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When Nature and Culture Collide: Exhibiting Java Man in the Naturalis Biodiversity Center

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When Nature and Culture Collide

Exhibiting Java Man in the Naturalis Biodiversity Center

BY

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FOR

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Abstract

The Dubois Collection, currently patrimony of the Naturalis Biodiversity Center in Leiden (the Netherlands), is a contested assemblage of fossils and personal archival material pertaining to the Dutch palaeontology and paleoanthropologist Marie Eugène François Thomas Dubois (1858 – 1940). Most notably, the collection contains a skullcap and femurs belonging to the ancient hominid ancestor *Homo Erectus*. These finds were dubbed 'Java Man' and constitute the earliest physical evidence that the human lineage has been subject to evolution according to Darwinian principles of selection and adaptation. While these have always been a subject of great interest to the scientific community, the historicity of the Collection and particularly the contested status of these fossils have attracted much less academic interest over the last 12 decades. This changed when a formal request by the government of Indonesia for restitution of the Dubois Collection was filed with the Dutch government in October 2022. A state commission is now deliberating on the rightful place of residence for the Dubois Collection.

Because there is a possibility that the Java Man fossils may remain with their current stewards at Naturalis in Leiden, it is worthwhile to examine their exhibition history and investigate how the current permanent exhibition seeks to educate the public about the historical context in which these fossils were acquired. This text questions whether the permanent exhibition on Dubois and Java Man in Naturalis Biodiversity Center reflects a commitment to researching and informing the public about the historical context in which the Dubois Collection was acquired. It describes the exhibition history of the Dubois Collection and particularly the Java Man fossils and critically examines the narrative that has been presented in these exhibitions. Particularly, this text argues that the perceived differences between natural history and material culture collections are instrumental in explaining why the current permanent

exhibition falls short of educating the public about the historical context in which the Java Man fossils were acquired. It also elaborates on the public statements made by museum staff to further contextualise the possible motivations for making certain design choices in this exhibition.

Key words: Eugène Dubois, Java Man, Naturalis Biodiversity Center, Dutch East Indies, Trinil, critical heritage studies, natural history, material culture, colonial history, politics of natural history.

I. Introduction

The Dubois Collection is a collection of circa 12.000 objects, all collected between 1887 and 1900 in the Dutch East Indies (current day Indonesia) by the Dutch palaeontologist Marie Eugène François Thomas Dubois (1858 – 1940). It provides an overview of the prehistoric fauna on Java and Sumatra and was crucial to the development of the current understanding of the lineage of the human species. Additionally it contains much archival material, such as Dubois' personal records and correspondence.[1] It currently resides in the care of the Naturalis Biodiversity Center (Naturalis hereafter) in Leiden, the Netherlands' leading natural historical museum and biodiversity research and education institute.

Most notably, the collection contains a skullcap and femurs belonging to a hominid ancestor of *Homo Sapiens* (modern humans), which Dubois originally dubbed *Pithecanthropus Erectus* but later came to be understood as the holotype for our direct ancestor, *Homo Erectus*.[2] More commonly this specimen is referred to as the Java Man.[3] For Dubois they were tantalising proof of Darwinian evolutionary theory, as he was under the impression of having found direct evidence of the fabled 'Missing Link': the transitional form between apes and humans. This was later found in the form of *Australopithecus*, an early African hominid. Nevertheless the Java Man fossils have gained the status of relics in the paleontological and specifically the paleoanthropological community because they constitute the earliest physical proof that the human lineage has been subject to evolution according to Darwinian principles of selection and adaptation.

[1] Naturalis Biodiversity Center. BioPortal. "The Dubois collection," 2023. Reviewed 19 March 2023.
[2] A holotype is a single physical example of an organism used when the species was formally described. It is either the single physical example or one of several examples, but explicitly designated as the holotype.
[3] It should be noted that the specimen actually belongs to a female individual. While I will use the term 'Java Man' for convenience of the reader and to uphold naming conventions, one should consider that in Dutch the specimen is referred to as 'Javamens' ('Java Human' or 'hominid').

The academic scrutiny of Eugène Dubois' personal and scientific legacy continues today, and this is also the case for the Dubois Collection itself, particularly the Java Man fossils. While these have always been subject to great attention from the paleontological and paleoanthropological communities, the historicity of the Collection and particularly the contested status of these fossils have attracted much less academic interest over the last 12 decades. Recently this has changed somewhat, most notably after the Dutch national newspaper *Trouw* reported on 18 October 2022 that a formal request by the government of Indonesia for restitution of the Dubois Collection had been filed with the Dutch government.[4] As state possessions, policies are in place for the research and approval of such requests. In this instance an independent commission under the lead of noted jurist Lilian Gonçalves-Ho Kang You was put in charge of handling this request. This generated significant media attention, and presented the opportunity for members of Naturalis staff, most notably director Edwin van Huis and lead researchers of the Dubois Collection, to comment on the request and their opinion on the rightful place of residence for this extraordinary collection. It should be noted that the institute was quick to announce their full cooperation to research and possible fulfilment of this request as official stewards of the Collection for the Dutch state, which ultimately decides on the matter.

As the Commission Gonçalves is officially in charge of researching this request, additional research done to investigate the validity of this claim would be academically uninteresting for now until their recommendations have been published. However, given that the fossils may not be restituted and may remain in the Netherlands, it is worthwhile to reflect on the exhibition history of these contested objects and the currently existing permanent exhibition that exists for their display. Naturalis' website states as follows:

[4] Nuland, M. Van. "Indonesië eist Java-mens en andere topstukken terug van Nederland." *Trouw*. October 18th 2023, 1:00. Reviewed March 10th 2023.

“We strive to present a story about Eugène Dubois which does justice to the context in which the collection was acquired. This is why we are critically examining the texts and images in the presentation and will alter these if this appears to be necessary.”[5]

This written statement inspired the leading research question of this text. **Does the permanent exhibition on Dubois and Java Man in Naturalis Biodiversity Center reflect a commitment to researching and informing the public about the historical context in which the Dubois Collection was acquired?**

[5] Naturalis Biodiversity Center. “Herkomst van de Naturalis-collecties.” Collectie, 2023. Reviewed 18 April 2023.

II. Methodology

The leading research question for this text asks whether commitment to researching and informing the public about a particular historical context is reflected in an exhibition space. This has led to the decision to structure this research project as a critical heritage study. Because heritage involves a construction process in which narrative and historicity are continuously interacting, this paper relies on traditional historical methods on the one hand and is more sociological on the other, in the sense that it examines and criticises the way in which said history is used and reflected on in the present. In that sense, all narratives about history are forms of a construction process, a negotiation and reevaluation of perspectives. This research is not meant to be a fact-checking exercise. Rather, it seeks to investigate and question the reasons for change in the exhibition history of the Java Man fossils. It elaborates on the consequences that might occur when institutions treat natural history collections as existing in a vacuum in which notions of history are absent. Therefore it is necessary to demonstrate a tangible link between the normative narrative about Dubois and the Collection and the influence this has had on the (academic) knowledge production pertaining to this subject, and what ends up being presented to the visiting public by Naturalis.

Initially this is done by analysing the currently existing body of literature on the perceived differences between nature and culture. This is followed by a review of the body of literature which describes Dubois and the finding of Java Man. A chapter dedicated to the discussion of the perceived heritage value associated with the Java Man fossils in the Netherlands and Indonesia respectively, follows hereafter. Subsequently one is introduced to the various exhibitions which have been held about Dubois and Java Man in the period from 1993 to the present. A close analysis is made of the design process of the 1993 Centennial Exhibition on

Dubois and Java Man. Although much less literature and media exists about the 1997 permanent exhibition, this text contextualises the design of that exhibition in the renovation and reopening of the museum space from 1997 onwards. Some critical differences in exhibition design already developed between the 1993 Centennial Exhibition and the 1997 permanent exhibition space. These exhibitions are then compared to the current permanent exhibition in Naturalis to further explore the different ways in which these three exhibitions have been designed. The possible reasons and motivations for designing these exhibitions so very differently over time are then examined and elaborated on. Finally, because this text principally investigates whether Naturalis has adapted their exhibitions historically, and in the present, to reflect an updated awareness of the historical context in which the Dubois Collection was acquired, public statements about the Java Man fossils and the permanent exhibition made by Naturalis staff and spokespeople are critically examined. This is done in order to present to the reader an impression of the organisational awareness and communication style pertaining to the history of this particular collection. These communications are juxtaposed to the information presented in this text and the literature about the historical context in which the Dubois Collection was acquired. This will demonstrate that significant discrepancies exist between the aforementioned pledge to fully inform the public about the historical context in which the Dubois Collection exists, and the public statements that have been made by senior Naturalis staff members about the Dubois Collection in recent years. The final chapter of this text is dedicated to a reflection on these findings in order to answer the leading research question of this text.

Given the Dubois Collection's patrimony by Naturalis, attempts were made at accessing the archive containing Dubois' personal correspondence and photographs.[6] Unfortunately this

[6] The last communication with the Naturalis Biodiversity Center's Communications Department on this topic occurred over the course of 9-10 June. On this occasion one was informed that neither access to the Dubois Collection archives nor an interview with one of the collection staff would be possible. This was cited as being due

request was denied by the museum. This means that whereas ample primary sources exist for the study of Dubois' biography and the objects in his Collection, this text has been somewhat limited in their use. Fortunately, the biographies that have been published about Dubois have all been produced in cooperation with the Dubois Collection curator John de Vos who encouraged their writing and granted access to the archives to the respective biography authors.[7] While these biographies differ in style, clarity and reliability, generally one must assume these volumes have been informed by primary sources to the best of their authors' abilities. Methodologically speaking this means that this research has been constrained to fit the available source material. In this case that meant a limitation in scope to the last three decades of exhibiting Java Man in the Netherlands, because relevant sources for this period could be identified and accessed freely. For the periods for which such readily available resources could not be easily accessed (in part due to not having access to Naturalis' archives), one was able to rely somewhat on personal visits from the past, before the museum was renovated and reopened recently. This does mean however that the description of the permanent exhibition on Java Man from 1997 onwards could not be as elaborate as one had desired.

to the ongoing research efforts into the provenance of the Collection, for which reason staff members could not spare the time at this occasion.

[7] Every biographical volume that has been used for the purposes of writing this text cites Dubois Collection curator John de Vos' encouragement and invitation to come work in the Collection depot and archives as a driving factor behind the publication of the various Dubois biographies.

III. Literature Review

When discussing Dubois, the Collection and the Java Man fossils in particular, several themes should be considered. Firstly, the presupposed distinction between nature and culture, together with the ongoing academic debate of the last few decades that seeks to challenge this notion, shall be discussed. Secondly, a close review of the literature about Dubois and the Java Man fossils, an analysis of biographies about Dubois and a discussion of the recent emergence of texts which seek to challenge the dislocated nature of the Java Man fossils will follow. These will provide the reader with an understanding of how natural historical collections and collection practices are inherently related to the practices of colonialism and the legacy of Empire.

A. The Perceived Division between Nature and Culture

A major vein of thought in the last century with regards to the management, exhibition and curation of natural historical collections has been that these are distinct from material cultural collections. Even recent definitions of natural history do not often include a cultural dimension. Take for example the following definition by S. Herman:

"Natural history is the scientific study of plants and animals in their natural environments. It is concerned with levels of organisation from the individual organism to the ecosystem, and stresses identification, life history, distribution, abundance, and inter-relationships. It often and appropriately includes an aesthetic component."[8]

[8] Herman, S., "Wildlife biology and natural history: time for a reunion." *The Journal of wildlife management* 66, 4 (2002): 934.

This is a wholly different approach to understanding objects as the one described by Victor Buchli. He defines material culture as any object that humans use to survive, define social relationships, represent facets of identity, or benefit peoples' state of mind, social, or economic standing.[9] The implication that different approaches are therefore suitable for these different types of collections is not unnatural to assume.

This perceived distinction is also a product of the reigning philosophies about the place of humans in the natural world during the European Renaissance and Early Modern period when private cabinets of curiosities started slowly growing into more publicly accessible collections and eventually, during the 18th through 19th century, into museums.[10] Therefore, the notion of a separation between natural history and material culture that arose as a consequence of practical collection history, is in a way itself a product of cultural history: in how humans have related themselves to the natural world and how they have organised knowledge to reflect this perception. The philosophical tendency to place humans outside of the natural world is a considerable element when looking at why the perceived distinction between nature and culture persists. It must also be pointed out that this perception is particularly eurocentric. Definitions provided from outside of a eurocentric worldview, such as the one given by Robin Wall Kimmerer, writer of Native American heritage and author of *Gathering Moss*, often offer alternative epistemological strategies:

"In indigenous ways of knowing, we say that a thing cannot be understood until it is known by all four aspects of our being: mind, body, emotion, and spirit. The scientific way of knowing

[9] Buchli, V. *Material Culture: Critical Concepts in the Social Sciences*, Volume 1, Issue 1. London: Routledge. 2004, 241.
[10] Beretta, M. (ed.), and European Science Foundation. *From Private to Public: Natural Collections and Museums*. Sagamore Beach, MA: Science History Publications, 2005. 13-59.

relies only on empirical information from the world, gathered by body and interpreted by mind. In order to tell the mosses' story I need both approaches, objective and subjective."[11]

This strategy suggests that how one interacts, perceives and feels about (in other words, gives meaning to) a natural object matters in the full understanding of that object. This is particularly relevant to the case of Java Man, in which stakeholders readily acknowledge that emotional attachment and symbolic meaning are of critical importance. This is another indication that perhaps the boundaries between natural objects and material culture are not so clear-cut after all.

Academics operating from within a more or less eurocentric worldview have also challenged the presupposed distinction between nature and culture in the past few decades. Particularly the driving factors behind natural historical collection practices have come under increased scrutiny. From the mid-90's onwards, historians of natural history have shown that the gathering of natural historical knowledge was intimately linked to, encouraged by, and indeed a product of, colonialism and imperialism.[12] Janet Browne demonstrated that in Great Britain (taking naturalists Charles Darwin and Alfred Russel Wallace as examples), the conceptual framework, methodologies and practical techniques developed to deal with foreign animals and plants took their tone directly from those used in national expansion.[13] Richard Drayton's work on botanical gardens, like the Royal Botanic Gardens at Kew, shows how such institutions functioned as providers of knowledge, influenced ideas of aesthetic perfection and allowed for agricultural plenty. This illustrates perfectly how the collection of natural specimens became an

[11] Kimmerer, R. W.. *Gathering Moss : A Natural and Cultural History of Mosses*. Corvallis, Oregon: Oregon State University Press, 2019. vii.
[12] Dirks, N.B. "Foreword." In: L.B.S. Cohn (ed.), *Colonialism and its forms of knowledge: The British in India*, ix–xvii. Princeton: Princeton University Press, 1996.
[13] Brown, J.. "Biogeography and empire." In N. Jardine, J.A. Secord and E.C. Spary (eds.), *Cultures of natural history*, 305–21. Cambridge: Cambridge University Press, 1996.

instrument of government.[14] The natural sciences were useful to colonialist stakeholders as they guided the exploitation of exotic environments and so provided legitimacy to conquest. This focus on seeing natural historical knowledge gathering as an essential part of a colonial power structure led authors like Bernard Cohn to describe this as a Foucauldian power structuring process. Therein states operate as central nexuses for the gathering of knowledge by means of which they seek to exercise and expand power over their peripheral domains.[15] In this framework, the Dubois expeditions can be seen as an expression of such power over a peripheral domain, not only with the specific intent to claim scientific specimens, but also the (inter)national prestige of possibly hosting the cradle of humanity within the state's domain.

While this certainly holds true empirically for the case of Java Man and the Dubois expeditions, this lens creates a tendency to exclude the significant amount of localised exchange which took place in these processes. This led some historians to favour a perspective in which natural scientific knowledge gathering is framed as an exchange between a complex circulating network of local indigenous and diasporic agents which relied heavily on local existent knowledge about a given subject. David Wade Chambers and Richard Gillespie for instance, challenge the notion that the process of natural science knowledge gathering was a straightforward centre-peripheral exchange. They critically examine the possible flexibilities and meanings of the term 'locality'.[16] They argue that: "Localities mark the intersection of history, environment, language, and culture, and geographic boundaries are only one of the possible desiderata in defining a case study."[17] Furthermore, while central nodes may exist to facilitate the

[14] Drayton, R. *Nature's government: Science, imperial Britain, and the 'improvement' of the world*. New Haven, CT: Yale University Press, 2000.
[15] Cohn, B.S. *Colonialism and its forms of knowledge*. Princeton: Princeton University Press, 1996.
[16] Chambers, D.W., and Gillespie, R. "Locality in the History of Science: Colonial Science, Technoscience, and Indigenous Knowledge." *Osiris (Bruges)*, 15 (2000): 221–40.
[17] *Ibidem*, 228.

gathering natural knowledge in the form of societies and colonial infrastructure to further the scientific apparatus, these vectors of assemblages are made up:

"[N]ot only of organisations, buildings, museums, gardens, laboratories, instruments, chemicals, minerals, disciplines, schools, textbooks, and journals, but also of ideas and strategies, metaphors, theories and taxonomies, values, communities of trained personnel, and new socio-professional roles for them to fill."[18]

In effect this means that the globalised information network (the international science system) developed in a polycentric and hierarchical manner, with several vectors of assemblages performing as centres of knowledge gathering in which locality is not defined by geography but by scientific authority and social power.[19] While agents in this system are often still directly connected to the international science network, this framework allows one to explain why such local systems can exercise social control, exploitation and appropriation by means of legitimisation and regulation of the scientific knowledge gathering process. This is because historically the international scientific network to which these localities were being integrated during the colonisation process was still firmly based in the metropolitan centre of imperial powers. It was European methods and value systems which 'approved' certain ways of knowing while rejecting others as insufficient or incomplete. Chambers and Gillespie consider this process of appropriating local knowledge and integrating it into a metropolitan globalised discourse as a fundamental modus operandi of colonialism.[20]

[18] *Ibid.* 229-231.
[19] *Ibid*. 231-232.
[20] *Ibid*.

Moreover the domination of European colonial powers meant that other ways of knowing, i.e. indigenous models (like the point of view proposed by Kimmerer), became invalidated because they do not match with the supposedly universal scientific values espoused by agents in the metropolitan central international science network based in Europe.[21] This certainly seems a fitting framework from which to analyse the Dubois expeditions and the persisting importance of the Java Man fossils in the Netherlands and Indonesia respectively. After all, Dubois relied heavily on local preexisting knowledge for the designation of ideal excavation sites and operated as an agent close to the hierarchical top of the localised knowledge gathering system. A running theme throughout this text is that applying these different theoretical frames to the Java Man case produces very varied results when translated to biographies and exhibitions. This will become particularly evident when later in this text, a comparison shall be made between the different exhibitions which have presented Java Man in the Netherlands.

This literature review has thus far sought to contextualise the ongoing academic debate surrounding useful theoretical frameworks to interpret collection practices as a mode of operations for the overall process of knowledge gathering in a colonial context. Literature discussed tends to focus on the locus of Great Britain and the territories of the former British Empire. When we apply these notions to the Dutch colonial context, we can find very similar conclusions. For instance, the work by Hans Pols demonstrates that the Dutch colonial scientific apparatus had a keen interest in the acquisition of indigenous knowledge about herbal medicine, which he frames as a product of a circulation of knowledge between indigenous agents, amalgamated (i.e. mixed race) agents like the Indo-Europeans in the Dutch East Indies, and

[21] *Ibid.* 232-240.

diasporic and outright foreign actors like the Dutch top layer of society in the colonies.[22] So while individuals like Dubois operated in a broad network of stakeholders (the Dutch colonial system), they can also be seen as small cogs in a large circulatory network of knowledge exchange in which indigenous knowledge was very valuable and even critically important to systems of knowledge gathering and application. Indigenous knowledge must certainly be seen as critically important to the eventual successes of the Dubois expeditions. Later on in this chapter this critical importance shall be discussed at more length. Even further elaboration on his role as an agent of the scientific knowledge gathering in the Dutch East Indies colonial infrastructure can be found in the biographical chapter on Dubois and the expeditions in the main body of this text. The subsequent literary review of the prominence of Dubois and the Java Man fossils will be limited to a review of what has hitherto been the primary focus of these texts and what they seek to contribute to the existent body of literature.

B. Dubois & Java Man in the Literature Thus Far

When compiling the available and directly relevant literature on Dubois and Java Man, two considerations have been made. Firstly, the decision has been made to describe the intellectual influences and theoretical framework within which Dubois himself operated, in the biographical chapters dedicated to him and the expeditions respectively. Secondly, the scope of this research is limited to investigating the historical context of the Dubois Collection's acquisition and the communication thereof through the Java Man exhibition narrative. As such, a decision has been made to limit this part of the text to a review of significant contributions made to the biography

[22] Pols, Hans. "European Physicians and Botanists, Indigenous Herbal Medicine in the Dutch East Indies, and Colonial Networks of Mediation." *East Asian Science, Technology and Society* 3, no. 2 (2009): 201–204. For further reading, one can also consult Pols, H. *Nurturing Indonesia. Medicine and decolonisation in the Dutch East Indies*. Cambridge: Cambridge University Press, 2018.

of Dubois himself and object biographies of the Java Man fossils, rather than a review of the natural scientific body of literature pertaining to these fossils. In summary, this part of the text is dedicated to investigating how historiographical literature has contributed to the field of knowledge on Dubois and Java Man.

While publications on Java Man existed before the death of Eugène Dubois in 1940, they by and large concern literature discussing the correct place of (then still named) *Pithecanthropus* in the evolutionary development tree of hominids and indeed the validity of the specimens overall. This is a natural consequence of the state of research on the subject of human evolution at the time. Given that contemporarily the Java Man fossils were the oldest hominid specimens discovered, and for the first time seemed to confirm that Darwinian evolutionary principles applied to humans, it is only natural that much literature sought to establish the validity of this new claim. Of course, Dubois himself was involved in much of the publication arguing for the taxonomic validity of his *Pithecanthropus*. This dynamic between Dubois and other palaeontologists/paleoanthropologists is relevant when discussing Dubois' late life and legacy. It shall also be contemplated later on in this text when the role of aesthetics is discussed in relation to the exhibition history of Java Man, i.e. how contemporary thinking influenced various iterations of lifelike models made to represent the specimen to the public.

In 1944, Anton Pannekoek published *Antropogenese, een studie over het ontstaan van de mens* (*Anthropogenesis, a study on the origin of humans*). This general treatise on the state of research on human evolution mentions Dubois and the Java Man fossils as a critical contribution to the field of paleoanthropology because it sparked an interest in the development of the brain (and therefore language, use of tools, etc.) in early hominids. This is a particularly interesting text because it is written from a starkly marxist perspective: Pannekoek seeks not only to give a

general description of the state of research on human evolution, but specifically questions the supposed linear evolution of humankind and relates it directly to the ongoing Second World War at the time.[23] Specifically, he sees the development of crises like the First and Second World Wars as a result of a certain 'lacking' in human development, the understanding of which posed a challenge for the natural scientific establishment at the time.[24] This is a relevant entry to this literature review because Pannekoek readily acknowledges as early as 1944 that natural sciences cannot provide all the answers when it comes to questions of human evolution and the meaning of hominid fossils in the wider context of human social functioning. This means that as early as 1944, a notion was cultivated within the academy that these fossils pose questions for humans far beyond the scope of natural sciences which must therefore be addressed through an understanding of society and culture. This implies an inherent connection between using natural scientific and social scientific methods to explore what it means to be human, even in reference to earlier preceding species of hominids.

While Dubois and Java Man would be described frequently in this manner in the context of natural scientific literature, very little to no attention was paid to this subject in the literature by historians of science and natural history. Bert Theunissen sought to close this gap by providing a comprehensive source-based analysis and interpretation of Dubois' paleoanthropological research in his 1989 publication *Eugène Dubois and the ape-man from Java.* Firstly, it presents an outline of the context, content and meaning of Dubois' (field) work,

[23] Pannekoek, A. *Antropogenese, een studie over het ontstaan van de mens*. Amsterdam: Amsterdamse Wetenschappelijke Academie, 1944.
[24] Pannekoek's closing statement reads (translated from original Dutch): "The crisis in which we live, however it may have developed, shows the characteristics of being one of the last convulsions in the process of human society coming together as a self-controlling [or, self-manifesting] global community. What is acknowledged as the source of this lack, not having controlled their own powers of social cooperation, lies in the domain of society, and cannot be addressed by natural sciences and technology, but needs to be elevated by the forces of society itself. A consideration thereof cannot take place here [in this article], because it would bring us far beyond the scope of natural sciences."

relating his research to the contemporary theories of evolution and the role of humans therein.[25] Hitherto, Dubois' contributions to the natural sciences were usually framed within the context of Java Man specifically, whereas this volume seeks to somewhat emphasise the oft-overlooked fact that Dubois' expertise developed into the field of (paleo-)ecology in his later life. It also focuses on Dubois himself rather than the Java Man fossils specifically. Secondly, Theunissen seeks to contextualise the scientific reception of the Java Man fossils upon Dubois' return.[26] Thirdly, some chapters are dedicated to the significance of Dubois' research for the development of the study of paleoanthropology.[27] This volume follows a pattern that will become recognisable to the reader and indeed, is somewhat matched by this very text itself: most publications on Dubois and Java Man follow a chronological model. The reader is usually encouraged to understand Dubois' thought process by elaborating on his origins as an anatomist, whereafter his expeditions are described, followed by his return and the reception of his finds by the scientific establishment. This is usually followed by a description of the effects this reception had on Dubois' later career trajectory and personal life. From a historical and historiographic perspective, Theunissen's volume is a very suitable addition because it answered certain lingering questions which contemporarily had not been addressed in a source-based manner but rather had been topics of speculation and imagination. As one shall see in the discussion of subsequent biographies, this strictly source-based approach is unfortunately (for the purposes of this text) not a trend that would continue.

It should come as no surprise that on the occasion of the centennial anniversary of the identification of Java Man in 1993, interest in Dubois would surge. Particularly important for this text is the hosting of the first exhibition of Java Man in the Netherlands in Leiden, curated by a

[25] Theunissen, B. *Eugène Dubois and the ape-man from Java*. Boston: Kluwer Academic, 1989. 1-21.
[26] *Ibid.* 22-78.
[27] *Ibid.* 79-117.

team under the supervision of Mary Bouquet. At the same time, Leiden University would host a conference on human evolution in its ecological context, and an accompanying exhibition in the Pesthuis in Leiden was thus organised accordingly, with the Java Man fossils taking centre stage. The Pesthuis functioned as an auxiliary building to the Netherlands' National Natural History Museum (N.N.M. hereafter), which would later develop into the Naturalis Biodiversity Center. Bouquet's *Man Ape, Ape Man 1893-1993. Pithecanthropus in Het Pesthuis, Leiden* (1993) was written as a guide book to the aforementioned exhibition. In this text, Bouquet carefully guides the reader through the seven rooms that make up the exhibition space for that particular event, but it was originally intended to be read after visits to explain why certain curatorial choices were made in the exhibition.[28] While a more elaborate description of this exhibition can be found in the chapter on Java Man's exhibition history, suffice to say that this was a fairly groundbreaking approach. *Pithecanthropus in Het Pesthuis* then, serves as an elaboration on the contents of the exhibition and individually discusses the seven rooms of the exhibition space: these seven settings were intended to give a stage to seven different kinds of environments in which the meaning of Java Man, ancient hominid fossils and human evolutionary theory in general could be questioned.[29] Bouquet's team paid considerable attention to the various ways in which hominid fossils and human evolutionary theory can create meaning.

In effect, this exhibition and the booklet *Pithecanthropus in Het Pesthuis* demonstrate the earlier point that natural history can, and perhaps should, be addressed from more perspectives than just the natural sciences, i.e. through visual and material culture. This approach was lauded by the then-director of the N.N.M. Wim van der Weijden, who in his foreword asserts that this mode of exhibiting not only Java Man but ancient hominids overall, will become a model for all

[28] Bouquet, M. *Man Ape, Ape Man 1893-1993. Pithecanthropus in Het Pesthuis, Leiden.* Leiden: Nationaal Natuurhistorisch Museum, 1993. 9.
[29] *Ibid.* 15.

future N.N.M. exhibitions on these subjects.[30] His foreword also specifically confirms the intent of Bouquet's team to exhibit Java Man and evolutionary theory from a cultural perspective to address the ever-existing dynamic between natural sciences and cultural context. It can therefore be established that the very first exhibition on Java Man was entirely constructed around the idea that the boundaries between nature and culture are blurry at best, and often rely on one another for meaning and interpretation. It should also be noted that Bouquet specifically addressed the dislocation of the Java Man fossils from their place of origin as a leading motif for designing the exhibition. During the symposium 'Ape, Man, Apeman: Changing Views since 1600' (Leiden, 28 June - 1 July, 1993), Bouquet stated as much in her closing statement, after a very critical assessment of the then reigning attitudes towards the question of why these fossils 'belong' in Leiden:

"This simple act [questioning the dislocation of the fossils without seeking to answer the question for the public] could, in my view, be a first step towards mentioning the unmentionable, the taboo that underlies the whole massive ritual. The physical dislocation of an object from one context to another has been in the name of a science which seeks (in cultural terms) answers to the problem of human origins.The terms of that quest deserve to be scrutinised in the context of a much more localised view of ancestry, perhaps, than the globalising names of the various species of Homo might suggest."[31]

As has been mentioned before, this critical perspective is somewhat unique in the literature. Take for instance the 1993 volume by famous paleoanthropologist Richard Leakey and

[30] *Ibid.* 4-5.
[31] Bouquet, M. "Exhibiting Homo Erectus in 1993." In R. Corbey and B. Theunissen (eds.), *Ape, Man, Apeman: Changing Views since 1600*. 209-215. Leiden: Leiden University, Department of Prehistory, 1995.

leading Dutch anthropologist Jan Slikkerveer (in charge of Leiden University's Leiden Ethnosystems and Development Programme (LEAD) for international ethnoscience research and education since 1997): *Man-Ape, Ape-Man. The Quest for Human's Place in Nature and Dubois' "Missing Link"*. This biography also follows the aforementioned established pattern for writing about Dubois: one is guided through his youth and early studies to then discuss his expeditions in the Dutch East Indies, to subsequently discuss the reception of his finds and the effects this had on the man upon return to the Netherlands. However, a welcome addition has been made by building upon the work laid out by Theunissen before: two chapters are dedicated to Dubois' life's work at his estate *de Bedelaer* close to Haelen, the Netherlands. This addition is meant, according to Leakey and Slikkerveer, to emphasise the further relevance of Dubois' legacy for ecological conservation practices in the Netherlands, for which he would effectively lay much of the foundation.[32] However, the volume falls somewhat short of being particularly useful for professional historians' purposes. By following a literary style and a third person narrative structure, the volume lays words into the mouths of individuals who were intimately connected to the excavations at Trinil for whom I have not been able to find concrete primary sources (though they no doubt exist in the Dubois Collection archives). The moment of finding the Java Man fossils for instance, is told through the perspective of several participants to the excavations among which two forced labourers who are mentioned by name and who are given a voice by the authors. This creates a complicated issue because it is not addressed in the volume whether this is based on opinions expressed in primary sources by the named individuals, or whether this is a product of imagination. Moreover, this same passage mentions the overseers who worked for Dubois by name, further compounding the issue of whether this should be interpreted as factual

[32] Leakey, R.E., and Slikkerveer, L.J. *Man-Ape, Ape-Man. The Quest for Human's Place in Nature and Dubois' "Missing Link"*. Leiden: Netherlands Foundation for Kenya Wildlife Service, 1993. 137-178.

or imbued with some artistic licence for ease of reading. This style of writing also inevitably invites the risk of stereotyping and the reification of colonial perspectives.

These narrative choices will be a recurring theme throughout this text, because they also characterise the subsequent biographies that have been written about Dubois and his search for the missing link. Pat Shipman's *The Man Who Found the Missing Link. The Extraordinary Life of Eugène Dubois* (2001) is a detailed biography of Dubois' lifetime told in a first person perspective. Shipman here relies on her extensive experience as a popular science novelist to guide her writing process and unfortunately, this forwards a trend of writing on Dubois with a certain degree of creative freedom. While it is true that his life and tribulations lend themselves very well for an adventurous story of love and loss (both professionally and personally), the reader is left with a completely ambiguous notion of what parts of this story can be taken as fact and which as imagination by the author. Shipman's main aim is to describe Dubois' personal character and seeks to illustrate how he would eventually die an embittered man after much (self-perceived) rejection. One can certainly take issue with this characterisation: while Dubois did indeed face much rejection in his life, some of this criticism was a normal part of the scientific process of peer-reviewing, and it may overestimate the 'bitterness' of a man who had simply moved on to more fulfilling objectives. After all Leakey and Slikkerveer, who are intimate experts on the subject, already proposed in 1993 that Dubois' later interest in ecology and conservation was directly derived from his desire to better understand ancient hominids' position in their contemporary ecology and may be considered as a sign that he was moving on from an academic discussion which deeply dissatisfied him.

The latest addition to the copious amounts of biographical literature on Dubois was provided by Paul Albers and John de Vos as recently as 2010. In his own words, Paul Albers'

personal obsession with Dubois was sparked by (current) curator of the Dubois Collection, John de Vos who alerted Albers to the existence of much archival material pertaining to Dubois which had not been described before.[33] The resulting volume, *Through Eugène Dubois' eyes: Stills of a turbulent life*, is not meant to be a mere biography.[34] Instead it offers the reader a glimpse at pictures, letters and drawings from Dubois' personal archive to fill in gaps left in the biography by Theunissen and Shipman. It is an intriguing addition to the body of literature used for this text, as it gives an insight into Dubois' character by using primary source material, but it is structured along the lines of Dubois' struggle to publish a book before his death. This work would remain forever unfinished and his correspondence with stakeholders (colleagues, benefactors in the academy and anxious publishers) paints the picture of a rather frantic but passionate individual. While the book provides an extraordinarily valuable insight into the mind of Dubois himself and the academic network within which he operated in the Netherlands, relatively little attention is paid to the further elaboration on Dubois' role as a KNIL officer in the Dutch East Indies. Truth be told, this is likely in part due to the scope of this book: Albers and De Vos clearly state that this volume is meant to contribute to already existing biographies. Interestingly, they do note that Dubois was likely not present personally for 95% or more of his finds which directly contravenes the narrative described by Leakey and Slikkerveer in 1993.[35] We will dwell on the personal involvement by Dubois in his excavations at some length during the chapter on him and his expeditions, because this is an important point of criticism by modern critics when it comes to the narrative that is presented about Dubois in the current permanent exhibition in Naturalis.

[33] Albers, P.; Vos, J. *Through Eugène Dubois' eyes: Stills of a turbulent life*. Leiden: Brill, 2009. 1-3.
[34] *Ibid*. 3.
[35] *Ibid*. 9; Leakey and Slikkerveer, *Man-Ape, Ape-Man*, 22-33.

In fact this is one of the many criticisms with regards to the established narrative about Dubois and the Java Man fossils that have been presented by Caroline Drieënhuizen and Fenneke Sysling.[36] Their 2021 object biography of the Java Man fossils, 'Java Man and the Politics of Natural History' asserts that by and large natural historical museums and institutions have avoided the decolonial scrutiny which has affected other museums in the recent past.[37] It also provides a workable framework in which the history of natural history collections are positioned as inherently colonial, having almost ubiquitously functioned at some point or another to further imperial agendas in the past. They propose that object biographies such as these can help address the gaps in knowledge which were constructed from a colonial perspective to contribute to possible decolonisation of this knowledge. In particular, Drieënhuizen and Sysling took the commendable initiative to do a much more elaborate investigation into several contributions by citizens of the Dutch East Indies who were instrumental to the earliest days of palaeontology in the archipelago. The most notable example of this attempt at creating a more holistic narrative is the inclusion of Javanese painter Raden Saleh, who had enjoyed an art historical education in the Netherlands and was privately very interested in fossils. He had already carried out several excavations on Java and had donated his finds to the Batavian Fellowship (a Dutch East Indies based scientific fellowship) through which these fossils eventually ended up in Leiden. Werner Kraus, biographer of Saleh, has suggested that these excavations may have been partly inspired by a travelling account by the regent Ario Adipati Tjondronegoro who described the local practices of fossil hunting along the Solo river, albeit for later sale as the bones of giants and other mythological creatures on local markets.[38] These affairs sketch a situation in which an

[36] Drieënhuizen, C., Sysling F. "Java Man and the Politics of Natural History", *Bijdragen tot de taal-, land- en volkenkunde / Journal of the Humanities and Social Sciences of Southeast Asia* 177, 2-3 (2021): 294. Letter from E. Dubois to F.A. Jentink, 17-10-1889, cited in Theunissen, *Eugène Dubois en de aapmens van Java*, 40. See also Albers and De Vos, *Through Eugène Dubois' eyes,* 9.
[37] Drieënhuizen and Sysling, *Java Man and the Politics of Natural History*, 291-293.
[38] *Ibid.* 294-297.

emerging domestic interest in the palaeontological history of the archipelago was already part of a colonial hierarchy and likely even laid at the foundation of what would become Dubois' lifelong work, as he seems to have used such earlier records to establish likely sites for hominid fossils.[39]This article constitutes a critical break with the literature of the past, which inadvertently (and perhaps in hindsight) elevated Dubois onto a heroic pedestal. It is only fitting that since the 1993 call by Bouquet for a more critical approach to the dislocation of these fossils, at some point this statue had to be toppled somewhat. Naturalis was less than proactive in replying to attempts by the authors at contacting the organisation before and after the publication of this article.[40] The dynamic between Drieënhuizen and Sysling and Naturalis spokespeople will be a topic of importance to this text and will be elaborated on in the chapter on Naturalis' public communications about the Dubois Collection since restitution was requested.

[39] *Ibid*. 297.
[40] Maanen, Gert Van. "Reconstructie: Naturalis 'vergat' haar koloniale erfenis." *Bionieuws*, 10 February 2023.

IV. Eugène Dubois and the Java Man Expedition

Eugène Dubois was a Dutch anatomist and (paleo)anthropologist who is best known for his discovery of the first *Homo Erectus* fossil in 1891. He was born on January 28, 1858, in Eijsden, the Netherlands, and studied medicine and natural sciences at the University of Amsterdam. Dubois was fascinated by Charles Darwin's theory of evolution through natural selection, and he believed that the Missing Link between humans and apes could be found in the Dutch East Indies. In 1890, he set out to find evidence to support his theory and eventually discovered the remains of *H. Erectus* on the island of Java, originally dubbing them *Anthropopithecus* and later, *Pithecanthropus Erectus*. Dubois died on December 16, 1940, in Tilburg, Netherlands, at the age of 82.

Hailing from the south of Limburg in the Netherlands, he had been interested in darwinism and fossil hunting from a young age. Opting for an education in medicine, he was influenced by the thinking of German naturalist Ernst Haeckel, who had theorised about the existence of a transitional species between modern humans and apes since 1868.[41] Though inspired by Darwinian evolutionary thought, Darwin himself had been of the opinion that humans had most likely derived from a shared ancestor on the African continent due to similarities between humans, chimpanzees and gorillas. Haeckel had other ideas, and his hypothesis assigned the most likely place to find fossils of such a species in Southeast Asia as he presumed a connection between orangutans, gibbons and humans. In his young adult life, Dubois seems to have become obsessed with this hypothesis and the idea of finding physical evidence for this Missing Link.[42] After some failed attempts, Dubois finally resigned to the idea that his

[41] Leakey; Slikkerveer, *Man-Ape, Ape-Man*, 23-90; Shipman, *The Man Who Found the Missing Link*, 1-65; Theunissen, *Eugène Dubois and the ape-man from Java*, 6-31.
[42] Leakey; Slikkerveer, *Man-Ape, Ape-Man*, 53-72.

best option for finding the Missing Link was to sign up with the Royal Dutch Indian Army (KNIL) as a physician.[43] He had correctly assumed that this would offer him more tangible opportunities to convince the government to support him with forced labourers, overseers, funds and time to excavate (fig. 1). His choice would eventually culminate in the first targeted expedition for fossils of this kind: on the basis of a paleoecological hypothesis as opposed to excavating where fossil strata were identified serendipitously.[44] Given the rarity of fossils developing to begin with, this amounts to the scientific equivalent of finding a needle in a haystack. In 1888 he started excavations in the Lida Adjer cave on Sumatra, which would unfortunately prove unsuccessful. In 1891 however, Dubois found his needle after having moved operations to Java. In a bend of the Solo river close to the village of Trinil, Dubois' team finally found a layer at 17m depth containing thousands of Pleistocene fossils of sufficient age to fall within the target timeframe Dubois hoped to find (fig. 3). He ordered a massive square pit to be dug to cover as much area as possible while the dry season made work possible at the site on this riverbend (fig. 2). Soon, his two overseers, corporals Gerardus Kriele and Anthonie de Winter, and an ever fluctuating number of forced labourers had collected over 12.000 fossils. This achievement was crowned by the finding of the aforementioned skullcap (October 1891) and femur (August 1892).[45]

Dubois' base of operations was in Tulungagung. He had decided to direct operations from his residence there due to the extreme working conditions at Trinil: temperatures would soar to above 40 degrees Celsius during midday and even modern palaeontologists currently at the site are unanimously quoted citing its difficult terrain. One must also be mindful of the lack of local infrastructure and the prevalence of disease: Dubois describes his own near-constant

[43] *Ibid*. 76-80.
[44] Shipman, *The Man Who Found the Missing Link*, 25-58.
[45] Theunissen, *Eugène Dubois and the ape-man from Java*, 61-113.

illness regularly in his diaries.[46] These conditions forced him to rely on regular weekly shipments of fossils which were first packed onto boats for a journey down the Solo river to Fort Van Den Bosch: this critical junction was a layover point for these shipments, where they would be loaded on a train for the journey to Tulungagung.[47] In total then, the fossils would travel some 130 kilometres during this process: not quite the personal digging in the mud by Dubois himself that one may be inspired to think about through the dominant narrative in the Netherlands. Firstly, this diminishes the enormous logistical efforts undertaken by Dubois and his officers during this process, which is really a shame: it emphasises the great lengths to which Dubois would go to undertake this enterprise. One gets the impression that he was willing to go through absolute misery to identify a suitable location and follow through on a several year excavation of that site, a mindset many modern palaeontologists will surely recognise. Secondly, the critical importance of the fort by matter of course exceeded mere palaeontological pursuits.

Built specifically at the confluence of the Madiun and Solo rivers, Fort Van den Bosch had been finished in 1845, following the Java War (1825-1830). In this conflict, which caused a total loss of life exceeding 225.000, local rulers under the leadership of Prince Diponegoro had declared war on the colonial government in an attempt to lead an islamic rebellion to rid this part of Java of Dutch influence.[48] Diponegoro had himself declared a Messiah and had made concerted efforts to give his war the quality of a holy war.[49] After its failure, Diponegoro was banished to Sulawesi and much of his possessions became war trophies - many of which have either been restituted or are being reclaimed, some in this last 2022 request. This prevented the

[46] Shipman, *The Man Who Found the Missing Link*, 132-164.
[47] *Ibid.* 128-145; Flohr, M., personal website. "Geef die collectie van Dubois gewoon terug aan Indonesië." Specifically: "Wetenschappelijke excellentie in koloniale context" and "Postkoloniale verantwoordelijkheid." 23 October 2022.
[48] Carey, P. "The Origins of the Java War (1825–30)." *The English Historical Review* 91, 358 (1976): 74; Kathirithamby-Wells, J. "The Old and the New." In Mackerras, C. (ed.). *Culture and Society in the Asia-Pacific*. Routledge, 1998, 23.
[49] Kathirithamby-Wells, "The Old and the New," 23.

objects from functioning as relics to inspire further insurrection. Because Diponegoro is considered a national hero of Indonesia, it is remarkable that the Dubois Collection fossils and his personal possessions are put on the same list of tangible cultural heritage for the Indonesian state and people (and appear as contested items on such lists from the very inception of the Indonesian Republic). This enforces the idea that the boundaries between what is natural history and cultural history, can become blurred in the process of decolonisation and regarding matters of restitution.

Fort Van den Bosch played a critical role in facilitating military supremacy over the local towns like Ngawi and Tulungagung. Dubois, as a medical officer in the Dutch colonial army, was able to proceed with his excavations as a significant cog in a larger mechanism of colonial oppression, not in the least militarily. As discussed previously, the collecting and categorising done for the pursuit of natural historical knowledge was never politically neutral and that is reiterated by the local geography and political frame in which Dubois operated. Simply put: Dubois could not have operated here without the existence of infrastructure put in place specifically to discourage local independence and facilitate colonial dominion. His Collection is therefore intimately interlinked with the cultural history of that region through colonialism which explains how these natural historical objects can be imbued with more than just biological significance.

Lastly one must not underestimate the significance of possibly finding the cradle of humankind in Indonesia for both the Dutch state and the colonial regime. The sheer prestige value alone made Dubois' efforts a critical part, and excellent example, of how colonialism facilitated natural historical exploration and vice versa. This certainly contributed to the willingness of both the colonial and state governments to support the excavations at Trinil. In a

way one might argue this sense of prestige lasts until today, and is echoed in the narrative presented by Naturalis and its spokespeople. Zooming out in scope of what is perceived as relevant for the sociopolitical historical context in which Dubois operated can also help explain why this cultural heritage value is perceived differently in the Netherlands. According to Drieënhuizen and Sysling this lack of scope in the popular narrative pertaining to Dubois hinders the accessibility of this knowledge for the general public in the Netherlands. The palaeontological museums at Trinil and Sangiran both emphasise this part of the narrative and thereby successfully present a more holistic narrative by acknowledging both Dubois' personal contributions to the success of this expedition, but also mentions individuals like Raden Saleh and the local workforce.[50] Dubois and Saleh are both described as being foundational to palaeontology in the archipelago in these museums.

Poor health forced Dubois himself to return to the Netherlands in 1895, bringing the fossils with him as he anticipated that they would immediately be recognised for their palaeontological importance. The reception of his finds and ideas in the international academic community, as well as the deeply polarised Dutch society, were not at all ubiquitously positive. Although the finds caused significant academic and public interest, much of it was sceptical, on occasion even outright satirical. Surely this partially explains why after only a few years, having made some contributions to notable scientific congresses and even the 1900 Exposition Universelle in Paris on the topic of Java Man, Dubois would hide the fossils in a stash under the floorboards of his home. He had become embittered and even somewhat paranoid that the fossils might be stolen by rivals or religious enemies. Apparently his upbringing in the staunchly Catholic Limburg made him very wary of the meddling of powerful religious groups in Dutch

[50] Drieënhuizen; Sysling, "Java Man and the Politics of Natural History," 304-307.

society, a sentiment not entirely unwarranted given the history of the (negative) reception of Darwinian evolutionary theory by most christian sects in the Netherlands.[51]

He would continue to study the fossils of Java Man privately, finally publishing on the skullcap and femur in 1924 and 1926 respectively. He gravitated away from the study of the human lineage however, and began to explore more broadly the relevance of ecology for the development of species and became involved in ecological conservation efforts in the Netherlands. He vehemently opposed different interpretations of his finds by others until his death in 1940, by which point he seems to have become increasingly obsessive about the importance of his finds, and paranoid that they might be taken away from him. One feels compelled to note that while his initial interpretations may not have been entirely correct, his academic career can actually be characterised by remarkable successes in early paleontological and ecological thought and practice. Dubois would spend his later years dedicated to the understanding of humans' paleontological ecology which led him to carefully curate a natural conservation programme at his home estate of *De Bedelaer* close to Haelen, the Netherlands. This would become a model for conservation practices which are still commonly applied in this country today.[52]

[51] Leakey; Slikkerveer, *Man-Ape, Ape-Man*, 91-112; Shipman, *The Man Who Found the Missing Link*, 165-451; Theunissen, *Eugène Dubois and the ape-man from Java*, 114-183.
[52] Leakey; Slikkerveer, *Man-Ape, Ape-Man*, 137-164; Shipman, *The Man Who Found the Missing Link*, 271-451..

V. The Heritage Value of Java Man Abroad

Clearly, the significance of the Dubois Collection far exceeds its scientific value and it is imbued with genuine emotional and cultural value which can be explained through its functioning within the scientific community of the Netherlands and Naturalis in particular: it is not only natural, but also cultural heritage. It should inspire a deep sense of irony then, that much the same can be said for the cultural heritage value of these objects when it comes to the official Indonesian position on this matter. When asked about the Indonesian perception of the heritage value imbued in these objects in *Het Spoor Terug: De fossielen van Dubois*, the spokesperson for the Indonesian ministry of Education and Culture cites the long history of Java Man's fossils appearing in the Indonesian historical canon. It is revealed that the fossils already appeared on pre-1945 lists of objects of heritage value which were considered critical for the formation of a pan-Indonesian cultural identity before the declaration of independence in 1945. This list was among others drafted by the independence leader and first president Sukarno (Koesno Sosrodihardjo) and (post-independence) first minister for Culture and Education, Mohammad Yamin. The latter would remain a leading spokesperson for the Indonesian plight for return of these fossils, until his death in 1962.[53]

This demonstrates not only that the top tiers of the Indonesian independence movement and later government were actively involved in drafting a concept for pan-Indonesian identity involving natural history as much as cultural history, but also that Java Man was considered critical to the formation of the concept of an Indonesian people (which hitherto had been divided into local cultural groups). During negotiations for which objects would be returned to Indonesia in the context of decolonisation, Yamin's formal request for restitution was already rejected once

[53] Drieënhuizen; Sysling, "Java Man and the Politics of Natural History," 297-307.

by the Dutch state, considering the request "unsympathetic" and "provocative."[54] Criticism of the reluctance to return these objects has even gained a distinctly transnational and trans-organisational quality if we consider that the currently existing Sangiran Museum of Ancient Man on Java, close to the Trinil site on the river Solo, has been proactively sponsored by Naturalis and often hosts palaeontological colleagues from the Netherlands in this context. It is also one of the main spaces in which contemporary finds in the region are stored and researched, often having been found as a result of excavations conducted by international teams of palaeontologists, although nowadays fossils always remain in Indonesia.

When Oudheusden interviews several leading staff members of the Sangiran Museum, they all express a clear understanding of the delicate nature of the matter and appreciation of the shared cultural heritage value perception between them and their Dutch counterparts. Nonetheless, their question why it is more fair, practical, or reasonable to retain the fossils in the Netherlands remains painfully unanswered during the interview fragments. Whereas the focus often lies on the Java Man fossils specifically, it should also be noted that the entirety of the Collection is now being requested for restitution. Given the enormous size of this collection, it must also be interpreted as a move with the intent of actively studying the Collection - not a mere transaction of top pieces for a museum display. Even in that sense, the sentiments pertaining to this collection seem to be shared between Indonesian parties in Sangiran and the Indonesian government and their Dutch counterparts and Naturalis staff members. One aspect of this story is sorely missing in Naturalis however, where it does appear in Sangiran by courtesy of for instance acknowledging Raden Saleh, while still considering Dubois of significant importance for Indonesian history.

[54] Sysling, F.H.; Gelder, E. Van. "Koloniale geschiedenis in 20 natuurhistorische objecten. Inleiding." *Wonderkamer: Magazine voor Wetenschapsgeschiedenis* 1, 1 (2020): 32–33.

VI. Exhibition History

A. 1993 Centennial Exhibition

One could easily be forgiven for not knowing about Raden Saleh or the contested history of these fossils, as the current permanent exhibition space mentions neither. I have visited the exhibition on several occasions throughout the last few years since Naturalis' reopening in August 2019.[55] Having also been to the museum before its closure in August 2016, and thus having some frame of reference, it immediately became very clear that significant changes have occurred in the design of these exhibitions. It is worthwhile to discuss these changes, because this exhibition is (apart from the popular scientific literature I have discussed in my review) the only means through which information about Dubois is communicated to the public. It is of great importance to analyse what impact these changes have made on the dissemination of knowledge about Dubois and Java Man. A theme throughout this comparison is how the exhibition space and its contents have been slimmed down over the years to a minimalist approach towards presenting these fossils. In this process several notable topics have been almost entirely omitted, which has a direct consequence on the educational value of the exhibition. Because of this slimming down of the content of the exhibition, it is worthwhile to start at the beginning of the exhibition history of these fossils in the Netherlands and see what was not included in further iterations. While I have not been able to gain access to the Naturalis archive, the aforementioned Mary Bouquet has published several texts on the 1993 exhibition including the Java Man fossils after the event.

1993 was marked as the centenary anniversary of Dubois' finding of the Java Man fossils which prompted the formation of a *Pithecanthropus* Centennial Foundation, comprising

[55] For a complete log of these visits, one can refer to Appendix I. They mainly took place shortly after the reopening of the museum from 2020 onwards to 25 June 2023, the last visit.

representatives of the Dutch Royal Academy of Sciences, Leiden University and the Dutch Geological Service.[56] The proposal for a centennial exhibition came from this organisation, not originally from the Dutch National Museum of Natural History. The exhibition was to be held in conjunction with the aforementioned international conference of 'Human Evolution in its Ecological Context' at Leiden University, which was also proposed as the main subject. Dubois was to be 'rehabilitated' as an ecologist of major importance.[57] The Java Man fossils acted as a talisman of some sorts: "either human beings adopt a more responsible attitude to their environment, or the course of human evolution will be arrested."[58] Chief sponsor of the exhibition would be Mobil Oil. According to Bouquet, who was invited in November 1991 to draw up a preliminary proposal for the exhibition, the museum's initial response was "tepid" because all proposals hitherto had been too science oriented.[59] This was in direct contravention of the new philosophy reigning in the museum at the time, which had shifted to an explicitly public-oriented stance in exhibition design philosophy in this same period.[60] This had led to the creation of the New Presentations Department (Afdeling Nieuwe Presentaties) comprising a biologist, a botanist, two geologists and a social anthropologist, responsible for the design of future permanent exhibitions. Bouquet describes the reception to her preliminary proposal as equally lukewarm, but points out that the opportunity overall presented an advantage to the museum and its recently appointed new director, Wim van der Weiden (director 1991-2003): the

[56] Dubois originally found the fossils in 1891, but because he studied the fossils for two years before communicating his findings back to the Netherlands, 1993 is often colloquially referred to as the centennial anniversary of the Java Man find. Because both the *Pithecanthropus* Centennial Foundation and the 1993 exhibition are described as such, I have maintained this style throughout this text for the convenience of the reader.
[57] Bouquet, M. "Strangers in paradise. An encounter with fossil man at the Dutch National Museum of Natural History." In S. Macdonald (ed.), The Politics of Display: Museums, Science, Culture. 159-172. New York and London: Routledge. 1998. 160.
[58] *Ibid*.
[59] *Ibid.*
[60] Weiden, W. Van der. "Preface." In M. Bouquet. *Man Ape, Ape Man 1893-1993. Pithecanthropus in Het Pesthuis, Leiden*. Leiden: Nationaal Natuurhistorisch Museum, 1993. 4-5.

success of this exhibition could be built upon to further publicise the permanent exhibition planned for 1997, for which spaces were under construction at the time in the museum's main location.[61] While Bouquet was in charge of the content of the exhibition, exhibition designer and interior architect Isabelle Galy was hired for the physical design of the exhibit spaces for the Pesthuis building in Leiden. Bouquet describes the overall process as a struggle with the museum staff over what meanings were to "be put on the high ground of display" [62] all the way up until November 1992, when production should have long started.

Bouquet and Galy's leading design principle evolved from the idea of ancestral conceptions. That is, Bouquet was fascinated by the surrounding culture around a setting dedicated to the preservation of nature [63] and therefore the exhibition was designed around the question of why ancient human remains would belong to natural collections at all. The exhibition sought to reflect on the layers of meaning that were added to the Java Man fossils. In particular it invited and encouraged the viewer to consider how Westerners have created many contexts and forms in which they have viewed the relationship between apes and humans. Bouquet and Galy therefore opted for a narrative structure for the exhibition in which the viewer was guided through seven rooms within the Pesthuis, each with their own environment[64] from which could be reflected differently on the meaning of the Java Man fossils. A brief description of these seven rooms:

The Movies: This room served as the introduction to the exhibition and displayed film and cartoons depicting ape-men, apes and men. It was designed to question the persisting popularity of apes and ape-men (i.e. Tarzan, King Kong) in the public and scientific imagination.

[61] Bouquet, "Strangers in Paradise," 159-161.
[62] *Ibid.* 161.
[63] *Ibid.* 162.
[64] *Ibid.* 162-163.

The space is meant to reflect on the relation between humans and apes and particularly how old imaginations of this relation remain in existence while new imaginations are piled on top of the old. The 1993 exhibition is contextualised as one such addition to the imaginations that exist.[65]

The Library: This room was designed to look like a reconstruction of Dubois' library in the Netherlands. It is an introduction to the man himself and the contemporary scientific ideas that influenced him. Among others, it juxtaposed religious (Biblical) imagery with texts by Darwin, Haeckel and Huxley. On the one hand, this space is dedicated to illustrating the relationship between religious ideas and the emergence of an understanding in evolutionary principles and how these two philosophies interacted. On the other hand it demonstrated the functioning of a nineteenth century library and sought to explain how Dubois was inspired to look for the Missing Link in Indonesia.[66]

The Fossil Collection: The third room sought to display some of the 12.000 fossils in the Dubois Collection, actively presenting them as rising from the floor as representations of the journey that fossils make from the ground to a collection. It concisely described the career of Dubois from start to finish. It also featured a sign from the N.N.M. from the fossil storage space of the museum specifically forbidding visitors to enter. This was explicitly added to the exhibition to make a point about how these fossils had hitherto been unavailable to the public.[67]

The Island and the World: The fourth room contextualised Java Man within two contemporary perspectives: the geological setting of islands like Java, the paleoanthropological context of how humans moved to this location. It also elaborated on how other hominid finds

[65] *Ibid.* 18-22.
[66] *Ibid.* 25-39.
[67] *Ibid.* 43-51.

worldwide radically shifted our understanding of how the human lineage spread across the world. [68]

The Forest: The fifth room radically changed direction and examined how humans have shaped conceptions of the human lineage. In the West, this was often done through the concept of family trees (hence the Forest), whereas outside of the western world this was radically different. Notably, this room contained several modified and preserved skulls from non-European cultures with different functions (i.e. to preserve the image of an ancestor, or a manifestation of victory over an enemy by preserving their head and power therein). [69]

The Art Gallery: Whereas the fifth room challenged the viewer to reflect on how humans have structured their own image and position in their conceptions of ancestry, the sixth room invites the viewer to consider how artistic imaginations of ape-men influenced thinking on the human lineage and evolution. It included several examples of artistic imaginations of *Homo Erectus*, among which the mannequin made by Dubois himself for the occasion of the 1900 World Exhibition in Paris.[70]

The Depot: The seventh and last room of the exhibition space was dedicated to a reconstruction of the storage space in which many of the objects in the exhibition would spend most of their time. The visitor is asked to consider the aesthetic considerations in curating such a collection, for instance by displaying taxidermied apes in their storage cabinets and explaining how such a specimen would have been procured and produced. Towards the very end of the exhibition the audience would have been faced with an installation of mirrors, directly confronting the public with their own gaze as if to ask them to consider their own position in all of the above 'environments' which are represented by the seven rooms of the exhibition. This

[68] *Ibid.* 54-59.
[69] *Ibid.* 63-69.
[70] *Ibid.* 73-79.

was specifically done to assert that an audience is as much part and contributor to an exhibition as the objects and design staff are.[71]

Some conclusions about the design philosophy behind this exhibition stand out immediately. Firstly, Bouquet's team insisted on the contextualisation of science itself, rather than reporting a linear tale of progress about the understanding of human evolution. Secondly, the exhibition space was specifically designed to draw in the audience as a critical component to this story, which is characterised by the design team as a narrative inherently made up out of dialogue, intellectual and aesthetic exchange and reevaluation of meanings and values. Thirdly, this exhibition was a product of this very dynamic itself: Bouquet frequently describes in subsequent literature that discussing the shape and format of this exhibition was a continuous struggle with museum staff over which meaning or objective should take precedence over others.[72] [73] Principally, N.N.M. staff seemed greatly concerned with whether this contextualisation did not take away from the legacy of Dubois. After all, one of the main requests of the Centennial Foundation was to reinstate Dubois as a pioneer in his field worthy of attention! All of Bouquet's reflections describe how her team had difficulties convincing museum staff to gain access to objects for fear they might end up in the 'wrong'(read: undesirable) context. Moreover, accusations of insulting the memory and legacy of Dubois[74] were put forward by the N.N.M. staff, illustrating the strong emotional component which carried over from the museum stakeholders with regards to their patrimony. Bouquet's disarming argument in this matter revolved around the structure of the exhibition: Rooms II-IV were designed to highlight Dubois' exceptional originality and position in paleoanthropological

[71] *Ibid.* 83-87.
[72] Bouquet, "Strangers in Paradise," 166-167.
[73] Bouquet, M. "Exhibiting Homo Erectus in 1993." In R. Corbey and B. Theunissen (eds.), *Ape, Man, Apeman: Changing Views since 1600*. 209-215. Leiden: Leiden University, Department of Prehistory, 1995. 211-214.
[74] Bouquet, "Strangers in Paradise," 166-167. See also Bouquet, *Exhibiting Homo Erectus*, 211-214.

history. The other rooms I & V-VII were designed to place Dubois and the Java Man fossils in a context that would (hopefully) lift them to "greater exaltation."[75] Moreover, the design team received repeated criticism that the exhibition was far "too intellectual"[76] which was starkly rebutted by Bouquet. Her observation that a heterogeneous public would inevitably and inherently interpret an exhibition space differently, rendered this criticism somewhat moot. One may assume that there is a silver lining to this criticism: such considerations produced the extensive accompanying booklet on which much of the above information could be reconstructed.

Notably, the contested status of these fossils was quite clearly presented as an essential part of the Dubois and Java Man narrative. No doubt this was due to the willingness of the design team to acknowledge that science, art and culture have permeable boundaries[77] which resulted in an outright refusal to tell a static, linear story. Bouquet was all-too aware of the dislocated nature of these fossils and her responsibility as exhibition curator to address this. As could be seen in the literature review, in 1995 she described this as 'questioning dislocation.'[78] Her 1998 reflection on designing the exhibition goes quite a lot further:

"Celebrating the centennial in Leiden in 1993 was an opportunity, a challenge and an embarrassment. Embarrassing in so far as the fossil is clearly out of context in the Netherlands in 1993; a challenge precisely because of this. How would the organisers legitimise this ancestral presence - especially at a time of deteriorating relations between Indonesia and the Netherlands?"[79]

[75] Bouquet, "Strangers in Paradise," 166-168.
[76] *Ibid*. 167.
[77] *Ibid*.
[78] Bouquet, "Exhibiting Homo Erectus in 1993," 215.
[79] Bouquet, "Strangers in Paradise," 159.

This emphasis on ancestry is quite interesting, as throughout the same text, Bouquet refers to the museum collectively as 'the ancestral keepers' of the Dubois Collection.[80] One cannot help but think this poetic irony is intended to highlight the rigid attitudes about the desirable and appropriate manner in which Dubois and Java Man should be presented which reigned during her experience as exhibition designer. Indeed, one gets the impression that this physical and emotional attachment has not diminished in subsequent iterations of the exhibition.

B. 1997 Permanent Exhibition

Much changed during the course of only a few years and this is very surprising if one reads the Preface of *Man Ape, Ape Man 1893-1993* where museum director Wim van der Weiden states the following: "[the] exhibition [...] can be seen as a blueprint for future exhibitions that will be open to the public in the newly built N.N.M. in 1997."[81] By 1997, they were part of a large exhibition space (colloquially referred to as the 'Great Hall') in which fossils from the Mesozoic (252-66 mln. BCE) and even before, were displayed alongside fossils ranging in origin all the way up to the Pleistocene (up to 9700 BCE). Because I was unfortunately not allowed access to the Naturalis archives, relatively little can be said conclusively about the design philosophy about this permanent exhibition. Interpretations rather rest on the scant few images that are available from this period of exhibiting Java Man, but some points can be made about this iteration. The display case containing the Java Man fossils, alongside the briefcase in which Dubois brought the fossils to the Netherlands (and later hid them away under his floorboards), were presented alongside on a raised white pedestal at hip height for ease of access and visibility for all age groups (figs. 4 & 5). Alongside this display one could have found another display

[80] *Ibid.* 159-161.
[81] Weiden, W. Van der. "Preface." In M. Bouquet. *Man Ape, Ape Man 1893-1993*, 4-5.

case, containing the (replica) skulls of several early human ancestors. Five plates affixed in front of these display cases contextualised the fossils, but were likely limited to classic descriptive interpretations of the objects. While it has thus far proven impossible to determine exactly what these plates actually said, it is unconvincing that with so little space (the equivalent of five A4 sized sheets of paper) much could have been said about the different contexts in which these finds could be interpreted as had been the case in the 1993 Centennial Exhibition…

Unfortunately, it is unclear if Bouquet's criticisms from 1993 made it into the permanent exhibition space from 1997 onwards. One gets the impression that this was not the case however, as they do not feature in subsequent exhibitions until today. On the other hand, it seems that the increased attention in Dubois' personal life from the early '90s onwards inspired a new commitment to placing Dubois (his originality, his commitment, etc.) and the significance of the Java Man finds (for the western and particularly the Netherlands' scientific community) on a very literal pedestal. It occurs that the striking stubbornness and paranoia that would characterise Dubois during his later life, seem to be almost celebrated in this iteration. It is here, that the fossils seem to get a status akin to 'prize possessions' in the public presentation: they are exhibited in a literal safe as priceless objects and Dubois' case in which he 'smuggled' these objects is part of the exhibition as a metaphor for his defiant character.

It is entirely surprising then, that this iteration of the exhibition space for Java Man seems to have existed on the cusp of two design philosophies. On the one hand the designers seem to have wanted to avoid placing Dubois and Java Man on too great a pedestal: the allotted space took up no more than some few square metres in an otherwise large and open hall, and was not separated from this space like in both the 1993 and current exhibition spaces. The positioning of the display seems to confirm this suspicion. The fossils are part of a 'parade' of prehistoric

megafauna skeletons, such as those of a cave bear, a giant deer, and a mammoth whose tusks loom threateningly over the visitor when standing right in front of the Java Man display (fig. 5). Compared to its current exhibition space however, at least one thing can be said: Java Man is a lot more lonely now, than it ever has been before in its exhibition space.

C. Current Permanent Exhibition

It is not entirely surprising that the new layout of the museum was designed partly around creating a focal point on the Dubois Collection. By 2016 the legacy of Dubois as a foundational contributor to the palaeoanthropological field had become more widely appreciated and had already been the subject of some commentary, principally by Bouquet in the 90's. This would soon change with the emergence of criticism by Drieënhuizen and Sysling from 2018 onwards. This exhibition is fairly new: in its current form, it was presented to the public during the reopening of the museum after a renovation (and somewhat radical reconstruction) of several years. During this period, from 31 August 2016 to 31 August 2018, significant changes were made to the way in which the Java Man fossils were exhibited yet again. This is not entirely a matter of design philosophy with regards to the exhibition space itself. The entire building was remodelled and thus the Grand Hall simply no longer exists. This was replaced by an exhibition space on the 5th floor named 'Early Humans.' The room takes up about a third of the visitable space of that part of the level. Following the pre-planned route for visitors, one is taken through the rooms of the museum following a generally 'chronological' theme. This thematic division creates a route in which the audience is guided through several 'levels' of natural science: geology, taxonomy, evolution, the prehistoric Dutch landscape and, on that same floor, the exhibition 'Early Humans', followed by a level dedicated to reproduction and death.

In its current form, the exhibition is made up out of a darkened room with black walls and interior furniture. Upon entry, one can take a seat on a tribune opposite a separating wall which divides the exhibition space in two. On this wall, a short video with audio commentary is projected which briefly describes the life and legacy of Dubois and the importance of the Java Man fossils lasting about five minutes. If one then proceeds behind this separation wall, on the other side one finds a black cube with two entry points on its side. Ironically it is very reminiscent of the Kaaba in Mecca, another structure intended to host a natural object which has been elevated to sacred status.[82] Following the proposed route through this space into the cube, one finds a reinforced glass display cabinet which features the skullcap, femur and molar found at Trinil. The skullcap is mounted on a pole so that it could be elevated to the height of *H. Erectus* (conveniently this is just about at eye height for most visitors). This is cleverly matched with a sculpture of *H. Erectus* in a way that the skullcap is reflected as part of the sculpture through a *trompe l'oeil* effect (fig. 6). An important addition to the original set of skullcap, femur and molar, is one half of a freshwater shellfish species (*Pseudodon Vondembuschianus Trinilensis*, registration number RGM.DUB.1006.f) with several geometrically parallel scratches etched into its surface. Originally part of the more than 12.000 finds at Trinil in 1890, it was reexamined in 2014 by Naturalis researchers who concluded it highly likely that these scratches were made by *H. Erectus*.[83] It should be noted that entering this cube structure is an almost ritual experience, because the walls are padded for a sound reducing effect. Inside, one is nearly isolated from the outside world for a moment, encouraged by this isolation to a sense of solemn

[82] The Kaaba stands in the centre of the Grand Mosque of Mecca. It is a large cubical structure made out of stone, permanently draped in black cloth. It is the spiritual heart of Islam, guides in which direction Muslims pray and holds the Black Stone, which according to scripture is a meteorite set into its walls by the Prophet Muhammad himself. See also Burke, J.G. *Cosmic Debris: Meteorites in History*. University of California Press, 1991. 221–23.
[83] Joordens, J.C.A, et al. "Homo Erectus at Trinil on Java Used Shells for Tool Production and Engraving." *Nature* 518, 7538 (2015): 228–31.

reflection on Java Man. No doubt this is meant to provoke a profound realisation that this is a shared, common ancestor for all humans and therefore also of the visitor.

In a way this is a reminder of the mirror installation at the end of the 1993 exhibition, but with a wholly different effect this time. Whereas the visitor was invited in 1993 to see themselves as part and contributors to the contents of the exhibition per definition of its design, in the present space one is encouraged to see the finds from a more personal, intimate perspective. The space within the cube is small, although the exhibition space overall takes up a significant amount of floor space on this level of the institute. Therefore, as a member of the audience, one is immediately compelled to perceive these fossils as something special, something unique: indeed this seems to be the goal of the exhibit overall, although it clearly implies that this sentiment should then also apply to Dubois himself. After all, the exhibition is literally divided by a separating wall creating a space for reflection on Dubois through the biographical video installation, whereas the space behind this is reserved for reflection on the Java Man fossils. Moreover Java Man is presented by itself, with virtually no other fossils present. The same skull replicas found in the 1997 exhibition feature in a wall mounted display cabinet upon entering the exhibition space, but Java Man itself is all alone in its dark, sound proofed environment encased in bullet proof reinforced glass. This elevation of specimens above others has what seems to be an intended side effect: the viewer is categorically encouraged to see these objects as ‘top pieces.’ In a way, the fossils have almost been elevated to pieces of high art in terms of how they now sit alone in a virtually empty yet highly secured place. There can be no doubt that they are among the top pieces of this museum - indeed Naturalis’ exhibit and website describe them as the latter eagerly and openly.

Drieënhuizen and Sysling described the exhibition critically for this reason. Whereas previously the Java Man fossils had already been highlighted as particularly significant objects, the current display elevates the objects "as diamonds in a treasure chamber."[84] This phrasing turns out to be a rather excellent description, because the design company Designwolf that was hired for the current permanent exhibition apparently used exactly this notion as a guiding principle. Their portfolio entry for the 'Early Humans' exhibition states the following:

"This permanent exhibition tells the story of Dubois' search and shows these undisputed top pieces as a treasure … The concept of the exhibition space aims to make these, at first glance meaningless fossils, important, to charge them … In the treasury they are shown very exclusively. They are like a box of jewels in the middle of the exhibition space."[85]

This means that the analysis by Drieënhuizen and Sysling is not only correct, it was part of the original design philosophy behind the current permanent exhibition. Therefore, the differences between the various exhibitions, and particularly the 1993 and current exhibitions, cannot be framed as a matter of mere coincidence. It has been a conscious choice to elevate these fossils to the status of treasures in a treasury.

Following this experience, the audience is invited to leave the cube, exiting on the other side of the separation wall. Here an updated mannequin of Java Man can be found (fig. 7). The brotherly artistic duo Kennis & Kennis was commissioned for the creation of this depiction of *H. Erectus*. The mannequin stares in the viewers' face, its hand positioned questioningly underneath its chin, almost puzzled with this modern human visitor in its domain. In its right hand it

[84] Drieënhuizen and Sysling, "Java Man and the Politics of Natural History," 305.
[85] Schulp, A.; Naturalis Biodiversity Center. "De vroege mens." Portfolio. Reviewed 25 June 2023.

clenches a replica of the *Pseudodon* shell that is now displayed alongside the Java Man fossils (fig. 8). Perhaps this is a good occasion to reiterate that while Java Man retains its gendered name in English vernacular, it seems that in Dutch the museum has opted for the more neutral 'Javamens' (literally: Java human). Originally, another sculpture existed made by Dubois himself, featuring his original idea that *Pithecanthropus* was a species that resembled a 'large gibbon' in the sense that it had large arms and legs and a relatively small head. This has now been put in storage and replaced by a model which more accurately reflects current understandings of how *H. erectus* could have looked (the correct nomenclature). It is too bad, really, that these are not exhibited together: together they would offer an excellent opportunity to reflect on the significant changes in understanding of Dubois' finds and theories that have occurred after his passing in 1940. The earlier mannequin was also part of the 1993 exhibition, by which time it had already aged significantly in terms of scientific accuracy.

D. Notable Differences

As has probably dawned on the reader by now, there are stark differences between the exhibitions that have thus far been organised around the Java Man fossils in the Netherlands. First and foremost, one is compelled to point out that both the current and 1997 permanent exhibitions opted for a design in which the fossils were exhibited almost by themselves. While in the 1997 exhibition the skull replicas of other hominid fossils were still exhibited alongside Java Man, they have now been relegated to a modest positioning by the entry of the current permanent exhibition. Moreover it seems that in time, as the appreciation for Dubois and the important historical relevance of Java Man has increased, so has the desire to elevate these objects above the rest of the Collection as particularly valuable. This value in turn, is unfortunately only

examined in terms of natural scientific importance in the 1997 and present exhibition spaces. It is a far cry from the elaborate, multi-room vision of Bouquet and her team who went out of their way to question the meaning of these fossils for their audience in several dimensions. One is reminded of the criticism by N.N.M. staff at the time that perhaps, this exhibition design was 'too intellectual' and not accessible enough for visitors. If that is true, one is compelled to wonder if the following iterations have not overcompensated for that by significantly slimming down the content of the exhibitions in favour of an easily consumable narrative which avoids the uncomfortable question of the dislocation of the fossils (to mention but one omission).

It is striking that for all the advancement in the understanding of the fossils themselves, relatively little additional context has appeared in the exhibition history pertaining to the colonial context in which the finds were procured or indeed the forced labour that was used to excavate them. These facts are absolutely more prominently offered to the public in the current setting compared to 1997, particularly by adding visual imagery of the working conditions and people at the Trinil site in the short video briefing at the start of the exhibition. This is a welcome addition, but it must be said that it is only a very cursory glance at this darker side of Dubois' story. The video seems to imply that the labourers exist as an anonymous group. This is especially confusing because Leakey and Slikkerveer mention the (possibly fictional?) labourers Wongsosemito and Sardi as well as the indigenous overseer Ahmad Saleh.[86] Shipman dedicated a whole chapter to the relations between Dubois, his overseers and their forced labourer workforce. While I described her volume as very literary in style, she does rely on primary source material like letters exchanged between overseers Kriele, De Winter and Dubois himself.[87] Shipman in particular seeks to describe the fraught relations between in the hierarchy:

[86] Leakey and Slikkerveer, *Man-Ape, Ape-Man*, 23-29.
[87] Shipman, *The Man Who Found the Missing Link*, 132-138.

the overseers do not enjoy working together, and without Dubois' invigorated presence on the site the overseers struggle to motivate the workforce. Their personal letters shed a light on their less-than-sympathetic opinions of the indigenous labourers: they are described as lazy, indolent and workshy.[88]

Little description is given of the factual working conditions in the exhibition, which could have been an opportunity to contrast these conditions to the "peal after peal of complaints"[89] that the overseers write in their letters to Dubois. As mentioned before, Dubois himself was rarely present himself due to the poor environment and constant heat, rain and illness which his team was exposed to. The 'laziness' of the labourers may be an issue in the eye of the beholders, Dubois and the overseers Kriele and De Winter. Even though the two overseers were definitely present at the excavation site during the finding of the Java Man fossils, they are not mentioned either in the exhibition and yet they were essential cogs in the logistics of this operation.[90] [91] It is not like this kind of information is new, either. It was even pointed out by Albers and De Vos very recently yet again. Dubois was rarely present at the Trinil site and preferred to work from his house in Tulungagung.[92] In comparison to Dubois, who is consistently described in the literature as being outstandingly energetic and very spirited when working at the sites, the overseers are often cast as the complaining underlings of a visionary leader. One is left to wonder if this is a fair assessment, or rather a reflection of the reigning hierarchical attitudes which have influenced the Dubois and Java Man narratives since the last century. It is surprising that these very practical aspects of the working relations and logistics during the expedition are not a subject of greater attention in Naturalis. The museum has set great precedents for involving this

[88] *Ibid*. 132-133.
[89] *Ibid*. 132.
[90] Leakey and Slikkerveer, *Man-Ape, Ape-Man*, 23-29.
[91] Shipman, *The Man Who Found the Missing Link*, 132-165.
[92] Albers, P.; Vos, J. *Through Eugène Dubois' eyes*, 9.

aspect of paleontological fieldwork in the past. Their Live Sciences Lab on the first floor hosts a permanent space for the 'Dino Lab.' This lab is an active fossil conservation project which has been integrated in the public exhibition space. That particular space functions as an interactive experience where visitors are introduced to the several steps which have to be undertaken for a fossil to be excavated, transported, conserved, stored and then exhibited. There is usually a (student) palaeontologist present there, working on a fossil specimen, who can even be asked questions by visitors about possible fossil finds they bring themselves. Moreover, Naturalis supports several palaeontological excavations worldwide. In other words: Naturalis is very much engaged and interested in educating the public about the logistics involved in palaeontology and are themselves experienced in these matters.

It occurs that including more details about the logistics of the expedition could in fact have addressed many criticisms which have been raised by Bouquet, Drieënhuizen and Sysling. Much of the more uncomfortable realities about the excavations and their context could have been explored by giving an account of what such an enterprise entailed in the late 19th century, and why. This text already described the large distance over harsh terrain that had to be crossed from Trinil to Tulungagung, and the significance of Fort van den Bosch on this route as an expression of Dutch colonial dominion over East Java. Dubois' preference to stay at home due to illness and fatigue is also much more meaningful in this way because where one might attribute this to privilege, another might consider this to be a sign of his commitment to his excavations. Organising the massive enterprise of transporting the more than 12.000 fossils certainly affirms Dubois' capable administrative qualities. Given that the audiovisual component of the exhibition states that Dubois joined the KNIL specifically to facilitate his interest in paleoanthropology and finding the Missing Link, it is truly a baffling omission from the exhibition space. It cannot have

been an oversight, as one needs only look in the copious amounts of literature on the subject to find that this is established knowledge. One must assume that Naturalis, which hosts several leading experts like Paul Albers and John de Vos, is not in short supply of professional insights into this dimension of the Dubois Collection's assemblage.

E. Statements by Naturalis about the Dubois Collection

I hope to demonstrate how currently, there appears to still exist a notion that different kinds of management and understanding apply to natural history and material culture collections in Naturalis. Indeed, much that has been said about the Collection represents the historical status quo of the politics of natural history: that natural history collections are qualitatively different in terms of collection practices and contents. So much so, that they cannot be treated like material cultural collections, particularly when it comes to issues of (post)colonialism, decolonisation and restitution. This is reiterated by Naturalis director Edwin van Huis in his interview with *Trouw* interviewer Merijn van Nuland:

"At the same time, Naturalis states that a fossil collection is 'incomparable' with looted art objects. [Van Huis:] "Our collection was collected for science, and that was often done in a very different way than with art objects. Art has sometimes been taken from temples, while natural history objects were there for the taking. In a sense, you can compare it to taking a stone with you on holiday, although Dubois naturally took a more targeted approach."[93]

Quickly after publication, this quote came into dispute, firstly via the official Twitter account of Naturalis on October 19th and later more extensively in email correspondence between *Bionieuws* author Gert van Maanen and Edwin van Huis:

[93] Nuland, Merijn van. Trouw. "Indonesië eist Java-mens en andere topstukken terug van Nederland." October 18th 2023, 1:00. Reviewed March 10th 2023.

“In a response by email, Naturalis director Edwin van Huis stated that in 2020, at the 200th anniversary in the Naturalis books V*an onschatbare waarde* and *Wie wat bewaart*, a lot of attention has been paid to the colonial past. “That things aren't going exactly at the speed and the way these two historians want: sure . But there is certainly no question of a blind spot. That does not alter the fact that the entire process has been accelerated by the Indonesian request.”[94]

The object biography of the Java Man fossils drafted by the two historians in question, Drieënhuizen and Sysling, directly contravenes the statement made by Van Huis in its opening paragraphs. They successfully demonstrate that the fossils in question were, corresponding to their own literature review, assembled in an inherently colonial context.[95] This is reflected by the career path Dubois pursued in the colonial army to facilitate his excavations more effectively. Van Huis was not alone in his critical scepticism towards Drieenhuizen and Sysling. Paul Albers also weighed in with his opinion on the matter:

“There really are many factual inaccuracies in their publication which can be waylaid easily. What particularly bothers me is that they frame Dubois as a colonial person. He was not more so than most others in that time and thus you cannot reproach him personally for this: he was just one of the players in a colonial and evil system. And of course he did not do most of the excavating: he was sick a lot and it was not his role. Dubois was a sort of manager, he oversaw the excavation and interpreted the finds. A lot can be said about the role of local [indigenous] guides, too. This can at times have been very large, but of the finding place on the Solo River

[94] Maanen, G. Van. “Reconstructie: Naturalis ‘vergat’ haar koloniale erfenis.” Manager. *Bionieuws*, 10 February 2023. Reviewed 10 March 2023.
[95] Drieënhuizen, C.; Sysling F. “Java Man and the Politics of Natural History,” 291-293.

[Trinil excavation site] we happen to know very surely that it was specifically identified by Dubois."[96]

The inaccuracies in Drieënhuizen and Sysling's publication have never been detailed further, nor have they turned up during the literature review for this case study. Having used both publications as essential guiding sources for this study, one must be inclined to state that this may be an overstatement of what may simply be a difference in perspective. The statement by Albers reflects an ambiguity that pervades other Naturalis staff statements, too. On the one hand, he vehemently protests describing Dubois as 'colonial,' while he readily admits and places him as a participant to an 'evil' colonial system on the other. This has not been disputed in the extensive biographies that exist of Dubois and there can be no doubt of the awareness that exists of this fact within the academic community or Naturalis' leading researchers on the matter. It does put Van Huis' statement in the original article in *Trouw* in stark contrast to what could be considered established scientific thinking on the issue of understanding natural historical collections in their historical context. This is especially true if one considers that there is about half a minute devoted to this history in the permanent exhibition today. Moreover, this passage mostly seems to exist to explain to the audience that this was basically a necessary step by Dubois to facilitate his desire to find the Missing Link.

According to Van Huis, the fact that Naturalis has created the suggestion that Indonesia cannot properly care for the collection is largely based on a misquoted statement to *Trouw*: "We are collaborating with our Indonesian counterparts in a variety of ways and have complete confidence in their ability to tackle this major task."[97] Given the extensive ongoing cooperation

[96] Maanen, G. Van. "Reconstructie." Manager.
[97] Maanen, G. Van. "Reconstructie." Manager

between Naturalis Biodiversity Center and palaeontological institutes involved with the Trinil and Sangiran sites, I am confident that this corrected statement accurately reflects Van Huis' and Naturalis' position on the matter. What then, is truly the core of the difference in sentiments between Indonesian parties and Naturalis as the stakeholders in this matter? Van Huis explains this in the first part of the radio documentary series *Het Spoor Terug: De fossielen van Dubois* by Olaf Oudheusden:

"What we now have is a wonderful research group of people who are top in their field and that depends on that collection and if that disappears, then such a subject [the interest in the Dubois Collection] really disappears. That is the end for the Netherlands."[98]

We must therefore acknowledge that while the spirit of conduct for Naturalis in this matter may well be founded on an idea of cooperation, that cooperation still firmly depends on a vision which sees this collection as essential to a future in which the Netherlands remains a leading scientific contributor to the natural historical discipline. We might also assume that in particular Naturalis, as the steward of the Dubois Collection, holds a stake in this matter and indeed Van Huizen confirms this himself in part two of the documentary:

"This is also about emotion and felt interests. Because the Dubois collection is extremely important to this institute, from a scientific and museal point of view. Dubois was a fantastic researcher. What he has done was so meaningful, a whole new science was actually born on his

[98] Oudheusden, Olaf. OVT. 'Het Spoor Terug: De fossielen van Dubois #1'. November 6th 2022. Reviewed 10 March 2023.

shoulders and it was an ordinary Dutch boy from Limburg who got it into his head that he would look for the missing link."[99]

This fragment is part of a broader continued point about how Naturalis Biodiversity Center and its predecessors have essentially been developed around the Dubois Collection. In the current vision of the organisation, the Dubois Collection is effectively an essential organ to the functioning of Naturalis. Most importantly, Van Huizen makes a case for what this problem is about at its core for the members of staff at Naturalis. The significance of the Dubois Collection far exceeds its scientific value and it is imbued with genuine emotional and cultural value in its current format which can be explained through its functioning within the scientific community of the Netherlands and Naturalis in particular: it is not only natural, but also cultural heritage. As stated earlier, this cannot be a matter of oversight either. The in-house expertise is present to contextualise the Java Man fossils, and previously individuals like Bouquet and Galy were brought in from outside of the institute to contribute. One must therefore assume that this is a matter of conscious decision making on the part of the museum. As explained by spokesperson Corine van Impelen in an interview with Leiden University newspaper *Mare*:

"We do not zoom in on this part of the story. Much attention is paid to the history, among others in the book [*Van Onschatbare Waarde*], but we are a museum where one learns about the natural historical context."[100]

[99] *Ibid*; Oudheusden, Olaf. "Het Spoor Terug: De fossielen van Dubois #2." OVT, 13 November 2022. Reviewed 10 March 2023.
[100] Reid, M. "Hier houden of teruggeven? Leidse musea over hun koloniale collectie." *Leids Universitair Weekblad Mare*, 22 October 2020. Reviewed 18 April 2023.

In this same interview she adds a particularly peculiar statement: "Dubois was, for his time, a good employer. This may sound remarkable now, but sick people did not need to work, he provided food and paid more than others."[101] This bizarre statement does not only demonstrate a painful lack of sensitivity to the issue of contractual slavery in the Dutch East Indies. It is also simply not reflected by the letters written between Dubois and his overseers Kriele and De Winter. They specifically describe how they perceived illness as laziness or unwillingness to work, and it is clearly reported that labourers suffered and even died in the conditions at Trinil.[102]

As one can now grasp, statements like these form a recurring pattern in the official outwards communications made by Naturalis staff. It is most likely inspired by a desire to humanise a complicated historical legacy and contextualise the individual in his time and place. Systematic omission, as confirmed by Van Impelen, of these parts of the story however, must lead one to conclude that Naturalis as an organisation is inclined to look more favourably on a particular kind of narrative about Dubois. This narrative must emphasise his scientific originality (and may even elevate it to a kind of perceived heroism), the adventurousness of his endeavour, and seems to not have this same attitude towards proactively educating the public about the very real cost that these 'adventures' have incurred historically. A much more sinister prehistoric elephant remains in the room. Naturalis has a vested interest in interpreting these finds as the product of adventure and enterprise, because it attracts more positive publicity towards the character Dubois, which feeds back into increased curiosity about his finds and therefore increased attention to the exhibition in their institute and more visits. It is also particularly convenient when criticism about the context in which the fossils were procured and dislocated is already three decades old in the Netherlands and almost a century in their place of origin!

[101] *Ibid.*
[102] Shipman, *The Man Who Found the Missing Link*, 132-133.

Moreover, an uneducated audience ignorant of these dimensions will not frequently ask uncomfortable questions about the current or historically contested status of these fossils.

While the concern of making an exhibition too challenging for its audience is valid, one is reminded of the design team's confidence in 1991-1993 that a heterogeneous public would inherently have different interpretations of such a multifaceted subject anyway. Perhaps therefore, a point of view in which the visitor is in fact a part of the culture that forms around a collection, can be a solution to this problem in terms of exhibition design. Moreover, Naturalis and its predecessors have de facto been the leading facilitators and disseminators of knowledge about the Dubois, the Collection and Java Man. Naturalis therefore has a responsibility to encourage, or to at least offer the opportunity for the public to delve into this subject deeper if so desired. One feels compelled to point out that the general public is much more likely to visit and learn from the permanent exhibition, than buying or even finding one of the popular scientific volumes that have been written on Dubois. Surely, such a purchase may be a wonderful consequence of a visit to Naturalis. But this creates an all too convenient occasion for an audience member to opt out of the more uncomfortable, confronting, and to quote Bouquet, possibly "embarrassing" qualities pertaining this collection.

VII. Final Conclusions

Resulting in the Centennial Exhibition in 1993, Mary Bouquet's design team did not seem to shy away from the possibility that curating these objects responsibly would have to involve asking the difficult questions about the Collection's composition and provenance. It is therefore discouraging that little of this original attitude seems to have pervaded and been built upon throughout the last three decades. Spokesperson Corine van Impelen very clearly stated that choices were continuously being made in the curation of these objects and the presentation of narrative. Director Van Huis denies any or all blind spots possibly existing within the institute, whereas Albers criticised the accuracy and academic quality of the object biography provided by Drieenhuizen and Sysling without actually indicating the critical problems in this text. One must consider that, given these statements and the state of the current permanent exhibition and its content, Naturalis as an organisation is struggling with its postcolonial legacy.

While one must always analyse such issues from a perspective of good faith, Naturalis undeniably echoes an academic attitude which can be considered outdated with regards to the meanings that can be attached to natural objects. By extent, this seems to have an impact on the reigning philosophy in the organisation on how these objects are to be curated. By simplifying the narrative about Dubois and the Java Man fossils, the museum misses an opportunity to grow in terms of its self-perception, too. Public comments by Naturalis staff members suggest that indeed there remains an established perception of the history of natural sciences as one separate from conventional cultural history because of its subject matter. Earlier discussions of the sociopolitical historical context in which Dubois worked and excavated directly contravene this notion: the Collection is inherently colonial and culturally significant across the board, both for Dutch and Indonesian stakeholders. Therefore the forwarding of this notion by the permanent

exhibition poses a real risk of creating a knowledge gap between an uninformed audience and the current academic standard of knowledge on this subject. For the leading institute on biodiversity knowledge in the Netherlands this should be a pressing concern and, more importantly, should be considered unsustainable in the end.

The leading research question of this text asked whether the permanent exhibition on Dubois and Java Man in Naturalis Biodiversity Center reflects a commitment to researching and informing the public about the historical context in which the Dubois Collection was acquired. Given that criticism about exhibiting the Dubois Collection and particularly Java Man has thus far only very reluctantly been incorporated into the presentations about Dubois and his Collection, one must unfortunately conclude that the necessity and importance of such considerations has not yet been proven to Naturalis Biodiversity Center. This has even been directly confirmed in statements made by director Edwin van Huis and spokesperson Corine van Impelen respectively. Van Huis claims there are no blind spots in the current organisational awareness about this subject, Van Impelen goes so far as to describe a very purposeful exclusion of information. Thus, at the very least one might assume that Naturalis is still finding its way in this matter. Unfortunately this has led to a permanent exhibition space which presents a very incomplete history to its audience. This is not only limited to the careful omission of very uncomfortable issues surrounding the provenance and acquisition of Java Man which the Centennial Exhibition in 1993 sought to explore specifically. The current exhibition space actually falls completely short of exploring the Java Man fossils as objects that can be interpreted and understood in multiple manners, rather opting for an all-too familiar insistence that objects procured from nature can be studied and presented in a neutral manner. This erroneous assumption about the reality of historical collection practices has produced an exhibition space

which reifies an outdated perspective on the curation of natural historical objects. The Java Man fossils are, ironically, uplifted to such an extent that they can no longer be interpreted as objects of natural historical significance alone. The current permanent exhibition space was very literally designed to make the audience feel about these fossils as high art, as priceless and precious treasures. While this stance is understandable given the significance of the Java Man fossils in terms of scientific and cultural heritage value, one gets the impression that all other possible perspectives and interpretations have had to make way for this vision. One is led to conclude that the current permanent exhibition on Java Man does not reflect an organisational commitment to educating the public about the complicated historical context, nor the contested status, of the Java Man fossils or the Dubois Collection.

Appendix A - Visit Record

I have visited Naturalis Biodiversity Center in its current format several times throughout the period 2022-2023, but was also able to draw on my own firsthand experiences visiting the museum in the period before its closure and renovation in 2016. Below, one can find a list of the visits that were made during the period 2022-2023 in chronological order, as these are leading for the writing of this text and the analysis of the current permanent Java Man Exhibition.

2 December 2022

28 February 2023

4 March 2023

27 May 2023

25 June 2023

To the best of my knowledge, the permanent exhibition space in Naturalis was not altered in any way, shape or form during this period of personal visits. No records exist of such alterations and staff members, when asked, indicated that no major changes had been made to the physical contents of the exhibition, or the audiovisual commentary therein.

Illustrations

Fig. 1: A group of forced labourers engaged in the excavations near Trinil.

Fig. 2: The pit dug for the purposes of excavating the Trinil site.

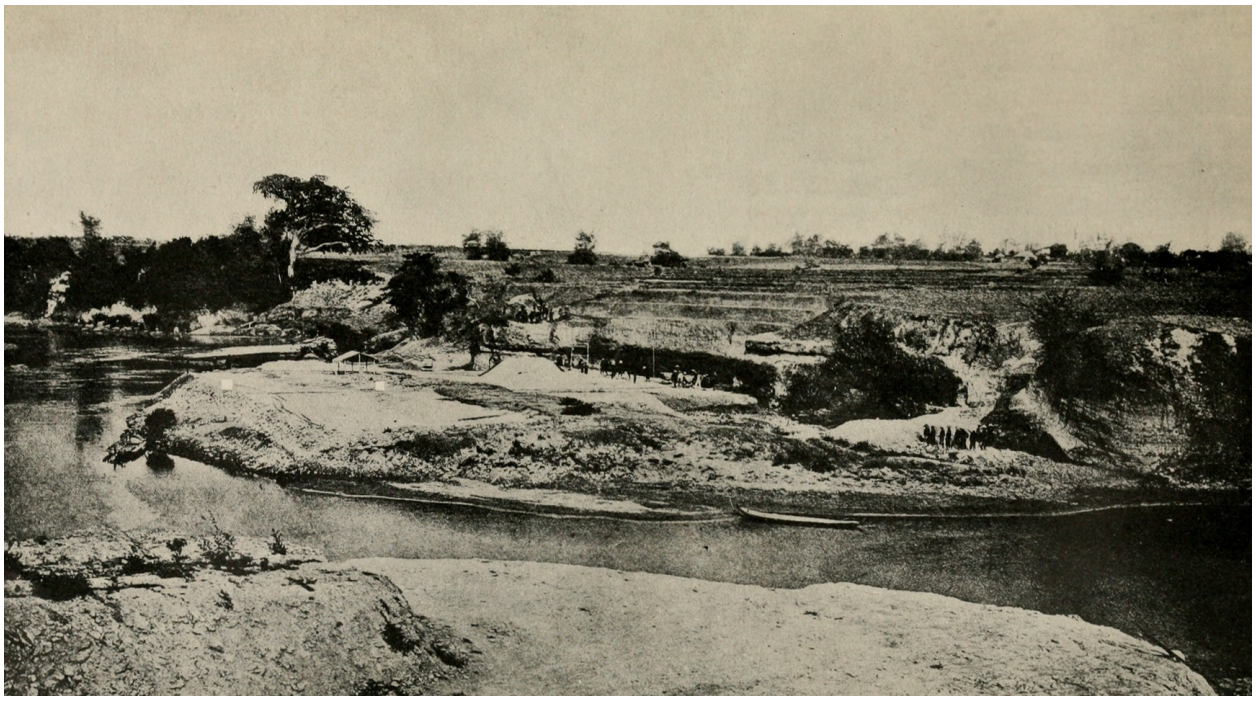

Fig. 3: The excavation site of *Pithecanthropus*, on a bend in the Solo River near Trinil, Java. The two white squares show where the femur (left) and the skullcap (right) were discovered.

Fig. 4: Dubois' safe functioning as a display case for skullcap, femur and molar of Java Man in the 1997 permanent exhibition space.

Fig. 5: Closeup of the 1997 arrangement of the Java Man fossils in their display cabinet.

Fig. 6: Image of the ‘Grand Exhibit’ before closure in 2016 for renovations, with in the middle foreground the display case with therein *H. Erectus* skullcap, femur and molar as well as *Pseudodon* shell with geometric carvings. Note the arrangement of fossil skull replicas on the left side of the reinforced display case.

Fig. 7: Display of Java Man fossils in the current permanent exhibition in Naturalis. Note the soundproof wall padding and the *trompe l'oeil* effect created by the permeable mirror. In this manner visitors can see where the remains would have been positioned in the body.

Fig. 8: Java Man mannequin by artistic duo Kennis & Kennis.

Fig. 9: Closeup of the current Java Man mannequin in the permanent exhibition. The gaze pointing upwards would meet the eyes of most adult visitors. Note the *Pseudodon* shell clenched in its right hand.

Illustration Credits

Fig. 1: Leakey and Slikkerveer, *Man-Ape, Ape-Man*, 28.

Fig. 2: Marshall, "Fate of buried Java Man revealed in unseen notes from Homo erectus dig," *New Scientist*.

https://www.newscientist.com/article/2314321-fate-of-buried-java-man-revealed-in-unseen-notes-from-homo-erectus-dig/

Fig. 3: Hrdlička, *The most ancient skeletal remains of man*, 9.

Fig. 4: Peter Maas, Own Work. WikiMedia Commons. License: Creative Commons Attribution-Share Alike 3.0 (CC BY-SA 3.0 hereafter).

https://www.wikiwand.com/nl/Javamens#Media/Bestand:DuboisSafe-PeterMaas-Naturalis.jpg

Fig. 5: Peter Maas, Own Work. WikiMedia Commons. CC BY-SA 3.0.

https://www.wikiwand.com/nl/Javamens#Media/Bestand:Pithecanthropus_erectus-PeterMaas_Naturalis.jpg

Fig. 6: Author Unknown, Own Work. WikiMedia Commons. CC BY-SA 2.0

https://en.wikipedia.org/wiki/Naturalis_Biodiversity_Center#/media/File:WLANL_-_thedogg_-_Mammoet_(2).jpg

Fig. 7: Schulp, A.; Naturalis Biodiversity Center. "De vroege mens." Portfolio.

https://designwolf.nl/portfolio/de-vroege-mens/#lg=1&slide=3

Fig. 8: Schulp, A.; Naturalis Biodiversity Center. "De vroege mens." Portfolio.

https://designwolf.nl/portfolio/de-vroege-mens/#lg=1&slide=6

Fig. 9: Schulp, A.; Naturalis Biodiversity Center. "De vroege mens." Portfolio.

https://designwolf.nl/portfolio/de-vroege-mens/#lg=1&slide=10

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