBO1250	skull <i>Epileptobos</i> spec. Dubois
DUBO1251	molars and premolar
	Pithecanthropus specs Dubois
DUBO1252	molars and premolar
	Pithecanthropus specs Dubois
DUBO1253	Kriele and De Winter
DUBO1254	Boetak (see page 70)
DUBO1255	Boetak (see page 71)
DUBO1256	Kali Brubus near Kedung Madoh
DUBO1257	Kali Brubus near Kedung Madoh
	(see page 67)
DUBO1258	Kali Ngeto near Kedung Brubus
DUBO1259	Tanah cleft, Bangle (see page 66)
DUBO1260	Kali Ngeto near Kedung Brubus
DUBO1261	unknown stratigraphy, probably
	near Kedung Brubus
DUBO1262	Tanah cleft, Bangle
DUBO1263	kali Ngeto near Kedung Ampel
DUDCIO	(see page 65)
DUBO1264	Kali Ngeto near Kedung Brubus
DUBO1265	Boetak (see page 71)
DUBO1266	Boetak (see page 71)
DUBO1267	Boetak (see page 71)
DUBO1268	Boetak (see page 71)
DUBO1269	Kali Ngeto near Kedung Brubus
DUD01270	(see page 68)
DUBO1270	Current bedding near Kedung
DUD01271	Brubus Kali Ngata paar Kadung Prubus
DUBO1271	Kali Ngeto near Kedung Brubus
DUBO1272	Ravine of the Kali Brubus (see
DURO1272	page 64) view on the Kendeng (see page
DUBO1273	78)
	10)

DUBO1274	Kali Ngeto near Kedung Brubus
	(see page 68)
DUBO1275	Current bedding near Kedung
	Brubus
DUBO1276	Siwalik 1894 expedition (see
	page 24)
DUBO1277	Siwalik 1894 expedition (see
	page 24)
DUBO1278	Boetak (see page 70)
DUBO1279	Plate 5 top current bedding
DVD 0 1000	Boetak (see page 72)
DUBO1280	Stereorthoscope (see page 103)
DUBO1281	molars and premolar <i>Pithecanthropus</i> specs Dubois
DUBO1282	Boetak (see page 71)
DUB01282 DUB01283	Solo rivir (see page 67)
DUB01285	Gunung Lawa
DUB01285	Kali Ngeto near Kedung Brubus
DUB01286	Current bedding near Kedung
00001200	Brubus
DUBO1287	Plate 5 top current bedding
	Boetak (see page 72)
DUBO1288	Current bedding near Kedung
	Brubus
DUBO1289	Tanah cleft, Bangle (see page 65)
DUBO1290	Solo rivir
DUBO1291	Kali Brubus near Kedung Madoh
DUBO1292	killed orang utan
DUBO1293	huge Pithon with prey inside
DUBO1294	skull ape
DUBO1295	skull fossil crocodile spec.
DUD0120(Dubois Trinil (broken negative)
DUBO1296	skull fossil <i>Gavialis</i> spec. Dubois Trinil
DUBO1297	Skull cap
DUB01297 DUB01298	skull <i>Pithecanthropus</i>
DUB01299	skull Hylobates
DUBO1300	Eugènie? (see page 42)
DUB01301	endocast
DUBO1302	skull ape
DUBO1303	skull cap unprepared in ventral
	view (see page 12)
DUBO1304	garden (see page 44)
DUBO1305	femur Pithecanthropus and
	recente
DUBO1306	femur Pithecanthropus and
	recente
DUBO1307	microcephalic skull ???
DUB01308	Tanah cleft, Bangle (see page 65)
DUBO1309	femur <i>Pithecanthropus</i> and recent
DUBO1310	fossil fragments ???
DUB01311	garden see also DUBO1304 femur <i>Pithecanthropus</i> (see page
DUBO1312	Tentui Funecantiropus (see page

	20)	DUD01252	
DUD01212	30)	DUBO1352	endocast
DUBO1313	endocast	DUBO1353	endocast
DUBO1314	tree Indonesia (see page 17)	DUBO1354	endocast
DUBO1315	treefern	DUBO1355	endocast
DUBO1316	skull cap Pithecanthropus, EDp-	DUBO1356	endocast
	1924f	DUBO1357	skull cap Pithecanthropus, EDp-
DUBO1317	skull cap Pithecanthropus, EDp-		1924f (see page 83)
	1924f	DUBO1358	skull cap Pithecanthropus, EDp-
DUBO1318	Endocast, EDp-1924f (see page		1924f (see page 81)
	88)	DUBO1359	skull cap Pithecanthropus, EDp-
DUBO1319	skull cap Pithecanthropus, EDp-		1924f (see page 80)
	1924f	DUBO1360	skull cap Pithecanthropus, EDp-
DUBO1320	Endocast, EDp-1924f (see page		1924f (see page 83)
	89)	DUBO1361	skull cap Pithecanthropus, EDp-
DUBO1321	Endocast, EDp-1924f (see page		1924f (see page 82)
	90)	DUBO1362	skull cap Pithecanthropus, EDp-
DUBO1322	Endocast, EDp-1924f (see page		1924f (see page 80)
	90)	DUBO1363	skull tapir 285
DUBO1323	Endocast, EDp-1924f (see page	DUBO1364	skull Oreodon
	88)	DUBO1365	endocasts Uintatherium
DUBO1324	microcephalic skull spec. Dubois	DUBO1366	log brains
20201021	(see page 87)	DUBO1367	© brains
DUBO1325	X hand Eugènie (see page 43)	DUBO1368	\odot brains
DUB01326	skull cap <i>Pithecanthropus</i> , EDp-	DUBO1369	skull cap <i>Pithecanthropus</i>
00001020	1924f	DUB01370	Skull Protoceratops andrewsi
DUBO1327	femur dist	DUB01371	\odot skull i robeer atops and east \odot skullsize
DUB01328	skull cap <i>Pithecanthropus</i>	DUB01372	femur
DUB01329	skull cap <i>Pithecanthropus</i>	DUB01372	© skullsize
DUB01320	skull cap <i>Pithecanthropus</i>	DUB01374	Blanco
DUB01331	femur dist	DUB01375	Image and the second
DUB01332	skull cap <i>Pithecanthropus</i>	DUBO1376	 map Telaga Bodas map Telaga Bodas
DUB01332 DUB01333	skull cap <i>Pithecanthropus</i>	DUB01370 DUB01377	Solo man skull in ventral view
DUB01333	skull cap <i>Pithecanthropus</i> , EDp-	DUB01378	Solo man
D0D01554	1924f	DUB01378 DUB01379	Solo man, 1936, no. 10, AnnatI.
DUBO1335	skull cap <i>Pithecanthropus</i> , EDp-	DODOIST	Utrecht
D0D01555	1924f	DUBO1380	Solo man, 1936, no. 10, AnnatI.
DUBO1336	skull cap <i>Pithecanthropus</i> , EDp-	D0B01380	Utrecht
DOBO1550	1924f	DUBO1381	Solo man, 1936, no. 10, AnnatI.
DUBO1337	skull cap <i>Pithecanthropus</i>	D0B01381	Utrecht
DUBO1337 DUBO1338	skull cap <i>Pithecanthropus</i>	DUBO1382	Solo man, 1936, no. 10, AnnatI.
	endocast	D0B01382	Utrecht
DUBO1339	endocast	DUBO1383	
DUB01340		D0B01383	Solo man, 1936, no. 10, AnnatI.
DUBO1341	endocast	DUD01204	Utrecht
DUB01342	Indocast sizes	DUBO1384	Homo modjokertensis VON
DUBO1343	endocast	DUD01205	KOENIGSWALD 1936
DUBO1344	endocast, EDp-1924f	DUBO1385	Solo man, 1936, no. 11, AnnatI.
DUBO1345	endocast	DUD0120(Utrecht
DUB01346	endocast	DUBO1386	skull cap <i>Pithecanthropus</i> , EDp-
DUBO1347	endocast	DUD01297	1924f
DUBO1348	endocast	DUBO1387	Skullsize Rhodesia man vs
DUBO1349	endocast	DUD01400	australian
DUBO1350	endocast	DUBO1388	figure canidaea, EDp-1923a Ep-1923a
DUBO1351	antlers Cervus rhenanus Tegelen	DUBO1389	figure canidaea, EDp-1923a

DUBO1390	🗇 figure canidaea, EDp-1923a
DUBO1391	endocast
DUBO1392	geological map of Belgium
DUBO1393	skull man
DUBO1394	antlers <i>Eucladoceros</i> Tegelen (see page 112)
DUBO1395	antlers Cervus rhenanus Tegelen
DUDO100	(see page 112)
DUBO1396	skullfragment with antler Eucladoceros Tegelen
DUBO1397	antler Eucladoceros Tegelen
DUBO1398	antler Eucladoceros Tegelen
DUBO1399	Trinil 1900 (see page 76)
DUBO1400	Trinil 1900 (see page 76)
DUBO1401	Trinil 1900
DUBO1402	Trinil 1900 (see page 75)
DUBO1403	skull cap <i>Pithecanthropus</i> , EDp-
	1924f
DUBO1404	skull cap <i>Pithecanthropus</i> , EDp- 1924f
DUBO1405	skull cap <i>Pithecanthropus</i> , EDp- 1924f
DUBO1406	skull cap <i>Pithecanthropus</i> , EDp- 1924f
DUBO1407	skull cap <i>Pithecanthropus</i> , EDp- 1924f
DUBO1408	skull cap Pithecanthropus (see
DUBO1409	page 83) skull cap <i>Pithecanthropus</i>
DUB01409 DUB01410	skull cap <i>Pithecanthropus</i> , EDp-
DODOI410	1924f
DUBO1411	endocast, EDp-1924f
DUBO1412	endocast, EDp-1924f
DUBO1413	endocast, EDp-1924f
DUBO1414	endocast, EDp-1924f
DUBO1415	skull van Spy
DUBO1416	skull cap <i>Pithecanthropus</i> spec. Dubois
DUBO1417	skull cap Pithecanthropus spec.
DUDO1410	Dubois
DUBO1418	Endocast
DUBO1419	X femur <i>Pithecanthropus</i> , EDp- 1926m
DUBO1420	X femur <i>Pithecanthropus</i> , EDp- 1926m
DUBO1421	X femur <i>Pithecanthropus</i> , EDp- 1926m
DUBO1422	X femur <i>Pithecanthropus</i> , EDp- 1926m
DUR01422	skull Spy (see page 86)
DUBO1423 DUBO1424	skull Spy (see page 86) skull Spy (see page 85)
DUB01424 DUB01425	skull cap <i>Pithecanthropus</i> spec.
DUDU1425	Dubois (see page 84)
	1200013 (See page 04)

DUBO1426	skull Spy (see page 5)
DUBO1427	skull Spy (see page 85)
DUBO1428	skull cap Pithecanthropus (see
	page 84) (broken negative)
DUBO1429	skull cap Pithecanthropus
DUBO1430	skull cap Pithecanthropus, EDp-
	1924f
DUBO1431	skull sangiran 1 (VON
	KOENIGSWALD)
DUBO1432	plaatje skull Sangiran + stukjes
DUBO1433	plaatje skull Sangiran + stukjes
DUBO1434	© Ichthyosaurus
DUBO1435	femur Stegodon, EDp-1927b
DUBO1436	cast of Heberlein "skull"
DUBO1437	the so-called Pithecanthropus
	erectus (Heberlein "skull") (see
	page 108)
DUBO1438	lo brains
DUBO1439	X femur Pithecanthropus, EDp-
	1926m
DUBO1440	femur Pithecanthropus
DUBO1441	femur <i>Pithecanthropus</i>
DUBO1442	femur <i>Pithecanthropus</i> afgietsel
DUBO1443	femur <i>Pithecanthropus</i> afgietsel
DUBO1444	endocast
DUBO1445	skull Ngandong
DUBO1446	endocast, EDp-1924f
DUBO1447	endocast
DUBO1448	endocast
DUBO1449	endocast
DUBO1450	skull Ngandong (broken
Deberie	negative)
DUBO1451	skull Ngandong
DUB01452	skull Ngandong
DUBO1453	skull Ngandong
DUBO1455	skull Ngandong
DUBO1454	skull Ngandong
DUBO1455	skull Spy
DUBO1450 DUBO1457	skull Ngandong no 11
DUBO1457 DUBO1458	skull Ngandong
DUBO1450	microcephalic skull spec. Dubois
D0D0143)	(see page 29)
DUBO1460	microcephalic skull spec. Dubois
DUBO1460 DUBO1461	microcephalic skull spec. Dubois
DUB01401 DUB01462	Homo modjokertensis VON
D0D01402	KOENIGSWALD 1936
DUBO1463	Homo modjokertensis VON
D0D01403	KOENIGSWALD 1936
	KOENIGSWALD 1936 Homo modjokertensis VON
DUBO1464	5
	KOENIGSWALD 1936
DUBO1465	Homo modjokertensis VON
	KOENIGSWALD 1936
DUBO1466	X femur Pithecanthropus, EDp-

	100 (DI DO LEGO	
DIDOINE	1926m	DUBO1508	surface femur Pithecanthropus
DUBO1467	Blanco	DUBO1509	femur Pithecanthropus, cast
DUBO1468	Blanco	DUBO1510	femur Pithecanthropus cast
DUBO1469	X Pithecanthropus	DUBO1511	X femora
DUBO1470	X Pithecanthropus, EDp-1926m	DUBO1512	endocast, EDp-1924f
DUBO1471	skull Hippopotamus	DUBO1513	endocast, EDp-1924f
DUBO1472	skull Hippopotamus	DUBO1514	endocast, EDp-1924f
DUBO1473	endocasts Uintatherium	DUBO1515	X skull röntgen Anna Lojenga (see
DUBO1474	skull Hippopotamus		page 43)
DUBO1475	skull cap Pithecanthropus, EDp-	DUBO1516	femur Pithecanthropus
	1924f	DUBO1517	femur Pithecanthropus
DUBO1476	X femur	DUBO1518	recente skull vs microcephalic
DUBO1477	X femur	DUDOISIO	skull
DUBO1478	X femur	DUBO1519	femur Pithecanthropus
DUBO1479	X femora	DUBO1520	femur Pithecanthropus
DUBO1480	X femur	DUB01521	femur Pithecanthropus
DUBO1481	X femur	DUBO1522	femur Pithecanthropus
DUBO1482	X femur, EDp-1926m	DUBO1523	femur Pithecanthropus
DUBO1483	X femur, EDp-1926m	DUBO1524	femur Pithecanthropus
DUBO1484	X femur, EDp-1926m	DUBO1525	femur Pithecanthropus
DUBO1485	X femur van Pithecanthropus	DUBO1526	femur Pithecanthropus
DUBO1486	femur Pithecanthropus, EDp-	DUBO1527	femur Pithecanthropus, EDp-
	1934a		1926m
DUBO1487	femur Pithecanthropus, EDp-	DUBO1528	femur Pithecanthropus, EDp-
	1934a		1926m
DUBO1488	X femur Pithecanthropus, EDp-	DUBO1529	femur Pithecanthropus, EDp-
	1926m		1926m
DUBO1489	X femora	DUBO1530	femur Pithecanthropus, EDp-
DUBO1490	X femur		1926m
DUBO1491	X femur Pithecanthropus, EDp-	DUBO1531	femur Pithecanthropus, EDp-
D	1926m	DUDOIM	1926m
DUBO1492	X Xray femora	DUBO1532	femur Pithecanthropus, EDp-
DUBO1493	Trinil 1900 almost identical to		1926m
	Plate 10, DUBO1399	DUBO1533	femur Pithecanthropus, EDp-
DUBO1494	Trinil 1900 Plate 9 (see page 75)	DUDOIN	1926m (see page 107)
DUBO1495	skull cap Pithecanthropus	DUBO1534	femur <i>Pithecanthropus</i> , EDp-
DUBO1496	endocast (broken negative)	DUDO1525	1926m
DUBO1497	skull cap <i>Pithecanthropus</i> , EDp-	DUBO1535	femur <i>Pithecanthropus</i> , EDp-
DUD01400	1924f (broken negative)	DUDO1526	1926m
DUBO1498	skull cap <i>Pithecanthropus</i> , EDp-	DUBO1536	femur <i>Pithecanthropus</i> , EDp-
DUD01400	1924f	DUD01527	1926m
DUBO1499	skull cap <i>Pithecanthropus</i> , EDp-	DUBO1537	femur <i>Pithecanthropus</i> , EDp-
DUD01500	1924f	DUD01520	1926m
DUBO1500	skull cap <i>Pithecanthropus</i> , EDp-	DUBO1538	premolar Stegodon
DUD01501	1924f	DUB01539	premolar Stegodon
DUBO1501	skull cap <i>Pithecanthropus</i> , EDp- 1924f	DUB01540	premolar Stegodon
DUD01502	-	DUB01541	premolar Stegodon
DUBO1502	endocast, EDp-1924f	DUB01542	premolar Stegodon
DUBO1503	endocast	DUB01543	premolar Stegodon
DUBO1504	surface femur <i>Pithecanthropus</i>	DUBO1544	premolar Stegodon 3381
DUBO1505	surface femur <i>Pithecanthropus</i>	DUB01545	premolar Stegodon
DUBO1506	surface femur <i>Pithecanthropus</i>	DUBO1546 DUBO1547	premolar Stegodon
DUBO1507	surface femur Pithecanthropus	D0D0134/	premolar Stegodon 3062

DUDO1540	1 0 1	DUDO1(0)	
DUBO1548	premolar Stegodon	DUBO1606	46. <i>Elephas indicus</i> working
DUBO1549	Criptomastodon	DUBO1607	47.Ganesha
DUBO1550	Criptomastodon	DUBO1608	48. Elephas africanus cut through
DUBO1561	1.Skull of negro after P. Camper		skull
DUBO1562	2.Zeus of Otricoli	DUBO1609	49.Elephas indicus brains
DUBO1563	3.Zeus of Otricoli on coin	DUBO1610	🗇 50.Hippopotamus amphibius
DUBO1564	4.Zeus of Otricoli buste in		brains
	Vatican	DUBO1611	 51.Red faced spider monkey 53. <i>Ateles</i> var.
DUBO1565	5.Venus of Arles buste	DUBO1613	53. Ateles var.
DUBO1566	🙆 6.Zeus of Otricoli	DUBO1614	54. Ladotrix Humboldt's woolly
DUBO1567	7.crania adult vs child		monkey
DUBO1568	8.crania adult vs child	DUBO1615	
DUBO1569	9.dimensions adult vs child	DUBO1616	 55.Ateles paniscus 56. Ladotrix see 54.
DUBO1570	10.child with goose	DUBO1617	57. <i>Microglossus aterrimus</i>
DUB01571	☑ 11.fresco with wrong dimensions	DUBO1618	
DUB01572	☑ 12.human nerve system	DUBO1619	 58.Molge cristata 59. Hemidactylus turcicus 60.Rana esculenta
DUB01572	13.nerve cells	DUBO1620	60. <i>Rana esculenta</i>
DUB01574	☑ 15.nerve cens☑ 14.Purkinje, cortex, cerebrum	DUBO1620	61. <i>Hyla arborea</i>
DUB01575	\bigcirc 15.brain ape vs human	DUBO1621	 61.<i>Hyla arborea</i> 62.rat,rabbit and squirrel 63. <i>Tupaia tana</i> 64.seals
DUB01575 DUB01576	© 16.brains several species	DUB01622 DUB01623	63. <i>Tupaia tana</i>
DUBUIS/0			\bigcirc 64.seals
DUD01577	(Osborne) 17.brain centra	DUBO1624	
DUBO1577	17.0rain centra 18.brains human vs 3 animals	DUBO1625	\bigcirc (<i>C B s b s s s s s s s s s s</i>
DUBO1578		DUBO1626	 65.dolphins 66.Balaenoptera rostrata whale 67.Halicore dujong
DUBO1579	19.fish brain <i>Gadus aeglefinus</i>	DUBO1627	© 67.Halicore dujong
DUBO1580	20. 'old' and 'recent' mammals	DUBO1628	\bigcirc 68. <i>Tinca tinca</i>
DUBO1581	22.brain of Helmholtz vs papua	DUBO1629	69. <i>Alligator niger</i>
DUBO1582	© 23.Kant	DUBO1630	 68.<i>Tinca tinca</i> 69.<i>Alligator niger</i> 70.brains of e.g. <i>Hesperornis</i> 71.brains and skulls of dinosaurs
DUBO1583	24.brain, horizontal cut	DUBO1631	71.brains and skulls of dinosaurs
DUBO1584	© 25.brain parts	DUBO1632	 72.brains of <i>Ichthyornis & Sterna</i> 73.brains of dinosaurs 74.human brains in situ
DUBO1585	 26.brains comparative 27.cerebral cortex comparative 	DUBO1633	73.brains of dinosaurs
DUBO1587		DUBO1634	74.human brains in situ
DUBO1588	28. brains of small dog	DUBO1635	75.human brains
DUBO1589	29.brains of large dog	DUBO1636	 76.human brains dorsal 77.human brains left hemisfere 78.human brains left hemisfere
DUBO1590	O 30. brains and eyes comparative	DUBO1637	77.human brains left hemisfere
DUBO1591	31.femurs of Semnopithecus	DUBO1638	78.human brains left hemisfere
	nasica & S. maurus	DUBO1639	
DUBO1592	32.femurs of Semnopithecus	DUBO1640	 80.cortex map of rabbit 81.cortex map of <i>Cercoleptes</i> 82.brain of <i>Hapale jacchus</i>
	nasica & S. maurus	DUBO1641	81.cortex map of Cercoleptes
DUBO1593	33.femurs of Hylobates	DUBO1642	🕸 82.brain of <i>Hapale jacchus</i>
	syndactylus & H. leuciscus	DUBO1643	83.cortex map of <i>Hapale jacchus</i>
DUBO1594	💿 34. Lacerta viridus & Varanus	DUBO1644	84.brain of <i>Hylobates syndactylus</i>
DUBO1595	35. long eared bat <i>Plecolus</i>	DUBO1645	 83.cortex map of <i>Hapale jacchus</i> 84.brain of <i>Hylobates syndactylus</i> 85.cortex of <i>Hylobates</i>
	auritus		syndactylus
DUBO1596	36.eel Anguilla anguilla	DUBO1646	86.human hemisferes
DUBO1597	37. vipers	DUBO1647	87.lower monkey hemisferes
DUBO1598	38.snake (<i>Naja</i>) & deer	DUBO1648	 87.lower monkey hemisferes 88.cortex map <i>Pteropus</i>
DUBO1599	39. Anguis fragilis	DUBO1649	89.cortex map human
DUBO1600	40. Tapiris indicus	DUBO1650	© 90.comparative giant pyramid
DUBO1601	😟 41. Elephas africanus		cells
DUBO1602	42.Terabelodon augustidens	DUBO1652	92.brain schematics Hylobates
DUBO1603	43.Meritherium	DUBO1653	Ø 93.brain schematics orang utan
DUBO1604	🙆 44. Elephas indicus drinking	DUBO1654	• 94.cortex map orang utan
DUBO1605	45. <i>Elephas indicus</i> bathing	DUBO1655	95.cortex map Hylobates

DUBO1656	96.brain schematics	DUBO1704	144.e.g. Dinoceras mirabile
	Cercopithecus	DUBO1705	145.e.g. Coryphodon hamalus
DUBO1657	97.David & Venus (statues)	DUBO1706	146.e.g. Colonoceras agrestis
DUBO1658	 97.David & Venus (statues) 98.west african green monkeys 99.negro monkey 	DUBO1707	 145.e.g. Colyphoton humans 146.e.g. Colonoceras agrestis 147.e.g. Mastodon, Elotherium 148.e.g.Elephas, tapir, rhino 149.e.g. Auchenia vicugna
DUBO1659	99.negro monkey	DUBO1708	148.e.g. <i>Elephas</i> , tapir, rhino
DUBO1660	100.female black lemur with	DUBO1709	🗇 149.e.g. Auchenia vicugna
	young	DUBO1710	150.Coryphodon hamalus MARSH
DUBO1662	102.innervation of muscletissue	DUBO1711	 150.Coryphodon hamalus MARSH 151.Dinoceras mirabile MARSH
DUBO1663	A 102 11	DUBO1712	152.Lorex minulus (no skin)
DUBO1664		DUBO1713	153.plucked kolibri
DUBO1665	105.Anabas scandens	DUBO1719	159. Canis familiaris (dwarf)
DUBO1666	 103.nerve cell 104.nerve cell 105.Anabas scandens 106.Megalobatrachus maximus 107.Dipus aegypticus 108.Eliomys nitella 109.Castor fiber 110.Thylacinus cynocephalus 111. Dagwyra viyominus 	DUBO1720	160.Arctites binturong
DUBO1667	107.Dipus aegypticus	DUBO1721	52.typical spider monkeys
DUBO1668	108.Eliomvs nitella	DUBO1722	© 51.Red faced spider monkey
DUBO1669	109.Castor fiber	DUBO1723	© 53. Ateles var.
DUBO1670	\odot 110 Thylacinus cynocephalus	DUBO1724	© 54. Ladotrix Humboldt's woolly
DUBO1671	111.Dasyurus viverrinus		monkey
DUBO1672	112.Canis familiaris vs C. zerda	DUBO1725	© 55.Ateles paniscus
DUBO1673	113. <i>Canis familiaris</i> skull	DUB01726	O 56. <i>Ladotrix</i> see 54.
DUBO1674	114. <i>Canis zerda</i> skull	DUB01727	© 57. <i>Microglossus aterrimus</i>
DUBO1675	115. <i>Canis zerda</i> skull	DUBO1728	© 58.Molge cristata
DUBO1676	116. <i>Canis familiaris</i> skull	DUBO1729	© 59. Hemidactylus turcicus
DUBO1677	117. Dolichotis	DUBO1729	© 60. <i>Rana esculenta</i>
DUBO1678	117a.Cavia porcellus	DUB01731	© 61.Hyla arborea
DUBO1679	118.Dolichotis?	DUB01732	 62.rat,rabbit and squirrel
DUBO1679 ^a	119.Cricetus	DUB01732 DUB01733	 © 63. Tupaia tana
DUBO1677	120.Cricetus	DUBO1733 DUBO1734	O 64.seals
DUBO1680 ^a	120a.Sciurus	DUB01735	© 65.dolphins
DUB01681	121.Hydrochoerus	DUB01736	© 66. <i>Balaenoptera rostrata</i> whale
DUBO1681	122. <i>Cavia porcellus</i>	DUBO1737	© 67.Halicore dujong
DUBO1682 ^a	122a. Hydrochoerus	DUB01737 DUB01738	© 68. <i>Tinca tinca</i>
DUBO1082 DUBO1683	© 123.Sorex araneus, Crocidura	DUB01739	© 69.Alligator niger
DUDUI085	russulus	DUB01739 DUB01740	 70.brains of e.g. Hesperornis
DUBO1684	♥ 124.Tupaia tana	DUB01740 DUB01741	\bigcirc 71.brains and skulls of dinosaurs
DUBO1685	© 124.1 <i>upata tana</i> © 125.bat	DUB01741 DUB01742	 71.07ams and skuns of unlosauts 72.brains of <i>Ichthyornis & Sterna</i>
	125.0 at 126 flying dog (bat)		O 73.brains of dinosaurs
DUBO1686	 126.flying dog (bat) 127.mole 128.<i>Potamogale velox</i> 	DUB01743	\bigcirc 74.human brains in situ
DUBO1687	• 127.mole	DUB01744	\bigcirc 75.human brains
DUBO1688	128.Potamogale velox 129.weasel 129.weasel 129.weasel 120.weasel 120.weasel	DUB01745	
DUBO1689		DUBO1746	 76.human brains dorsal 77.human brains left hemisfere
DUBO1690	130.marter	DUB01747	
DUBO1691	131. <i>Chiromys madagascarienis</i>	DUBO1748	\bigcirc 78.human brains left hemisfere
DUBO1692	132. Chiromys madagascarienis	DUBO1749	© 79. 'soulblindness'
DUBO1693	133.Galeopithecus volans	DUBO1750	③ 80.cortex map of rabbit
DUBO1694	134.Hylobates lar	DUBO1751	© 81.cortex map of <i>Cercoleptes</i>
DUBO1695	 134.Hylobates lar 135.Chrysotrix sciurea 136.skeleton of dolphin 	DUB01752	© 82.brain of <i>Hapale jacchus</i>
DUBO1696		DUBO1753	③ 83.cortex map of <i>Hapale jacchus</i>
DUBO1697	137.skeleton of narwal	DUBO1754	© 84.brain of <i>Hylobates syndactylus</i>
DUBO1698	138.brain of <i>Martes canadensis</i>	DUBO1755	© 85.cortex of <i>Hylobates</i>
DUBO1699	139.brain of <i>Meles taxus</i>		syndactylus
DUBO1700	140.brain of <i>Martes foina</i>	DUBO1756	© 86.human hemisferes
DUBO1701	141.skull of <i>1</i> illotherium	DUBO1757	© 87.lower monkey hemisferes
DUB01702	 141.skull of <i>Tillotherium</i> 142.skull of <i>Brontotherium</i> 143.<i>Phenacodus primarvus</i> COPE 	DUBO1758	③ 88.cortex map <i>Pteropus</i>
DUBO1703	143.Phenacodus primarvus COPE	DUBO1759	89.cortex map human

DUBO1760	Ô	90.comparative giant pyramid
		cells
DUBO1761	Ô	91. Indri
DUBO1762	Ô	92.brain schematics Hylobates
DUBO1763		93.brain schematics orang utan
DUBO1764		94.cortex map orang utan
DUBO1765		95.cortex map <i>Hylobates</i>
DUB01766		96.brain schematics
Deboirou	₽ \	Cercopithecus
DUBO1767	ക	97.David & Venus (statues)
DUB01768		98.west african green monkeys
DUBO1769		99.negro monkey
		100.female black lemur with
DUBO1770	¥	
DUD01771		young
DUB01771		jaw fragment Kedung Brubus
DUB01772		skull Spy
DUBO1773		skull Spy
DUBO1773 ^a		brain size
DUBO1773 ^b		schematic brain cranium
DUB01774		??
DUBO1775	\bigotimes	Pithecanthropus
DUBO1776		see DUBO1773 ^b
DUB01777		Pithecanthropus
DUBO1778		??
DUBO1779	ž	human skeleton
DUBO1780	~	endocast
DUBO1781		map Solo river Trinil
DUBO1782		aboriginal climbing tree
DUBO1783		Trinil site (van Es, 1926)
DUBO1784	\odot	climbing a tree
DUBO1785		femur distal
DUBO1786		femur Pithecanthropus
DUBO1787		Trinil site (van Es, 1926)
DUBO1788	Ø	aboriginal climbing tree
DUBO1789		femur distal
DUBO1790		femur
DUBO1791		femur Semniopithecus
DUBO1792	Х	femora Pith. vs Hylobates
DUBO1793		femur distal
DUBO1794		femur
DUBO1795		femur
DUBO1796		femur Semniopithecus
DUBO1797		femur distal
DUBO1798	Ô	femur Pithecanthropus
DUBO1799	Ŷ	femur distal
DUBO1800		femur distal
DUBO1801		femur distal
DUB01802		femur distal
DUB01803		femur distal
DUB01804		femur distal
DUB01805		femur distal
DUBO1805		premolar Pithecanthropus
DUBO1800 DUBO1807		premolar Pithecanthropus
D0D0100/		premotar i unecunun opus

DUBO1808	premolar Pithecanthropus
DUBO1809	premolar Pithecanthropus
DUBO1810	premolar Pithecanthropus
DUBO1811	molar Pithecanthropus
DUBO1812	molar Pithecanthropus
DUBO1813	molar Pithecanthropus
DUBO1814	molar Pithecanthropus
DUB01815	molar Pithecanthropus
DUB01816	molar <i>Pithecanthropus</i>
DUB01817	molar <i>Pithecanthropus</i>
DUB01818	molar <i>Pithecanthropus</i>
DUB01819	molar <i>Pithecanthropus</i>
DUBO1820	O feet bones <i>Manis</i>
DUBO1821	skull Manis
DUB01822	skull Manis
DUBO1822	skull Manis
DUB01823 DUB01824	hand & feet Manis javanica
DUB01824 DUB01825	bones <i>Manis palaeojavanica</i>
DUB01825 DUB01826	 bones Manis palaeojavanica bones Manis palaeojavanica
DUB01826 DUB01827	© cross-cut femur
DUB01827 DUB01828	© cross-cut femur
	\odot cross-cut femur
DUBO1829	\odot cross-cut femur
DUBO1830	
DUBO1831	© cross-cut femur
DUBO1832	© cross-cut femur
DUBO1833	© cross-cut femur
DUBO1834	© cross-cut femur
DUBO1835	© endocast
DUBO1836	© cross-cut femur
DUBO1837	© cross-cut femur
DUBO1838	plate 8 Trinil
DUBO1839	
DUBO1840	femur distal
DUBO1841	\bigcirc cross cut cast femur dist.
DUBO1842	© cross-cut femur
DUBO1843	Plate 8 Trinil
DUBO1844	Cross-cut femur
DUBO1845	Cross-cut femur
DUBO1846	Cross-cut femur
DUBO1847	Cross-cut femur
DUBO1848	Cross-cut femur
DUBO1849	Cross-cut femur
DUBO1850	Cross-cut femur
DUBO1851	Cross-cut femur
DUBO1852	Cross-cut femur
DUBO1853	🗇 cross-cut femur
DUBO1854	🗇 cross-cut femur
DUBO1855	🗇 cross-cut femur
DUBO1856	🗇 cross-cut femur
DUBO1857	🗇 endocast
DUBO1858	🗇 cross-cut femur
DUBO1859	🗇 cross-cut femur
DUBO1860	🗇 cross-cut femur
•	

♦ cross-cut femur DUBO1861 DUB01862 ♦ cross-cut femur DUBO1863 cross-cut femur DUBO1864 🗇 cross-cut femur DUB01865 ♦ cross-cut femur DUBO1866 © cross-cut femur DUB01867 © cross-cut femur DUB01868 ♦ cross-cut femur DUBO1869 ⑦ cross-cut femur DUB01870 ⓓ cross-cut femur left cross-cut femur DUBO1871 ^Ô cross-cut femur DUB01872 C cross-cut femur DUB01873 DUBO1875 human iaw musculature C cross-cut femur DUBO1876 **DUBO1877** © cross-cut femur left cross-cut femur DUB01878 DUBO1879 ♦ cross-cut femur DUBO1880 ^Ô cross-cut femur © cross-cut femur DUBO1881 DUB01882 © cross-cut femur left cross-cut femur DUBO1883 DUB01884 © cross-cut femur © cross-cut femur DUBO1885 ♦ cross-cut femur DUBO1886 left cross-cut femur DUB01887 DUBO1888 left cross-cut femur C cross-cut femur **DUBO1889** © cross-cut femur **DUBO1890** DUB01891 © cross-cut femur © cross-cut femur **DUBO1892 DUBO1893** © cross-cut femur left cross-cut femur DUB01894 **DUBO1895** human femur Pithecanthropus femur DUBO1896 **DUBO1897** femur **DUBO1898** femur human femur **DUBO1899 DUBO1900** femur femur DUB01901 **DUBO1902** femur **DUBO1903** femur femur DUBO1904 **DUBO1905** femur **DUBO1906** femur femur DUB01907 femur **DUBO1908 DUBO1909** femur DUBO1910 femur DUBO1911 femur **DUBO1912** human climbing DUBO1913 human climbing DUBO1914 💿 human climbing

DUB01915 human climbing (ED) DUB01916 human climbing=DUBO1912 DUB01917 Ô human climbing ŝ DUBO1918 dental elements gorilla mouth musculature DUB01919 DUBO1920 human climbing=DUBO1914 DUBO1921 Pithecanthropus (pre?)molar Pithecanthropus molar **DUBO1922** Pithecanthropus molar **DUBO1923 DUBO1924** Pithecanthropus molar **DUBO1925** Pithecanthropus molar **DUBO1926** jawfragment Kedung Brubus cross-cut femur cast **DUBO1927 DUBO1928** cross-cut femur cast DUBO1929 © cross-cut femur DUBO1930 ♦ cross-cut femur locross-cut femur DUB01931 **DUBO1932** Pithecanthropus molar **DUBO1933** Pithecanthropus molar **DUBO1934** cross-cut femur cast **DUBO1935** cross-cut femur cast **DUBO1936** Pithecanthropus molar **DUBO1937** jawfragment Kedung Brubus **DUBO1938** cross-cut femur cast? **DUBO1939** Pithecanthropus molar jawfragment Kedung Brubus DUBO1940 DUBO1941 jawfragment Kedung Brubus **DUBO1942** Pithecanthropus molar Pithecanthropus molar **DUBO1943 DUBO1944** Pithecanthropus molar Schematic intercranial features La DUBO1945 Chapelle skull DUBO1946 EDUBO1945 **DUBO1947** cross section brain cast **DUBO1948** cross section brain cast DUBO1949 cross section brain cast DUBO1950 human climbing=DUBO1913 DUBO1951 human lower jaw DUB01952 Ô =DUBO1951 **DUBO1953** Pithecanthropus cranium Pithecanthropus cranium DUBO1954 DUBO1955 jaw ventral view DUBO1956 dental elements=DUBO1918 DUBO3901 (30.) adult allometry (30.) child allometry DUBO3902 Ô (27.) cerebral cortex comparative DUBO3903 Ô DUBO3904 Ô (27.) cerebral cortex comparative DUBO3905 Ô (22.) brain of Helmholtz Ô brain gyri DUBO3906 \Diamond DUBO3907 brains \bigcirc DUBO3908 (29.)brains of large dog **DUBO3909** (30.)goose brain and eyes (30.)human brain and eves **DUBO3910** Ô

DUBO3911	(97.)David (Michelangelo)	D
DUBO3912	(97.)Venus	D
DUBO3913	Skull carnivore	D
DUBO3914	🗇 skull herbivore	D
DUBO3915	DUBO3914 mirrored	D
DUBO3916	🗇 skull carnivore	D
DUBO3917	🗇 endocast La Chapelle	D
DUBO3918	💿 =DUBO3917	D
DUBO3919	🗇 endocast	D
DUBO3920	© brains	D
DUBO3921	💿 endocast La Chapelle	D
DUBO3922	© =DUBO3921	D
DUBO3923	🗇 brain	D
DUBO3924	🗇 brain	D
DUBO3925	🗇 brain	D
DUBO3926	🗇 brain	D
DUBO3927	© cristal-zirkoon	D
DUBO3928	© cristal-zirkoon	D
DUBO3929	nerve cell	D
DUBO3930	?nerve cell?	D
DUBO3931	(128.)Potamogale velox	D
DUBO3932	💿 rat	
DUBO3933	💿 chimp brain schematic	D
DUBO3934	Chimp brain schematic	
DUBO3935	brain Putorius putorius	D
DUBO3936	brain Putorius putorius	
DUBO3937	💿 brain <i>Mesohippus</i>	D
DUBO3938	🗇 brain	
DUBO3939	💿 brain	D
DUBO3940	💿 brain	
DUBO3941	brain <i>Procamelus</i>	D
DUBO3942	💿 brain <i>Lama</i>	D
DUBO3943	💿 brain	
DUBO3944	💿 brain	D
DUBO3945	🗭 brain	D
DUBO3946	 brain fissures female brain 	D
DUBO3947		D
DUBO3948	🗇 endocast La Chapelle	D
DUBO3949	endocast	D
DUBO3950	endocast	D
DUBO3951	endocast	D
DUBO3952	endocast	D
DUBO3953	brain Patygonus	D
DUBO3954	skull Palaeosyops	D
DUBO3955	brain Cervus	D
DUBO3956	(30.)brain & eyes	
DUBO3957	 <i>Hylobates agilis</i> fissures brains 	
DUBO3958		
DUBO3959	Small vs large dog	
DUBO3960	gibbons	D
DUBO3961	(34.)Lacerta viridis	D
DUBO3962	 (34.)Varanus niloticus (131.)Chiromys madagascarienis 	D
DUBO3963	(151.)Chiromys maaagascartenis	D

DUBO3964	(132.) <i>Chiromys madagascarienis</i>
DUBO3965	(192.) entromys madagascartenis (34.) Lacerta viridus & Varanus
DUBO3966	(62.) rat
DUBO3967	(62.) squirrel
DUBO3968	(62.) rabbit
DUBO3969	(132.)Chiromys madagascarienis
DUBO3970	(131.) Chiromys madagascarienis
DUBO3971	
DUBO3972	<i>Homo erectus>>></i> modern human femur <i>Pithecanthropus</i> (64)
DUBO3973	schematic endocast La Chapelle
DUBO3974	endocast Piltdown man(70)
DUBO3975	© endocast (93)
DUBO3976	Pithecanthropus cranium (94)
DUBO3977	endocast (95)
DUBO3978	(Plate 12) monument Trinil (91)
DUBO3979	Pithecanthropus cranium (98)
DUBO3980	<i>Pithecanthropus</i> cranium (99)
DUBO3981	Pithecanthropus cranium (100)
DUBO3982	<i>Pithecanthropus</i> cranium (100)
DUBO3983	<i>Pithecanthropus</i> cranium (101)
DUBO3984	jawfragment Kedung Brubus
Debosyor	(103)
DUBO3985	jawfragment Kedung Brubus
00000000	(103) (see page 12)
DUBO3986	jawfragment Kedung Brubus
D0D05700	(104)
DUBO3087	jawfragment Kedung Brubus
DUBO3987	jawfragment Kedung Brubus
	(104)
DUBO3987 DUBO3988	(104) jawfragment Kedung Brubus
DUBO3988	(104) jawfragment Kedung Brubus (104)
DUBO3988 DUBO3989	(104) jawfragment Kedung Brubus (104) jawfragment Kedung Brubus
DUBO3988	(104) jawfragment Kedung Brubus (104) jawfragment Kedung Brubus jawfragment Kedung Brubus
DUBO3988 DUBO3989 DUBO3990	(104) jawfragment Kedung Brubus (104) jawfragment Kedung Brubus jawfragment Kedung Brubus (106)
DUBO3988 DUBO3989 DUBO3990 DUBO3991	(104) jawfragment Kedung Brubus (104) jawfragment Kedung Brubus jawfragment Kedung Brubus (106) jawfragment Kedung Brubus
DUBO3988 DUBO3989 DUBO3990 DUBO3991 DUBO3992	 (104) jawfragment Kedung Brubus (104) jawfragment Kedung Brubus jawfragment Kedung Brubus (106) jawfragment Kedung Brubus jawfragment Kedung Brubus
DUBO3988 DUBO3989 DUBO3990 DUBO3991 DUBO3992 DUBO3993	 (104) jawfragment Kedung Brubus (104) jawfragment Kedung Brubus jawfragment Kedung Brubus (106) jawfragment Kedung Brubus jawfragment Kedung Brubus <i>Pithecanthropus</i> molar (107)
DUBO3988 DUBO3989 DUBO3990 DUBO3991 DUBO3992 DUBO3993 DUBO3994	 (104) jawfragment Kedung Brubus (104) jawfragment Kedung Brubus jawfragment Kedung Brubus (106) jawfragment Kedung Brubus jawfragment Kedung Brubus <i>Pithecanthropus</i> molar (107) <i>Pithecanthropus</i> molar
DUBO3988 DUBO3989 DUBO3990 DUBO3991 DUBO3992 DUBO3993 DUBO3994 DUBO3995	 (104) jawfragment Kedung Brubus (104) jawfragment Kedung Brubus jawfragment Kedung Brubus (106) jawfragment Kedung Brubus jawfragment Kedung Brubus <i>Pithecanthropus</i> molar (107) <i>Pithecanthropus</i> molar <i>Pithecanthropus</i> molar
DUBO3988 DUBO3989 DUBO3990 DUBO3991 DUBO3992 DUBO3993 DUBO3994 DUBO3995 DUBO3996	 (104) jawfragment Kedung Brubus (104) jawfragment Kedung Brubus jawfragment Kedung Brubus (106) jawfragment Kedung Brubus jawfragment Kedung Brubus <i>Pithecanthropus</i> molar (107) <i>Pithecanthropus</i> molar <i>Pithecanthropus</i> molar <i>Pithecanthropus</i> molar (109)
DUBO3988 DUBO3990 DUBO3990 DUBO3991 DUBO3992 DUBO3993 DUBO3994 DUBO3995 DUBO3996 DUBO3997	 (104) jawfragment Kedung Brubus (104) jawfragment Kedung Brubus jawfragment Kedung Brubus (106) jawfragment Kedung Brubus jawfragment Kedung Brubus <i>Pithecanthropus</i> molar (107) <i>Pithecanthropus</i> molar <i>Pithecanthropus</i> molar <i>Pithecanthropus</i> molar (109) <i>Pithecanthropus</i> premolar (110)
DUBO3988 DUBO3990 DUBO3990 DUBO3991 DUBO3992 DUBO3993 DUBO3994 DUBO3995 DUBO3996 DUBO3997 DUBO3998	 (104) jawfragment Kedung Brubus (104) jawfragment Kedung Brubus jawfragment Kedung Brubus (106) jawfragment Kedung Brubus jawfragment Kedung Brubus <i>Pithecanthropus</i> molar (107) <i>Pithecanthropus</i> molar <i>Pithecanthropus</i> molar (109) <i>Pithecanthropus</i> premolar (110) <i>Pithecanthropus</i> molar (111)
DUBO3988 DUBO3989 DUBO3990 DUBO3991 DUBO3992 DUBO3993 DUBO3994 DUBO3995 DUBO3996 DUBO3997 DUBO3998 DUBO3999	 (104) jawfragment Kedung Brubus (104) jawfragment Kedung Brubus jawfragment Kedung Brubus (106) jawfragment Kedung Brubus jawfragment Kedung Brubus <i>Pithecanthropus</i> molar (107) <i>Pithecanthropus</i> molar <i>Pithecanthropus</i> molar (109) <i>Pithecanthropus</i> premolar (110) <i>Pithecanthropus</i> molar (111) <i>Pithecanthropus</i> molar (112)
DUBO3988 DUBO3989 DUBO3990 DUBO3990 DUBO3992 DUBO3993 DUBO3994 DUBO3995 DUBO3996 DUBO3997 DUBO3998 DUBO3999 DUBO4000	 (104) jawfragment Kedung Brubus (104) jawfragment Kedung Brubus jawfragment Kedung Brubus (106) jawfragment Kedung Brubus jawfragment Kedung Brubus <i>Pithecanthropus</i> molar (107) <i>Pithecanthropus</i> molar (109) <i>Pithecanthropus</i> molar (110) <i>Pithecanthropus</i> molar (111) <i>Pithecanthropus</i> molar (112) <i>Pithecanthropus</i> molar (114)
DUBO3988 DUBO3999 DUBO3990 DUBO3990 DUBO3992 DUBO3993 DUBO3994 DUBO3995 DUBO3996 DUBO3997 DUBO3998 DUBO3999 DUBO4000 DUBO4001	 (104) jawfragment Kedung Brubus (104) jawfragment Kedung Brubus jawfragment Kedung Brubus (106) jawfragment Kedung Brubus jawfragment Kedung Brubus <i>Pithecanthropus</i> molar (107) <i>Pithecanthropus</i> molar (109) <i>Pithecanthropus</i> molar (110) <i>Pithecanthropus</i> molar (111) <i>Pithecanthropus</i> molar (112) <i>Pithecanthropus</i> molar (114) <i>Pithecanthropus</i> molar (113)
DUBO3988 DUBO3989 DUBO3990 DUBO3990 DUBO3992 DUBO3993 DUBO3994 DUBO3995 DUBO3996 DUBO3997 DUBO3998 DUBO3999 DUBO4000 DUBO4001 DUBO4002	 (104) jawfragment Kedung Brubus (104) jawfragment Kedung Brubus jawfragment Kedung Brubus (106) jawfragment Kedung Brubus jawfragment Kedung Brubus <i>pithecanthropus</i> molar (107) <i>Pithecanthropus</i> molar (109) <i>Pithecanthropus</i> molar (110) <i>Pithecanthropus</i> molar (111) <i>Pithecanthropus</i> molar (112) <i>Pithecanthropus</i> molar (114) <i>Pithecanthropus</i> molar (113) <i>Pithecanthropus</i> molar (115)
DUBO3988 DUBO3989 DUBO3990 DUBO3990 DUBO3992 DUBO3993 DUBO3994 DUBO3995 DUBO3996 DUBO3997 DUBO3998 DUBO3999 DUBO4000 DUBO4001 DUBO4002 DUBO4003	 (104) jawfragment Kedung Brubus (104) jawfragment Kedung Brubus jawfragment Kedung Brubus (106) jawfragment Kedung Brubus jawfragment Kedung Brubus <i>Pithecanthropus</i> molar (107) <i>Pithecanthropus</i> molar (109) <i>Pithecanthropus</i> molar (110) <i>Pithecanthropus</i> molar (111) <i>Pithecanthropus</i> molar (112) <i>Pithecanthropus</i> molar (114) <i>Pithecanthropus</i> molar (113) <i>Pithecanthropus</i> molar (115) <i>Pithecanthropus</i> molar (116)
DUBO3988 DUBO3999 DUBO3990 DUBO3990 DUBO3992 DUBO3993 DUBO3994 DUBO3995 DUBO3996 DUBO3997 DUBO3998 DUBO3999 DUBO4000 DUBO4001 DUBO4002 DUBO4003 DUBO4004	 (104) jawfragment Kedung Brubus (104) jawfragment Kedung Brubus jawfragment Kedung Brubus (106) jawfragment Kedung Brubus jawfragment Kedung Brubus <i>Pithecanthropus</i> molar (107) <i>Pithecanthropus</i> molar (109) <i>Pithecanthropus</i> molar (110) <i>Pithecanthropus</i> molar (111) <i>Pithecanthropus</i> molar (112) <i>Pithecanthropus</i> molar (114) <i>Pithecanthropus</i> molar (113) <i>Pithecanthropus</i> molar (115) <i>Pithecanthropus</i> molar (116) <i>Pithecanthropus</i> molar (116)
DUBO3988 DUBO3999 DUBO3990 DUBO3990 DUBO3992 DUBO3993 DUBO3994 DUBO3995 DUBO3996 DUBO3997 DUBO3998 DUBO3999 DUBO4000 DUBO4001 DUBO4002 DUBO4003 DUBO4004 DUBO4004 DUBO4005	 (104) jawfragment Kedung Brubus (104) jawfragment Kedung Brubus jawfragment Kedung Brubus (106) jawfragment Kedung Brubus jawfragment Kedung Brubus <i>pithecanthropus</i> molar (107) <i>Pithecanthropus</i> molar (109) <i>Pithecanthropus</i> molar (110) <i>Pithecanthropus</i> molar (111) <i>Pithecanthropus</i> molar (112) <i>Pithecanthropus</i> molar (114) <i>Pithecanthropus</i> molar (113) <i>Pithecanthropus</i> molar (115) <i>Pithecanthropus</i> molar (116) <i>Pithecanthropus</i> molar (116) <i>Pithecanthropus</i> molar (116) <i>Pithecanthropus</i> molar (110)
DUBO3988 DUBO3989 DUBO3990 DUBO3990 DUBO3992 DUBO3993 DUBO3994 DUBO3995 DUBO3996 DUBO3997 DUBO3997 DUBO3998 DUBO3999 DUBO4000 DUBO4001 DUBO4002 DUBO4003 DUBO4004 DUBO4005 DUBO4006	 (104) jawfragment Kedung Brubus (104) jawfragment Kedung Brubus jawfragment Kedung Brubus (106) jawfragment Kedung Brubus jawfragment Kedung Brubus pithecanthropus molar (107) Pithecanthropus molar (109) Pithecanthropus molar (110) Pithecanthropus molar (111) Pithecanthropus molar (112) Pithecanthropus molar (113) Pithecanthropus molar (115) Pithecanthropus molar (116) Pithecanthropus molar (116) Pithecanthropus molar (110) Pithecanthropus molar (111) Pithecanthropus molar (116) Pithecanthropus molar (117)
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DUBO3988 DUBO3989 DUBO3990 DUBO3990 DUBO3992 DUBO3993 DUBO3994 DUBO3995 DUBO3996 DUBO3996 DUBO3997 DUBO3998 DUBO3999 DUBO4000 DUBO4001 DUBO4001 DUBO4003 DUBO4004 DUBO4005 DUBO4006 DUBO4007 DUBO4008	 (104) jawfragment Kedung Brubus (104) jawfragment Kedung Brubus jawfragment Kedung Brubus (106) jawfragment Kedung Brubus jawfragment Kedung Brubus pithecanthropus molar (107) Pithecanthropus molar (109) Pithecanthropus molar (110) Pithecanthropus molar (111) Pithecanthropus molar (112) Pithecanthropus molar (113) Pithecanthropus molar (115) Pithecanthropus molar (116) Pithecanthropus molar (116) Pithecanthropus molar (117) Pithecanthropus molar (117) Pithecanthropus molar (118) Pithecanthropus molar (120)
DUBO3988 DUBO3989 DUBO3990 DUBO3990 DUBO3992 DUBO3993 DUBO3994 DUBO3995 DUBO3996 DUBO3996 DUBO3997 DUBO3998 DUBO3999 DUBO4000 DUBO4001 DUBO4001 DUBO4003 DUBO4004 DUBO4005 DUBO4006 DUBO4007	 (104) jawfragment Kedung Brubus (104) jawfragment Kedung Brubus jawfragment Kedung Brubus (106) jawfragment Kedung Brubus jawfragment Kedung Brubus pithecanthropus molar (107) Pithecanthropus molar (109) Pithecanthropus molar (110) Pithecanthropus molar (111) Pithecanthropus molar (112) Pithecanthropus molar (113) Pithecanthropus molar (115) Pithecanthropus molar (116) Pithecanthropus molar (116) Pithecanthropus molar (117) Pithecanthropus molar (117) Pithecanthropus molar (117) Pithecanthropus molar (118)

			A.
DUBO4011	Pithecanthropus molar (121)	DUBO4060	comparative feet
DUBO4012	Pithecanthropus molar (122)	DUBO4061	X femur
DUBO4013	Pithecanthropus molar (122)	DUBO4062	Pithecanthropus molar
DUBO4014	© climbing (123)(=DUBO1915)	DUBO4063	X femur
DUBO4015	<i>Pithecanthropus</i> molar	DUBO4064	X femur
DUBO4016	Climbing ()	DUBO4065	
DUBO4017	🙆 Manis javanica (127)	DUBO4066	
DUBO4018	Manis javanica skeleton (128)	DUBO4067	Pithecanthropus molar
DUBO4019	Manis javanica foot (130)	DUBO4068	X femur
DUBO4020	Manis javanica hand & foot	DUBO4069	Pithecanthropus molar
	(131)	DUBO4070	Pithecanthropus molar
DUBO4021	Manis gigantea (133)	DUBO4071	
DUBO4022	Manis javanica foot (135)	DUBO4072	X femur
DUBO4023	Manis javanica hand (136)	DUBO4073	X femur
DUBO4024	Manis tricuspis (137)	DUBO4074	X femur
DUBO4025	Manis temmincki SMUTS (138)	DUBO4075	
DUBO4026	<i>M. palaeojavanica</i> bones (143)	DUBO4076	Pithecanthropus cranium
DUBO4027	Heberlein "skull" (144)	DUBO4077	© reconstruction Sussex man
DUBO4028	cast Heberlein "skull" (148)	DUBO4078	(a) map: paleo sites in France
DUBO4029	Heberlein "skull" (14)	DUBO4079	© reconstruction <i>Pithecanthropus</i>
DUBO4030	cast Heberlein "skull" (149)	DUBO4080	O <i>M. javanica</i> (127) = DUBO4017
DUBO4031	??? (151)	DUBO4081	M. <i>javanica</i> (127) = DODO 1017
DUBO4032	\bigcirc hone tissue (152)	DODO 1001	DUBO4018
DUBO4032	 bone tissue (152) skulls comparative (155) 	DUBO4082	Manis hand & foot
DUBO4033	dentition human vs gorilla (156)	DUBO4082	M. javanica foot (130) =
DUBO4034	pelvis human vs chimp (157)	D0D04005	DUBO4019
DUBO4035	© reconstruction <i>Pithecanthropus</i>	DUBO4084	Manis javanica hand & foot
D0B04030		D0D04084	(131) = DUBO4020
DUBO4037	skull (158) Siaw comparative (159)	DUBO4085	Manis aurita HODGE (from
DUB04037 DUB04038	© cross-cut jaw comparative(160)	D0B04085	skeleton a) female
DUBO4039	Symphysis comparative (161) vertebrae human vs gorilla (163)	DUBO4086	\bigcirc Manis gigantea = DUBO4021
DUBO4040		DUBO4087	Manis tetradactyla L.(134)
DUBO4041	jawfragment Kedung Brubus	DUBO4088	<i>Manis</i> foot = DUBO4022 <i>Manis hand</i> = DUBO4023
DUD04042	(164)	DUBO4089	
DUBO4042	jawfragment Kedung Brubus	DUBO4090	O M. tricuspis (137) = DUBO4024
DUD04042	(164)	DUBO4091	Manis sp Mais sp (128)
DUBO4043	femur <i>Pithecanthropus</i> (169)	DUBO4092	Manis temmincki SMUTS (138) =
DUBO4044	 femur <i>Pithecanthropus</i> (170) La Chapelle vs <i>rhodesiensis</i>(172) 	DUDO 1002	DUBO4025
DUBO4045	La Chapelle vs <i>rhodesiensis</i> (172)	DUBO4093	aboriginals vs Venus
DUBO4046	G Homo rhodesiensis (171)	DUBO4094	<i>M. palaeojavanica</i> bones $(143) =$
DUBO4047	femora comparative (173)		DUBO4026
DUBO4048	Rouxs experiment	DUBO4095	<i>M. palaeojavanica</i> bones
DUBO4049	Monument Trinil (1907?)	DUBO4096	Manis sp skeleton
DUBO4050	Skull	DUBO4097	<i>M. palaeojavanica</i> bones
DUBO4051	😳 skull	DUBO4098	Heberlein "skull" (144) =
DUBO4052			DUBO4029
DUBO4053	Skull size comparative	DUBO4099	cast Heberlein "skull" (149) =
DUBO4054	Neanderthal reconstruction		DUBO4030
DUBO4055	skull + jaw	DUBO4100	cast Heberlein "skull" (148) =
DUBO4056	jaw comparative =DUBO4037		DUBO4028
DUBO4057	<i>H. erectus</i> >human = DUBO3971	DUBO4101	???
DUBO4058		DUBO4102	\bigcirc bone tissue (152) = DUBO4032
DUBO4059	Pithecanthropus molar	DUBO4103	Thomas Aldous Huxley (see page

	22)	l	(0.1. DUD01575
DUD04104	32)	DUD04127	(Osborne) = DUBO1575
	 Boucher de Perthes Edouard Lartet 		 17.brain centra = DUBO1576 18.brains human vs 3 animals =
	O femora comparative (173) =	DUBO4138	DUBO1577
D0B04100	DUBO4047	DUB0/130	\bigcirc 19.fish brain <i>Gadus aeglefinus</i> =
DUB0/107	DOB04047 Monument Trinil (1907?) =	D0B04139	DUBO1578
D0D04107	DUBO4049	DUBO4140	O 20. 'old' and 'recent' mammals =
DUBO4108	jawfragment Kedung Brubus	Deberrie	DUBO1579
Deberroo	(164) = DUBO4041	DUBO4141	
DUBO4109	??? (151) = DUBO4031		O 22.brain of Helmholtz vs papua =
DUBO4110	M. palaeojavanica footbones		DUBO1581
DUBO4111	M. palaeojavanica footbones	DUBO4143	② 23.Kant = DUBO1582
DUBO4112	\bigcirc pelvis human vs chimp (157) =	DUBO4144	24.brain, horizontal cut =
	DUBO4035		DUBO1583
DUBO4113	femur Pithecanthropus (169) =		O 25.brain parts = DUBO1584
	DUBO4043	DUBO4146	
DUBO4114		DUD04145	DUBO1585
DUBO4115		DUBO4147	
DUBO4116	Symphysis comparative (161) = DUBO4039	DUD04149	DUBO1587 \textcircled{O} 28. brains of small dog =
DUBO4117	endocast	DUDU4148	DUBO1588
DUBO4117 DUBO4118	endocast	DUBO4149	
DUBO4119	\bigcirc cross-cut jaw comparative(160) =	Debenny	DUBO1589
2020111	DUBO4038	DUBO4150	30. brains and eyes comparative
DUBO4120			= DUBO1590
DUBO4121	(1.Skull of negro after P. Camper	DUBO4151	31.femurs of Semnopithecus
	= DUBO1561		nasica & S. maurus =
DUBO4122			DUBO1591
DUBO4123	-	DUBO4152	32.femurs of Semnopithecus
	DUBO1563		nasica & S. maurus =
DUBO4124	• • • • • • • • • • • • • • • • •	DUD04153	DUBO1592
DUD04125	Vatican = DUBO1564	DUBO4153	33.femurs of <i>Hylobates</i>
DUBO4125	S.Venus of Arles buste = DUBO1565		syndactylus & H. leuciscus = DUBO1593
DUB04126	6.Zeus of Otricoli = DUBO1566	DUBO4154	③ 34. Lacerta viridus & Varanus =
	O 7.crania adult vs child =	00004134	DUBO1594
D0D0112/	DUBO1567	DUBO4155	O 35. long eared bat <i>Plecolus</i>
DUBO4128	8.crania adult vs child =		auritus = DUBO1595
	DUBO1568	DUBO4156	③ 36.eel Anguilla anguilla =
DUBO4129	9.dimensions adult vs child =		DUBO1596
	DUBO1569	DUBO4157	
DUBO4130	•	DUBO4158	38.snake(Naja) & deer =
	DUBO1570		DUBO1598
DUBO4131	© 11.fresco with wrong dimensions	DUBO4159	\bigcirc 39. Anguis fragilis = DUBO1599
DUD04122	= DUBO1571	DUBO4160	
DUBO4132	12.human nerve system= DUBO1572	DUBO4161	41. Elephas africanus = DUBO1601
DUBO4133	13. nerve cells = DUBO1573	DUBO4162	42.Terabelodon augustidens =
DUBO4133 DUBO4134	14.Purkinje, cortex, cerebrum =	50504102	DUBO1602
20201134	DUBO1573	DUBO4163	
DUBO4135	15.brain ape vs human =	DUBO4164	
-	DUBO1574		DUBO1604
DUBO4136	16.brains several species	DUBO4165	45.Elephas indicus bathing =

			<u>~</u>
DI DO MAG	DUBO1605		\bigcirc 127.mole = DUBO1687
DUBO4166	46.Elephas indicus working = DUBO1606	DUBO4198	② 128.Potamogale velox = DUBO1688
DUBO4167	47.Ganesha = DUBO1607	DUBO4199	129.weasel = DUBO1689
DUBO4168	48.Elephas africanus cut through	DUBO4200	130.marter = DUBO1690
DUBO4169	skull = DUBO1608	DUBO4201	③ 131.Chiromys madagascarienis = DUBO1691
	DUBO1609	DUBO4202	132. Chiromys madagascarienis
DUBO4170	50. <i>Hippopotamus amphibius</i>	DUD0 4202	= DUBO1692
DUBO4171	brains = DUBO1610	DUBO4203	③ 133. Galeopithecus volans = DUBO1693
DUBO4172	102. innervation muscle tissue	DUBO4204	134. Hylobates lar = DUBO1694
DUBO4173	 102. innervation muscle tissue 103.nerve cell 	DUBO4205	135.Chrysotrix sciurea =
DUBO4174	🕸 104. nerve cell		DUBO1695
DUBO4175	105.Anabas scandens = DUBO1665	DUBO4207	③ 137.skeleton of narwal = DUBO1697
DUBO4176	106.Megalobatrachus maximus = DUBO1666	DUBO4208	③ 138.brain of Martes canadensis = DUBO1698
DUBO4177	107.Dipus aegypticus =	DUBO4209	
Debenny	DUBO1667		DUBO1699
DUBO4178	108.Eliomys nitella = DUBO1668	DUBO4210	140.brain of Martes foina = DUBO1700
DUBO4179	109. <i>Castor fiber</i> = DUBO1669	DUBO4211	141.skull of <i>Tillotherium</i> =
DUBO4180	110.Thylacinus cynocephalus =		DUB01701
DUBO4181	DUBO1670 111.Dasyurus viverrinus =	DUBO4212	DUBO1702
DUBO4182	DUBO1671 112.Canis familiaris vs C. zerda	DUBO4213	143.Phenacodus primarvus COPE = DUBO1703
D0D04102	= DUBO1672	DUBO4214	144.e.g. Dinoceras mirabile =
DUBO4183	113. <i>Canis familiaris</i> skull =		DUBO1704
51564464	DUBO1673	DUBO4215	145.e.g. Coryphodon hamalus =
DUBO4184	114. <i>Canis zerda</i> skull = DUBO1674	DUD04216	DUBO1705
DUBO4185	115.Canis zerda skull =	DUB04210	146.e.g. Colonoceras agrestis = DUBO1706
20201100	DUBO1675	DUBO4217	147.e.g. Mastodon, Elotherium =
DUBO4186	116. <i>Canis familiaris</i> skull =		DUB01707
DUD04107	DUBO1676	DUBO4218	148.e.g. <i>Elephas</i> , tapir, rhino =
DUBO4187	117. Dolichotis vs Cavia = DUBO1677 & ^a	DUBO4219	DUBO1708 ② 149.e.g. Auchenia vicugna =
DUBO4188	118.Dolichotis vs Cavia =	Debe (21)	DUBO1709
	DUBO1678 & 1682	DUBO4220	Discord to the second s
DUBO4189	119. $Cricetus = DUBO1679 \&^{a}$		= DUBO1710
DUBO4190	$120.Cricetus = DUBO1680 \&^{a}$	DUBO4221	151.Dinoceras mirabile MARSH =
DUBO4191	121.Hydrochoerus vs Cavia = DUBO1681	DUBO4222	DUBO1711 152. <i>Lorex minulus</i> (no skin) =
DUBO4192	122. Hydrochoerus vs C.		DUBO1712
	$porcellus = DUBO1682 \&^{a}$	DUBO4223	153.plucked kolibri =
DUBO4193	(2) 123. Sorex araneus, Crocidura	DUDO 402 4	DUBO1713
DUDO4104	russulus = DUBO1683	DUBO4224	skulls (cats?)
DUBO4194	(a) 124. Tupaia tana = DUBO1684	DUBO4225	skulls (cats?)
DUBO4195	O 125.bat = DUBO1685	DUBO4226	skulls herbivores
DUBO4196	\bigcirc 126.flying dog (bat) =	DUBO4227	© skulls herbivores
	DUBO1686	DUBO4228	endocasts

DUBO4229	skull chimpanzee	DUBO4277	lower jaws Stegodon
DUBO4230	medial view inside skull		=DUBO0944
DUBO4231	footprint of mountain gorilla	DUBO4278	skulls Bubalus palaeokerabau =
DUBO4232	footprint orang pendak (see page		DUBO0980
	109)	DUBO4279	afstamming hominidea
DUBO4233	🗇 skull large dog	DUBO4280	femur distal
DUBO4234	Skull small dog	DUBO4281	skull cap of Joe Sibby
DUBO4235	Devolution tree	DUBO4282	jaws Stegodon = DUBO0936
DUBO4236	🗇 monkeys	DUBO4283	Hylobates skull
DUBO4237	😳 Tarsius tarsius	DUBO4284	Paul Broca coin
DUBO4238	monkeys = DUBO4236	DUBO4285	Plate 2 Kali Ngeto near Kedung
DUBO4239	© comparative feet		Brubus = DUBO1269
DUBO4240	I apes	DUBO4286	🗇 skull homme de la Chapelle
DUBO4241	killed gorilla	DUBO4287	humanoid jaws
DUBO4242	🗇 gorilla	DUBO4288	humanoid jaws
DUBO4243	🗇 Mandrillus leucopaeus	DUBO4289	jaws de la Chapelle
DUBO4244	new world monkeys	DUBO4290	I diagram endocast de la Chapelle
DUBO4245	Ateles tail	DUBO4291	endocast 60 year old female
DUBO4246	\bigcirc comparative feet = DUBO4239	DUBO4292	Rudolph Virchow (see page 30)
DUBO4247	🗇 Cacajao rubicundus	DUBO4293	skull
DUBO4248	💿 orang utan	DUBO4294	??
DUBO4249	new world monkeys	DUBO4295	Gustav Schwalbe
DUBO4250	 new world monkeys apes 	DUBO4296	I diagram endocast Piltdown
DUBO4251	Îarsius spectrum	DUBO4297	human dispersal
DUBO4252	hunting <i>erectus</i> reconstruction	DUBO4298	humanoid skull
DUBO4253	🗇 skull humanoid	DUBO4299	Male from Obercassel
DUBO4254	Piltdown skull	DUBO4300	Female from Obercassel
DUBO4255	🗇 skull humanoid	DUBO4301	Gustav Schwalbe
DUBO4256	Dithecanthropus cranium	DUBO4302	Wadjak skull (see page 10)
DUBO4257	🗇 skull humanoid	DUBO4303	Wadjak skull (see page 10)
DUBO4258		DUBO4304	Wadjak skull (see page 10)
DUBO4259	Pithecanthropus molar	DUBO4305	Wadjak skull - jaw
DUBO4260	Pithecanthropus molar	DUBO4306	Wadjak skull - jaw
DUBO4261	Pithecanthropus molar	DUBO4307	Wadjak skull - jaw (see page 10)
DUBO4262	microcephalic man	DUBO4308	endocast Pithecanthropus
DUBO4263	🗇 vertebrae human vs gorilla (163)	DUBO4309	endocast
	=DUBO4040	DUBO4310	Hand without thumb of <i>Ateles</i>
DUBO4264	X femur	DUBO4311	
DUBO4265	🗇 humanoid jaw	DUBO4312	O dentition human vs gorilla (156)
DUBO4266	Homo rhodesiensis		= DUBO4034
DUBO4267	Pithecanthropus cranium	DUBO4313	Homo rhodesiensis
DUBO4268	H. rhodesiensis vs H	DUBO4314	Homo rhodesiensis vs Wajak
DUBO4269	Pithecanthropus cranium		skull
DUBO4270	Pithecanthropus cranium	DUBO4315	Homo ??
DUBO4271	?cranium?	DUBO4316	endocast Pithecanthropus
DUBO4272	skull <i>Epileptobos</i> = DUBO0970	DUBO4317	endocast Pithecanthropus
DUBO4273	skulls bovines = DUBO0979	DUBO4318	ape skulls comparative
DUBO4274	Solo river stratigraphy Trinil	DUBO4319	endocast Pithecanthropus
DUBO4275	Axis lydekkeri = DUBO0977	DUBO4320	Homo rhodesiensis
DUBO4276	Stegodon teeth =DUBO0937		

Appendix III: Selection of photographs

Our storyline has made us choose the pictures we have shown so far. There are however many more which we could not fit in for various reasons. Of some it is yet unclear what is depicted, some are in the archives but only as photographs, not as negatives. We present a few here with minimal descriptions, we hope, maybe with help of our readers to further elaborate and complete this list on the website, http://science.naturalis.nl/dubois, hopefully with your help.



DUBO0124 Broken negative of unrecognized location



DUBO0555 Double exposed negative of some event(s) with many people present



DUBO0899 Unrecognized location Netherlands about 1900



DUBO0556 Unrecognized location with ship named "Vlissingen" to the left.



DUBO0639 (Recent) *Bibos* skull from Indonesia that Dubois gave as a present to his brother Victor.





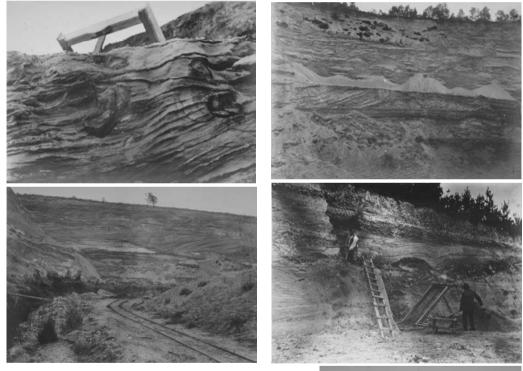
DUBO1067 Together with 1062 and 1063: unknown quarry, possibly South-East Belgium??

BRONZE AGE BEAKER SOIL uPPER CHALKY BOULDER CLAY LATE ACHENL INDUSTRIE UPPER GRAVEL MIDDLE ACHEUL IND. ELEPHAS PRIME. MIDCLACIAL -----EARLY IND SANDBANK ACHEUL LOWER GRAVEL ABBEUILLE E. ACHEUL IND. PCI. ABBEVILLE LOAM BASE PIgl b STREPHIND EL. ANT. 40 ft. bove de onse SECTION IN FOULNES GRAVELPIT KEMPSTON, BEDFORDSH. ENGLAND 1-7.39

DUBO0774 Stratigraphy Foulkes Gravelpit Kempston. Foro HR.V. HEEKEREN



DUBO1085 Stratigraphy near SavelsbeekDUBO1087 Erratic boulder near MoorbeekBelow some photographs Dubois acquired depicting quarries around Tegelen (DUBO2137-49-55-59-61).



These pictures were made in 1912 and judging by the printed text (example below) on the backside made in a series to be sold to tourists visiting the quarries.

roup



houis Bloemen Mawith Bleckman Max Breuning Ch. Burghoff Euge Declois Giesbers Joh Roëll Hub. Welters Schieffer J. de Crouw Math. Pollen 4 de Cursus Rytes Hoogen Burgenchool te Roermond 1875.

DUBO3275 Photograph of Dubois' class at his school in Roermond. Apparently he erased himself from this picture and scratched out some of the eyes of his classmates. Apparently he did not finish this school but did a state exam instead. We are hoping someone will be able to provide us with an undamaged original someday.



DUBO3318 A number of academic photographs like this one with Dubois on it must exist; just a few are in the Dubois collection.



DUBO2042 Terns in the Norangsvalley. Wall facing Southeast-Northwest. (ED)

Enigmatic photograph from Norway (?) of which we hope to clear the significance with your help.

Acknowledgements

The pictures in this book, when described with a DUBO prefix are all from the Dubois collection at Naturalis. Unless mentioned otherwise pictures were found on the internet. We are grateful to many people and we will list them at the risk of forgetting someone for which we beg their apology. In fully random order we thank Nico Kool and Steef Stijsiger for assisting us in disclosing the Brill archives in the depot of special collections at the University of Amsterdam, Michiel Thijssen, and his collegues at Brill in particular also Sabine Steenbeek, Paul Storm, Ester en Djavid Hadian for judging X-rays, Bert Theunissen, Pat Shipman, Rob Mols for judging Dubois' fotoexperiments, Sabine Hackethal for finding the picture of Margarethe Lenore Selenka, Nelleke Hooijer, Jelle Reumer for providing the photograph of Lorié, Kees de Jong for assisting us in the Artis archives, Gerda Theuns for commenting on the Siwalik pictures, Jan Wieringa for identifying the tree, Jan and Susan de Bruin, Hans Peeters, Conny Canoy-Dankelmans and the Canoy family, John Jagt and Anne Schulp for critical reviews, Ans Molenkamp for invaluable assistance at Naturalis, Berry van der Hoorn, Hanneke Meijer for not throwing us out of her room, José Joordens, Robert Moolenbeek, Bert Boekschoten, Lars van de Hoek Ostende, Erwin Bastiaans, and our respective families for always having to put up with us taking our work home.

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