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**Analecta Praehistorica Leidensia 40 / Between foraging and farming : an extended broad spectrum of papers presented to Leendert Louwe Kooijmans**

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**Citation**

Fokkens, H. ; C. , B. ; G. , A. van; K. , J. ; P. , H. ; S. , C. et al. (2008). Analecta Praehistorica Leidensia 40 / Between foraging and farming : an extended broad spectrum of papers presented to Leendert Louwe Kooijmans. Retrieved from <https://hdl.handle.net/1887/32994>

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**Note:** To cite this publication please use the final published version (if applicable).

# ANALECTA PRAEHISTORICA LEIDENSIA 40

*This article appeared in:*

PUBLICATION OF THE FACULTY OF ARCHAEOLOGY  
LEIDEN UNIVERSITY

## BETWEEN FORAGING AND FARMING

AN EXTENDED BROAD SPECTRUM OF PAPERS  
PRESENTED TO LEENDERT LOUWE KOOIJMANS

EDITED BY

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LEIDEN UNIVERSITY 2008

Series editors: Corrie Bakels / Hans Kamermans

Copy editors of this volume: Harry Fokkkes, Bryony Coles, Annelou van Gijn,  
Jos Kleijne, Hedwig Ponjee and Corijanne Slappendel

Editors of illustrations: Harry Fokkkes, Medy Oberendorff and Karsten Wentink

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ISSN 0169-7447

ISBN 978-90-73368-23-1

Subscriptions to the series *Analecta Praehistorica Leidensia*  
and single volumes can be ordered exclusively at:

Faculty of Archaeology  
P.O. Box 9515  
NL-2300 RA Leiden  
The Netherlands

# Jan Hendrik Holwerda and the adoption of the three-age system in the Netherlands

Leo B.M. Verhart

## 1.1 INTRODUCTION

The classification of Prehistory into Stone, Bronze and Iron Ages is nowadays so self-evident and common that it is hard to realise that the general adoption of the three-age system occurred amid much discussion and resistance. In the Netherlands it took a very long time for the three-age system to be generally accepted, and its first uses led to heated debates around the start of the twentieth century. A particularly outspoken part was played by Jan Hendrik Holwerda, who in 1904 became the first keeper of the Dutch department in the National Museum of Antiquities in Leiden. In spite of his classical background, he concerned himself fervently with Dutch archaeology for the next 30 years.

At the time of his appointment Holwerda was 31 years of age, had read classics and written a thesis on a classical archaeological subject. Once in the museum he proved to be a Jack-of-all-trades, concerning himself not only with the classical department but also all Dutch periods: Prehistory, Roman and Medieval. It would be another 62 years before a keeper would be appointed to devote his time exclusively to Prehistory: Leendert Louwe Kooijmans. He has always appreciated his predecessor, in spite of the fact that many have considered Holwerda to be a maverick, with his extremely dissenting opinions on, among other things, the Stone Age and the three-age system. Leendert Louwe Kooijmans has highly valued Holwerda's museum activities and his efforts to introduce archaeology to a wider audience, issues in which Leendert Louwe Kooijmans himself has been a pioneer as well.<sup>1</sup>

In general, Dutch archaeologists have regarded Holwerda as a self-important, pompous, arrogant man, refusing to move with the times, holding archaic opinions, biased and unable to handle criticism. His scientific contributions are therefore no longer appreciated, although there is merit in his work. This paper concentrates on the, to our modern eyes, controversial opinions of Holwerda concerning the Stone Age and the non-existence of a Bronze Age. It examines these opinions in the context of the developing study of prehistory in the Netherlands. A closer examination proves his views to be carefully considered, albeit divergent, thereby presenting a more balanced image of Jan Hendrik Holwerda.

## 1.2 PRELUDE

In the last century BC the Roman writer Lucretius formulated in his *De Rerum Natura* (On the Nature of Things) the classical three-age system assuming a sequence from stone to bronze and eventually iron tools for ancient times. For centuries this idea, without any empirical foundation, was to determine all thought about the past.

The clergyman Johan Picardt (1600-1670) from Drenthe deserves the credit for being one of the first in the Netherlands to concern himself more extensively with the pre-Roman period (Picardt 1660). Although not himself engaged in archaeological investigations, he felt that the builders of the megaliths had been the oldest inhabitants of the Netherlands, on the basis of statements by other writers and his own observations. They needed to have been giants, to have been responsible for the construction of the megaliths, the in his perception gigantic stone monuments in which they were buried. That the giants were not the sole inhabitants at that time is demonstrated by a picture in his book showing one of the giants eating a normal-sized human being (fig. 1.1; Picardt 1660, 22-23).

Yet even before Picardt scholars -often well-to-do citizens or "scientists" from non-archaeological disciplines- had concerned themselves with the inhabitants of the Netherlands in pre-Roman times, but without providing much clarification (Langereis 1999). The major traces of their presence, the stone axes, were often considered natural phenomena. These were thought to be stones hurled by Donar, the god of thunder. Later these were generally considered to be thunderstones, formed in locations where lightning had struck the ground. As lightning would never strike the same place twice, these thunder chisels were particularly outstanding ways to protect hearth and home (Eijk 2007).

A century later this view would be radically different, with the start of a more scientific approach. In 1760 Johannes van Lier wrote in his *Oudheidkundige Brieven*, as a result of his own finds and explorers' travel accounts, that there must have been a period in the Netherlands with people who did not yet have metals and only used stone for their tools (Van Lier 1760). Without stating this explicitly he empirically defined a Stone Age and a Metal Age.



Figure 1.1 The clergyman Johan Picardt (1600-1670) felt that the builders of the megaliths must have been giants. That the giants were not the sole inhabitants at that time is demonstrated by this picture in his book from 1660 showing one of the giants eating a normal-sized human being.

### 1.3 DISCOVERY OF THE STONE AGE AND DEVELOPMENT OF THE THREE-AGE SYSTEM<sup>2</sup>

In 1815 Nicolaas Westendorp (1773-1836) remarked in the postscript to his at that time still unpublished *Verhandeling over de hunebedden* from 1813 that there must have been a period in the past when tools were made of copper (read bronze), before iron was in general use (Westendorp 1813; 1815; 1822).<sup>3</sup> He repeated this view in his publication on the find of a bronze socketed axe (Westendorp 1820). Essentially this entails a three-age system, but Westendorp did not elaborate, as he took the classical three-age system for granted and assumed his readers would do so as well.

In Denmark, too, ideas about a three-age system were soon formulated. In 1813 L.S. Vedel Simonsen wrote in his book concerning Danish history about the chronological framework of stone, bronze and iron tools. Christian Jürgensen Thomsen (1788-1865) was appointed keeper of what was to become the Danish National Museum in 1816 and was the

first to apply this tripartite classification when presenting his archaeological finds. In 1836 he published his famous *Ledetraad til Nordisk Oldkyndighed* (Guide Book to Scandinavian Archaeology) appearing in 1837 in a German translation and in 1848 in English (Thomsen 1836; 1837).

A Dutch translation was never published. Yet Thomsen's classification of prehistory was still not soundly based on archaeological evidence. A pupil and later colleague of his, Jens J.A. Worsaae (1821-1885), published a scientific foundation for the three-age system in 1843 in the form of a systematic and stratigraphic analyses of Danish burial mounds and bog finds. For this last publication, Worsaae worked in close cooperation with the biologist Japetus S. Steenstrup (1813-1897).

Soon these Danish ideas were adopted in Europe, and English and French scholars in particular undertook a further classification of the Stone Age. John Lubbock (1834-1913) in his book *Pre-historic Times* made a distinction between



Palaeolithic and Neolithic and in France Édouard Lartet (1801-1871) and Louis de Mortillet (1821-1898) concentrated on the classification of the Palaeolithic. In Germany enthusiasm for the three-age system was less pronounced and objections continued to be raised. By the end of the 19th century the word Mesolithic had been used for the first time for the period between Palaeolithic and Neolithic (Brown 1893). By the introduction of the term Mesolithic the three-age system as a chronological framework had been widely accepted.

#### 1.4 THE ROLE OF THE NETHERLANDS

In the Netherlands archaeology was off to a flying start with the appointment in 1818 of the first professor, C.J. Reuvens (1793-1835) at the State University of Leiden and the establishment of the National Museum of Antiquities, where Reuvens was appointed director as well. In his field investigations he would mainly concentrate on Roman remains, but he also paid attention to prehistory on his study tours. Actually, it is not known whether Reuvens had any idea there had been a Stone Age. Since together with Nicolaas Westendorp he edited the magazine *Antiquiteiten* in the period 1819-1826, it is likely that the idea of a Stone Age was not unknown to him, as Westendorp had already mentioned this in the unpublished postscript to his 1813 treatise on the megaliths.

Reuvens suspected that copper axes had succeeded those of stone, but he rarely commented upon them in his publications (*Antiquiteiten* 2, 2). In his inaugural oration he mentioned *Druidische en Celtische steenen* (Druid and Celtic stones) and associated these with the Celts, the original inhabitants of the Netherlands in pre-Roman times (Langereis 2007, 93). In his hand-written report on his 1833 trip through the province of Drenthe in the north of the Netherlands he occasionally remarked on the pre-Roman era. In his notes about Zeijen and Roden, small villages in the province of Drenthe, he mentioned the period immediately preceding the Romans when stone tools comparable to finds from Northern France, were in use (Brongers 1973, RA 31, leaf 8). He did not mention a Stone Age and, as far as is known, was never in contact with Thomsen.<sup>4</sup> Reuvens' death at an early age put an end to a promising development. As he died a year before Thomsen's book was published, it remains conjecture what he would have made of the new views.

Reuvens' successor as Director of the Museum, C. Leemans, was less involved in Dutch archaeology, but the Museum Keeper appointed in 1835, L.J.F. Janssen (1806-1869), kept up the good work (fig. 1.2). In the past, Janssen has been considered predominantly an armchair scholar, classifying data and keeping accounts, but more recently, partly due to research by Wout Arentzen, it has become clear that he was much more active in research and thought during his years in



Figure 1.2 L.J.F. Janssen (1806-1869) Museum Keeper in Leiden from 1835 to 1869.

his Museum post from 1835 to 1869 (Arentzen 2005; 2006; 2008). He was a man of international standing and prestige, who visited international congresses and made trips abroad. Janssen was in regular correspondence with the greatest scholars of his age, among them Thomsen and Worsaae, and in his private book collection was the German translation of Thomsen's *Ledetraat*.<sup>5</sup>

It was a long time before Janssen began to use the concept Stone Age and he was clearly quite cautious about it. He often was non-committal or put the Stone Age into an ethnical context. He appears to have been influenced by the German archaeologist G.C.F. Lisch (1801-1883), who related the stone, bronze and iron objects to three different types of tombs: Hunengräber, Kegelgräber and Wendengräber (Arentzen 2008). The first and last have an ethnic meaning. In the works of the Swedish archaeologist S. Nilsson, from which Janssen appears to have derived many of his ideas from as well, a link between material and ethnic groups occurs as well (Nilsson 1863; Janssen 1853).

Janssen accepted the sequence Stone Age, Bronze Age and Iron Age. Still, he thought a relative dating based on materials was impossible because according to him the materials were often used simultaneously. This he illustrated by means of perforated jasper wedges from Limburg, the holes in which must have been made with a metal tool, in order to carry them as pendants on a belt (Janssen 1853). The major arguments, however, came from his own research in the vicinity of the town Hilversum, where remains of “houses” had been discovered containing primitive stone objects together with a piece of sandstone worked by the Romans (fig. 1.3). Almost a century later it became clear that in this case forgery was involved (Arentzen 2008; Bakker 1990).

Another major observation by Janssen concerned the fact that there were extremely few metal finds in the Netherlands. Bronze and particularly iron tools were very rare in pre-Roman times. According to Janssen, they were so rare in the Netherlands that it was not sure there had actually been a Bronze and Iron Age, comparable to other countries where finds of bronze and iron tools were abundant. In his cautious approach to the new system, Janssen followed the German archaeologists who criticised Thomsen’s views. The main representative of these was G.O.C. von Estorff who, without dismissing the concept of a Stone Age, felt that stone tools were unsuited as guide artefacts for that period (Von Estorff

1846). Others would accept the system more easily: in 1845 an ex-serviceman from the Veluwe, H.G. Haasloop Werner (1792-1864) was the first Dutchman to write about the three-age system and adopt it without any critical remarks (Haasloop Werner 1845, 130-131).

Janssen did not get along with his director Leemans and left the museum after a professional disagreement in 1869. His departure essentially signified the end of professional active interest in the earliest Dutch history. His successor W. Pleyte (1836-1903), who mainly engaged in Egyptian archaeology, published the series *Nederlandse Oudheden* (Dutch Antiquities) from 1877 onwards and avoided the use of the three-age system there, but appears to have shared Janssen’s opinion.<sup>6</sup> He characterised anything prehistorical as Germanic, whereas a relative outsider like T.C. Winkler, employed at the Teyler Museum in Haarlem, adopted and published the three-age system and its refinements by E. Lartet in the same year (Winkler 1877).

The Leiden wall chart published in 1903 by assitent curator R. Jesse is the sole instance of a tripartite division: a prehistoric Stone and Bronze Age and an Iron Age coinciding with the Roman era (fig. 1.4). This wall chart was granted only a short life. The appointment of a new curator in 1904 made an end of the distribution of this wall chart, which was replaced by a new one in 1907 with another view on the three-age system.



Figure 1.3 Fake antiquities from Hilversum discovered in 1852/1853: axes and a piece of worked sandstone of supposed Roman age.

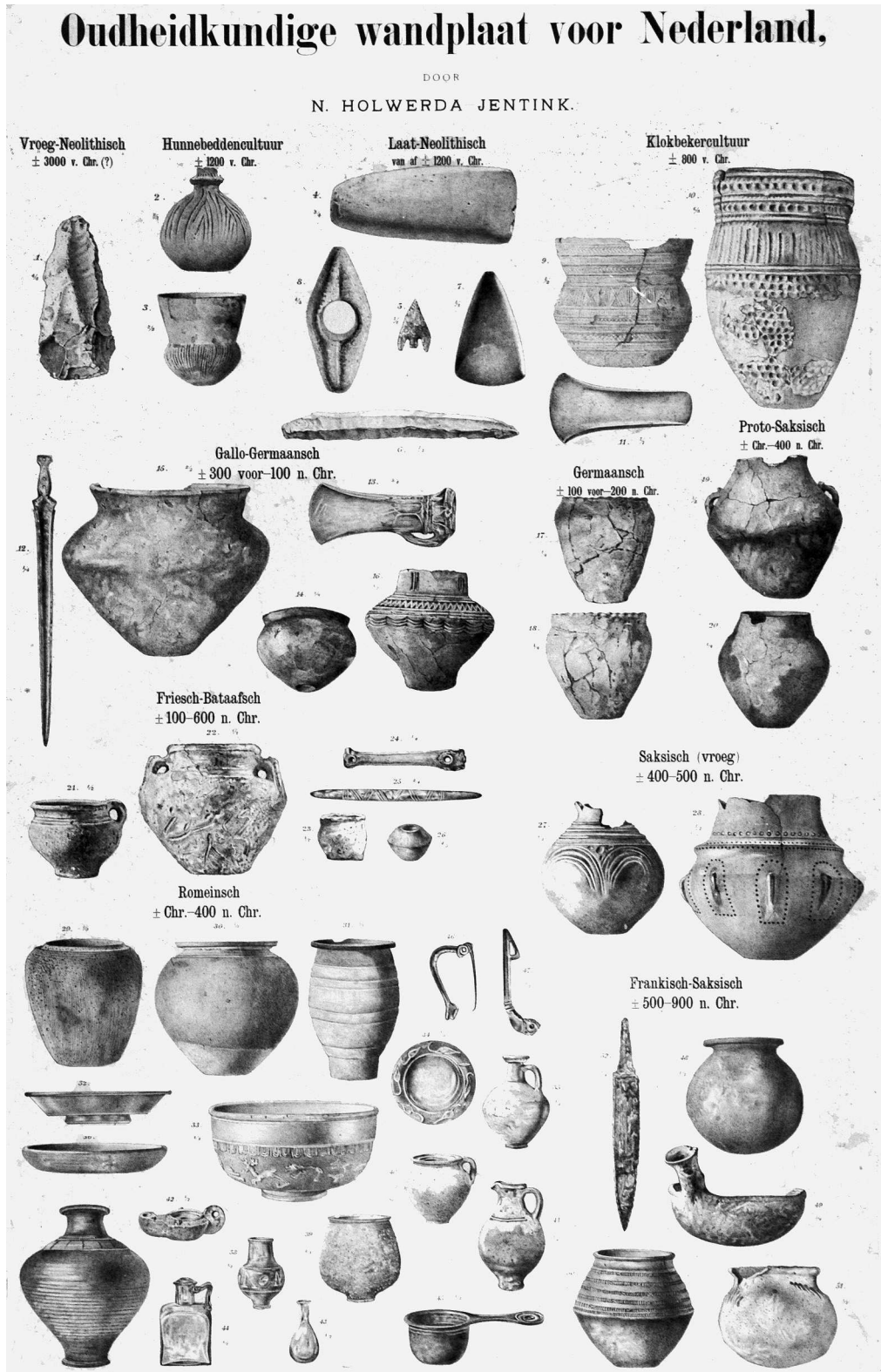


Figure 1.4 Wall chart published by J.H. Holwerda in 1907.



### 1.5 THE APPOINTMENT OF “THE HOLWERDAS”

In 1896 A.E.J. Holwerda, classics teacher and father of Jan Hendrik, was appointed professor at the University of Leiden. Seven years later, in May 1903, he was also appointed director of the National Museum of Antiquities. At a meeting of the *Koninklijke Nederlandse Oudheidkundige Bond* (Royal Dutch Antiquarian Society) on July 9, 1904 in Leiden, his ideas about Dutch prehistory were revealed. A.E.J. Holwerda spoke about his plans for scientific archaeological research and the presentation of Dutch archaeology. He envisioned a central role for the museum, with exhibitions and documentation and advocated co-operation with local and provincial museums. He ended by expressing his hopes of finding a man who could realise all this (Holwerda 1904, 161-165).

Within a month of the July 1904 meeting, P.C.J.A. Boeles, keeper of the *Fries Museum* in Leeuwarden, had responded to Holwerda senior's speech (Boeles 1904). He was enthusiastic about the Leiden Museum's grand plans, but also had – to our eyes – harsh criticism. Of course, as keeper of the *Fries Museum* he would be wary of the central role that the National Museum aimed at. More fundamental was Boeles' view of abolishing the presentation by site, as was the custom in Leiden until then. Boeles proposed a chronological arrangement, as realised by him in the *Fries Museum*, in accordance with what was by then the prevailing three-age system, and comparable to the archaeological wall chart recently compiled by R. Jesse which was in use in the Museum.<sup>7</sup> Boeles had also aired his views on who was to set up that new Dutch department: it should not in any circumstances be a classical archaeologist and, reading between the lines, Boeles may well have considered himself to be a suitable candidate.

On September 1 of that very same year the director's son, Jan Hendrik Holwerda (fig. 1.5), was appointed keeper – probably to general amazement for as far as we know he had not previously concerned himself with Dutch prehistory.<sup>8</sup> In 1904 and 1905 Jan Hendrik therefore undertook a number of study trips to acquaint himself with the new world of Dutch archaeology, and he trained in Germany to master the latest excavation techniques.

On one of these early trips he visited the *Fries Museum* in Leeuwarden where he clashed with Boeles. This argument, which was to have a major impact on future developments, culminated in a flaming row, eventually involving even the government (Verhart in prep.).

### 1.6 J.H. HOLWERDA'S THOUGHTS AND CONCLUSIONS

The development of Holwerda's thoughts on the Stone Age and the three-age system can be deduced remarkably easily from his notes, letters, articles and books, and from his views on studying Dutch archaeology. A case in point is his stance



Figure 1.5 J.H. Holwerda (1873-1951) around 1905.

in his first publications (Holwerda 1906b; 1907). Immediately after his appointment he stated, in a sort of manifest, his first views on Dutch archaeology. This, he wrote, is a field that has been dominated by amateurs, but despite their valuable contributions it is a good thing that professionals – with a classical background – are now getting involved in a systematic way. Amateurs think too easily of Stone Age, Bronze Age and Iron Age and indiscriminately attribute an object to one of these periods. Abroad a Stone Age was defined with two phases: Palaeolithic and Neolithic, and Holwerda's head was spinning with the tens of thousands of years mentioned in the publications (Holwerda 1906b, 237). He reproved the prehistorians, in particular the French and Danish, for having postulated classifications without relating this to the classical data (Holwerda 1907, 1-2).

Holwerda appears to have derived many of his ideas from his predecessors in Leiden. Major arguments for him were the observations and remarks by Janssen, such as the limited amount of metal finds in the Netherlands and the use of stone tools in later periods, which made it impossible to attribute them to a specific period. Another important source for his opinions were the publications by archaeologists like Hoernes and Undset, which made a distinction between regions in Europe that were rich or poor in bronze and where older traditions could long be maintained (Hoernes 1892; Undset 1878).<sup>9</sup> According to Holwerda the rare bronze artefacts found in the Netherlands would long have remained in use due to their value, and were therefore unsuitable as dating material (Boeles 1927, note 15).<sup>10</sup>

Crucial to the thoughts of J.H. Holwerda were his own first-hand observations of archaeology. For example, the

National Museum contained Neolithic flint objects from Spiennes in Belgium that were, in his opinion, as coarse in nature as the so-called Palaeolithic ones. According to Holwerda it was impossible to attribute an object to a period on the basis of its shape and processing. Another observation arose from his visit to the flint sites near Rijckholt-Sint-Geertruid in 1905 (Verhart 2006, 206-207). Holwerda was amazed that prehistoric flint objects this old could still be found on the surface and he related this to a third observation, at the Roman walls of Tongeren in Belgium. There he had found flakes as well, and rightly felt they stemmed from processing flint and marl blocks. This led him to conclude that the so-called workshops of Sint-Geertruid could be locations where in Roman times, or even later, flint and marl had been processed for building. Thus for Holwerda flint-working *per se* was not a chronological indicator.

As the Stone Age contained many uncertainties as a period, J.H. Holwerda felt the same was true for more recent periods as well. He pointed out that the various regions of Europe had been strongly different in cultural respects (Holwerda 1906b, 240-241). One could not therefore simply adopt a (three-age) system from the north. Moreover, Holwerda felt a clearly defined period could only be said to occur when it was terminated by a period using new materials and rejecting the old. In his opinion the Stone Age did not end until stone was no longer used for tools.

J.H. Holwerda agreed that there had been a Stone Age in which there were exclusively stone tools. A good example, to him, was the megalithic age, but he doubted that the Bronze Age would have ended that Stone Age in the Netherlands. He advanced a number of arguments to this end.

First, the number of stone tools in the Netherlands was enormous, the number of bronze tools however very small, and iron tools were particularly rare. Secondly, there were only a few graves from that Stone Age, but a large number of urn fields, which were exactly the areas where the largest concentrations of stone tools had been found. To his mind it was obvious to suppose a relation between these two matters. Third, in addition quite regularly stone tools were retrieved from 'younger' graves, was his opinion. That was his name for Germanic urns containing axes and Merovingian graves in France with stone tools. The same phenomenon had been proven to occur in the Netherlands in the urn fields, the Frisian terp mounds (Dutch: *terpen*) and the inhabited higher grounds (*woerden*) in the river district (Holwerda 1906b, 242-243, notes 2 and 3).

Holwerda therefore concluded that, unlike other areas where bronze and iron were introduced, in the Netherlands stone objects had long continued to be in use. The occasional bronze and iron objects were valuable and rare imported articles. This conclusion was an elegant solution for several

problems. For instance, from Nijmegen a stone hammer had been retrieved with an iron shaft cover and iron pegs, from the Betuwe a stone knife with remains of a bronze handle and in Hilversum 'houses' stone tools, a bone button and an early medieval stone building fragment had been found together. According to him the use of stone for tools had continued for a long time, thereby making void the principle that stone objects could indicate a Stone Age with a specific time span (Holwerda 1906b, 245; 1907, 10).

Although the stone tools could be related directly to a Stone Age thanks to the nature of the material, this was much harder for pottery. Yet J.H. Holwerda had always had a lively interest in it, and he felt that regional and temporal differences should be discernible on the basis of workmanship, shape and decoration. Pottery could also, and more easily, be linked to other cultures phenomena or culture areas.

From the Netherlands he knew the megalithic pottery, which he considered to be the oldest. The megaliths were felt to be related to the major burial constructions in the classical countries, in particular the primitive ancestors of the beehive tombs from the Mycenaean age (Holwerda 1906b, 247). To this he also related another early type of pottery, decorated with lines, that had been awarded the name of *bandceramiek*, in his eyes a misnomer. Comparable pottery had been discovered in the pre-Mycenaean layers of Troy, thereby lending support to the views about eastern influences in Western Europe (Wout Arentzen, pers. comm.).<sup>11</sup>

The northern funnel beaker pottery was an independent development, but according to Holwerda the bandceramic pottery stemmed from immigrants from the south.

Holwerda at that time did not know the bandceramic pottery from the Netherlands, only from the surroundings of Liège (Fred Brounen, pers. comm.).<sup>12</sup> There it had been found in large pits, the *fonds de cabanes*, and he first saw it during a study trip to Liège and Tongeren (Verhart 2006). He also knew it from German literature and took great pains to secure specimens for the museum. There was still a lot of uncertainty about dating the pottery, but he felt it was more or less contemporaneous with the megalithic pottery, estimating the age around 1200 BC.

Holwerda was more outspoken concerning the various tomb shapes linked by foreign scholars to specific eras. For instance Sophus Müller (1846-1934) distinguished a sequence in stone tombs in Scandinavia that would reflect differences in age as well (Müller 1891; 1897). On the basis of a series of arguments Holwerda concluded that this was no more than an unsubstantiated hypothesis. A number of these arguments supported his criticism, but he went too far in the alternative view he proposed. He stated that, as far as the Stone Age was concerned, this phenomenon was of no importance to the classification of Dutch prehistory, that the various burial forms did not yield enough data for a subdivision and finally,

that “Bronze Age types” continued until some centuries BC and in some places even until the Roman age (Holwerda 1907, 20-21).

It was early in his career at the Museum that J.H. Holwerda clearly stated that the three-age system was useless, and he held on to that opinion despite all the comments that his attitude elicited.<sup>13</sup> In his 1918 survey of Dutch prehistory and its reprint in 1925 he stood firm. In his last publication to deal with prehistory, in 1935, he did mention new discoveries and developments, but hastened to add that these were as yet extremely dubious. He repeated his belief in the actual non-existence of the Bronze Age in the Netherlands, in view of the extremely rare and fragmented finds that had been recovered. Major, sizeable bronze finds like the Voorhout hoard were dismissed as left behind by a passing trader (Holwerda 1908).<sup>14</sup> This might have been a plausible explanation for the Voorhout hoard, but is barely credible for the Ommerschans treasure, which was brought to his attention in 1927. It contained a rare ceremonial dirk and other bronze objects. Holwerda did not dismiss the Ommerschans find because it did not fit his theory; it was rather a question of the rights of ownership, because he could not purchase the treasure for the museum.

In any case it appears that J.H. Holwerda held on to the idea of a long continuation of a Stone Age all his life, and that to him, for the Netherlands actual periods like Bronze and Iron Ages were absolutely out of the question (Holwerda 1935).<sup>15</sup> As remarkable as this highly dissenting opinion is to us, just so remarkable it was at the time of his publications.

For instance, by 1920 Boeles had clearly demonstrated that the bronze scarcity was not as great as supposed and that in Gelderland and Friesland a Bronze Age clearly had occurred (Boeles 1920). In 1935, in the introduction to his dissertation, W. Willems explicitly stated that recently, as a result of the research by his teacher Van Giffen, it had been scientifically and conclusively ascertained that there had been a Bronze Age in the Netherlands (Willems 1935, 1-3). Willems also explicitly reminded his readers of Boeles’ role in that recognition. Mention of Boeles and Van Giffen (fig. 1.6) draws attention to an alternative explanation for Holwerda’s rigid attitude.

#### 1.7 INVOLVEMENT BY OTHERS

The outline sketched above suggests that Holwerda’s rejection of the three-age system was determined solely by intrinsically scientific reasons. It is, however, a matter of conjecture whether his views were based only on the study of scholarly literature and his own observations. Personal motives appear to have played a part as well. The blunt criticism by Boeles in 1904 and the subsequent incidents during his visit to the *Fries Museum* in April of 1905 appear to have had something to do with it. During that visit Holwerda was shown around by Boeles and was allowed the opportunity to document the collection. Boeles also accompanied him on a visit to the excavations of the Hoogeteintum *terp*, which were supervised by the *Friesch Genootschap* (Frisian Society). Holwerda got the impression that Boeles’ personal escort was a sign of distrust and

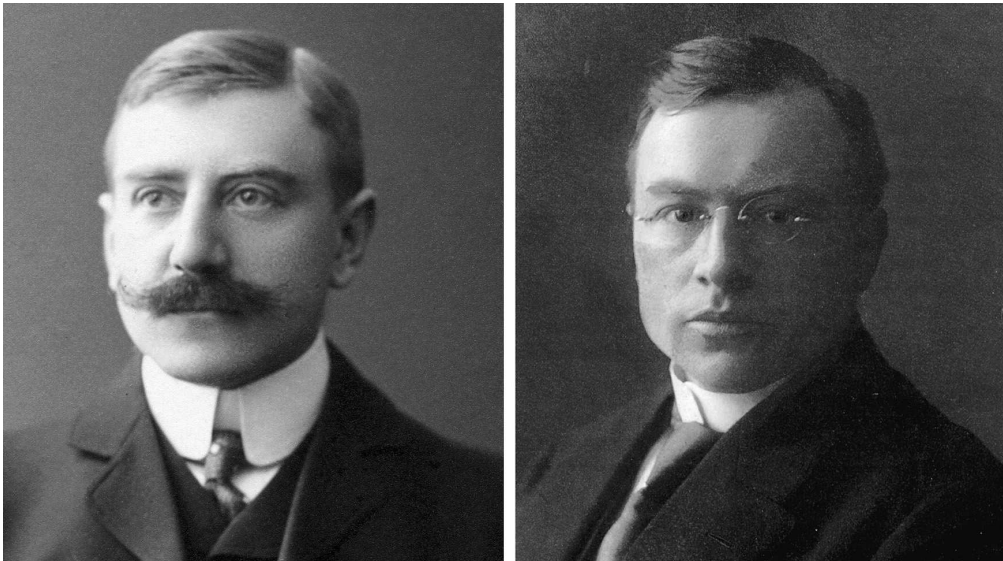


Figure 1.6 Portraits of P.C.J.A. Boeles (1873-1961) en A.E. van Giffen (1884-1973).

suspicion, and shortly afterwards he also discovered that finds in the museum had purposely been kept from him. He wrote a report to his father, essentially stating that a civil servant should be informed of everything. The elder Holwerda expounded in a letter to the *Friesch Genootschap* once again his view that Leiden should be the central location where all major national archaeological finds were to be seen, and that there was therefore no room for ‘silent obstruction by petty jealousy and local narrow-mindedness’.

The executives of the *Friesch Genootschap* defended their keeper and reported that Boeles had considered Holwerda a private visitor. This did not go down well with the elder Holwerda, as the visit had been one of a civil servant in the execution of his duties. He moreover emphasised that the National Museum of Antiquities, a government institution, was going to pay more attention to archaeological research in the province, but should by no means be considered a competitor. Increasing the unease of the *Friesch Genootschap* after these remarks, he included his son’s response, which was blunt to a fault. Jan Hendrik felt he was beyond reproach, he was only doing his duty as a civil servant and was convinced of the malice and obstinacy of the other party.

Not long afterwards, in 1906, the younger Holwerda wrote a review of the recent publication by Boeles: *De Friesche terpen* (Boeles 1906a; Holwerda 1906a, 131-132). In this review he mentioned the possibilities that real archaeologists, with knowledge of soil traces, would have had if they had conducted the investigation of the terp mounds. Without any reserve, he called Boeles unprofessional and reproached him for trying to give the impression in a roundabout way that research into the terps was making good progress. Nothing could be further from the truth, according to Holwerda. Boeles had the opportunity to write an immediate rejoinder (Boeles 1906b). He deplored the belligerent attitude of the younger Holwerda, since he had the impression that the latter’s father had buried the hatchet and explained his side of the matter. One of his conclusions was that Leiden obviously did not realise that there were institutions in the provinces that could play a part in archaeological research. Finally he turned to the remarks about professionalism. He upbraided the younger Holwerda for his lack of diplomacy and the arrogance of a government-appointed, classically taught archaeologist, who sketched the general outlines of prehistory without any trace of doubt in his very first article in the magazine *Onze Eeuw*. It was clear to Boeles that the Holwerda junior had already found the path through the darkness (Boeles 1906b, 142).<sup>16</sup>

These public outbursts set the stage and the consequences were soon to be felt. The *Friesch Genootschap*, hoping for national archaeological interest in its province, lost all trust in Leiden. They went looking for their own solution, and in 1908 a young biology student was appointed to archaeologi-

cally accompany the commercial digging of terps. This was the 24-year old Albert Egges van Giffen, later to be a colleague of J.H. Holwerda and finally professor in Groningen. Although, like others, at that time he mainly limited himself to gathering finds in commercial diggings, his ambitions for the terp research were great (Knol, Bardet, and Prummel 2005). He, too, however clashed with Boeles and the *Friesch Genootschap* and in 1911 he responded to a request from Leiden to become assistant-keeper to the younger Holwerda.

Quite soon van Giffen’s relations with both Holwerdas, in particular the son, became impossible, partly due to intrinsic differences, but mainly because of major personal problems (Verhart 2005). Van Giffen ended up leaving for Groningen in 1917, and afterwards Holwerda and he would oppose each other as much as possible, with the latter mainly being in the right scientifically. Boeles and Van Giffen continued to oppose Holwerda’s ideas in later publications, and at times qualified them as completely aberrant. Van Giffen opposed him on many issues, while Boeles long concentrated on the three-age system (Van Giffen 1922; 1924; 1930; Boeles 1951, 44).

#### 1.8 CONCLUDING REMARKS

It is clear that J.H. Holwerda was a man who stood on his dignity, taking for granted that authority came with the position of national archaeologist. That is obvious not only from this history of the three-age system, but from other issues and fields as well. That this kind of attitude, perceived as arrogance, was the sole factor deciding his position in scientific matters, leading to charges of prejudice from his opponents, is a point that needs some qualification. Holwerda appears to have been greatly influenced by his predecessors in Leiden, Reuvens and Janssen. It is likely that Holwerda’s notions about the backwardness of certain regions, that allowed old customs to be preserved for so long, originated with Reuvens. In his notes of his trips through Drenthe in 1833, Reuvens had expressed thoughts almost identical to what Holwerda would commit to paper 75 years later (Brongers 1973, RA 31, leaf 13).

The notebooks of Holwerda’s study trips and his letters provide us with an idea of the private man and his development as an archaeologist, and it is remarkable that many of his archaeological views sprang into existence very early and quickly when he first entered Dutch archaeology and were partly not to evolve noticeably in subsequent years. His notes and records, however, reveal an original mind, someone who did not indiscriminately adopt the views that were assumed to be valid for all of Europe at that time. This is an attitude currently highly valued in modern scholars, but the dangers are great. Unorthodox ideas that later are proven to be correct, provide fame and glory; but fallacies often lead to derision. The common remark that



Holwerda rejected the existence of the Bronze and Iron Ages, causing him to be considered an archaeologist advancing dissenting theses without any substantiation, does not do him justice. In his opinion, beyond the Netherlands there most certainly was a sequence in time from Bronze to Iron Age. Bronze and iron had been used in the Netherlands as well, but on a scale that to him pointed more to a cultural stage than to a period in time. It was this plus the prolonged use of stone tools that made him doubt the existence of a Bronze and Iron Age in the Netherlands. In his earliest publications Holwerda had inveighed against groups of archaeologists who advanced theories and then made their finds fit without critical examination of the data or adjustment of their theories. He pretended to be averse to the practice himself, but of course he acted in the same way. He too had his pet theories and turned a deaf ear to the building criticism.

Holwerda now appears in a less than positive light and he deserves to have his merits and qualities mentioned as well. He had a facile, journalistic pen. His excavations were published within a year, with numerous illustrations and, as mentioned before, he was the first to take up Stone Age research in a scientific manner. For instance, he undertook the first excavations of a Stone Age settlement in the Netherlands at the Uddelermeer, and his excavations of the megaliths in Drouwen and Emmen were the first scientific studies of megalithic monuments in the Netherlands (Holwerda 1912; 1913a; 1913b; 1914). With these investigations, he broke new ground and earned international renown for Dutch research as well. Impressive is also the fact that Holwerda managed to reconstruct and restore dozens of pots from the thousands of sherds, within a single year.

As a keeper, Holwerda insisted on promoting the interests of the National Museum of Antiquities on all fronts. In this he was very strict and clear, to the annoyance of others who wanted a part of the action as well, or felt their position was threatened. This caused a lot of vexation and lack of understanding, creating an image of Holwerda as the stubborn, tenacious and arrogant archaeologist from Leiden. This he usually was, as in fact diplomacy was not his strong suit. Nevertheless, for his museum activities he deserves great credit. His enormous energy led to new expositions and guides. For the first time Dutch archaeology was introduced to a wide audience, not only by his exhibitions, but also by his popular publications and his numerous articles and lectures. In this sense his successors owe a lot to his pioneering activities in the field. He provided a framework for a general and growing public interest in archaeology that still benefits the current generation of archaeologists and which they themselves attempt to expand.

## Acknowledgements

In writing this article I was greatly assisted by Fred Brounen and Egge Knol. In particular I would like to thank Wout Arentzen and Jan Albert Bakker for their critical comments. Hetty Otten-Vogelaar translated the Dutch text.

## Notes

1 Immediately after his appointment in 1966 he began work on the realisation of a new permanent exposition, opened in 1968. In addition publications like *Archeologie in Nederland*, with an accompanying radio programme, and *Sporen in het land*, but in particular the unprecedented successful popularisation of Dutch archaeology: *Verleden Land*, written in co-operation with T. Bloemers and H. Sarfatij, have contributed to an increased interest in archaeology among the Dutch population (Louwe Kooijmans 1976; 1979; 1985).

2 For an extensive description of this period cf. Trigger 1989.

3 This note is a postscript in his *Verhandelingen over de hunebedden* and is kept in the Archive of the Nederlandsche Maatschappij der Wetenschappen in Haarlem (pers. com. W. Arentzen). In 1815 a printed version was published, but without this note; nor was it included in the second edition.

4 In a letter from Reuven's successor, C. Leemans, to the Ministry of Home Affairs, dated September 10, 1859, the remark is made that he has made the acquaintance of mr. Thomsen several years before, during his visit to Leiden. Presumably this will have been after 1850. It is unknown what the reason was for this visit and whether this was the first time. It seems however highly unlikely that Thomsen visited the museum in Reuven's time. As far as can be ascertained, they did not correspond.

5 A specimen rests with the library of the National Museum of Antiquities, but it is unknown in which year the booklet was acquired.

6 In his 1889 article on the Hunneschans Pleyte points out that Ubaghs feels that stone tools were manufactured as late as the Roman era (Pleyte 1889; Ubaghs 1887). In his *Nederlandsche Oudheden van de vroegste tijden tot op Karel den Grooten. IV West Friesland* from 1902 he mentions this as a matter of fact and without his own comments.

7 As early as 1901 Boeles had already suggested making expositions in accordance with the three-age system.

8 In his publications before his appointment as keeper he never wrote about the archaeology of the Netherlands. His travel notes of the time are also strictly limited to classical subjects. Neither are such notes or publications known from his father. Holwerda jr. first public pronouncements on Dutch archaeology were made during the meeting of the Koninklijke Nederlandse Oudheidkundige Bond in Leiden, on July 9, 1904.

9 Both writers did use the three-age system.

10 To illustrate this Holwerda uses a bronze axe from the Bornwerd terp. Due to the fact that bronzes are absent in the terps and the

provenance of the find is unclear, Boeles feels this may have been a case of site falsification. This is unlikely, as the Pleistocene deposits outcrop in Bornwerd or are covered with a thin layer of Holocene sediments.

11 There are no Mycenaean layers in Troy. A handful of Mycenaean sherds have been recovered from Troy VIIa. In order to stratigraphically identify the Trojan War, this is sometimes referred to as the Mycenaean layer. It is however questionable to speak of a Mycenaean layer on the basis of a handful of sherds amongst an overwhelming amount of local pottery.

12 In 1925 in Stein the first LBK-sherds were retrieved, but not recognised as such. This did occur in the case of the 1927 finds in the Belvédère quarry near Maastricht.

13 In this context I refer also to Vollgraff (1908) with his criticism of the museum guide published in 1908.

14 This is a Middle Bronze Age hoard, containing 33 palstaves and one chisel.

15 The reason Holwerda never published the results from Ommerschans may be connected with his highly esteemed pupil A.E. Remouchamps. He was to concern himself with this find, but died quite shortly after the discovery. See also in this context Bakker 2004, K9.

16 In 1907 Boeles, possibly shocked by his harsh words, will review the new Dutch department of the Leiden museum in a highly conciliatory way, but in a letter to the Groningen historian J.A. Feith, dated March 15, 1908, he writes about Holwerda's views: "That stone period among our Germans, who defeated the Romans, is a very foolish thought, the more so as not a single Roman author mentions it" (Waterbolk 1987).

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