

University of Groningen
Groningen Institute of Archaeology – GIA

Annual Report 2008



Cover illustration: Archaeological Research on Spitsbergen in 2008. The excavation is part of the GIA and Arctic Centre LASHIPA project (photo L. Hacquebord, Arctic Centre).

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FOREWORD

Looking back upon 2008 several memorable activities and highlights come to mind. The Arctic Archaeology research group continued their – ultimately successful – efforts to find external research funding. Lecturer Jan-Willem Veluwenkamp saw two research proposals awarded by NWO. These are *Sound Toll Registers Online* and *The ascent of the Frisians. The Dutch Commercial System and the market for maritime transport, 1550-1800*. In December Kim van Dam defended her PhD thesis entitled *A place called Nunavut. Multiple identities for a new region*. Moreover, Louwrens Hacquebord acted as promoter at the defence of the PhD project of Joost Schokkenbroek entitled *Trying-Out, An Anatomy of Dutch Whaling and Sealing in the Nineteenth Century (1815-1885)* at Leiden University.

Of the many activities carried out by the Mediterranean archaeologists we highlight the reopening of the excavations of the indigenous/Greek colonial sanctuary on the Timpone della Motta in Calabria. Not only were remains found of an Archaic altar with related votive deposits, but indications of an as yet unknown monumental building also came to light – another temple building? The excavations on the Motta were started in 1991 by Emeritus professor Marianne Kleibrink, who was awarded the *Ordine della Stella della Solidarietà Italiana* by the Italian president for her outstanding contribution to Italian archaeology.

The Groningen Institute of Archaeology entered a period of transition which will continue in the coming years with the retirement of several staff members. In 2008 lecturers Piet Kooi and Jan Lanting retired. A symposium entitled *Archeologie in de regio* was organized to mark Kooi's retirement. We are very pleased to welcome Stijn Arnoldussen to our staff as lecturer in later prehistory and Roman period archaeology. Arnoldussen defended his PhD thesis on Bronze Age communities in the Dutch river area last September and his book was awarded the W.A. van Es prize.

In 2008 two professors by special appointment joined the GIA staff. They are André van Holk, professor of maritime archaeology, and Annelou van Gijn, professor of material culture studies. We expect that their contribution to GIA will widen the scope of the institute's research and will further boost external funding for our research ambitions.

A milestone is the publication of the 900-page monograph on the Midlaren excavations. This two-volume publication edited by Johan Nicolay is based on research by the greater part of our institute's staff and other specialists and presents the entire occupation history of the site, from a single Late Paleolithic flint artefact to features from World War II.

Daan Raemaekers
Director

1. GRONINGEN INSTITUTE OF ARCHAEOLOGY

The Groningen Institute of Archaeology (GIA) was established on 23 November 1995. Before 1995, archaeological research within the Faculty of Arts had been organized into four separate departments: the Biologisch-Archaeologisch Instituut, the Department of Classical Archaeology, the Department of Languages and Cultures of the Near East, and the Arctic Centre.

1.1. INSTITUTIONAL EMBEDDING

The Groningen Institute of Archaeology is a research institute within the Faculty of Arts of the University of Groningen, and is responsible for all archaeological research within the University. Nationally, GIA is associated with ARCHON, the Dutch research institute, which comprises archaeology departments at five universities (University of Amsterdam, Vrije Universiteit Amsterdam, University of Groningen, University of Leiden, Radboud University Nijmegen), and RACM (= Dutch National Service for Archaeology, Cultural Landscape and Built Heritage) at Amersfoort.

Within the University of Groningen, GIA is associated with the Centre for Isotope Research (CIR), the Department of Molecular Biology of Plants (MBP), the Centre for Ecological and Environmental and Evolutionary Studies (CEES), the Department of Cultural Geography, and other research groups in the Department of Biology and the Faculty of Spatial Sciences.

1.2. PROFILE

GIA engages in fundamental archaeological research with a strong ecological component in the Northwest European, Mediterranean and the Polar Regions. Operating within the Faculty of Arts, it undertakes all the ecological-archaeological and cultural-archaeological research that is carried out by the University of Groningen. GIA stimulates and integrates fundamental research on past human societies and their environments, from the level of Palaeolithic hunter-gatherers to that of complex urban societies. The Institute facilitates research and archaeological fieldwork through its laboratories, drawing facilities, documentation, GIS, and technical support. In addition, GIA co-ordinates the PhD student training programme and stimulates the dissemination of knowledge and culture to society at large.

1.3. STAFF

Director

Raemaekers, Prof. D.C.M.

Advisory Board

Attema, Prof. P.A.J.

Galestin, Dr M.C.

Lanting, Drs J.N.

Prummel, Dr W.

Smit, Drs B.I.

Management Team

Attema, Prof. P.A.J.

Cappers, Prof. R.T.J.

Hacquebord, Prof. L.

Raemaekers, Prof. D.C.M.

Members

Arnoldussen, Dr S.

Attema, Prof. P.A.J.

Bos, Dr J.M.

Cappers, Prof. R.T.J.

Galestin, Dr M.C.

Hacquebord, Prof. L.

Holk, Prof. A.F.L. van

Lanting, Drs J.N.

Leusen, Dr P.M. van

Nijboer, Dr A.J.

Prummel, Dr W.

Raemaekers, Prof. D.C.M.

Stapert, Dr D.

Veluwenkamp, Dr J.W.

Voutsaki, Dr S.

Post-doc

Avango, Dr D.

Loonen, Dr M.J.J.E.

Nicolay, Dr J.A.W.

PhD Students

Aalders, Y.I.

Abbink, B.P.

Dam, K.I.M.

Devriendt, I.I.J.A.L.M.

Feiken, H.

Gustafsson, U.

Haas, H.R. de

Haas, T.C.A. de

Klein Goldewijk, G.M.

Kruse, F.

Matthews, S.G.

Niekus, M.J.L.T.

Nieuwhof, A.

Roura, R.

Smit, B.I.

Thilderqvist, J.G.M.

Willemsen, S.L.

Woltinge, I.

Support Staff

Boersma, S.E.

Bolhuis, E.

Boschman, Drs J.B.

Jacobs, T.P.

Kosters, R.J.

Los-Weijns, M.A.

Maring-Van der Pers, N.D.

Oortmerssen, Drs G.J.M. van

Palfenier-Vegter, R.M.

Ploeg van der, K.

Prop, Dr J.

Scheepstra, A.J.M.

Tiebackx, S.

Tol, L.

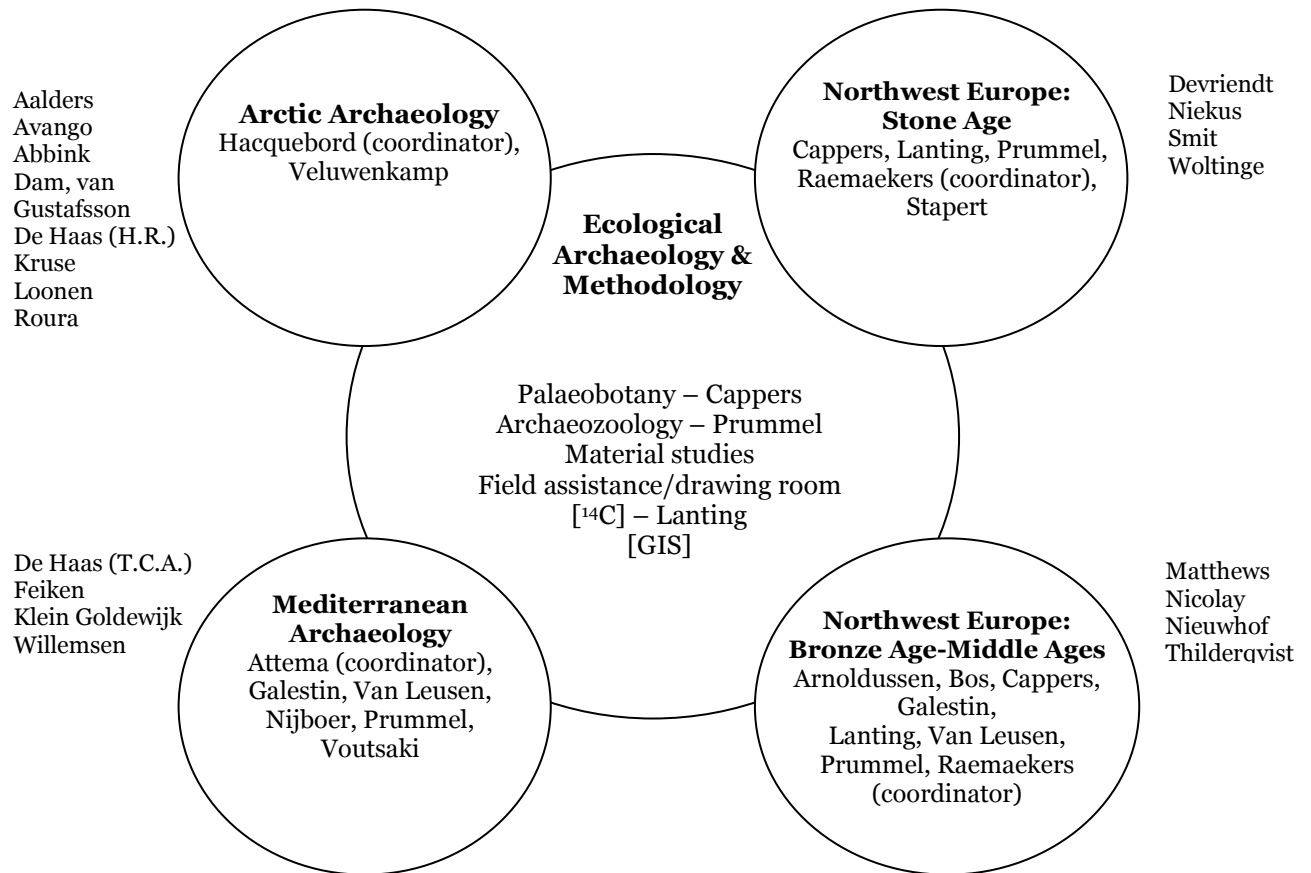
Woldring, Ing H.

1.4. FINANCES

Revenue indirect funding 2008

114209	Dutch Antarctic Policy 1945	9.300
114213	Hidden Landscapes	64.900
114217	Int Polar Year Large Scale	24.800
114219	Green Harbour Spitsbergen	113.800
114220	Nespico Spitsbergen	46.100
114221	Birdhealth Arctic/Antarctic	5.200
114222	Health Breeding Birds	133.300
114223	Lashipa 1	4.000
114227	Kings of the North Sea	38.000
114229	Green Harbour Spitsbergen	32.100
114231	Levensstandaard Romeinse Rijk	72.000
114232	Early 20th Century Wahling	53.500
		<hr/>
	Totaal	597.000
		<hr/> <hr/>

GRONINGEN INSTITUTE OF ARCHAEOLOGY: SOCIETY AND ENVIRONMENT



Inside diagram: members; outside diagram: PhD students and post-docs
 Between square brackets: associated lab or lab in development

2. RESEARCH RESULTS

Research Programme 2004-2009: Society and Environment

The GIA research programme for 2004-2009 focuses on the relationship between former societies and their environments. A major focus of research is, on the one hand, understanding how the development of societies has been influenced by environmental factors such as climate, topography and natural resources and, on the other hand, how societies and the gradual development of a cultural landscape in which man-made elements predominate have changed the environment. For additional information about the 2004-2009 programme, readers are referred to GIA's website: www.rug.nl/let/gia.

2.1. GENERAL THEMES

2.1.1. Archaeological Heritage Management

BBO Predictive Modelling Project (Van Leusen, P.M.)

The final edited volume of the BBO project on predictive modelling (2002-2006) was prepared for publication with Dr H. Kamermans and Dr Ph. Verhagen, and submitted to ASLU. It contains several papers authored or co-authored by P.M. van Leusen.

Valuable Flints (Smit, B.I.)

In 2008 the research and writing of Smit's PhD research continued. The results have been presented on several occasions and in publications. In August 2008 a draft of the completed thesis was presented to the supervisor and the co-supervisor.

Database of the GIA archaeozoological reference collection (Kosters, R.J., Jacobs, T.P., Van Gent, J. & Prummel, W.)

The GIA archaeozoological reference collection of modern skeletons for the identification of archaeozoological bone material was entered into an Access database. The database will be placed on the internet to make it available for scholars and the general public.

Archaeological value of pingo scars (Woltinge, I.)

The PhD research on pingo scars was continued and completed. As most were disturbed by land use, the emphasis was on buried pingo scars. Circular depressions surrounded by a relatively higher rampart were detected using AHN (Actueel Hoogtebestand Nederland). With the aid of soil maps, the minimum and maximum sediment cover of these locations was established. Subsequently, fieldwork was carried out to determine whether or not the selected features were indeed buried pingo scars. A start was made on a case study near the Frisian village of Woudsend, which will be continued after the breeding season. A generalization as to where to expect buried pingo scars could be inferred from the fieldwork so far.

The detection of pingo scars with the aid of the AHN contour map has proved to be not without error. Of the investigated ten locations three turned out to be a pingo scar according to De Gans' criteria (1988); one of these had a disturbed rampart. In retrospect, the criteria used for selecting the areas under scrutiny were too broad. However, because we cannot distinguish which criteria to sharpen based on such a small sample, we suggest the investigation of more, and more varied, locations. Preparing AHN maps is far less time consuming than going into the field to take detailed height measurements. Also, once maps are available, it is easy to find the locations in the field. Depending on the vicinity of the various presumed pingo scars and the detail in which they are first investigated, between three and five features can be visited in a day.

Assuming a selected area will have roughly the same geological characteristics, not all circular depressions in any given area have to be investigated at first. If two nearby features turn out to be pingo scars, chances are that other, similar structures in the vicinity will also be pingo scars – and vice versa. In order to be able to test the hypothesis that pingo scars are valuable features for archaeological purposes,

intact pingo scars must be located. The first step involves singling out areas that seem to have a high potential for the presence of these features in a buried environment. The easiest and fastest way to do this at present is the method suggested above. Once a number of pingo scars have been detected in this way and turn out to be wholly intact – peat and gyttja infill as well as podzolated ramparts – these can be investigated in more detail.

Archaeological indicators in buried landscapes (Woltinge, I.)

The question ‘what is an archaeological indicator’ is the basis for this chapter in Woltinge’s PhD thesis on buried Stone Age landscapes. Many variables have to be taken into account in order to establish when a certain material or even artefact is an indicator. The chapter includes an overview of primary and secondary indicators, as well as a section on the validity of using these indicators as a basis for deciding whether or not to excavate.

Field research in the marine sediments in Almere (Woltinge, I.)

The decalcification of clay test conducted at Swifterbant site S4 in 2007 was taken to Almere. A gully system of the Pleistocene river system of the Oude Eem was projected onto an AHN map and the gully was traced in the field to see whether or not the banks of the river could be distinguished from the infill on the basis of decalcification. The lithology of these sediments is identical, making them hard to distinguish by sight. Decalcified clay was present on the banks and not in the infill, but the infill was also different in appearance. Suggestions will be made about conducting fieldwork in the area.

2.1.2. Taphonomy of the archaeological archive

Digital Plant Atlas (Cappers, R.T.J.)

Some 10,000 photographs have been made from plant material for inclusion in the second volume of the Digital Plant Atlas: ‘Digital atlas of economic plants’. In addition, indexes have been prepared in English, Dutch, German, Spanish, Turkish, Chinese, Arabic, Hindi, Sanskrit and Malayalam. The descriptions of the plant remains have been stored in the database.

2.1.3. Isotopes in Archaeology: Diet and Chronology

The absolute chronology of the Iron Age in Italy and the Mediterranean (Nijboer, A.J. & Van der Plicht, H.)

The paper ‘The Iron Age in the Mediterranean: recent radiocarbon research at the University of Groningen’ discusses the methodological requirements for establishing chronologies based on high-precision radiocarbon dates. Inadequate use of available data is identified as one of the main reasons for the current confusion regarding the absolute chronology of the 10th to 8th centuries BC in the Mediterranean. In addition, recent high-quality radiocarbon results from Italy, Carthage and Huelva are presented. As a consequence of the latter, a slight alteration of the absolute chronology of Greek Geometric Fine Wares is suggested, resulting in a longer trading phase in the Mediterranean before the establishment of Greek settlements in southern Italy during the late 8th century BC.

With this paper Van der Plicht and Nijboer have more or less completed the radiocarbon research of the Iron Age in Italy and the Mediterranean. Together with their Italian colleagues, they might in the future publish the radiocarbon sequence obtained for Tarquinia and details regarding the Wiggle Matching dates of two tombs at Celano. Nijboer will concentrate in the future on synchronism of archaeological contexts.

¹⁴C chronology of Dutch pre- and protohistory (Lanting, J.N.)

Writing started on the last part of the chronology series: VI, Roman and Merovingian periods. This also involved a fair amount of literature study.

2.1.4. Vegetation, Fauna and the Human Impact

The Fayum project (Cappers, R.T.J.)

Surveys and excavations were conducted in the Fayum area in September-December. A start was made on the excavation of the earliest Neolithic site in Egypt, which had been discovered the previous year beneath the Kom K layers. A large-scale inventory of flint, wood and bone fragments from both Epipaleolithic and Neolithic origin on the desert survey is continuing.

Several trenches were excavated in the centre of the city of Karanis. The sampling procedure was a combination of traditional sampling and a new sampling strategy based on a model developed to optimize the reconstruction of ancient agricultural practices.

Sabi Abyad (Cappers, R.T.J.)

Samples from both the Neolithic and the Bronze Age were processed throughout the year, with considerable emphasis on the latest stage of the Neolithic (c. 6200-6000 BC), when a climatic change was responsible for a shift in the material culture in the Near East. The first results will be available in 2009.

Late-Glacial and Holocene vegetation and landscape in the Karaman Maras Plain (Woldring, H. & Kleine, E.)

A paper was completed and submitted for peer review.

Palynological research Northern Netherlands (Woldring, H.)

- *Zwartdam (Municipality of Slochteren)*: the pollen record indicates local cereal cultivation starting c. 4700 BP. The almost simultaneous spread of *Taxus* is considered anthropogenic. Finds of *taxus* wood have been dated to c. 4400 BP. From c. 4500 BP, the deposition of clastic sediment reveals wet conditions owing to increased marine influence. The research paper will be submitted for *Paleo-aktueel* 20 ('Vroege boeren in het Groninger land').
- *Stobbenven (Roderwolde, Municipality of Noordenveld)*: the improvement of the Stobbenven grasslands supplied enormous amounts of wood, mainly trunks and stubs of pine, but also oak and birch wood. Radiocarbon dates of wood samples cluster around 7900-7800 BP (pine, oak) and 6900 BP (birch, oak). The results of pollen analysis and the radiocarbon dates of the peat section indicate a start of peat growth from 9200 BP as a result of increased groundwater influence. Around 8600 BP strong oscillations and a lowering of water levels occurred. The strong rise in pine values indicates the local establishment of pine trees from 8500 BP to c. 8000 BP, which testifies to extreme drought during this time. The spread of alder carr and peat moss vegetation reveals a sudden rise in water levels, causing the death and preservation of most of the woody vegetation. Another dry phase of unknown duration occurred prior to 6900 BP. A publication is in preparation for the *Nieuwe Drentse Volksalmanak* (Woldring & Zomer, 2009).
- *Wetsingermaar* (preliminary results): pollen analysis of a core at c. 100 m from the Neolithic occupation has been completed. Owing to increasingly wet conditions, the initially dominant lime forest gave way to alder carr and reedland. Fresh water conditions prevailed at first, followed soon after by regular (tidal?) flooding by sea water, which is evidenced through the presence of marine organisms. During the organic (brown) clay phase, the appearance of *Sordaria*, *Coniochaeta* and other fungi hosting on dung reveals the exploitation of the salt marsh, the start of which can probably be dated to the end of the Neolithic and beginning of the Bronze Age. An article is in preparation (Kleine, Woldring & Feiken).

Bird health (Prop, J., Loonen, M. & Van der Jeugd, H.)

The health status of bird populations was assessed across a latitudinal gradient from temperate to arctic regions. Results allow a better understanding of animal distribution patterns, and in particular the effects of climate change on population performance.

2.2. NORTHWEST EUROPE: STONE AGE

2.2.1. Stone Age Society: Pattern and Process

Studies on the Mesolithic in the Northern Netherlands (Niekus, M.J.L.Th.)

In the northern part of the Netherlands, the Late Mesolithic is dated to the period between c. 8100 and 6000 BP, and is characterized by the occurrence of trapeze-shaped flint tips. Trapezes continued in use during the Swifterbant culture (c. 6000–4800 BP), including the ceramic Mesolithic phase (Early Swifterbant) which is dated between 6000 and 5600 BP. During the Funnel Beaker culture or TRB (c. 4800–4100 BP) transverse points dominate. With the onset of the Single Grave Culture (SGC) transverse points were no longer the ‘preferred weapon of choice’; they were replaced by surface-retouched (tanged) points. Some of the basic premises of the typological development of trapezes (narrow to broad) and the chronological relevance of ‘subtypes’ (symmetric, asymmetric, right-angled and rhombic) have been discussed based on analyses of trapezes from four excavated Mesolithic and Swifterbant sites. For comparison, a random sample of TRB transverse points was included in several analyses. One of the main conclusions of these analyses, published in *Journal of Archaeological Science* (2009), is that it is possible, based on analyses of metric and non-metric traits of trapeze-shaped flint tips, to distinguish between true ‘Mesolithic’ trapezes, trapezes belonging to the (Neolithic) Swifterbant culture, and transverse points of the TRB.

The outcomes of these analyses may help in obtaining a relative date for undated (surface) assemblages, and may furthermore lead to the positive identification of Swifterbant settlements in the higher Pleistocene areas (situated above the present-day sea level) in the northern and eastern part of the study area which are as yet unknown.

Palaeolithic & Mesolithic research (Stapert, D.)

Together with M. Niekus, L. Johansen and J. Beuker, Stapert spent quite some time on the ‘Middle Palaeolithic of the Northern Netherlands’ project. Special attention was given to the Leafpoint Group, a cluster of traditions associated with the last Neanderthals. With Johansen, Stapert continued research on the work of Middle Palaeolithic children. Specifically, the large Offerman collections (Kortenhoeft) of the Rhenen Industry were partly studied for this purpose, and this work will continue in 2009. Stapert studied rounded flint implements from Swifterbant – firemakers or something else? – with Woltinge, and continued the study of Late Palaeolithic collections from the Netherlands with Johansen.

Wetsingermaar (province of Groningen) (Raemaekers, D.C.M., Aalders, Y., Beckerman, S., Brinkhuizen, D.C., Devriendt, I., Huisman, H., De Jong, M., Molthof, H., Niekus, M.J.L.Th., Prummel, W. & Van der Wal, M.)

In 2008 the publication of the 2005 research was prepared and submitted. The analysis of the cultural remains from the test pit (3x3 m) and numerous corings suggest that Wetsingermaar is a large (>1.5 ha) site whose remains are remarkably homogeneous. Accordingly, the time depth is considered small. The single ¹⁴C date positions the site immediately before the start of TRB West group (3400 cal. BC); its remains also suggest a TRB attribution. The zoological remains are limited but suggest the importance of pigs for the inhabitants.

Bell Beaker culture in Flevoland (Raemaekers, D.C.M. & Hogestijn, W.J.)

The study of the Swifterbant area started with the find of some Bell Beaker material at a location now known as S2. These finds were published by Van der Heijden in 1967 as deriving from a level several dm above the Swifterbant culture layer, an impossible position in view of the sea level rise in this period. An overview of similar finds in Flevoland suggests that the polder was inhabited during the Bell Beaker period on a regular basis although the characteristics of the natural environment are difficult to define as a result of large-scale erosion.

The New Swifterbant Project (Raemaekers, D.C.M. & Velthuisen, D.)

The 2008 campaign shifted the attention of the Swifterbant project towards the river dunes. Research in the 1970s at one river dune along the Kamperhoekweg in Swifterbant resulted in four research areas named S21-S24. The new research aims to locate well-preserved archaeological layers around the river dune as known from river dunes in the Rhine-Meuse area, *e.g.* Hazendonk, Hardinxveld-Giessendam. Subsequent excavation of such layers would provide a greater understanding of site function and its development. This year a large number of corings were carried out around the dune. The dune extends further to the north than previously thought and is not restricted to the plot protected by law. It appears that there are no archaeological refuse layers around the dune. This absence is probably due to the presence of extensive reed and alder brook marshes surrounding the dune. The area surrounding the dune was probably difficult to traverse. The most important conclusion is that a creek was found at the newly discovered northern extension of the dune that came so close to the dune that its levee touched it. Access to the dune must have been relatively easy from this point. Charcoal and a burnt hazelnut were found in the levee sediments, suggesting that this area might have been an archaeological site.

2.3. NORTHWEST EUROPE: BRONZE AGE-MIDDLE AGES

2.3.1. Occupation History of the Sandy Soils

Roman, German and early medieval brooches from the Dutch province of Friesland (Bos, J.M.)

The main publication of the disc brooches was prepared for publication and subsequently published. Work on other groups is in progress.

Early Bronze Age hunting and animal husbandry in the Oude Diep valley (Fluitenberg-Koeweide, Hoogeveen) (province of Drenthe) (Prummel, W., Niekus M.J.L.Th. & Van der Sanden, W.A.B.)

A study was made of the bones of aurochs (*Bos primigenius*), red deer (*Cervus elaphus*) and domestic cattle (*Bos taurus*), barbed wire pottery, flint artefacts and a cooking stone that were excavated in a former channel of the Oude Diep river in August-September 2008. The animal bones represent one individual of each species. The aurochs and red deer bones have cut marks, which demonstrate that the animals were hunted. The domestic cattle bones are from an animal of 1.12 m height at the withers. The bones, pottery, flint artefacts and the cooking stone, which are in original position or have been moved only a short distance, represent animal husbandry, hunting, cooking and flint working in the Oude Diep valley in the early Bronze Age (c. 2000-1800 BC).

Bronze Age settlement dynamics (Arnoldussen, S.)

In addition to starting as a lecturer (in 2008) in Later Prehistory at the GIA, Stijn Arnoldussen completed and defended his PhD thesis on the nature and dynamics of Bronze Age settlement sites in the Dutch river area (Leiden University). The resulting publications contain sections on the palaeogeography of the Dutch river area, and discuss the results of six large-scale extensive wetland excavations with excellent preservation. The nature and interrelations of settlement site elements such as houses, outbuildings, granaries, pits and fences are studied in detail, in order to investigate the structure of Bronze Age house-sites. A synthesis of the Bronze Age cultural landscape and long-term (Middle Neolithic to Iron Age) overview of settlement dynamics is also offered.

2.3.2. Exploration and Exploitation of the Coastal Area

Wall plates with maxim from Friesland of archaeological contexts (Bos, J.M. & Volkers, T.B. (NAD))

A start was made on cataloguing and interpreting this mainly 18th-19th century group of finds.

Ritual deposits in the Northern Netherlands coastal area (Nieuwhof, A.)

Work on the results of the Englum 2000 excavation was completed and published. The PhD research was continued, concentrating on the theory of ritual and a case study (the finds from Englum).

Animals from the Englum wierde (province of Groningen) (Prummel, W.)

The report on the animal bones from the Englum *wierde*, ranging in date from the Iron Age until the Early Middle Ages, was finished in 2008. Cattle and sheep were the most important animals on the *wierde*, with pigs and horses kept in small numbers. Many cattle and few sheep were kept in the Iron Age. Sheep husbandry became more important from the Roman period onwards. The advanced ages at which the sheep were slaughtered in the Early Middle Ages demonstrate that wool production was of interest only in the Early Middle Ages. Wild boar and seal hunting were carried out on a small scale. Despite the short distance to the coast, there are no obvious signs of fishing and fowling. Sieved soil samples did not contain any fish or bird bones. Bone implements were used to smooth skins and/or textiles. Portions of cattle, dog and cod (*Gadus morhua*) skeletons were placed in ritual depositions from the Iron Age (cattle) and the

early Roman period (dog and cod) (Prummel, 2008).

Animal husbandry on the medieval and post-medieval farm De Held III (municipality of Groningen) (Prummel, W., Tuin, B.P. & Brinkhuizen, D.C.)

A study was made of animal remains from late medieval and post-medieval phases of this farm. Beef was the most consumed type of meat in both phases, while mutton was eaten more often in the Late Middle Ages than in the post-medieval phases. Bones of a calf with heavily shortened forelegs, which presumably suffered from rickets, were found in the post-medieval phase. The data on the post-medieval phase have been compared with historical statistics on the livestock at this farm and in the vicinity. Whereas the animal remains correspond with the animals killed and consumed at the farm, the livestock statistics mainly refer to animals bred for the market (Prummel, Tuin & Brinkhuizen, 2008).

Animal remains from the terp of Birdaard (province of Friesland) (Prummel, W. & Grefhorst, E.)

A very large cattle bone of presumed Roman date was presented in the Annual Report GIA 2007 as a possible female aurochs bone. The ¹⁴C-dating of a sample of the bone showed that the bone is from a recent animal, dated between AD 1679 and 1940. The manuscript on the animal remains was completed in 2008.

An aurochs horn core and a panther cowrie shell amulet from Holwerd (province of Friesland) (Prummel, W. & Olivier, L.)

Volunteer archaeologist L. Olivier found a horn core of a male aurochs (*Bos primigenius*) and an amulet from a fragment of a panther cowrie shell (*Cypraea pantherina*) in a *terp* near Holwerd. The male aurochs horn core had been cut from the skull by man. Its ¹⁴C-dating is AD 555-650, which until now is the most recent date of an aurochs bone in the Netherlands. N ($\delta^{15}\text{N}$) has a high stable isotope value of 12.28. This is perhaps connected with the salt water conditions on the former salt marsh where the aurochs lived. The amulet from a panther cowrie shell is remarkable in being a fragment of a broken shell that was pierced and made into an amulet. The shell originates from the Red Sea or the Gulf of Aden, from where it was transported to the coastal area in the 7th or 8th century AD (Prummel & Olivier, 2008).

Archaeozoology of Anjum (province of Friesland) (Prummel, W., Koops-Besijn, A. & 3rd year Bachelor's students of Archaeology)

A study was made of animal remains from early medieval and late medieval phases of a *terp* near Anjum. Sheep husbandry was much more important than cattle husbandry in the early medieval habitation phase of the *terp*. The opposite was the case in the Late Middle Ages, with cattle husbandry far more important in the Late than in the Early Middle Ages. Some cattle bones have marks of strain, which show that the cattle were used for heavy traction, for instance ploughing.

Ritual bones or common waste – A study of bone deposits in Northwestern Europe (Thilderqvist, J.)

The final bone analysis for the project was performed during the year in the form of material from the Uppåkra site. This material was situated well away from the earlier investigated bone assemblage from the weapon sacrifice layer and was analyzed to give comparative material from a normal settlement context. The analysis produced the expected results. The comparative material was clearly different from the material from the special layer in that it had far fewer cranial fragments and a normal species distribution. The rest of the year was spent further studying the already analyzed material and writing the first two material chapters.

2.3.3. Interrelationships, Exchange and Trade

Relations between Frisians and Romans (Galestin, M.C.)

Relations between Frisians and Romans were studied on different levels. The presence of *Frisii* and *Frisiavones* in the Roman army was studied in archaeological, epigraphic and historical sources. This study was published in *Palaeohistoria* 49/50 (2008).

Non-military contacts between Frisians and Romans were studied on a more regional level. Roman artefacts from the province of Friesland, from recent excavations and old collections, seem to indicate that not only military but also economic relations existed between Frisians and Romans in the first century AD. An article was written for *Diggelgoud*, a 25th-anniversary publication by the Fryske Akademy.

The well-known wax tablet from Tolsum is an interesting document for the study of relations between Romans and Frisians. The text was examined and photos were made in order to obtain a more precise date than the ¹⁴C date. Although these attempts resulted in a hypothesis, further research is needed for a definite answer.

Techniques and Society: the Middle Bronze Age weapons of Northwest Europe (Matthews, S.G.)

Fieldwork in the form of museum visits was undertaken during April-October 2008 in order to collect use-wear evidence on the bladed weapons of the British Bronze Age, for the period c. 1650-1000 BC. Some 70% of all British dirks and rapiers and a substantial number of early swords (in total c. 500 objects) were examined and evidence of their manufacture and use was recorded.

Kings of the North Sea. The development of kingship in West-Germanic societies during the 'Dark Ages' (5th-7th century AD) (Nicolay, J.A.W.)

An inventory of early medieval valuables and weapons from an extensive area along the southern North Sea was completed in 2008. Next year the distribution, style of execution and deposition pattern of these finds will be studied in order to reconstruct elite networks and the formation of kingdoms in the coastal areas of the Netherlands, Northern Germany and Southeast England.

2.3.4. Maritime Archaeology

Stock-taking and investigation of shipwrecks in Flevoland (Van Holk, A.F.L.)

A total of 480 shipwrecks have been found in the province of Flevoland. Of these, 80 still lie in situ on the former seabed. Most of the wrecks in situ have been subjected to reconnaissance excavations of varying quality over the last fifty years. From a heritage management point of view, most of these wrecks are endangered by natural processes of decay. To renew interest in this rich shipwreck resource, from both a research and management point of view, the University of Groningen launched a new programme in maritime field research (International Field School of Maritime Archaeology Flevoland) in August 2008.

The aims of this field research are fivefold:

- Research: to answer new questions about the natural and cultural context of shipwrecks, of which the maritime cultural landscape is an important element.
- Research: to update the database of wrecks in situ and to safeguard information ex situ (details of construction and artefact inventory as well as dendrochronological dating and wood provenance).
- Education: teaching students, amateur archaeologists and staff how to excavate a shipwreck.
- Creating public awareness.
- Heritage management: establishing the quality of the wrecks in situ (of the ships themselves and the artefacts they contain).

The results of the 2007 pilot excavation were published in 2008 (Overmeer *et al.*, 2008). Dendrochronological analyses showed that the trees used for building the vessel grew in Northern and Central Scandinavia and were felled in 1476 AD. Details of the construction revealed that the wreck was probably of Scandinavian origin. Overmeer will use these results in her thesis on ship finds of lapstrake construction in the Netherlands. The analysis of the 2008 field research is underway. It is already evident from the dendro results that the cog was built after 1339 AD from wood that originated from the northern part of the Netherlands.

Dutch clinker-built ships in the 15th and 16th centuries (Overmeer, A.B.M.)

This PhD research deals with seven late medieval clinker-built ships found in the Netherlands. They show characteristics found in the three medieval shipbuilding traditions of Scandinavia, the Baltic and the Dutch IJsselmeer polders, but none of these ships can be classified under a single tradition. The research attempts to allocate the Dutch clinker-built ships, with their deviant features, to the medieval shipbuilding traditions of Europe, in order to provide insight into developments in interregional trade and shipbuilding in this period.

Overmeer spent 2008 writing the central chapter – on the ship's structure of wreck U 34 – of her PhD thesis. In cooperation with RACM Lelystad, attempts were made to develop a digital reconstruction of the U 34, but unfortunately this did not work out well. In addition, work was done on the ship hydrostatics of the U 34, such as the main dimensions, displacement, volume of the hold, cargo capacity, shape of the hull, etc.

Other clinker-built shipwrecks were also examined. An excavation report of shipwreck B 36 in the Noordoostpolder (Netherlands) is in progress. For the other ships, the provenance of the timber and timber importing in the Late Middle Ages was the main focus. Finally, some literature research was conducted on the political and economic changes in the Zuiderzee region in the 15th and 16th centuries. The result will be a dissertation in 2009.

2.4. MEDITERRANEAN ARCHAEOLOGY

2.4.1. Centralization of Settlement, Urbanization and Colonization Processes, Land Use

ITALY

Crustumarium project (Central Italy) (Attema, P.A.J., Nijboer, A.J., Willemsen, S.L., Van Oortmerssen, G.J.M. & Bolhuis, E.)

The GIA has been engaged since 2006 in fieldwork at the Latin settlement of Crustumarium on the Tiber, about 20 km from the centre of Rome. Directed by Attema and Nijboer, the project is being carried out in close collaboration with the Superintendency of Rome (Dr F. di Gennaro). Van Oortmerssen is responsible for conservation and restoration in the field and in GIA's laboratory for Conservation and Material Studies, and Bolhuis for field mapping with Total Station.

The 2008 field campaign

The third campaign at Crustumarium was conducted from 1 to 25 July. As in previous campaigns, excavation work focused on Iron Age tombs of various types in the Monte del Bufalo cemetery. This year work began on several new tombs, while excavation of tombs left unfinished last year was continued. Excavation was carried out with a team of 12 students. The following tombs were (further) investigated:

- Tomb 71 is a 'tomba a loculo, tipo Narce', meaning that the tomb is reached through a shaft which is closed on one side by stones, creating a side *loculus* or niche containing the deceased. This tomb also had a closed, semi-circular *loculus* at the head that contained the majority of the artefacts. The head *loculus* in this case had already been robbed. Although the *tombaroli* took most of the ceramics, the *loculus* still contained some metal vessels. The GIA team started excavation on the head *loculus* in 2007 and completed the excavation of the side *loculus* and the shaft in 2008.
- Tomb 108 is a small chamber tomb with one *loculus* that contained the traces of a skeleton of a young woman, 14 to 18 years old. In 2008 the floor level of this tomb was reached as well as that of the *dromos*, the entrance corridor to the chamber with stairs.
- Tomb 250 is a *fossa* tomb with a head *loculus*. The head *loculus* has an opening towards chamber tomb 108, which means that tombs 108 and 250 are physically linked. Tomb 250 will be excavated in 2009.
- Tomb 32 is a chamber tomb with a collapsed roof. So far part of the chamber has been excavated in quadrants as well as part of the *dromos*, where traces of depositions have been attested and some artefacts. The chamber is interesting for its architecture. The floor level of the long *dromos* has not yet been reached. The closing stones that separate the *dromos* from the chamber have been located and excavated.
- Tomb 111, already partly uncovered by the Soprintendenza Archeologica di Roma, was continued by the GIA team. It is a tomb with a shaft, a head *loculus* with finds and a side *loculus* containing the deceased. The team excavated the shaft and revealed the closing stones. The closing stones of the side *loculus* can be removed in 2009.

Restoration and conservation

During the year blocklifts and artefacts from Crustumarium were investigated by Van Oortmerssen. Also in 2008, GIA obtained a permit for the export of tomb inventories from the Soprintendenza di Roma.

Lectures and publications

The GIA research at Crustumerium was presented at the conference 'Alla ricerca dell' identità di Crustumerium, Primi risultati e prospettive di un progetto internazionale Roma' on 5 March 2008 (published online), at the XVII Congresso Internazionale di Archeologia Classica; Incontri tra Culture nel Mondo Mediterraneo Antico, Roma, Palazzo della FAO on 22-26 September 2008 (to be published online in early 2009), and elsewhere.

Tombs from Crustumerium (Rome, 9th – 6th c. BC) (Willemsen, S.L.)

Sarah Willemsen was appointed PhD student to the Crustumerium project as of September 2008. She will carry out research relating to the tombs excavated by the GIA at Crustumerium. Willemsen started studying the field documentation, the architecture and grave gifts of the excavated tombs in detail and compiled a full catalogue in a format that is aimed at publication. A start was made on studying theories regarding the social contextualization of data from the archaeological funerary record.

Pontine Region Project (Astura project) (Attema, P.A.J. & Tol, G.)

In the period 13 June – 25 July 2008, the second field campaign was conducted at the location of the settlement of 'Astura', recorded in the 1970s by F. Piccarreta. The principal aims of the campaign were:

- Compiling a catalogue of the pottery collected during the 2007 field campaign at Astura.
- Further cleaning and mapping the archaeological strata exposed by marine erosion at the 'Astura' location.

The investigations at Astura follow the completion of the Carta Archeologica del Comune di Nettuno and are part of GIA's field studies of late Roman and early medieval contexts in the municipality of Nettuno. A unique find context this year relating to an antique wall fragment consisted of early medieval red-painted pottery. The GIA team has for the first time attested continuity of coastal occupation from the Roman period into the medieval period outside an urban centre. Part of the research was presented by Attema and Tol at the 3rd International Conference on late Roman coarse wares, cooking wares and amphorae in the Mediterranean: Archaeology and Archaeometry (Parma/Pisa, 26-30 March 2008). A paper based on the poster has been submitted in collaboration with T. Derks (The 'Carta Archeologica' of Nettuno, evidence for late antique and early medieval settlement on the coast of South Lazio near Antium and Torre Astura).

Pontine Region Project (Nettuno project) (Attema, P.A.J. & De Haas, T.C.A. & Tol, G.)

In 2008, the Italian manuscript of the book 'Nettuno, il territorio dalla preistoria al Medioevo, la Carta Archeologica' was submitted to the publisher to be officially presented at a conference in Nettuno on 6 March 2009. The extended edition of the manuscript in English (with artefact catalogues) was accepted by the editorial board of the Bulletin *Antieke Beschaving* as a supplement to the journal and is ready for correction by a native speaker. The first of two reports on the intensive Nettuno and Astura surveys was finished and published in *Palaeohistoria* 49/50, together with an article on the amphorae from the coastal region (De Haas, Attema & Pape).

Tol carried out intensive surveys on a number of Roman villa sites as part of his PhD thesis, assisted by students from the Department of Archaeology. De Haas and Attema prepared a paper on the demography of the colony of Antium on the basis of a paper given in the workshop 'Greco-Roman economic growth: a workshop in Groningen – 30-31 August' organized by W. Jongman. An elaborated version of this paper was submitted by De Haas and Attema to Oxford Studies on the Roman Economy with the title 'Rural settlement and population extrapolation, a case study from the ager of Antium, central Italy (350 BC – AD 400)'.

The Romanization of the Pontine region: continuity and change in rural, urban and sacral landscapes (De Haas, T.C.A.)

In 2008, work on the various databases continued. Additional fieldwork was done in the second case study area (Pontinia area) and new fieldwork was started in the third case study area (Norma area). Draft versions of the introductory chapters (chapter 1 on landscape, history and research history and chapter 2 on state of research, research questions and methodology of research) were written as well as reports on the chapters that discuss the three case study areas (chapter 3 on the Nettuno area, chapter 4 on the Pontinia area and chapter 5 on the Norma area). Substantial time was spent on a number of (co)authored publications, while the preliminary results of the Pontinia case study were presented in a poster at an international conference in Rome (AIAC). Furthermore, the promovendus acted as head of the editorial board of the *Tijdschrift voor Mediterrane Archeologie* until the summer of 2008 (after this he will still be editor) and was member of the Archon PhD council (since 2007).

Raganello Archaeological Project (Attema, P.A.J. & Van Leusen, P.M.)

In July surveys were carried out in the Raganello valley with second-year students from the Department of Archaeology at Groningen University and the Department of Classics at the University of Ottawa. The fieldwork was directed by Van Leusen as part of the Francavilla summer school. Several new protohistoric and Hellenistic sites were located along the lower valley. During two stays in October and November, Attema, Oome and Ippolito studied protohistorical ceramics from several sites for the final publication.

Oome won second prize in the XXVIII Edizione del Premio Internazionale, Colonie Magna Grecia 'Arialdo Tarsitano' of the Rotary Club of Cosenza for the article that she wrote with Attema entitled 'Portieri, a Hellenistic fattoria in the foothills of the Sibaritide (Calabria, Italy), site report and shard catalogue', published in *Palaeohistoria* 49/50.

Hidden Landscapes Project (Van Leusen, P.M. & Feiken, H.)

The VIDI-funded Hidden Landscapes Project began in 2005 and by 2009 aims to have completed several related methodological studies of Italian landscapes, including field and geophysical surveys in upland and highland terrain and a paleogeographical reconstruction of the Pontine graben, in an effort to understand the systematic biases occurring in regional archaeological records. The final field survey campaigns of the HLP were carried out (by De Neef) in the autumn in the upland and mountain transects of both study regions, and finds processing (by Tol, Oome and Alessandri and others) was nearly completed by the end of the year. Preliminary reports will be released in early 2009, but full analysis of the results must wait until summer/autumn 2009.

GIS and geodata

Much effort has been poured into the creation or improvement of geodata for both study areas, which are now beginning to be made available on a shared disk of the Arts Faculty. This should greatly improve current and future GIA researchers' access to high-quality geodata including various sets of georeferenced air photos and the 1927 elevation data for the Pontine plain. Similarly, a start was made on creating an RDBMS capable of holding both site and nonsite data generated by the HLP and other GIA projects in the Pontine region. Collaboration with physical geographers at the University of Leuven resulted in the acquisition of a very detailed elevation model for the RAP area, which will greatly enhance GIS analyses including the erosion/deposition model being developed by Feiken in collaboration with physical geographers at Utrecht University.

Geo-archaeology

Feiken completed the mapping of landscape classes at scales of 1:25,000 for both the Lepini and the RAP study regions, as well as at the more detailed scale of 1:10,000 for three transect areas each in both regions. Major progress was also made with the geo-archaeological study of the Pontine graben. The geological field data collected in the 2007 coring campaign have been fully analyzed, and trial trenches have been dug in October 2008 to collect further stratigraphical, sedimentological and environmental data and samples, which will be processed in 2009. Feiken presented his work through papers and posters at several international conferences.

Kleine began to analyse pollen samples collected at two locations in the upper Raganello study area, which should cover the period after c. AD 900 (not yet represented in the pollen data for this region), and is expected to report in early 2009. Together with VU intern Van den Biggelaar, Van Leusen conducted a small geomorphological study of site locations in the RAP area. The report is expected in early 2009.

Geo-Archaeology of the Hidden Landscapes of Italy (Feiken, H.)

In 2008 Rik Feiken continued his research in the Pontine plain of south Lazio, and the upper Raganello basin in northern Calabria. He completed work on the landscape classification at scale 1:10,000 for three sample areas in the Lepine mountains, and followed up last year's coring campaign in the Pontine plain with targeted test pits and additional cores to study specific geological phenomena in more detail (together with Prof J Sevink and Drs P Vos). OSL and radiocarbon samples, as well as thin sections from these pits and cores were submitted to various laboratories for analysis, and preliminary results indicate that big strides have been made in understanding the later Holocene development of the Pontine graben. Rik also continued work on the development of the CALEROS erosion/sedimentation model for the Maddalena area in the Raganello basin (with Drs R. van Beek and T. van Asch), and presented this at two international conferences on erosion and landscape evolution (Brussels and Porto Heli).

Writing of the PhD thesis progressed, with analysis and reporting on the 2007 fieldwork completed and sections on the landscape classification and erosion modeling added. Work on the planned article (with others) on the archaeology of the Sezze-Fogliano transect was stopped because it interfered too much with the PhD.

Excavations at the Timpone Motta sanctuary, Francavilla Marittima, Calabria (Attema, P.A.J. & Jacobsen, J.K.)

The Francavilla project was started by GIA in 1992 under the scientific direction of M. Kleibrink. Following a break in excavation activities in 2005, during which team members carried out post-excavation work elaborating data from the Kleibrink excavations, new excavations were started this year. This was made possible through a special permit issued by the Ministero dei Beni Culturali at Rome.

The 2008 field season

The excavations in the sanctuary on the Timpone Motta at Francavilla were carried out between June and the end of November by a team working under the responsibility of Attema, with Jacobsen acting as field director. The excavations had the dual aim of consolidating and protecting excavated features by levelling the existing high baulks and carrying out further investigations into the stratigraphy of the sanctuary at several spots. The following results were achieved: the continuation of the temenos wall from the mid-7th century BC (already partly uncovered in 2004) was revealed as well as debris from the subsequent collapse of the wall. The latter must have taken place towards the middle of the 6th century BC. In a second excavation area (MSIII), situated in the centre of the sanctuary, an altar dated to the mid-6th century BC was excavated. Below the altar stratigraphical evidence was found for two earlier building phases, which could be dated to the end of the 7th century and the first half of the 6th century BC. The excavation team was composed of students from the GIA and the University of Calabria (UNICAL) as well as specialists from various universities. Part of the excavation work was done within the framework of a summer school programme at Francavilla Marittima.

Artefact studies and publications

Alongside the excavation, Jacobsen and Mittica (Scuola di Specializzazione, Lecce) directed an artefact study campaign in August. The catalogue and illustrations for the publication, 'Excavations on the Timpone della Motta 1992-2004, Vol. II The Colonial Pottery', were prepared in this campaign. In addition, five publications were prepared and/or concluded by Jacobsen.

Public activities

Following the closure of the excavation Jacobsen (GIA), d'Andrea, Mittica and Oome (GIA) prepared an exhibition and catalogue on the results of the 2008 excavations, to be displayed in the Archaeological Museum in Reggio Calabria in the course of 2009.

GREECE

VIDI Project (Middle Helladic Argolid Project) (Voutsaki, S.)

The project is making good progress. The report in Pharos has been submitted; articles on the stable isotopes, analysis, ¹⁴C analysis and settlement analysis have appeared or are in print, and more articles are in preparation and await comments by co-authors. There is a certain (and predictable) delay in the edited volume of the project, as the emphasis now is on publishing articles in peer-reviewed journals and preparing the final monographs. Two papers were given by Voutsaki:

- A presentation of the project at the Annual Meeting of the Netherlands Institute at Athens (January 2007).
- A conference paper on the Asine tumulus (Udine, Italy, May 2007).

INSTAP Project (Argos MH 'Tumuli' Project) (Voutsaki, S.)

The project is making good progress despite the difficulties in running two projects at once. The work on the LH finds, the archival information and the comparative analysis of the 'tumuli' has continued. There has been a delay in the application for samples for the various analyses because the study of the archival information has revealed certain problems in identifying a few skeletons. Hopefully, this can be resolved in early 2009. The preparation of the final volume is under way: the work on the data chapters, the MH pottery chapter, the catalogues and the plates is progressing. Voutsaki gave a conference paper on the Argos Tumuli in Udine, Italy, in May 2007.

Argos Museum (Voutsaki, S.)

The study of the material in the Argos Museum has been effectively completed, and some last queries have been resolved. Only a very small number of artefacts from the 'tumuli' have not been located in the Museum, and these appear to have been missing for a long time, or are items (*e.g.* obsidian blades and flakes) not illustrated in the preliminary reports, hence impossible to identify. The only remaining task is to complete the inventory cards of the Argos Museum; a brief visit is therefore planned for 2009. The study of material from Prosymna in the National Museum was started in September 2008, but was not completed because of a shortage of space in the NM storage rooms. This will be continued in 2009.

Deilaki Archive (Voutsaki, S.)

The study of the archive is progressing. Among the highlights is a geological report organized during the original excavation of the 'tumuli' in order to resolve the central problem of the Argos 'tumuli': are the pebble layers surrounding the tombs the result of episodic flooding, or are they man-made? We have been able to trace the geologist who carried out the investigation, and have been told that he may still have the original data. We will pursue the matter in 2009.

The study of the archival material has, however, also revealed some problems in the identification of the examined skeletons. This is a serious problem which has delayed the scientific analyses (stable isotopes, ¹⁴C, DNA), as some of these skeletons would be sampled for the various analyses. It is hoped that this matter can be resolved in early 2009.

The Early and Middle Neolithic site of Kamara (Sourpi Plain, Thessaly) (Prummel, W., Reinders, H.R., Karimali, E., Rondiri, V., Tzevelekidi, V., Wijnen, M.H.J.M.N.)

The manuscript on the survey and excavation at the Early and Middle Neolithic site of Kamara (Thessaly, Greece) was finished in 2008. A comparison of the survey and excavation data is an important part of the article. Survey and excavation give roughly the same results for habitation on this site.

WESTERN CRIMEA, UKRAINE

Ukraine (NW Crimea): Džarylgač Survey Project (Attema, P.A.J. & Guldager Bilde, P. (Centre for Black Sea Studies, Aarhus, Denmark)

The second fieldwalking campaign of the Džarylgač Survey Project was carried out in May by a team composed of GIA and CBSS staff. In the ploughed zone, six vast fields were intensively surveyed in the transect line. This year the survey focused mainly on the northern side of the lake, covering a total of 6.4 km² in 1873 units. Further evidence was found for Bronze Age and Hellenistic rural settlements and related kurgans (mound burials). On the slopes 24 km² was surveyed, including 76 kurgans. In addition, seven settlement sites were recorded. Independent projects within the survey included Attema and Delvigne (GIA) classifying the landscape types based on augering; Attema and Tiebackx (GIA) continuing the topographical survey of 2007 of kurgans and Hellenistic housing with Total Station; V. Stolba (CBSS) excavating trial trenches; and T. Smekalova (CBSS) with her team and a team from Eastern Atlas (a German company) carrying out geomagnetic survey.

Due to problems connected with the current concession, the third and final campaign planned for May 2009 has been cancelled. Work in 2009 will concentrate instead on publishing the first two campaigns. Results of the project were presented at two conferences in October 2008 (AIAC conference, Rome by Attema and Williamson (ICOG PhD student)) and TMA Jubileumdag, Groningen, by Attema). Both papers have been prepared for publication.

2.5. ARCTIC ARCHAEOLOGY

2.5.1. Exploration and Exploitation of the Polar Areas

LASHIPA-5 (Hacquebord, L., Aalders, Y.I., Avango, D., Gustafsson, U.I., De Haas, H.R. & Kruse, F.)

The international LASHIPA project (www.lashipa.nl) was set up in 2006 and 2007 to participate in the International Polar Year 2007-2008. The Arctic Centre has received financial support (approx. EUR 1 million) for one Postdoc and three PhD students for this project from the Swedish Research Council, the Russian Academy of Sciences and the Dutch Research Council.

In August 2008 the historical-archaeological research in the Green Harbour region in Spitsbergen continued, carried out by an international team including Swedish, American and Russian colleagues. The purpose of the expedition was to collect archaeological evidence from mining and mineral exploration camps, as well as whaling and hunting stations on Spitsbergen and Bear Island.

The expedition was divided into four separate teams, active in different areas. Team 1 worked in the Isfjorden area and the Spitsbergen west coast. Team 2 worked at Kokerineset at Green Harbour (Grøn fjorden) and team 3 at various sites on Bjørnøya. Team 4 worked primarily at Longveardalen and Adventdalen, but also performed surveys at Sassenfjorden and Colesbukta.

The exploitation of natural resources in Green Harbour, Spitsbergen (78°N) in the pre-industrial whaling and hunting period (Aalders, Y.I.)

Archaeological fieldwork at Kokerineset (Spitsbergen) was continued in 2008. The excavation concentrated on feature 4, consisting of remains of huts situated on a terrace. The excavation uncovered the remains of at least three Russian Pomor huts, and possibly two other huts. These huts were occupied during different periods. In order to understand how the hunters made use of the natural resources of Spitsbergen all the bone material was collected for archaeozoological analysis at the GIA. All the finds from the 2007 and 2008 excavations have been brought to Groningen for conservation treatment and material study. Study of the material assemblage could indicate whether there were any contacts between the European whalers and Pomors. In 2008 small pieces of West European tobacco pipes were found in Pomor contexts, indicating that meetings might have taken place between the two cultural groups. The report on the 2008 excavation is in progress.

Rituals and symbols in the struggle over the polar areas and their natural resources (Avango, D.)

Research in archives and in the field on Spitsbergen shows that rituals and symbols of occupation played an important role in the struggle for the polar areas and their natural resources. In several cases there were strong connections between the diplomatic strategies of national governments and the claiming of land by industrial companies, through the use of symbols in the landscape.

Development and decay: a comparative study on the driving forces behind the development of the modern whaling industry in the Arctic and Antarctic (Gustafsson, U.I.)

Fieldwork was conducted at Bear Island during 2008. Its purpose was to gather data for this research project as well as for other LASHIPA sub-projects. The data collected during 2008 has provided important information that has added to that collected during the 2007 fieldwork in Spitsbergen. The dataset collected during the two LASHIPA campaigns has allowed for comparative analysis on the evolution of the modern whaling industry in the Arctic. Important archival research was also conducted during 2008 in Sandefjord, Tønsberg, Oslo and Tromsø in Norway. Analysis of the two Arctic sites shows that they display clear differences.

The coal exploitation of the NV Nederlandsche Spitsbergen Compagnie on Spitsbergen in its national and international context, 1919-1932 (De Haas, H.R.)

Over the past year, the major part of identifying and gathering the most important archival sources was carried out, industrial archaeological fieldwork was completed at three of the four Dutch (NESPICO) sites on Spitsbergen, further academic education, courses and seminars were attended, and various publications and presentations on the first results of the research project were presented. The introductory chapter of the thesis was discussed and a start was made on writing chapters I and II.

British Exploration, Mining and Diplomacy on Spitsbergen, 1898 – 1952 (Kruse, F.)

In 2008, archaeological survey and building recording was carried out at no less than 15 exploration and mining sites on the archipelago formerly belonging to the Scottish Spitsbergen Syndicate, the Northern Exploration Company and the Anglo-Russian Grumant Company. Kruse attended the first of a series of seminars at the Posthumus Institute, and this will continue throughout 2009. A research trip to Scotland and the North of England unearthed significant archival material from the Scottish Spitsbergen Syndicate and the Spitsbergen Coal and Trading Company, and a second research trip to southern England is currently being planned.

2.5.2. Environmental Change

Arctic environmental cooperation (AMAP, CAFF and SDWG) (Hacquebord, L., Van Dam, K.I.M., Van Leeuwen, M. & Loonen, M.J.J.E.)

Van Leeuwen attended an OGA meeting in Tromsø, Norway and Hacquebord attended the 22nd working group meeting of AMAP in Quebec City, Canada. Several assessments will soon be ready for publication. Van Dam worked on a SDWG report on adaptation to climate change. She participated in two SDWG meetings to discuss the report. Loonen discussed biodiversity questions in the yearly CAFF meeting.

Bird health (Loonen, M.J.J.E. & Prop, J.)

Sample analysis, experiments and field sampling were the main activities in the second year of the project. Our results show a highly variable activity of the immune system in birds. Only a few of the tested parameters are linked to persisting individual attributes. The incidence of infection is much lower in the Arctic compared to temperate areas. In the third and final year of the project, we will focus on publishing our results.

Arctic Goose ecology (Loonen, M.J.J.E.)

The long-term study of a population of barnacle geese continued for the 19th year at the Netherlands Arctic Station in Ny-Ålesund (www.arcticstation.nl). The study encompasses behaviour, plant-animal interaction and predator-prey interaction. Behaviour is studied from observations of coloured rings with unique inscriptions for each individual, which can be read through a telescope at a distance of 200 metres.

The effect of geese on the vegetation is studied by comparing vegetation composition and production inside and outside exclosures (small fenced areas which exclude grazers). Predation has been increasing over the study period. The successful denning of an arctic fox in the middle of the study area was similar to 2006, but there was slightly less predation pressure on goslings.

2.5.3. Science and Politics in Polar Areas

Dutch Antarctic policy and research since 1945, in comparison with that of Belgium and Germany (Abbink, B.P.)

This year was mainly used to finish the dissertation. In addition, some activities were conducted as part of the International Polar Year (IPY) and for the Dutch Youth Steering committee of the IPY.

Sustainable Development and Regional Identity in Nunavut, North Canada (Van Dam, K.I.M.)

The work for the PhD project concentrated on finalizing the dissertation and preparing the manuscript for public defence. The PhD thesis was defended on 11 December 2008. Another activity was participation in the Sustainable Development Working Group (SDWG) of the Arctic Council. Two meetings were attended (Oslo and Tromsø, Norway). In the summer, research was conducted for the SDWG project 'Vulnerability and adaptation to climate change in the Arctic'. This project resulted in a report for the Arctic Council.

Protection of cultural heritage in Antarctica and Svalbard (Spitsbergen) (Roura, R.M.)

A second season of Antarctic fieldwork was carried out, starting in December 2007 and ending in January 2008. Fieldwork was conducted on an opportunistic basis as part of activities with the Graduate Course of Antarctic Studies (GCAS) organized by Gateway Antarctica, University of Canterbury, Christchurch, New Zealand. The base for field activities was a field camp on the McMurdo Ice Shelf, from where it was possible to visit some of Antarctica's most significant remains of the 'Heroic Area' (the early period of Antarctic exploration, 1895-1917) as well as more recent sites of interest. The main research methods were a rapid site assessment and direct observations of visitor activities. Fieldwork enabled us to apply and refine a behavioural repertoire of visitation to historic sites developed in 2007; to assess the main impact of cultural and natural processes on historic remains; and to gather information on the practical aspects of cultural heritage management. Even in a remote area like Ross Island, historic sites have become part of a contemporary systemic context. Contemporary cultural processes contribute to site transformation with their own distinctive patterns. Conservation policies for the historic huts on Ross Island, which are partly related to tourism developments, help to maintain the physical frame of the huts in good condition but can be regarded as somewhat intrusive. Research methods were a simplified version of methods previously applied in Antarctica and Spitsbergen and allowed us to compare the similarities and differences in the contemporary use of historic sites, site transformation and management approaches in both regions.

2.5.4. Arctic and Subarctic Product Markets

Arctic Product Markets (Veluwenkamp, J.W.)

In May 2008 NWO granted the large investment subsidy for REDS: Realization Electronic Database Sound Toll Registers (1497 – 1857) that Veluwenkamp had applied for in co-operation with Tresoar, Leeuwarden. Tresoar will build and host the STR online database and will supervise data entry, which will be carried out by a social workplace to be contracted by the University of Groningen by 1 April 2009. We have called for tenders in accordance with European regulations. Tresoar has appointed two data input managers, who will start their jobs on 1 January 2009. In July 2008 Veluwenkamp applied to NWO for a small research programme in free competition to carry out research into the early modern Frisian shipmasters community and the Dutch market for maritime transport as functions of the Dutch commercial system and the Frisian regional economy. This programme will make extensive use of STR online.

3. RESEARCH ACTIVITIES

3.1. FIELDWORK

THE NETHERLANDS

Zuid-Flevoland, 9 January. Survey of a shipwreck on lot P 37-II.

Staff : W. Waldus (ADC), A.F.L. van Holk (GIA/Nieuw Land), A.B.M. Overmeer (Nieuw Land),
D. van der Roest & M. van der Rijst (Groundtracer bv)

Helpermaar-Eiland, 21 April–30 May. Excavation of Neolithic TRB site.

Director : J. Huis in't Veld (ARC bv)

Staff : A. Nieuwhof (supervision participating students), J. Mendelts (student assistant), R. Fens (student assistant), R.J. Kusters

Participants : *GIA students*: M. Admiraal, E. Anema, M. Bakker, W. Bakker, L. Bosch, L. van Bruggen, N. Bukala, A. Clemens, C. de Boer, L. Derksen, J. Dijkstra, G. Ezendam, M. Feenstra, M. van Geffen, M. Halberstadt, F. Heinrich, J. Hilbrants, F. Hitzert, J. Hoekstra, M. Hondelink, E. Hopman, N. Jager, S. Kaaijk, L. Kiers, T. Maliepaard, M. Piket, Y. van Popta, E. Scheele, D. Spiekhout, D. Timmerman, T. Trienen, I. van der Velde, T. Varwijk, F. Westra, T. Wolhuis

Cooperation : G.L.G.A. Kortekaas (ROEZ Department, Municipality of Groningen)

Dronten, 25 April. Pollen and diatoms sampling of profiles of the Hanzelijn Dronten.

Director : H. Woldring, P. Cleveringa, H. de Wolf

Harlingen-Schrittens, 16 June–28 November. Majolica kiln and waste Schritsen 52.

Director : De Steekproef bv

Staff : J.M. Bos

Participants : A. Berends, E. Bolhuis, S. Tiebackx

Cooperation : De Steekproef bv, Municipality of Harlingen, Museum Het Hannemahuis

Stobbenven, July. Wood sampling for ¹⁴C-dating, dendrotaxonomical en dendrochronological research.

Directors : H. Woldring, J.N. Bottema-Mac Gillavry, H. de Wolf, P. Cleveringa

Hoogeveen, Fluitenberg-Koeweide/Oude Diep, 8-26 August. Excavation and fieldwalking in the valley of the Oude Diep.

Director : W. Prummel, M.J.L.Th. Niekus

Staff : S. Tiebackx, H. Woldring, S. Boersma, E. Bolhuis, A. Bril and K. Slager (De Jong & Breunis bv, Rouveen)

Participants : *AWN Flevoland*: E. van Galen Last, H. Hartsuiker and J. Boes. M. Rooke (Libau), M. van Kruining (ADC), J. van Gent

GIA students: A. Hullege, J. Mendelts, T. Trienen, C. de Boer, G. Ezendam, H. Kranenburg, J. van Gent, R. Fens, M. Bakker, E. Hopman, N. Bukala, M. Piket

Cooperation : W.A.B. van der Sanden (Drents Plateau), J. Beuker (Drents Museum), T. ten Anscher (RAAP-Noord), G. Aalbersberg (RAAP-Noord), D. van den Berg (RAAP-Noord)

Swifterbant, 11-22 August. Coring campaign at river dune S21-S24.

Director : D.C.M. Raemaekers

Staff : I. Woltinge

Participants : *GIA students*: T. Douma, J. Geuverink, W. Samson, J. Wiersma and volunteers from Archeologische Werkgemeenschap Nederland

Cooperation : D. Velthuisen (Nieuw Land)

Emmeloord (kavel M 107), 11-22 August. Excavation of late medieval cog.

Director : A.F.L. van Holk

Staff : H.R. Reinders

Participants : *GIA students*: D. Bartels, K. Blok, A. Hullegie, A. Hut, D. Postma, J. Weishaupt
Students University Leiden: J. Verweij, B. Zandbergen
Volunteers from Archeologische Werkgemeenschap Nederland

Cooperation : RACM: G. Schreurs, F. Dallmeijer

Province of Drenthe/Overijssel, 1 November–31 December. Survey of Middle Palaeolithic sites.

Director : M.J.L.Th. Niekus

Staff : J. Beuker (Drents Museum), D. Stapert, L. Johansen

Participants : *GIA students* and amateur-archaeologists

Cooperation : Drents Museum Assen, Drents Prehistorische Vereniging Archeologische Werkgemeenschap Nederland (dept. North Netherlands)

EGYPT

Fayum, 15 September–31 December. Survey and excavation of Neolithic (Kom K and Kom W) and Roman period (Karanis).

Director : R.T.J. Cappers, W.Z. Wendrich

Staff : –

Participants : D. Arnold, H. Barnard, M. Betti, B.G.E. Boehm, J. Bos-Seldenthuis, A.V.A.J. Bosman, T. Bryant, A. Buszek, A. De Wit, D. Depraetere, A. Deras, J. Eichelberger, P. Fanning, C. Fischer, S. Gupta-Agarwal, A. M. Hense, T. Herbich, G. Hjulstad, S. Holdaway, H. Jacobs, M. Kamel, H. Kars, L. Landon (Stevens), J. La Poutré, K. Le, V. Linseele, R. Merriman, A. Muir, V. Muros, D. Oppenheimer, K. Pansire, D. Patton, R. Phillipps, S. Pietrzak, M. Goddard Ring, B. Seldenthuis, M. Schepers, N. Shirai, A. Susak, J. Then, R. Tomber, W. van Neer, S. van Roode, I. van Stokkom, E. Wells, L. Winiata, I. Ystgaard

Cooperation : *GIA*, *UCLA*

ITALY

Crustumerium

Crustumerium, Rome, 25 June–28 July. Excavation tombs of the Monte del Bufalo necropolis, 800-500 BC.

Director : A.J. Nijboer, P.A.J. Attema

Staff : G.J.M. van Oortmerssen (field conservation), E. Bolhuis (field drawings)

Participants : *GIA students*: K. van der Veer, S. Willemsen, J. Leunge, T. Kauling, M. Bannink, D. Ewolds, S. Huizing, E. Anker, M. Uildriks, J. Blom, J. Nieuwenhof. K. Wheeler (University of Leicester)

Cooperation : F. Di Gennaro (Soprintendenza per now Beni Archeologici di Roma), E. Jarva (University of Oulu, Finland), U. Rajala (Cambridge University, UK), B. Belelli Marchesini (Soprintendenza per now Beni Archeologici di Roma)

Pontine Region

Sermoneta, 26 January–16 February. Ceramic studies of material Pontinia survey.

Director : T.C.A. de Haas

Staff : T.C.A. de Haas

Participants : D. Ewolds (*GIA student*), R. Kalkers (student UvA), S. van Poppel (Radbout University)

Cooperation : M. la Rosa, C. Anastasia

Nettuno, 30 June–7 July. Surveys Pontinia and Norma areas.

Director : T.C.A. de Haas

Participants : *GIA students*: L. Spoelstra, H. Pape

Bassiano, 27 September–18 October. Survey Norma area.

Director : T.C.A. de Haas

Participants : *GIA students*: T. Lanjouw, D. van Tienhoven. M. Ratliff (Groningen University), A. Kay (University College London)

Cooperation : C. Anastasia

Lepini/Graben, 27 September–2 November. Field survey ‘Lepini 2008’ and geo-archaeological campaign ‘Graben 2008’.

Director : P.M. van Leusen

Staff : H. Feiken, W. de Neef

Participants : *GIA students*: T. Roovers, D. Ewolds. E. Bakker (VU Amsterdam), B. Noordervliet (Leiden University), C. Cogar (University of Bristol), J. McDougall and A. Kay (University College London), E. Kesseli (University of Connecticut), E. Sleijpen (volunteer)

Cooperation : C. Anastasia, J. Sevink (Amsterdam University)

Nettuno, 6-31 October. Nettuno project, survey of Roman villa sites.

Director : P.A.J. Attema

Staff : G. Tol

Participants : *GIA students*: T. van Loon, I. Azier, T. Kauling

Cooperation : Soprintendenza Archeologica per il Lazio (F. di Mario)

Calabria

Francavilla Marittima, 26 April–14 November. Excavations on the Timpone Motta.

Director : P.A.J. Attema, J.K. Jacobsen

Staff : M. d'Andrea, G. Mittica, C. Colelli

Participants : *GIA students*: L. Broekstra, H. Duinker, E. Oostlander, M. Orriëns, T. Roovers, A. Stenvert, D. van Tienhoven, N. Vukkink. *Associated researcher from GIA*: N. Oome. *Students from the Scuola di Specializzazione in Archeologia Classica di Catania*: L. Bernò, M. Finestrella, C. Idonea, A. Laudani, A. Raudino. *Student from the Scuola di Specializzazione in Archeologia Classica di Lecce*: F. Romana De Castro. *Students from the Università della Calabria*: L. Altomare, E. Andaloro, C. Bruno, V. Caparelli, M. Cesarini, M. Costantino, T. Cupiraggi, M. Dacri, M. De Cicco, E. De Stefano (Dipartimento Scienze della Terra), M. De Tommaso, M. Gabriele, M. Greco, M. Lombardo, V. Malomo, I. Mammola, P. Montalto, D. Morrone, D. Pate, A. Pugliese, A. Roperti, G. Scarpelli, F. Scarpini, G. Scoleri, M. Sésil, A. Smeriglio (Dipartimento Scienze della Terra), M. Trozzi. *Student from the Università di Catania*: C. Di Lorenzo. *Student from the Università "La Sapienza" di Roma*: C. Marchetti. *Student from the Università di Milano*: L. Granata. *Students from the Università di Padova*: F. Scarpini, F. Piccin. *Student from the Università di Matera*: G. Galioto. *Student from the Università di Pisa*: M. Veneziano. *Student from the Università del Salento*: C. Garropoli. *Student from the Università di Trento*: K. Civetta. *Student from the Università di Venezia*: P. Ortelli. *Students from the Università di Aarhus*: S. Bruun Kristensen, S. Saxkjaer, K. Thomsen.

Cooperation : Università della Calabria (student participation)

Raganello basin, 21 June–12 July. Field survey along the middle Raganello.

Director : P.M. van Leusen

Participants : *GIA students*: N. Vukkink, D. van Tienhoven, A. Stenvert, T. Roovers, M. Orriëns, E. Oostlander, H. Duinker, L. Broekstra Cardamone. University of Ottawa: R. Hembruff, S. Schade, L. Dang, V. D'Addario

Francavilla Marittima and Villafranca, 28 June–20 July. Finishing landscape classification RAP-area and Monte Lepini.

Director : P.M. van Leusen

Staff : H. Feiken

Participants : W. Claes (Royal Museums of Art and History, Brussels, Belgium)

Francavilla Marittima, 4-20 October. Pottery study campaign of survey sites of the Raganello Archaeological Project.

Director : P.A.J. Attema

Staff : P.A.J. Attema

Participants : N. Oome (self-funded PhD at GIA), F. Ippolito (Scuola di Specializzazione of the university of Bari with internship at GIA), M. Brescia (volunteer, now Scuola di Specializzazione of the university of Bari), Y. Attema (volunteer)

Cooperation : Soprintendenze Archeologica della Calabria (inspector dott. Ssa. S. Luppino and soprintendent dott.ssa. E. Greco) – Gruppo Speleologico 'Sparviere' (A. La Rocca)

Raganello basin, 12-26 October. Highland survey and geomorphological studies.

Director : P.M. van Leusen

Staff : W. de Neef

Participants : E. Kesseli, C. Cogar, A. Kay, E. Tolstoj (volunteer), D. van den Biggelaar (VU Amsterdam)

Cooperation : N. Oome

GREECE

Argos Museum

Director : S. Voutsaki
Staff : K. Sarri
Cooperation : 4th Ephorate of Antiquities (Nauplion)

Deilaki Archive

Director : S. Voutsaki
Staff : K. Sarri
Cooperation : 4th Ephorate of Antiquities (Nauplion), Ephorate of Speleology (Athens)

Halos, 25 June – 6 August. Excavation of the “House of the Tub” in the Hellenistic town of New Halos

Director : H.R. Reinders, W. Prummel
Staff : *GIA students*: T.A. Abelen, V.J. van den Berg, G. Bunt, M.L.J. Bergmans, F.H. Boersema, T.M. Dijkstra, J.S. van der Heul, J. Krist, D. van der Linde, M.G. Peters & E.I.M.H. Rozema
Cooperation : 11th Ephorate of Prehistoric and Classical Antiquities (Nauplion)

WESTERN CRIMEA, UKRAINE

NW Crimea, 3-31 May. Džarylgač Survey Project.

Director : P.A.J. Attema, P. Guldager Bilde (CBSS)
Staff : P.A.J. Attema, S. Tiebackx
Participants : *Specialists*: J. Delvigne, W. de Neef, C. Williamson, A. Chudin, S. Handberg, L. Keller, S. Lancov, C. Meyer, R. Kniess, A. Pasumanski, D. Pilz, E. Schönherr, H. Zöllner, T. Smekalova, V. Stolba, B. Ullrich, K. van der Veer
Field walkers: M. Bannink, S. Bengtsson, C. Brøns, S. Hoffmann, J.M. Højte, A.S. Jacobsen, K.W. Jacobsen, A. Karjaka, M. van Kruijningen, M. Mawla, A. Mellah, K. Bechmann Olesen, L. Rønje, M. Unger, K. van der Veer
Cooperation : The Danish National Research Foundation’s Centre for Black Sea Studies, University of Aarhus (Denmark); Institut für Klassische Archäologie, Freie Universität, Berlin (Prof. Fless); Institut für Geographische Wissenschaften, Physische Geographie, Freie Universität, Berlin (Prof. B. Schütt); Eastern Atlas, Geophysical prospection, Berlin (C. Meyer)

THE POLAR REGIONS

Ross Island, Antarctica, 22 December 2007–4 January 2008. Cooperation Gateway Antarctica, Canterbury University, New Zealand.

Director : L. Hacquebord
Participants : R.M. Roura

SPITSBERGEN

Ny-Ålesund, 9 June–14 August. Arctic Ecology and BIRDHEALTH.

Director : M.J.J.E. Loonen
Staff : M.J.J.E. Loonen
Participants : K. Sisson (master student biology Utrecht), M. Hammers (master student biology Groningen), E. de Jong (field assistant), J.W. Loonen (field assistant)
Cooperation : J. Rozema (VU Amsterdam), L. Fizez (University Antwerpen) M. Stech (National Herbarium Leiden), H. Kruijjer (National Herbarium Leiden), A. Gröne (Veterinary science Utrecht), V. Munster (Erasmus MC Rotterdam)

Nordenskiöldkysten, 29 June–14 August. BIRDHEALTH, sampling behaviour and health status of goose species.

Director : J. Prop
Staff : J. Prop
Participants : *Student*: T. Oudman. *Volunteers*: R. Visser, A.J.M. Scheepstra, T. van Spanje, E. Wolters
Cooperation : C. Hübner (UNIS Longyearbyen), L. Griffith (Wildfowl & Wetlands Trust Slimbridge)

Kokerineset, Green Harbour, 23 July–24 August. Excavation of a Russian hunting station.

Director : Y.I. Aalders
Staff : Y.I. Aalders, L. Hacquebord
Participants : *GIA students*: S. Dresscher, M. de Jong, W. Aalders, B. Bekooij
Russian Academy of Sciences: V. Starkov, V. Derzhavin, M. Derbenov, V. Prokurnov
Cooperation : Russian Academy of Sciences, Moscow, Russia

Bear Island/Barents Sea, 25 July–25 August. Documentation of the remains of a modern whaling station, coal mine, lead mine, etc.

Director : U.I. Gustafsson
Staff : U.I. Gustafsson, G. Rossnes (National Board of Antiquities, Norway)
Participants : U.I. Gustafsson, G. Rossnes
Cooperation : National Board of Antiquities, Governor of Svalbard/Norway

Forlandet, Kings Bay, Cross Bay, Green Harbour and the southern coast of the Ice Fiord, 27 July – 16 August. Survey and documentation of mining stations.

Director : D. Avango
Staff : D. Avango, H.R. de Haas, F. Kruse
Participants : C. Hartnell, S. DePasqual
Cooperation : Royal Institute of Technology [Kungliga Tekniska högskolan], Stockholm (Sweden); Michigan Technological University, Houghton (Michigan, USA)

Spitsbergen, 23 August–17 September. Survey of the NESPICO remains on Spitsbergen.

Director : D. Avango
Staff : H.R. de Haas, D. Avango, F. Kruse
Participants : H.R. de Haas, D. Avango, F. Kruse

3.2. WORKING VISITS

Aalders, Y.I.

28-30 April, Houghton, Michigan (USA): Annual LASHIPA workshop.

Attema, P.A.J.

6-20 January, Rome (Italy): Study period at the Royal Dutch Institute at Rome (KNIR) to edit the monograph *Regional Pathways to Complexity* (with G.J. Burgers and P.M. van Leusen).

21-26 November, Francavilla Marittima and Alessandria del Carreto (South Italy): Fieldwork evaluation Timpone Motta and Raganello Archaeological Project.

12 December, Groningen (Netherlands): Annual meeting GIA, session leader.

19-21 December, Nettuno (Italy): Proof reading session of the publication *Nettuno, il territorio dalla preistoria al Medioevo, la Carta Archeologica* with co-authors and publisher.

Avango, D.

7-18 January, Stockholm (Sweden): Archival research at the national archives.

22 February, Stockholm (Sweden): Meeting with executive council of the Swedish IPY committee.

6 March, Stockholm (Sweden): Meeting of the Swedish SCAR committee.

23 April, Stockholm (Sweden): Meeting with executive council of the Swedish IPY committee.

26 April-2 May, Houghton, Michigan (USA): Workshop LASHIPA project.

26 May, Stockholm (Sweden): Meeting with the Swedish SCAR committee.

6-8 June, Stockholm (Sweden): Board and national representatives meeting of TICCIH.

9-11 June, Norberg (Sweden): TICCIH conference on international education in industrial heritage.

16 June, Stockholm (Sweden): Workshop Arctic Norden project.

7 July, St. Petersburg (Russia): Meeting of SCAR history group.

8-11 July, St. Petersburg (Russia): SCAR-IASC open science conference IPY.

8-10 October, Umeå (Sweden): Conference about the human dimension in the Arctic.

23-28 November, Oslo (Norway): Archival research at the national archives.

Bos, J.M.

1 March, Groningen (Netherlands): Amateur Archaeology Day Northern Netherlands.

Cappers, R.T.J.

26 August, Amsterdam (Netherlands): Symposium 15-year jubilee BIAAX Consult.

12 December, Groningen (Netherlands): Annual meeting GIA, session leader.

Dam, K.I.M. van

19-22 May, Oslo (Norway): Meeting Sustainable Development Working Group of the Arctic Council.

22-23 October, Tromsø (Norway): Workshop 'Vulnerability and Adaptation to Climate Change in the Arctic'.

23-25 October, Tromsø (Norway): Meeting of the Sustainable Development Working Group of the Arctic Council.

26-28 November, Groningen (Netherlands): International and multidisciplinary Conference 'Re-exploring Canadian Space/Redécouvrir l'Espace Canadien'.

Devriendt, I.I.J.A.L.M.

2 February, Leiden (Netherlands): Steentijd dag (Stone Age Archaeology Day).

26-30 March, Vancouver (Canada): Conference Society of American Archaeologists.

Feiken, H.

- 15 January, Utrecht (Netherlands): Meeting with Dr R. van Beek (CALEROS).
- 28 February, Ezinge (Netherlands): Meeting with Drs J. Delvigne (article landscape classification).
- 11 and 27 March, Utrecht (Netherlands): Meeting with Dr R. van Beek and Dr T. van Asch (CALEROS).
- 18 March, Groningen (Netherlands): Theory Discussion Group (B.I. Smit).
- 13 May, Utrecht (Netherlands): Meeting with Dr R. van Beek (CALEROS).
- 27 May, Groningen (Netherlands): Lecture Drs Klein-Goldewijk.
- 28-30 May, Brussels (Belgium): Flemish Heritage Institute, Congress 'The Archeology of Erosion / The Erosion of Archaeology'. Poster presentation 'CALEROS: an Erosion-Deposition Model for Landscape Archaeology'.
- 13 June, Zwolle (Netherlands): Meeting with Prof. J. Sevink, Graben 2007.
- 14 August, Utrecht (Netherlands): Meeting with Dr R. van Beek and Dr T. van Asch (CALEROS).
- 13 November, Amsterdam (Netherlands): Meeting with E. Bakker (VU).
- 5 December, Wageningen (Netherlands): Symposium 'The role of long-term landscape reconstruction for understanding current-day rates of landscape change'.
- 11 December, Amersfoort (Netherlands): NOA lecture RACM 'Fysisch-geografisch onderzoek van rivieren en de bewoningsdynamiek in hun omgeving'.
- 12 December, Groningen (Netherlands): Annual meeting GIA.

Galestin, M.C.

- 3 June, Groningen (Netherlands): Study of the Hoard from Hallum (Friesland) excavated by the ARC.

Gustafsson, U.I.

- 20 January – 3 February, Vestfold and Sandefjord (Norway): Archival work.
- 20-25 August, Oslo (Norway): Archival work.

Haas, H.R. de

- 1 January, Amsterdam (Netherlands): The Nederlandsche Bank, various visits for archival research.
- 1 January, Den Haag (Netherlands): Royal Library and National Archives. Various visits for archival research and literature.

Haas, T.C.A. de

- 5-6 March, Amsterdam (Netherlands): Theoretical Roman Archaeology Conference (TRAC).
- 10 March, Amsterdam (Netherlands): Conference for PhD-students, Posthumus Central Issues Seminar.
- 17 September, Amsterdam (Netherlands): Archon PhD council meeting and working visit J. Pelgrom (UL/VU).

Hacquebord, L.

- 8 January, Groningen (Netherlands): LASHIPA workshop.
- 12-17 January, Seoul and Tjiju (South Korea): IASC excom meeting/review Korean Polar Program.
- 24-29 March, Syktyvkar (Russia): ASSW 2008 IASC.
- 8 April, Amsterdam (Netherlands): KNAW SCAR commissie.
- 9 April, Groningen (Netherlands): Lunch Ambassador of Norway to discuss future research possibilities.
- 29 April – 2 May, Houghton, Michigan (USA): LASHIPA Workshop.
- 9 May, Groningen (Netherlands): Book Presentation *A Passion for the Pole. Ethological Research in Polar Regions*.
- 14 May, Amsterdam (Netherlands): Polair symposium I/KNAW.
- 13 June, De Bilt (Netherlands): KNMI cooperation in polar research.
- 7-12 July, St. Petersburg (Russia): Co-chair of the Open Science Conference IASC/SCAR.
- 29 August, Den Haag (Netherlands): Ministry of Foreign Affairs, Interdepartmental meeting polar research.
- 29 September, Den Haag (Netherlands): CPO/SCAR meeting, future polar research.
- 8 October, Den Haag (Netherlands): Canadian Embassy, meeting with Mrs A. Dion (SAO) on the geopolitical situation in the polar region.
- 8-10 October, Umeå (Sweden): Conference about the human dimension in the Arctic, keynote speaker.
- 20-26 October, Reykholt (Iceland): Boreas Conference, participation with lecture.
- 29 October, Den Haag (Netherlands): I, National IPY committee meeting.

- 12 November, Den Haag (Netherlands): Paleis Noordeinde, Conference 'The Polar Regions in a Changing World'. Conference with HM the Queen of The Netherlands, Crown Prince Willem Alexander and Princess Margriet.
- 13 November, Groningen (Netherlands): Teleconference organization ASSW 2009 in Bergen (Norway).
- 3 December, Groningen (Netherlands): Teleconference organization ASSW 2009 in Bergen (Norway).
- 5 December, Groningen (Netherlands): Teleconference IASC Standing Committees.
- 6-10 December, Quebec-city (Canada): AMAP working group meeting.
- 17 December, Utrecht (Netherlands): CPO/SCAR meeting.

Holk, A.F.L. van

- 30 May, Amersfoort (Netherlands): Glavimans Symposium on the maritime cultural landscape .
- 8 October, Baarn (Netherlands): Workshop The cultural Landscape.
- 12 December, Groningen (Netherlands): Annual meeting GIA.

Klein Goldewijk, G.M.

- 4-6 April, Amsterdam (Netherlands): Theoretical Roman Archaeology Conference.
- 29 May, Oxford (UK): Data collection at the Sackler Library.
- 30 June – 4 July, Leiden (Netherlands): University Medical Center, Barge's Anthropologica, Interuniversity summercourse physical anthropology.
- 28 July-1 August, Leiden (Netherlands): Skeleton practice, part of the summer course physical anthropology.

Leusen, P.M. van

- 6-14 January, Rome (Italy): Royal Dutch Institute (KNIR), editorial meeting on the monograph *Regional Pathways to Complexity* (with P.A.J. Attema and G.J. Burgers).
- 17 January, Groningen (Netherlands): Meeting UvA pottery team to discuss research plans.
- 25-26 May, Mol (Belgium): RAGALIRS steering committee meeting.
- 8-10 November, Nettuno-Villafranca (Lazio, Italy): Fieldwork preparation meeting.
- 12 December, Groningen (Netherlands): Annual meeting GIA.

Loonen, M.J.J.E.

- 20-25 January, Toronto (Canada): Workshop Hudson Bay Goose Project.
- 20-25 February, Quebec (Canada): Workshop IPY-project Arctic Wolves.
- 10-14 April, Nordenskiöldkysten (Spitsbergen): Retrieving field equipment.
- 17 April, Leiden (Netherlands): Exhibition display IPY projects BIRDHEALTH and LASHIPA.
- 10 July, Ny-Ålesund (Spitsbergen): Field excursion University of Michigan (USA).
- 8 August, Ny-Ålesund (Spitsbergen): Svalbard kurset.

Matthews, S.G.

- 23-25 May, New York (USA): TAG (Theoretical Archaeology Group) Conference.
- 19-21 September, Edinburgh (UK): Scotland in Later Prehistoric Europe, Society of Scottish Antiquaries Conference.
- 21-23 November, Sheffield (UK): Bronze Age Forum.
- 15-17 December, Southampton (UK): TAG (Theoretical Archaeology Group) Conference.

Nicolay, J.A.W.

- 25 May, Nijmegen (Netherlands): 11th day Roman pottery.
- 16-22 June, Northern Germany: Several museums and institutions, inventory early medieval weapons and valuables (Veni-research).
- 4-6 September, Bad Bederkesa (Germany): Conference 'Trade and Communication Networks of the 1st Millennium AD'.
- 11-13 October, Bad Bederkesa (Germany): Werner Haarnagel Gedächtnis Kolloquium zum 100. Geburtstag.
- 8-11 November, Frankfurt (Germany): 59. Internationales Sachsensymposium 'Glaube, Kult und Herrschaft'.
- 9 November, Rijswijk (Netherlands): Reuwendagen.
- 12 December, Groningen (Netherlands): Annual meeting GIA.

Nieuwhof, A.

- 14 February, Amersfoort (Netherlands): NOAA-lezing RACM.
- 1 March, Groningen (Netherlands): Amateur Archaeology Day Northern Netherlands.
- 6 June, Leeuwarden (Netherlands): Conference on the occasion of the 25th anniversary of the Argeologysk Wurkferbân of the Fryske Akademy.
- 27 August, Groningen (Netherlands): 6th meeting of the bird working group of ICAZ.
- 29 September – 2 October, Heidelberg (Germany): Conference Ritual Dynamics and the Science of Ritual.
- 8-13 November, Frankfurt (Germany): 59. Internationales Sachsensymposium ‘Glaube, Kult und Herrschaft’.
- 3 December, Amersfoort (Netherlands): RACM, meeting on terp-research.
- 12 December, Groningen (Netherlands): Annual meeting GIA.
- 15-17 December, Southampton (UK): TAG (Theoretical Archaeology Group) Conference.

Nijboer, A.J.

- 7-29 May, Rome, Bologna and Verucchio (Italy): Study leave for the Project ‘Chronology Late Bronze Age till Orientalizing Period’ and for the Crustumerium Project.

Overmeer, A.B.M.

- 30 May, Amersfoort (Netherlands): Glavimans Symposium.
- 30 October, Lelystad (Netherlands): Nieuw Land Erfgoedcentrum, Symposium Swifterbant.
- 30 October, Lelystad (Netherlands): RACM Lelystad, presentation exhibition ‘Zeemansgraf’.
- 31 October, Midlaren (Netherlands): Presentation publication ‘Opgravingen bij Midlaren’.
- 13-14 November, Rijswijk (Netherlands): Reuvsdagen.
- 12 December, Groningen (Netherlands): Annual meeting GIA.

Prop, J.

- 18 February, Wehe-Den Hoorn (Netherlands): Workshop ‘De fascinerende wereld van wilde ganzen’.
- 28 March – 4 April, Longyearbyen (Norway): Preparation fieldwork.

Prummel, W.

- 2 February, Leiden (Netherlands): Steentijddag (Stone Age Archaeology Day).
- 3 March, Salisbury (UK): Wessex Archaeology.
- 16 May, Antwerpen (Belgium): Study day Flemish-Dutch Ecological Archaeologists.
- 12 June, Leiden (Netherlands): Conference ‘Between foraging and farming’ in honour of Prof. L.L. Kooijmans.
- 29 August – 2 September, Visegrád (Hungary): ICAZ International Committee meeting.
- 30 October, Lelystad (Netherlands): Nieuw Land Erfgoedcentrum, Symposium Swifterbant.
- 14 November, Rijswijk (Netherlands): Reuvsdagen.
- 28 November, Amersfoort (Netherlands): Workshop Dutch Archaeozoology.
- 12 December, Groningen (Netherlands): Annual meeting GIA.

Raemaekers, D.C.M.

- 11-13 June, Leiden (Netherlands): Conference ‘Between foraging and farming’ in honour of Prof. L.L. Kooijmans.
- 3 September, Leiden (Netherlands): PhD defense S. Arnoldussen.
- 30 October, Lelystad (Netherlands): Nieuw Land Erfgoedcentrum, Symposium Swifterbant.
- 12 December, Groningen (Netherlands): Annual meeting GIA.

Roura, R.M.

- 17-19 March, Miami (USA): Conference 'The Future of Antarctic Tourism' (International Association of Antarctica Tour Operators (IAATO)).
- 14 May, Amsterdam (Netherlands): Polair symposium I/KNAW.
- 2 June, Kiev (Ukraine): 31st Antarctic Treaty Consultative Meeting.
- 8-11 July, St. Petersburg (Russia): SCAR/IASC Open Science Conference.
- 2 October, Den Haag (Netherlands): European Polar Consortium/I Workshop 'Polar Alert: Developing a system for environmental threat identification, policy formulation and effective responses in the Polar Regions'.
- 5 November, Den Haag (Netherlands): Ministry of Foreign Affairs, Antarctic tourism meeting.
- 12 November, Den Haag (Netherlands): Paleis Noordeinde, Conference 'The Polar Regions in a Changing World'. Conference with HM The Queen of The Netherlands, Crown Prince Willem Alexander and Princess Margriet.
- 10 December, Den Haag (Netherlands): Ministry of Foreign Affairs, Antarctic tourism meeting.
- 12 December, Groningen (Netherlands): Workshop 'Indigenous communities in the Arctic: Histories of change and cultures of resilience'.

Smit, B.I.

- 12 December, Groningen (Netherlands): Annual meeting GIA.

Thilderqvist, J.G.M.

- 17 June – 1 July, Lund (Sweden): Animal bone analysis.
- 12 December, Groningen (Netherlands): Annual meeting GIA.
- 15-17 December, Southampton (UK): TAG (Theoretical Archaeology Group) Conference.

Veluwenkamp, J.W.

- 26 March, Leeuwarden (Netherlands): NWO site visit STR online.
- 22 May, Groningen (Netherlands): Congress of the N.W. Posthumus Institute.
- 17 June, Leeuwarden (Netherlands): STR online meeting with Tresoar (Realization Electronic Database Sound Toll Registers 1497-1857).
- 3 October, Leeuwarden (Netherlands): STR meeting with Tresoar.
- 3 October, Amsterdam (Netherlands): WAR NIP (Scientific Advisory Board Netherlands Institute St. Petersburg).
- 9 and 23 October, Leeuwarden (Netherlands): Job interviews STR online, Tresoar.
- 24 October, Leeuwarden (Netherlands): STR online meeting with Tresoar.
- 11 November, Leeuwarden (Netherlands): STR online meeting with Tresoar.
- 12 December, Groningen (Netherlands): Annual meeting GIA.

Voutsaki, S.

- 30 January – 6 February, Athens (Greece): Research visit (work in library, meeting with K. Sarri, lecture at NIA).
- 14-17 May, Tumuli, Udine (Italy): Conference 'Ancestral Landscapes: Burial Mounds in the Copper and Bronze Ages'.
- 12-22 July, Argos and Sparta (Greece): Research visit (work in Argos and Nauplion Museum, meeting with Organizing Committee of MESOHELLADIKA conference, visit to Sparta in order to discuss collaboration in fieldwork project).
- 20-28 September, Athens (Greece): Research visit (study of Prosymna material in National Museum, meeting with PhD-student A. Theodorou, meeting with K. Sarri, meeting with Director of Fitch Laboratory in order to discuss possible collaboration in provenance analysis of ceramics, meeting with Secretary of Greek Archaeometry Society to discuss series of conferences on Science and Archaeology).
- 3 October, Groningen (Netherlands): TMA Jubilee Congress.
- 12 December, Groningen (Netherlands): Annual meeting GIA.

Willemsen, S.L.

22-26 September, Rome (Italy): Associazione Internazionale di Archeologia Classica.

24 November, Leiden (Netherlands): Symposium Culture Contact.

12 December, Groningen (Netherlands): Annual meeting GIA.

Woltinge, I.

2 February, Leiden (Netherlands): Steentijddag (Stone Age Archaeology Day).

4 March, Almere (Netherlands): Meeting with municipal archaeologist Drs W.J. Hogestijn.

16 September, Almere (Netherlands): Meeting with municipal archaeologist Drs W.J. Hogestijn.

30 October, Lelystad (Netherlands): The Swifterbant culture in its Northwest European context: looking outside in and looking forward.

12 December, Groningen (Netherlands): Annual meeting GIA.

3.3. LECTURES

Aalders, Y.I.

- 28 April, Houghton, Michigan (USA): Annual LASHIPA workshop, 'The Exploitation of the Natural Resources in Green Harbour, Spitsbergen (78°N) in the Pre-Industrial Whaling and Hunting Period'.
- 14 May, Amsterdam (Netherlands): Polar Symposium, Poster presentation 'The Exploitation of the Natural Resources in Green Harbour, Spitsbergen (78°N) in the Pre-Industrial Whaling and Hunting Period'.
- 7-11 July, St. Petersburg (Russia): SCAR/IASC IPY, 'Meetings between European whalers and Russian hunters on Spitsbergen in the eighteenth century'.
- 10 October, Trondheim (Norway): A Circumpolar Reappraisal: The legacy of Gutorm Gjessing (1906-1979), 'LASHIPA—Exploitation of natural resources in the pre-industrial period of Spitsbergen' (keynote lecture).
- 12 December, Groningen (Netherlands): Annual meeting GIA, 'Russische walrusjagers in Spitsbergen'.

Arnoldussen, S.

- 1 February, Bruxelles (Belgium): 'Cellule Archéologie des âges des métaux' meeting, 'Pondering about wandering. Settlement dynamics for the Dutch Bronze Age'.

Attema, P.A.J.

- 11 January, Rome (Italy): Royal Netherlands Institute (KNIR), Workshop I: Incontri sull' Archeologia dei Paesaggi, 'The Raganello Archaeological Project'.
- 1 February, Groningen (Netherlands): University of Groningen, Annual Oud-Historici dag, 'De Pontijnse regio in de Romeinse tijd: expansie en contractie in plattelandsbewoning (6^e eeuw v. Chr. – 6^e eeuw n. Chr.' (with G. Tol).
- 5 March, Rome (Italy): Institutum Romanum Finlandiae, Giornata di Studio: Alla Ricerca dell'identità di Crustumerium, primi risultati e prospettive di un progetto internazionale, 'Due campagne di scavo dell'Università di Groningen a Monte Del Bufalo. Risultati e idee per la prosecuzione'.
- 15 April, Groningen (Netherlands): University of Groningen/GIA, 15th Workshop on Archaeological Field survey 'Classifying small sites in Italy and the Crimea' (with T.C.A. de Haas).
- 23 September, Rome (Italy): XVII International Congress of Classical Archaeology, 'Settlement Dynamics in the Sibaritide (Calabria, Italy) and Northwest Crimea (Ukraine), a comparison of the impact of the colonial environment on settlement and society' (with C. Williamson).
- 3 October, Groningen (Netherlands): TMA jubilee, 'Survey in de Steppe, het Džarylgač Survey Project (Krim, Oekraïne)'.

Avango, D.

- 10 March, Stockholm (Sweden): ICOMOS conference, 'Industrial heritage in the polar areas – research and conservation' (keynote lecture).
- 8-10 April, Stockholm (Sweden): History of Science and Technology conference, 'The LASHIPA project: Industry, Geopolitics and Environment in the Polar Areas through the lens of Industrial Heritage'.
- 28 April, Houghton, Michigan (USA): LASHIPA workshop, 'Centers in the periphery: the impact of polar politics on Arctic resource frontier settlements' (keynote lecture) (with L. Hacquebord).
- 14 May, Amsterdam (Netherlands): Royal Academy of Sciences, LASHIPA project, 'Industry and Geopolitics in the Polar Areas, from 17th Century to the Present' (keynote lecture).
- 10 July, St. Petersburg (Russia): SCAR-IASC open science conference, 'Rituals and symbols in the struggle over Spitsbergen and its natural resources'.
- 8 October, Umeå (Sweden): Conference Human dimensions in the circumpolar Arctic, 'Rituals and symbols in the struggle over Spitsbergen and its natural resources'.
- 10 October, Umeå (Sweden): Conference Human dimensions in the circumpolar Arctic, concluding and closing talk (keynote lecture).

Dam, K.I.M., van

28 November, Groningen (Netherlands): Conference Re-exploring Canadian Space?/ Redécouvrir l'espace Canadien?, 'Territorial and ethnic identities in Canada: Nunavut and Quebec' (with P. Lucardie).

Devriendt, I.I.J.A.L.M.

28 March, Vancouver (Canada): Conference Society of American Archaeologists, 'Bipolar pieces, a question of function, raw material availability or skill. A case-study of the Neolithic sites at Swifterbant (The Netherlands)'.

29 November, Groningen (Netherlands): Workshop, 'The flint industry of the Swifterbant Culture. Typological and technological characteristics of the middle phase (4600 – 3900/3800 BC)'.

Feiken, H.

11 April, Groningen (Netherlands): 15th Workshop on Archaeological Fieldsurvey, 'A landscape classification system for archaeologists'.

18-21 June, Porto Heli (Greece): Landscape Evolution & Geoarchaeology, 'Finding the Bronze Age Landscape in the Agro Pontino (Lazio, Italy)'.

Gustafsson, U.I.

8-13 April, Stockholm (Sweden): Teknik och Vetenskapshistoriska dagarna, 'The modern whaling industry in Spitsbergen as a tool for territorial claiming and national sovereignty strives'.

26 April–2 May, Houghton, Michigan (USA): LASHIPA Workshop, 'The modern whaling industry in Spitsbergen as a tool for territorial claiming and national sovereignty strives' and introduction on fieldwork at Bear Island.

14 May, Amsterdam (Netherlands): KNAW Conference, Poster presentation on PhD project.

26 May, Groningen (Netherlands): Arctic Minor, 'General context of European 20th Century whaling & Spitsbergen Whaling-economical and political driving forces' (keynote lecture).

Haas, H.R. de

19 April, Heerenveen (Netherlands): Teaching Seminar Atlantic Committee, 'De exploitatie van het Noordpoolgebied: een historisch perspectief' (keynote lecture).

8 May, Houghton, Michigan (USA): LASHIPA research project conference, 'Dutch political approach in the Spitsbergen-Question, 1915-1920' (keynote lecture).

7-12 July, St. Petersburg (Russia): IASC-SCAR Open Science Conference 2008, 'Entrepreneurs, resources and geopolitics in a no-mans-land. Dutch political approach in the Spitsbergen-Question, 1915-1920'.

Haas, T.C.A. de

26 February, Groningen (Netherlands): GIA Research Seminar, 'Comparative survey archaeology in the Pontine region: Roman settlement and land use in the lower Pontine plain'.

11 April, Groningen (Netherlands): Survey workshop, 'Classifying small sites in Italy and the Crimea' (with P.A.J. Attema).

22-26 September, Rome (Italy): XVII International Congress of Classical Archaeology, Poster presentation 'Intra-regional comparative research in the Pontine Region: surveys in the Pontine marshes'.

Hacquebord, L.

20 February, Rotterdam (Netherlands): Rotterdams Natuurkundig Genootschap, 'De Nederlandse bijdrage aan het International Polar Year' (keynote lecture).

28 February, Nationaal Park Dwingelderveld (Netherlands): Natuurmonumenten, 'Gevolgen van klimaatveranderingen in de poolgebieden' (keynote lecture).

29 February, Groningen (Netherlands): Noordelijk Scheepvaart Museum, 'De Noordwestelijke doorvaart, toen en nu' (keynote lecture).

17 March, Veendam (Netherlands): Probus club, 'Klimaatveranderingen in het poolgebied' (keynote lecture).

29 March, Syktyvkar (Russia): ASSW-2008, 'Polar Archaeological Network' (keynote lecture).

8 April, Hardenberg (Netherlands): Lions club Hardenberg, 'Klimaatveranderingen in het poolgebied' (keynote lecture).

30 May, Groningen (Netherlands): Letteren Ouderdag, 'Archeologische getuigen van ontmoetingen van Europese walvisvaarders en Russische pelsjagers op Spitsbergen' (keynote lecture).

- 9 October, Umea (Sweden): Conference about the human dimension in the Arctic, 'Resources and Climate. The Arctic as Resources Frontier Region' (keynote lecture).
- 16 October, Groningen (Netherlands): University of Groningen/Faculty of Spatial Sciences, 'Arctis. Een regio in verandering' (keynote lecture).
- 24 October, Reykholt (Iceland): LASHIPA, 'Uncovering the Industrial Heritage of the Arctic: Industrial Archaeology in the Polar North' (keynote lecture).
- 31 October, Groningen (Netherlands): University of Groningen, for Norwegian Alumni, 'Groninger researchers on Spitsbergen (Svalbard)' (keynote lecture).
- 23 November, Leeuwarden (Netherlands): Keramiek Museum Princessehof, Opening lecture Exhibition North Face (keynote lecture).
- 24 November, Groningen (Netherlands): World Wide Fund for Nature (WWF), 'Klimaatsveranderingen in het Arctisch Gebied' (keynote lecture).

Holk, A.F.L. van

- 17 april, Zwolle (Netherlands): Historisch Maritiem Zwolle, 'De Zuiderzee als verkeersplein, binnenvaart en beurtvaarder in context'.
- 20 September, Schokland (Netherlands): Vrienden van Schokland, 'Inleiding Maritieme archeologie'.
- 27 and 28 October, Aix-en-Provence (France): Centre Camille Jullian, Archéologie Méditerranéenne et Africaine, Round Table Conference Bateaux de navigation intérieure: pratiques régionales et influences maritimes méditerranéennes, 'Recent Roman ship finds from the Netherlands'.
- 17 November, Sneek (Netherlands): Scheepvaartmuseum Sneek, 'Punterachtig bootje Tirns'.
- 12 December, Groningen (Netherlands): Annual meeting GIA, 'De Flevoland *connection*: Modderman, maritieme archeologie en de IFMAF'.

Klein Goldewijk, G.M.

- 1 February, Groningen (Netherlands): University of Groningen, Annual Oud-Historici dag, 'De biologische levensstandaard in het Romeinse Rijk'.
- 19 February, Groningen (Netherlands): SOM (Systems Organisation and Management) PhD conference, 'Standard of living in the Roman empire'.
- 11 March, Amsterdam (Netherlands): Conference for PhD-students, Posthumus Central Issues Seminar, 'The Roman economy'.
- 16-17 April, Groningen (Netherlands): College carousel, 'Romeinse economische geschiedenis' (with W. Jongman (Ancient History)).
- 27 May, Groningen (Netherlands): GIA Research Seminar, 'Pottery and purchasing power: economic history, archaeology, and the standard of living in the Roman Empire'.
- 28 May, Oxford (UK): Roman discussion forum of the School of Archaeology of Oxford University, 'Measuring Roman economic growth' (with W. Jongman (Ancient History)).
- 13 June, Groningen (Netherlands): Research Day GLTC Groningen, 'Meten is weten: levensstandaard in het oude Rome' (with W. Jongman (Ancient History)).
- 1-4 September, Budapest (Hungary): Conference for Economic History PhD-students, ESTER research design course, 'They never had it so good. Roman stature and the biological standard of living'.
- 22-26 September, Rome (Italy): AIAC, Poster presentation 'Stature and the standard of living in the Roman Empire'.

Leusen, P.M. van

- 1 April, Amsterdam (Netherlands): Amsterdam University Research Seminars, 'Prospects for fabrics studies'.
- 3-6 June, Tarragona (Spain): ICAC international workshop on landscape archaeology of European mountain areas.
- 12 December, Groningen (Netherlands): Annual meeting GIA, 'Acht jaar veldverkenning in de voetheuvels rond de *Timpone della Motta*'.

Loonen, M.J.J.E.

- 16 January, Doetinchem (Netherlands): Discovery Truck, Polar teaching.
- 11 April, Utrecht: 5th Conference of the Dutch Society for Wildlife Health, 'Linking veterinary science and ecology in arctic birds' (keynote lecture).
- 22 April, Rotterdam (Netherlands): P&G earth day, lecture on climate change.

8-11 July, St. Petersburg (Russia): SCAR-IASC, 'The role of pathogens in the lives of arctic birds'.

22 September, Amsterdam (Netherlands): Vrije Universiteit Amsterdam, VU-podium, 'Effecten van klimaatverandering voor de natuur in de poolgebieden' (keynote lecture).

9 October, Arnhem (Netherlands): Discovery Truck, Polar teaching on thermo regulation.

Matthews, S.G.

25 May, New York (USA): TAG (Theoretical Archaeology Group) Conference, 'From the Atlantic to the Oder, a Deadly Gesture: The Social Significance of the Bronze Age Rapier'.

22 November, Sheffield (UK): Bronze Age Forum, 'The dirks and rapiers of La Manche culture: the regional traditions of the Atlantic Rapier'.

Nicolay, J.A.W.

27 March, Groningen (Netherlands): Conference Werner Hoornagel Gedächtnis Kolloquium, 'Settlement research and power formation in the Northern Netherlands'.

23 April, Groningen (Netherlands): Groninger Archieven (RHC), 'Midlaren-De Bloemert: 6000 jaar wonen op de overgang van Hondsrug naar Hunzedal'.

6 June, Leeuwarden (Netherlands): Fryske Akademy, 'Wonen op de kwelder: recente terpopgravingen in Friesland'.

4 September, Bad Bederkesa (Germany): Conference Trade and Communication Networks of the 1st Millennium AD, 'Power formation and the rise of central places in the Elbe-Weser region and the coastal area of the northern Netherlands – a comparison'.

12 October, Bad Bederkesa (Germany): Werner Haarnagel Gedächtnis Kolloquium zum 100. Geburtstag, 'Settlement research in the Northern Netherlands: in search of central places'.

Niekus, M.J.L.T.

8 November, Wildeshausen (Germany): 10. Jahrestreffen Arbeitskreis Steinzeit, Niedersächsischer Landesverein für Urgeschichte, 'The Middle Palaeolithic survey project in the Netherlands'.

12 December, Groningen (Netherlands): Annual Meeting GIA, 'Een tweede Mander in Drenthe'.

Nieuwhof, A.

5 April, Rolde (Netherlands): Annual Meeting Drentse Prehistorische Vereniging, 'Resten van rituelen uit de ijzertijd in de wierde Englum, provincie Groningen'.

18 November, Leeuwarden (Netherlands): Argeologysk Wurkferban Fryske Akademy, 'Resten van rituelen uit de ijzertijd in de wierde Englum (Gr)'.

17 December, Southampton (UK): TAG (Theoretical Archaeology Group) Conference, 'Eight human skulls in a dung heap, Englum, province of Groningen, The Netherlands'.

Nijboer, A.J.

9-10 February, Hamburg (Germany): University Hamburg, Colloquium 'Analyses on Ceramics', 'Some thoughts on the relation between archaeology and the macro and micro analyses on ceramics'.

4-6 April, Mainz (Germany): Colloquium Art and Communication: Centralisation Processes in European Societies in the 1st Millennium BC'. Introduction: 'Verruchio and its Tomba del Trono, iconography and iconology North and South of the Alps during the period 700 to 500 BC'.

20-27 September, Rome (Italy): XVII Congresso Internazionale di Archeologia Classica: Incontri tra Culture nel Mondo Mediterraneo Antico, 'L'identità culturale della comunità antica a Crustumerium e gli scavi dell'Istituto d'Archeologia di Groningen a Monte Del Bufalo'.

28 October, Groningen (Netherlands): Research Seminar, 'Italy, its interconnections and cultural adaptations during the Iron Age'.

12 December, Groningen (Netherlands): Annual Meeting GIA, 'De GIA-opgravingen te Crustumerium (Rome): een grafveld van ca. 800-500 v.Chr.'

Overmeer, A.B.M.

25 November, Deventer (Netherlands): Hogeschool Saxion Next, Seminar "Waterbodems", 'Scheepsbouwontwikkeling in Nederland van Prehistorie t/m WOII'.

20 December, Schokland (Netherlands): Vereniging Vrienden van Schokland, Course Maritime Archaeology, 'Overnaadse schepen in Nederland van 1200-1600 na Chr.'

Prop, J.

2 April, Longyearbyen (Norway): UNIS, 'Arctic goose populations channelled by risks of predation and disease'.

Prummel, W.

20 February, Haren (Netherlands): Women's Association Witte Kerkje, 'Dieren op de Wierden'.

23 February, Schokland (Netherlands): Vereniging Vrienden van Schokland, Course palaeontology, 'Herkennen en determineren van dierenbotten'.

1 March, Cardiff (UK): Association for Environmental Archaeology, 'Discrete hunting acts at Jardinga, a narrow part in the valley of the river Boven-Tjonger (Friesland, Netherlands)'.

11 March, Groningen (Netherlands): Ladies of the Odd Fellows, 'Dieren op de Wierden'.

25 August, Groningen (Netherlands): 6th Meeting Bird Working Group (BWG) ICAZ, 'The decoration of TRB West Group tureen-amphorae with the caput femoris of a long-eared owl (*Asio otus*)' (poster, W. Prummel & E. Drenth).

27 August, Groningen (Netherlands): 6th Meeting Bird Working Group (BWG) ICAZ, 'Subspecies of little owl, *Athene noctua*, from Euboia and Thessaly (Greece)' (W. Prummel, C. Mourer-Chauviré & L. Snyder).

Raemaekers, D.C.M.

2 February, Leiden (Netherlands): Steentijddag (Stone Age Archaeology Day), 'Een hakker in neolithisch Swifterbant (c. 4300-4000 cal. BC)'.

28 March, Groningen (Netherlands): Archeologie en Regio Symposium, 'Het einde van Malta?'.

30 June, Dublin (Ireland): World Archaeology Conference, 'Hoe cultivation at Neolithic Swifterbant (c. 4300-4000 cal. BC)'.

8 December, Kiel (Germany): University of Kiel, Graduate School, 'Hoe cultivation at Neolithic Swifterbant (c. 4300-4000 cal. BC)'.

12 December, Groningen (Netherlands): Annual meeting GIA, 'GIA en de Nieuwe Archeologie'.

Smit, B.I.

8 May, Lunteren (Netherlands): International I/BBO Congress, 'The early prehistory as inspiration for development of brookvalleys and nature reserves'.

Thilderqvist, J.G.M.

27 March, Groningen (Netherlands): NIHK Wilhelmshaven, 'Ritual bone deposits in Northern Europe'.

Veluwenkamp, J.W.

31 January–1 February, Antwerp (Belgium): Congress N.W. Posthumus Institute, 'REDS: Realisatie Elektronische Databank Sonttolregisters (1497-1857)'.

29 February, Groningen (Netherlands): Book presentation De Geus Publishers, 'De bekoring van de Noordelijke Ijszee rond 1600'.

7 March, Nice (France): Premier séminaire NAVIGOCORPUS, 'REDS, the Realization of an Electronic Database of the Sound Toll Registers, 1497-1857'.

15 September, Groningen (Netherlands): Start meeting STR online, 'Sonttolregisters online, 1497-1857'.

1 October, Den Haag (Netherlands): National Archive Symposium Baltic Connections, 'De Nederlandse handel op het Oostzeegebied, 1580-1780'.

20 November, Groningen (Netherlands): University of Groningen, Educational Centre, Post graduate course, 'Dynamiek en stagnatie in de Republiek. Het Nederlandse handelsstelsel'.

Voutsaki, S.

31 January, Athens (Greece): Annual General Meeting of Netherlands Institute at Athens, 'Shifting Identities: Social change and Cultural Interaction in the MH Argolid'.

15-16 May, Udine (Italy): Conference on Tumuli, 'The Asine tumulus: a re-examination' and 'The MH tumuli at Argos'.

3 October, Groningen (Netherlands): TMA Jubilee Congress, 'Greek archaeology: theoretical developments over the last 40 years'.

Woltinge, I.

29 February, Amsterdam (Netherlands): IGBA/VU Symposium, 'What Lies Beneath: pingo scars in a buried landscape'.

27 March, Groningen (Netherlands): Workshop GIA/Wilhelmshafen, 'Pingo scars in the Northern Netherlands'.

3.4. WORKSHOPS AND EXHIBITIONS

January, Groningen (Netherlands): Various workshops/seminars at the GIA, organised by Archon, Archeological Theory Discussion Group.

1 January–31 December, Groningen (Netherlands): GIA Capita Selecta Lectures Series, organised by I. Woltinge. (Inter)national researchers are invited on a more or less monthly basis to give lectures on their research. These lectures are open to all students and staff of the GIA as well as other institutes and people from the field of archaeology.

29 January–27 May, Groningen (Netherlands): GIA Research Seminars (monthly), organised by I. Woltinge, A. Nieuwhof, P.M. van Leusen and S. Voutsaki. GIA's PhD and master students are invited monthly to give a short introduction to (a part of) their research and discuss this with other PhD students, master students and staff.

8 January, Groningen (Netherlands): LASHIPA Workshop, organised by L. Hacquebord and D. Avango.

15 February–15 May, Denekamp (Netherlands): Museum Natura Docet exhibition 'IJskoud avontuur', organised by L. Hacquebord.

27 March, Groningen (Netherlands): Workshop 'Research in the coastal district of the Northern Netherlands and NW-Germany', organised by A. Nieuwhof and J.A.W. Nicolay.

11-12 April, Groningen (Netherlands): 15th Workshop on Archaeological Field Survey, organised by P.M. van Leusen and P.A.J. Attema.

26 April–2 May, Houghton, Michigan (USA): LASHIPA workshop, organised by Michigan Technological University, Department of industrial archaeology, P.E. Martin and C. Hartnell in close collaboration with D. Avango and L. Hacquebord.

13-15 June, Vlissingen (Netherlands): IPY Exhibition 'Tegenpolen', organised by D. Veerman and L. Hacquebord.

15 June–14 September, Gluckstadt (Germany): Detlefsenmuseum exhibition 'Die Geschichte des Walfangs in Drucken', organised by L. Hacquebord.

7-12 July, St. Petersburg (Russia): Open Science Conference IASC/SCAR, organised by L. Hacquebord.

23 August, Groningen (Netherlands): 6th Meeting of the Bird Working Group (BWG) of the International Council for Archaeozoology (ICAZ), organised by W. Prummel and D.C. Brinkhuizen. Abstracts of the oral/poster presentations can be found at: www.alexandriaarchive.org/icaz/icazForum/viewforum.php?f=40

20–27 September, Rome (Italy): Workshop 'Long-distance contacts and Acculturation in central Italy from 1000 to 700 BC', organised by XVII Congresso Internazionale di Archeologia Classica in collaboration with A.J. Nijboer.

24 September, Groningen (Netherlands): LASHIPA, organised by L. Hacquebord and D. Avango.

2-3 October, Bremen (Germany): Workshop International Goose Specialist Group, organised by M. Loonen and H. Kruckenberg.

21 October/4 and 25 November/16 December, Lelystad (Netherlands): Workshop 'Malta lokaal', organised by A.F.L. van Holk.

30 October, Lelystad (Netherlands): Workshop 'The Swifterbant culture in its northwest European context: Looking outside in and looking forward', organised by A.F.L. van Holk (Nieuw Land) and D.C.M. Raemaekers.

1-2 November, Assen (Netherlands): Themadag Drents Prehistorische Vereniging 'Gevormd en omgevormd landschap. Van Prehistorie tot Middeleeuwen', organised by S. van der Zee, F. van den Beemt, R. Schuiling, J. van Rijn and M. Niekus.

28-30 November, Groningen (Netherlands): Workshop on flint technology and typology between 5000 BC and 3400 BC in Northwestern Europe, organised by D.C.M. Raemaekers and I. Devriendt.

12 December, Groningen: Workshop 'Indigenous communities in the Arctic', organized by L. Hacquebord and K.I.M. van Dam.

3.5. VISITING SCHOLARS

Prof. dr S. Andersen (Moesgård Museum, Højbjerg): Symposion Swifterbant culture, Lelystad, 'Looking outside in and looking forward'.

Dr A. Baralis (Centre Camille Jullian, Maison Méditerranéenne des Sciences de l'Homme, CNRS-University Aix-Marseilles (France)): Working visit on survey methodology and lecture.

Dr G.-J. Burgers (KNIR, Rome, Italy): RPC book progress meeting.

Mrs I. Fokkens (Norwegian Embassy): Future Arctic research cooperation.

Dr E. Gøbel (Rigsarkive Kopenhagen, Danmark): Discussion on the participation of Rigsarkivet in STR online.

Dr S. Hartz (Schloss Gottorp, Germany): Helgoland flint in Northwestern Europe.

Dr H. Joens (Niedersächsisches Institut für Historische Küstenforschung, Wilhelmshaven, Germany) accompanied by Dr E. Strahl, K. Struckmeyer MA, I. Aufderhaar MA, A. Siegmüller MA, L. Volmer MA, K. Mückenberger MA and D. Nösler MA: Participation in workshop 'Research in the coastal district of the Northern Netherlands and NW-Germany'.

Dr J. Kalis (University of Frankfurt): Symposion Swifterbant culture, Lelystad, 'Looking outside in and looking forward'.

Mrs L. Lavoie (Canadian Embassy, Den Haag): Research policy in relation to Netherlands and Canada (LASHIPA).

T. Lieskovsky MA (Slovak Technical University, Bratislava, Slovakia): Discussing PhD plans in GIS and archaeological predictive modelling.

Ir. R.P.J. Muijtjens (Royalhaskoning, Nijmegen, Netherlands): Research cooperation (LASHIPA).

Drs R. Neef and Dr R. Komp (DAI, Berlin, Germany): Digital Plant Atlas.

Prof. M. Nuttall (University of Alberta, Canada): PhD defense K.I.M. van Dam, and participating in workshop.

Dr E. Rensink (RACM, Amersfoort, Netherlands): Drentse Aa Project.

Mr R. van Roeden (Dutch Ambassador Oslo, Norway) together with a Northern delegation from Vardø, Kirkenes & Vadsø: Introduction Arctic Centre.

Dr M. Segsneider (Institut für Ur- und Frühgeschichte, Christian-Albrechts-Universität, Kiel, Germany): Helgoland flint in Northwestern Europe.

Prof. J. Sevink (University of Amsterdam, Netherlands): Discussion about results Graben 2008.

Prof. V. Starkov (Archaeological Institute Moscow, Russia): Research cooperation (LASHIPA).

Mr Y. Stassen (Dutch Embassy, Oslo, Norway): Orientation on the scientific cooperation with Norway.

Prof. V. Stissi, Prof. M. Gnade and other participants of the NPAP project (University of Amsterdam, Netherlands): Visit for fabrics-research at the LCM.

Dr A. Vanzetti (University 'La Sapienza' Rome, Italy): Exchange lecturer and archaeobotanical research Broglio di Trebisacce.

Prof. M. van der Veen (University of Leicester, UK): Archaeobotanical research in Egypt.

Dr A. de Volder (University of Galway, Ireland): Monastic landscapes in the Northern Netherlands.

Drs P. Vos (The Geological survey of the Netherlands) and Prof. J. Sevink (University of Amsterdam, Netherlands): Meeting on the results of Graben 2007 and making plans for Graben 2008.

Prof. B. Weninger (Köln University, Germany): Radiocarbon dating.

Prof. dr. P. Woodman (University of Cork, Ireland): Symposium Swifterbant culture, Lelystad, 'Looking outside in and looking forward'.

3.6. EDITORSHIPS AND REPRESENTATION ON BOARDS AND COMMITTEES

Arnoldussen, S.

Editorial Board Journal of Archaeology in the Low Countries

Attema, P.A.J.

Head of the Department of Archaeology

Director of Studies of the Research Master in Art History and Archaeology

Chairman of the GIA Advisory Board

Coordinator Cluster Classical and Mediterranean Archaeology Groningen Institute of Archaeology

Member of the GIA Management Team

Member of the Editorial Board Palaeohistoria

Member of the Editorial Board Groningen Archaeological Studies (GAS)

Member of the Advisory Board Journal of Mediterranean Archaeology (TMA)

Avango, D.

Chairman of the Board of the Swedish TICCIH section

Member of the Executive Council of the Swedish IPY committee

Member of the Board TICCIH (The International Committee for the Preservation of Industrial Heritage)

Member of the Swedish SCAR committee

Bos, J.M.

Secretary of the Foundation for the Archaeology of the Middle Ages

Member of the Educational Advisory Board Archaeology

Member of the Editorial Board Groningen Archaeological Studies (GAS)

Member of the constitutional board of editors of a new Belgian/Dutch periodical on Medieval Archaeology

Member of the Editorial board jubilee book AWFA

Member of the Board of the Frisia Project

Cappers, R.T.J.

Member of the GIA Advisory Board

Member of the GIA Management Team

Member of the Board of the National Research School ARCHON

Member of the Curatorium of the Netherlands Institute for the Near East (NINO)

Member of the Berenike Foundation

Member of the Groningen Roman Economy Group

Member of the Editorial Board Groningen Archaeological Studies (GAS)

Member of the Editorial Board Electronic Journal of Indian medicine

Member of the Editorial Board Palarch

Dam, K.I.M. van

Representative for the Netherlands in the Sustainable Development Working Group of the Arctic Council

Member of the Research Group Circumpolar Studies

Member of the Canadian Studies Centre University of Groningen

Galestin, M.C.

Member of the GIA Advisory Board

Chair of the Educational Advisory Board of the Research Master in Art History and Archaeology

Secretary and Member of the Archaeology Exam Committee

Haas, T.C.A. de

Member of the PhD Council of the Research School ARCHON

Member of the Editorial Board Journal of Mediterranean Archaeology (TMA)

Hacquebord, L.

Director Willem Barentsz Foundation Groningen
Executive Secretary Willem Barentsz Foundation Groningen
Vice President of the International Arctic Science Committee (IASC)
Interim chair of the Science Standing Committee on Social System of IASC
Council member and delegate for the Netherlands in IASC
Leader of the IPY-LASHIPA project (www.LASHIPA.nl)
Co-chair of the Steering Committee of the Open Science Conference in St. Petersburg (Russia)
Co-chair of the International Symposium ASSW-2009 in Bergen (Norway)
Core member of the National Committee International Polar Year 2007-2008
Member of the GIA Management Team
Member of the International Polar Heritage Committee ICOMOS
Member of the Committee for Polar Research of ALW/NOW
Member of the Science Theme Committee of the IPY OSC in Oslo (Norway)
Member of the Interdepartmental Polar Research Committee, Ministries of BUZA, V&W, LNV, OCW, and VROM
Member of the Editorial Board of the International Network for Whaling Research Digest
Member of the Editorial Board Groningen Archaeological Studies (GAS)
Member of the Editorial Board Journal of the North Atlantic
Member of the Editorial Committee Circumpolar Studies
Member of the Board of the Centre for Canadian Studies

Holk, A.F.L. van

Member of the Glavimans symposion Board

Lanting, J.N.

Member of the Editorial Board Palaeohistoria
Member of the Editorial Board Paleo-aktueel
Member of the Altertumskommission für Westfalen

Leusen, P.M. van

Secretary of the Educational Advisory Board Archaeology
Member of the Faculty of Arts Advisory Committee on ICT
Member of the Commission IV of the Union Internationale des Sciences Pre- et Protohistoriques (UISPP)
Member of the promotion committee, Drs M. Gkiasta (Leiden University)
Member of the Editorial Board European Journal of Archaeology
Member of the Editorial Board Paleo-Aktueel

Loonen, M.J.J.E.

Chairman of the study group Ecology of Polar areas NECOV
Netherlands representative Ny-Ålesund Science Managers Committee (NySMAC)
Netherlands representative for Conservation Arctic Flora and Fauna (CAFF)
Member of the Committee for Polar Research of ALW/I
Member and coordinator of the Willem Barentz Polar Institute
Member of the organizing committee workshop terrestrial research NySMAC
Member of the Scientific Advisory Committee of the Foundation for Bird Research (SOVON)
Stationleader Netherlands Arctic Station Spitsbergen
Treasurer and secretary Underwater Biology Foundation
Webmaster Netherlands Ornithological Union (www.nou.nu)
Webmaster international bird journal ARDEA (www.ardeajournal.nl)

Niekus, M.J.L.Th.

Chairman of the Archaeological Work community Netherlands (AWN) for the Northern Netherlands
Scientific consultant for the Drents Praehistorische Vereniging (DPV)

Nieuwhof, A.

Secretary of the Vereniging voor Terpenonderzoek
General editor of the Annual Reports of the Vereniging voor Terpenonderzoek

Nijboer, A.J.

Member of the Departmental Board Archaeology
Member of the Educational Advisory Board Archaeology
Member of the Editorial Advisory Board 'Beyond the Homeland: Markers in Phoenician Chronology'
Coordinator International Educational Exchange
Coordinator GIA Library

Overmeer, A.B.M.

Member of the project 'Vergane Schepen', a new exhibition on maritime archaeology around shipwreck 'de Ventjager' (NLE)

Prop, J.

Editor Ardea

Prummel, W.

Member of the Faculty Board of the Faculty of Arts
Member of the GIA Advisory Board
Member and chair of the Educational Advisory Board Archaeology
Member and chair of the jury W.A. van Es-award of SNA (Foundation for Dutch Archaeology)
Member of the scientific committee of the National Reference Collection Bibliography Groningen
Member of the ICAZ International Committee (IC)
Member of the Editorial Board Groningen Archaeological Studies (GAS)
Member of the Editorial Board Palaeohistoria

Raemaekers, D.C.M.

Director of GIA
Member of the GIA Management Team
Secretary of the Department of Archaeology
Member of the Archaeology Exam Committee
Member of the Faculty of Arts Educational Committee
Member of the Board of the Research Master in Art History and Archaeology
Secretary Exam Committee Research Master Art History and Archaeology
Member of the Board of the National Research School ARCHON
Member of the NWO Committee Vrije Competitie Geesteswetenschappen
Member of the Advisory Board ARCHIS, National Service for Archaeology, Cultural Landscape and Built Heritage (RACM)
Member of the Advisory Board ADC Projecten
Member of the Advisory Board Groningen Archaeological Studies (GAS)
Editor GIA digital series Grondsporen

Stapert, D.

Member of the Editorial Board Paleo-aktueel

Veluwenkamp, J.W.

Member of the Board of the Association Northern Maritime Museum
Member of the Board of the Acker Stratingh Foundation
Member of the Board of the Willem Barentsz Foundation
Member of the Scientific Advisory Board Netherlands Institute St. Petersburg
Member of the Board of the Friends of St. Petersburg Foundation

Voutsaki, S.

Secretary of the Archaeological Dialogues Foundation
Member of the Mid-Term Review Committee GIA 2004–2006
Member of the GIA Committee for Professor by special appointment
Member of the Advisory Board of Archaeological Dialogues
Member of the Advisory Board of Hesperia
Member of the Editorial Board Groningen Archaeological Studies (GAS)

Willemsen, S.L.

Member of the organizing committee of the Theory Conference (Groningen)
Member of the Editorial Board Journal of Mediterranean Archaeology (TMA)

Woltinge, I.

Member of the Editorial Board of Critical Archaeology

4. PHD TRAINING PROGRAMME

In September 2008 the Graduate School for the Humanities opened its doors for the first group of PhD students. The Graduate School provides a 20 ECTS training programme encompassing multidisciplinary and monodisciplinary courses. This last group of activities is carried out as part of the Posthumus Research School (PhD's Arctic archaeology) or in close cooperation with Research School ARCHON (all other PhD's).

4.1. CURRENT PROJECTS

Aalders, Y.I.

Exploitation of natural resources and cross cultural contacts of Russian Furhunters and European Whalers on Spitsbergen in the 18th century

Supervisor: Prof. L. Hacquebord

Dam, K.I.M.

A place called Nunavut. Multiple identities for a new region.

Supervisors: Prof. L. Hacquebord & Dr P. Groote

Devriendt, I.I.J.A.L.M.

Flint and other stone material from Swifterbant

Supervisor: Prof. D.C.M. Raemaekers

Feiken, H.

Geo-archaeological approaches to the hidden landscapes of Italy

Supervisors: Prof. P.A.J. Attema & Dr P.M. van Leusen

Gustafsson, U.I.

The exploitation of natural resources by the early 20th century whaling industry; its impact on the environment and the geo-political situation in the Polar Regions

Supervisor: Prof. L. Hacquebord

Haas, H.R. de

The coal exploitation of the Dutch Spitsbergen Coal Company (NESPICO) Green Harbour in its national and international context

Supervisor: Prof. L. Hacquebord

Haas, T.C.A. de

The Romanization of the Pontine region

Supervisors: Prof. P.A.J. Attema & Dr P.M. van Leusen

Klein Goldewijk, G.M.

Standard of living in the Roman Empire

Supervisors: Prof. P.A.J. Attema, Prof. W.M. Jongman, Prof. J.P.A.M. Jacobs

Kruse, F.

British exploration, mining and diplomacy on Spitsbergen, 1898-1952

Supervisors: Drs D. Avango & Prof. L. Hacquebord

Matthews, S.G.

Techniques and Society: A use-wear analysis of the metalwork from the Middle Bronze Age of North-western Europe

Supervisors: Prof. D.C.M. Raemaekers & Dr S. Hamilton

Nieuwhof, A.

Ritual deposits in the northern Netherlands coastal area – Iron Age until Christianization

Supervisor: Prof. D.C.M. Raemaekers

Overmeer, A.B.M.

Dutch clinker-built ships in the 15th and 16th centuries

Supervisors: Prof. D.C.M. Raemaekers, Prof. H.R. Reinders & Prof. A.F.L. van Holk

Roura, R.M.

Polar cultural heritage: policies, management, and change in Spitsbergen and Antarctica

Supervisor: Prof. L. Hacquebord

Thilderqvist, J.G.M.

Ritual bones or common waste? A study of bone deposits in northwestern Europe

Supervisors: Dr W. Prummel & Prof. D.C.M. Raemaekers

Willemsen, S.L.

The Iron Age necropolis of the Latin site Crustumerium

Supervisors: Prof. P.A.J. Attema & Dr A.J. Nijboer

Woltinge, I.

What lies beneath? The value of buried Stone Age landscapes

Supervisor: Prof. D.C.M. Raemaekers

4.2. PHD PROJECTS 2002-2008

This table lists GIA PhD students for the period 2002-2008.
(B = Begin date, E = End date, D = Defence, S = Stopped)

Name	2002	2003	2004	2005	2006	2007	2008
Aalders, Y.I.						1-8 B	
Abbink, B.P.			1-1 B			31-12 E	
Alessandri, L.	1-11 B				31-10 E		
Bakker, R.		8-5 D					
Dam, K.I.M. van					31-5 E		11-12 D
Devriendt, I.I.J.A.L.M.			1-9 B				1-9 E
Feiken, H.				1-9 B			
Gustafsson, U.I.						1-3 B	
Haas, H.R. de						1-4 B	
Haas, T.C.A. de				1-9 B			
Hekman, J.J.		15-5 D					
Joolen, E. van	31-8 E	12-6 D					
Karstkarel, N.			1-6 E	9-6 D			
Klein Goldewijk, G.M.						28-9 B	
Kruse, F.							1-6 B
Leusen, P.M. van	30-5 D						
Matthews, S.G.						1-9 B	
Milka, E.		1-11 B				31-10 E	
Mulder, S.A.			1-9 B	1-2 S			
Mulders, K.E.A.			31-5 E				
Niekus, M.J.L.Th.	1-9 B					28-2 E	
Nieuwhof, A.					1-4 B		
Roura, R.M.				1-3 B			
Satijn, O.					30-4 E		
Smit, B.I.			1-1 B			31-12 E	
Tensen, M.A.		16-8 B	15-8 E				
Thilderqvist, J.G.M.				1-9 B			
Willemsen, S.L.							1-9 B
Woltinge, I.					1-9 B		

4.3. OTHER PHD PROJECTS

This table lists other PhD students (SF = Self Funded, OF = Other Funding).

Name	title	supervisor	category
Comis, S.	<i>Het textiel van Spitsbergen</i>	prof. L. Hacquebord	SF
Drenth, E.	<i>The Beaker Cultures in Northwest Europe</i>	prof. D.C.M. Raemaekers	SF
Elevelt, S.	<i>Subsistence en sociale stratificatie in de Sibaritide in de periode Midden-Bronstijd – Vroege IJzertijd</i>	prof. P.A.J. Attema	SF
Grimm, J.	<i>Silence of the Lambs. The keeping of animals and the use of animal products in medieval cities with special attention to the situation in Emden (Lower Saxony, Germany)</i>	prof. H.R. Reinders, prof. & W. Prummel	OF
Haagsma, M.	<i>Houses and Households in New Halos, Thessaly, Greece</i>	prof. P.A.J. Attema & prof. M. Kleibrink	SF
Hijmans, S.	<i>The iconography of the Roman Sun God, Sol</i>	prof. P.A.J. Attema & prof. M. Kleibrink	SF
Lindenhout, E. van 't	<i>Architectuur in Archaisch Latium (Italië)</i>	prof. P.A.J. Attema	OF
Oome, N.	<i>Hellenistisch aardewerk en Hellenitische sites in de Sibaritide</i>	prof. P.A.J. Attema	SF
Overmeer, A.B.M.	<i>Dutch clinker-built ships in the 15th and 16th centuries</i>	prof. D.C.M. Raemaekers, prof. H.R. Reinders & Dr A.F.L. van Holk	OF
Schokkenbroek, J.	<i>Trying-Out, An Anatomy of Dutch Whaling and Sealing in the Nineteenth Century (1815-1885)</i>	Prof. F.S. Gaastra & prof. L. Hacquebord	OF
Tol, G.W.	<i>The archaeological map of Nettuno; site classification and analysis of a local settlement system (700 BC – 500 AD) in a regional context</i>	prof. P.A.J. Attema	SF
Weistra, E.	<i>Archaic terracotta votive offerings from the Athenaion in Francavilla Marittima (Calabria, Italy)</i>	prof. P.A.J. Attema & prof. M. Kleibrink	SF
Wiersma, C.	<i>Transitional periods in Bronze Age mainland Greece. A household perspective of the development of social differentiation of EH3 until LH1</i>		SF

5. EMERITI AND OTHER RETIRED RESEARCHERS

Butler, J.J. (in cooperation with H. Steegstra)

Research activities

Analysis of distribution patterns of the bronze *Bombenkopfnadeln* in the Netherlands and adjacent areas; identification, recording and drawing of bronze objects (for the Historische Kring Oosterhout and the Historische Kring Ittervoort and for various metal detector users). Visits to the Nijmegen Museum, the Rhenen museum and the Drents Museum for study and renewed recordings of bronzes in their collections. Contacts with Dutch archaeologists about Dutch finds from the past. Contacts with German and Belgian archaeologists about *Bombenkopfnadeln*. Attendance at the annual excursion of the Bronze Age Studies Group and the Kroonlezing.

Publications

Butler, J.J. & Hannie Steegstra, 2008. Bronze Age metal and amber in the Netherlands (IV). Hoards and rich graves in the Late Bronze Age, Part A. *Palaeohistoria* 49/50, 375–414.

Butler, J.J., 2008. *Saved for Science?* Contribution to the 'florilège' for Prof. Claude Mordant, University of Boulogne, on the occasion of his retirement.

Kleibrink, M.

Research activities

In October 2008 Kleibrink gave a lecture entitled 'Topology and Iconography interacting at the Timpone della Motta' during a symposium on the topology of indigenous Italian sanctuaries in the Villa Massimo (part of the German Archaeological Institute), Rome.

At Christmas 2007 Kleibrink started writing a guidebook for the 'Lagaria' Archaeological Park, which is gradually being developed at Francavilla Marittima. Unfortunately, the work was not yet finished by Christmas 2008 because making a double edition – guidebooks in both English and Italian – proved more complicated (and expensive to correct) than previously estimated. Part of the summer was spent reading and commenting on Steven Hijmans's dissertation, son of dr. B.L. (Ben) Hijmans. Ben Hijmans, husband to Kleibrink, died on 10 July after a long and complicated illness. Ben was part of the late Huib Waterbolk's drawing team on many excavation campaigns, first at Satricum and later at Francavilla.

The autumn programme for the Archaeological School at Francavilla Marittima was established during a visit by Rossella Pace to Groningen. Other important activities were programmes at the Lagaria School under Van Leusen and Attema, and renewed excavations under Attema and Jacobsen on the Acropolis of the Timpone della Motta. In October Rossella Pace continued the surface cleaning of the Macchiabate tomb groups with a team of students from UNICAL Cosenza and re-evaluated the Lettere Burial Mound for the Archaeological Park project. A start was also made on producing a poster for display in the Antiquarium, using the Guidebook material

Marianna Fasanelli Masci and Lucilla Barresi obtained a grant from the Banca Carime to study technical aspects of the matt-painted pottery from the *Scavi Kleibrink 1993-2004*, supervised by Kleibrink. Lucilla Barresi was admitted to a free doctorate at Prague University (supervisors Jan Bouzek and Kleibrink).

Kleibrink could not continue her planned study – the drawing and description of pottery and other find groups from the Acropolis – at the Lagaria School because she was unable to obtain access to the material following disagreements between the administration of Francavilla and the School with the excavators.

On 3 December, the VIIth 'Giornata Archeologica' was held in the 'Municipio' at Francavilla Marittima, where Kleibrink lectured on the iconography of the ancient statues and cults and Fasanelli Masci and Barresi presented their preliminary results of the pottery project mentioned above.

The new year brought with it a surprise: the Italian state awarded Kleibrink the distinction of 'Cavaliere' in the *Ordine della Stella della Solidarieta' Italiana* for her contributions to Italian archaeology.

Publications

Kleibrink, M. La produzione tessile nella Casa delle Tessitrici sull'Acropoli di Timpone della Motta, evidenza cerimoniale o culturale? VI Giornata Archeologica Francavillese, Scuola Lagaria, 17–23.

Reinders, H.R.

Research activities

In 2008 Reinders continued the study of the medieval sailing route from Uffelte to Utrecht. A presentation of the results was given at the 95th anniversary of the Drents Prehistorische Vereniging in Assen (1 November, 2008).

An article on the Neolithic site of Kamara in the Soúrpi plain (Thessaly, Greece) with contributions by W. Prummel, M. Wijnen, V. Rondiri, L. Karimali and V. Tzevelekidi was prepared for publication in the periodical *Pharos*.

During the summer of 2008 Reinders participated in the Halos excavation project. The rooms and courtyard of 'The House of the Tub', measuring c. 11.80 x 15 m, were excavated in July 2008. The excavation will continue in 2009.

The city of Almiros placed part of the basement of the old gymnasium at the disposal of the Halos team as a storage and working space. In November all artefacts from GIA's excavations and surveys in the Almiros area were moved to the new location.

A presentation was given at the 4th congress of Almiriotic Studies (October 17-19) about the northern frontier of Greece in the period 1832-1881.

Publications

Reinders, H.R., 2008. De opgraving van het Huis met de Tobbe in Hellenistisch Halos. *Paleo-aktueel* 19, 135–141.

Holk, A.F.L. van, A. Overmeer & H.R. Reinders, 2008. Een Scandinavische vrachtvaarder uit de Late Middeleeuwen? Het onderzoek van een scheepswrak in de Noordoostpolder. *Cultuur Historisch Jaarboek voor Flevoland* 18, 101–116.

Overmeer, A., A.F.L. van Holk & H.R. Reinders, 2008. Een Scandinavische vrachtvaarder uit de Late Middeleeuwen? *Paleo-Aktueel* 19, 184–193.

Waterbolk, H.T.

Research activities

In 2008 Waterbolk finished his work on the typochronology of excavated house plans from the late prehistoric and protohistoric periods in the north and northeastern parts of the Netherlands. He read the final proofs of his book *Getimmerd Verleden*, which will appear in January 2009. He has prepared a paper on the same subject for a report to be published by the National Reference Collection. Together with G. Kortekaas he prepared a paper on excavated house plans from the Roman period in the town of Groningen. In collaboration with R. Reinders he started a summary study on settlement excavations in the Drenthe village of Pesse.

Publications

Waterbolk, H.T., 2008. Woord vooraf, en een blik terug. In: J.A.W. Nicolay (ed.), *Opgravingen bij Midlaren. 5000 jaar wonen tussen Hondsrug en Hunzedal*. Groningen, Barkhuis/University of Groningen, University Library, xv–xvii.

Waterbolk, H.T., 2008. Oeze Volk. In: L. Amkreutz & A. Willemsen (ed.), *Tijdreizigers op zoek naar de archeologische sensatie*. Leiden, Rijksmuseum van Oudheden, 84–85.

Nicolay, J.A.W. & H.T. Waterbolk, 2008. *Huisplattegronden: de ontwikkeling van de bronstijd tot in de middeleeuwen*. Leiden, Rijksmuseum van Oudheden, 91–126.

6. PUBLICITY

6.1. DOCUMENTATION

The number of requests to use photos from the GIA archives increased once again in 2008. This points to an increase in the number of publications on the archaeology and/or history of the Netherlands. There was a particular focus on the use of the University of Groningen logo in museum projects that started in 2008. The logo may now be found in the Wierdland Museum in Ezinge and in the Museon in The Hague, as well as in GIA publications such as *Paleo-aktueel*, *Palaeohistoria*, Groningen Archaeological Studies and the Annual Report.

6.2. PRESS

Arnoldussen, S.

30 August: *Volkskrant*, 'Bronzen dorpen met een greppel eromheen'.

4 September: *Mare* (Leiden University's weekly magazine), 'Alle huizen in één richting. Bouwen in de bronstijd: alles moest parallel aan elkaar staan'.

5 September: *ANP* (Reformatorisch Dagblad/Leidsch Dagblad/Nu.nl), 'Meer kennis over bronstijd door aanleg Betuwelijjn'.

Cappers, R.T.J.

4 december: *UK*, 'Geheim in koeienpoep. RUG-archeoloog Cappers gebruikt onverwachte bronnen' (by René Fransen).

Gustafsson, U.I.

30 October: Polar year website, description of fieldwork on Bear Island.

Haas, H.R. de

27 April: VPRO radio OVT, interview. See an article in the VPRO TV Guide of that week or visit: <http://geschiedenis.vpro.nl/programmas/3299530/afleveringen/39240239/items/39537347/#>

10 November: Journal *De Ingenieur*, article by A. Vrouwe based on interview.

Hacquebord, L.

1 February: *Wereldomroep*, interview on the geopolitical situation in the polar area.

15 May: *UK*, Naar de film met ... 'Het kinderlijke heeft charme', interview about the movie 'Into the wild'.

4 July: TV 1, *Twee Vandaag*, interview on the geopolitical situation in the polar area.

16 July: *NOS news*, interview on the geopolitical situation in the polar area.

25 August: *Fries Dagblad*, interview 'In de voetsporen van Willem Barentsz. Nova Zembla: ijskoud en historisch'. Followed by an article on Nova Zembla.

24 November: *Met het oog op morgen* (radioprogramme), Referendum Greenland.

25 November: *BNN Radio*, Referendum Greenland.

Holk, A.F.L. van

24 June: *SWZ Maritime*, interview Start IFMAF.

12 August: *Groninger Stadsblad*, interview excavation cog at lot NM 107 and start IFMAF.

14 August: *Leeuwarder Courant*, interview excavation cog at lot NM 107 and start IFMAF.

15 August: *Flevopost*, interview excavation cog at lot NM 107 and start IFMAF.

22 August: *Omroep Flevoland*, interview excavation cog at lot NM 107 and start IFMAF.

Loonen, M.J.J.E.

- 16 April: *KRO radio*, interview 'Dingen die Gebeuren, landenclaims rond de Noordpool'.
- 18 June: Internet Live event IPY, BIRDHEALTH.
- 3 July: NOS radio, Radio journal Marieke de Vries (3 Items 3-6 July; 4 items 22-25 July).
- 23 July: *NOS news*, interview 'Zomerijs', NOS Polar expedition.
- 1 October: Magazine *Lekker in het Leven*, interview Dutch Polar station Ny Ålesund
- 1 October: Hypothesis, article 'De ganzen achterna'.
- 18 October: *Bionieuws*, 'Natuurkunde in de dierentuin'.

Nicolay, J.A.W.

- 29 October: *Oostermoer*, 'Nieuw boek over rijke historie Midlaren'.
- 1 November: *Dagblad van het Noorden*, 'Inwoners nederzetting De Bloemert trokken weg na dichtslibben Hunze'.
- 3 November: *Lokale Omroep Eelde en Paterswolde* (LOEP), interview on the presentation of the Midlarenboek (J. van der Graft).
- 6 November: *UK*, 'Boerderij van het clanhoofd' (with S.E. Boersma).
- 6 November: *Harener Weekblad*, '5000 jaar Midlaren in boekvorm'.

Niekus, M.J.L.Th.

- 1 April: *Dagblad van het Noorden*, 'Dag van de Noord-Nederlandse amateur-archeologie'.
- 13 December: *Dagblad van het Noorden*, 'Jagerskamp Neanderthalers bij Assen' (with J. Beuker).

Nieuwhof, A.

- 20 November: *Friesch Dagblad*, 'Mogelijk voorouderverering op de vroegste terpen'.

Prummel, W.

- 10 October: Manifestatie Verleden van Groningen, 'Schedel van een oeros, gevonden in de wierde Eenumhoogte'. See: <http://www.verledenvangroningen.nl/website/index.php/themas/land-a-water.html>.
- 13 October: Website Yahoo Web Services India (in.news.yahoo.com), 'Predecessor of Cows lived in Netherlands much longer than originally assumed'.
- 11 November: *Boerenvee* (Magazine for farmanimals keepers), 'Oeros leefde tot 1.400 jaar geleden in Nederland'.
- 9 December: *Leeuwarder Courant*, Internetversion:
http://www.leeuwardercourant.nl/nieuws/regio/article4137363.ece/Oeros_stapte_200_jaar_langer_rond, article 'Oeros stapte 200 jaar langer rond'. Press release on the dating of a horn core of a male aurochs (*Bos primigenius*) from Holwerd (province of Friesland).
- 10 December: *Leeuwarder Courant*, 'Oeros stapte tweehonderd jaar langer rond'.
- 11 December:
 - Metro*, 'Oeros leefde 200 jaar langer in Nederland'.
 - Dagblad De Pers*, 'Oeros bleef wat langer leven'.
 - Mededelingen van Land en Tuinbouw*, 'Oeros'.
 - Reformatisch Dagblad*, 'Oeros leefde 200 jaar langer in Nederland'.
 - Groninger Internet Courant Voor Stad en Ommeland. De feiten die tellen. Sinds 1997*. 'Onderzoek RUG: Oeros leefde rond 600 na Chr. nog in Nederland'.
 - Newssite *Agrarisch Dagblad* (agd.nl), 'Oeros leefde 200 jaar langer in Nederland'.
 - RTV Noord*, 'RUG: Oeros leefde veel langer'.
- 13 December: Newssite Science Centric, 'Aurochs was still living in the Netherlands around AD 600'.
- 14 December: Website *Drasties - Dutch on the World - World on the Dutch*, 'In 600 the Aurochs or Urus, the European wild ox – not be confused with the European bison– was still living in the Netherlands'.
- 15 December: Website www.sciencedaily.com, 'Predecessor of Cows, The Aurochs, Were Still Living in the Netherlands Around AD 600'.
- 19 December: *Trouw*, 'Pit van een oerhoorn'.

Raemaekers, D.C.M.

9 December: *TV Flevoland*, appearance in programme on Swifterbant culture.

Veluwenkamp, J.W.

29 May: *UK*, 'Miljoenen voor RUG-onderzoeken'.

12 June: *Dagblad van het Noorden*, 'Miljoen voor digitaliseren historische tolregisters'.

13 June: *Groninger Gezinsbode*, 'Monnikenwerk. Sonttolregisters komen online'.

15 June: *Letteren Nieuws*, 'NWO geeft grote subsidie voor digitaliseringsproject Sonttolregisters'.

1 July: *Dagblad van het Noorden*, 'Gouden tijden voor maritieme onderzoekers'.

1 September: @ data & research, 'Hollandse driemaster in de Sont'.

13 September: *Volkskrant*, 'Met engelengeduld een monnikenwerk ontginnen'.

14 September: *VPRO* radio programme 'OVT', interview 'Sonttol registers online'.

1 October: *Archievenblad*, 'De Sonttolregisters Online. Nieuw licht op de Friese koopvaardij'.

29 November: Weekly magazine *Schuttevaer*, 'Sonttolregisters geven geheimen prijs. Informatie 400 jaar handelsvaart Oostzeeregio op internet'.

7. AWARDS

Arnoldussen, S.

14 November, Reuvensdagen: W.A. van Es award, biannual award for the best Dutch PhD thesis.

Klein Goldewijk, G.M.

1 April, London School of Economics, Department of Economic History: Hunt prize for best marks achieved in the MSc (Res.) dissertation, prize money: £ 50.

8. PUBLICATIONS

Number of scientific (sp) and professional (pp) publications

<i>Department</i>	<i>sp</i>	<i>pp</i>
Archaeology	97	56

8.1. SCIENTIFIC PAPERS

- Arnoldussen, S., 2008. *A Living Landscape: Bronze Age settlements in the Dutch river area (c. 2000-800 BC)*. PhD thesis Leiden University.
- Arnoldussen, S., 2008. *Appendices to: A Living Landscape: Bronze Age settlements in the Dutch river area (c. 2000-800 BC)*. Leiden, Sidestone press.
- Arnoldussen, S. & H. Fokkens (eds), 2008. *Bronze Age settlement sites in the Low Countries*. Oxford, Oxbow books.
- Arnoldussen, S. & H. Fokkens, 2008. Bronze Age settlement sites in the Low Countries: an overview. In: S. Arnoldussen & H. Fokkens (eds), *Bronze Age settlement sites in the Low Countries*. Oxford, Oxbow books, 17–40.
- Attema, P.A.J., 2008. Mare e Montagne: il ruolo della valle dell'Astura durante la protostoria e l'epoca romana, alla luce delle recenti scoperte. In: C. Corsi & E. Polito (eds), *Dalle sorgenti alla foce, il bacino del Liri-Garigliano nell'antichità, culture, contatti, scambi (Atti del Convegno, Frosinone - Formia 10-12 novembre 2005)*. Roma, Edizioni Quasar, 15–29.
- Attema, P.A.J. & A.J. Nijboer, 2007. "Stop 4". In: C. Belardelli, M. Angle, F. di Gennaro & F. Trucco (eds), *Repertorio dei siti protostorici del Lazio, Province di Roma, Viterbo e Frosinone*. Firenze, All'Insegna del Giglio, Chapt. Provincia di Roma II, 225–226.
- Attema, P.A.J. & A. J. Nijboer, 2007. Le Grottacce/PIC 13. In: C. Belardelli, M. Angle, F. di Gennaro & F. Trucco (eds), *Repertorio dei siti protostorici del Lazio, Province di Roma, Viterbo e Frosinone*. Firenze, All'Insegna del Giglio, Chapt. Provincia di Roma II, 219–221.
- Attema, P.A.J., H. Feiken, T.C.A. de Haas & G.W. Tol, 2008. The Astura and Nettuno surveys of the Pontine Region Project (2003-2005, 1st report), with a contribution by M. la Rosa. *Palaeohistoria* 49/50, 415–516.
- Attema, P.A.J., J.N. Lanting, M.A. Los-Weijns, N.D. Maring-Van der Pers & W. Prummel, 2008. *Palaeohistoria* 49/50.
- Avango, D. & L. Hacquebord, 2008. The history and heritage of natural resource exploitation in the Arctic and Antarctic: the LASHIPA project. *Patrimoine d'industrie. Resources, pratiques, cultures* 19, 7–16.
- Avango, D. & A. Houltz, 2008. Arbetets hjältar? Skildringar av liv och arbete i Arktis under tidigt 1900-tal. In: A. Houltz, B. Lundström, L. Magnusson, M. Morell, M. Nisser & E. Silven (eds), *Arbete pågår – i tankens mönster och kroppens miljöer*. Uppsala, Uppsala Universitet, 37–88.
- Bastmeijer, K. & R.M. **Roura**, 2008. Environmental Impact Assessment in Antarctica. In: K. Bastmeijer & T. Koivurova (eds), *Theory and Practice of Transboundary Environmental Impact Assessment. Legal Aspects of Sustainable Development* 1. Leiden, Brill/Martinus Nijhof Publishers, 175–219.
- Bos, J.M., 2008. Medieval Brooches from the Dutch province of Friesland (Frisia): a regional perspective on the Wijnaldum brooches. Part II: Disc Brooches. *Palaeohistoria* 49/50, 709–794.
- Bos, J.M., 2008. Stapert-Wommels: praten in de put. In: K. Huisman, K. Bekkema, J. Bos, H. de Jong, E. Kramer & R. Salverda (eds), *Diggelgoud. 25 Jaar Argeologisch Werkferbân: archeologisch onderzoek in Fryslan*. Ljouwert, Fryske Akademy-Afûk, 97–99.
- Cappers, R.T.J., 2008. Onderzoek aan macroscopische plantenresten. In: J. Dijkstra & J.A.W. Nicolay (eds), *Een terp op de schop. Archeologisch onderzoek op het Oldehoofsterkerkhof te Leeuwarden* (ADC-monografie 3). Amersfoort, ADC-Archeoprojecten, 233–258.
- Cappers, R.T.J., 2008. Plant remains from the Late Neolithic and Early Chalcolithic levels. In: J. Roodenberg & S. Alpaslan (eds), *Life and death in a Prehistoric settlement in northwest Anatolia* (The Ilipinar excavations 3). Leiden, NINO, 117–148.

- Cappers, R.T.J. & D.C.M. Raemaekers, 2008. Cereal cultivation at Swifterbant? Neolithic Wetland Farming on the North European Plain. *Current Anthropology* 49, 385–402.
- Cappers, R.T.J. & J.A.G. van Rooij, 2008. Plantenresten uit Midlaren: de reconstructie van akkervegetaties. In: J.A.W. Nicolay (ed.), *Opgravingen bij Midlaren*. Groningen, Barkhuis/University of Groningen, University Library, 219–233.
- Corver, B.A., J.A.A. Bos, M.T.I.J. Bouwman, J. de Moor & M.J.L.T. **Niekus**, 2008. Een mesolithisch jachtkamp langs de Hanzeweg N-307, gemeente Dronten. Een inventariserend veldonderzoek in de vorm van een proefsleuf (Technical Report 1297). Amersfoort, ADC ArcheoProjecten.
- Dam, K.I.M. van, 2008. *A place called Nunavut. Multiple identities for a new region*. PhD thesis University of Groningen.
- Devriendt, I., 2008. Becoming Neolithic. The Mesolithic-Neolithic Transition and its impact on the Flint and Stone Industry at Swifterbant (the Netherlands). *Documenta Praehistorica* 35, 131–141.
- Dijkstra, J. & J.A.W. **Nicolay**, 2008, *Een terp op de schop. Archeologisch onderzoek op het Oldehoofsterkerkhof te Leeuwarden* (ADC Monografie 3). Amersfoort, ADC ArcheoProjecten.
- Dijkstra, J., D.A. Gerrets & J.A.W. **Nicolay**, 2008. Synthese: ontstaan en ontwikkeling van de terp Oldehove te Leeuwarden. In: J. Dijkstra & J.A.W. Nicolay (eds), *Een terp op de schop*. Amersfoort, ADC ArcheoProjecten, 269–306.
- Elevelt, S.C., 2006. Analisi dei resti faunistici di età protostorica rinvenuti sul primo piano dell'insediamento di Francavilla Marittima (CS). In: G. Malerba & P. Visentini (eds), *Atti del 4° Convegno Nazionale di Archeozoologia, 13-15 novembre 2003, Pordenone*. Quaderni del Museo Archeologico del Friuli Occidentale, 261–266.
- Es van, W.A., E. Knol, G. Kortekaas & A. **Nieuwhof** (eds), 2008. *Om een profiel der afgraving te bezien. Na 100 jaar terug naar Dorkwerd. Jaarverslagen van de Vereniging voor Terpenonderzoek* 92. Groningen, Vereniging voor Terpenonderzoek.
- Fokkens, H. & S. **Arnoldussen**, 2008. Towards new models. In: S. Arnoldussen & H. Fokkens (eds), *Bronze Age settlement sites in the Low Countries*. Oxford, Oxbow books, 1–16.
- Galestin, M.C., 2008. *Frisii and Frisiavones*. *Paleohistoria* 49/50, 687–709.
- Galestin, M.C., 2008. Importaardewerk uit de eerste eeuwen na Christus. In: J.A.W. Nicolay (ed.), *Opgravingen bij Midlaren*. Groningen, Barkhuis/University of Groningen, University Library, 325–346.
- Galestin, M.C., 2008. Romeinse handel in Friese terp. In: K. Huisman, K. Bekkema, J. Bos, H. De Jong, E. Kramer & R. Salverda (eds), *Diggelgoud*. Ljouwert, Fryske Akademy-Afûk, 121–126.
- Gustafsson, U. I., 2008. Modern Whaling Industry in Spitsbergen as a tool for territorial claiming and national sovereignty strives. *Patrimoine De l'industrie* 19, 17–24.
- Haas, H.R. de, 2008. Spitsbergen's resources, Dutch entrepreneurs and Geo-politics. The role of a small Dutch mining camp on Spitsbergen in the Dutch political approach towards the international Spitsbergen-Question, 1916-1920. *Patrimoine de l'industrie* 19, 13.
- Haas, T.C.A. de, 2008. Comparing settlement histories in the Pontine Region (southern Lazio, Central Italy): surveys in the coastal landscape near Nettuno. *Digressus* 8, 1–32 (www.digressus.org).
- Haas, T.C.A. de, P.A.J. Attema & H. Pape, 2008. Amphorae from the coastal zone between Anzio and Torre Astura (Pontine region, Central Italy): the GIA excavations at Le Grottaacce, a local amphora collection and material from surveys in the Nettuno area. *Palaeohistoria* 49-50, 517–616.
- Hacquebord, L., 2008. The Geographical Approach of Carl Linnaeus on his Lapland Journey. *Tijdschrift voor Skandinavistiek* 29, 85–102.
- Hacquebord, L., 2008. The little bird and the big whale. In: L. Hacquebord & N. Boschman (eds), *A Passion for the Pole. Ethological Research in Polar Regions, Circumpolar Studies* 4. Groningen, Barkhuis Publishing, 85–102.
- Hacquebord, L. & N. Boschman (eds), 2008. *A Passion for the Pole. Ethological Research in Polar Regions* (Circum Polarstudies 4). Groningen, Barkhuis Publishing.
- Huisman, D.J., A. Smit, M.E. Jans, W. **Prummel**, A.G. Cuijpers & J.H.M. Peeters, 2008. *Het bodemmilieu op de archeologische vindplaatsen bij Swifterbant (provincie Flevoland): bedreigingen en mogelijkheden voor in situ behoud* (Rapportage Archeologische Monumentenzorg 163). Amersfoort, RACM.
- Huisman, K., K. Bekkema, J. **Bos**, H. de Jong, E. Kramer & R. Salverda (eds), 2008. *Diggelgoud. 25 Jaar Argeologysk Wurkferbân: archeologisch onderzoek in Fryslân*. Ljouwert, Fryske Akademy-Afûk.

- Jacobsen, J.K. & G.P. Mittica, 2008. Greek and Oinotrian-Euboean pottery in the Sibaritide 800/780-690 BC. In: *Prima delle colonie organizzazione territoriale e produzioni ceramiche specializzante in Basilicata e in Calabria settentrionale ionica nella età del ferro*. Edipuglia, Bari, 122–143.
- Johansen, L. & D. **Stapert**, 2008. Stone Age kids and their stones. In: M. Soerensen & P. Desrosiers (eds), *Technology in Archaeology. Proceedings of the SILA workshop: The study of technology as a method for gaining insight into social and cultural aspects of prehistory, The National Museum of Denmark, Copenhagen, November 2-4, 2005* (Publications from the National Museum, Studies in Archaeology & History, Vol. 14). Copenhagen, The National Museum of Denmark, 15–39.
- Knol, E., G. Kortekaas & A. **Nieuwhof**, 2008. Het aantekenboekje van Dorkwerd. In: W.A. van Es, E. Knol, G. Kortekaas & A. Nieuwhof (eds), *Om een profiel der afgraving te bezien. Na 100 jaar terug naar Dorkwerd. Jaarverslagen van de Vereniging voor Terpenonderzoek* 92, 50–124.
- Kruining, M.E. van, J. W.W. de Moor & M.J.L.T. **Niekus**, 2008. *Groenlo, voormalig Grolschterrein (Gem. Oost Gelre). Een Inventariserend Veldonderzoek in de vorm van proefsleuven* (Technical Report 1270). Amersfoort, ADC ArcheoProjecten.
- Lanting, J.N., 2008. De NO-Nederlandse/NW-Duitse klokbekeergroep: culturele achtergrond, typologie van het aardewerk, datering, verspreiding en grafritueel. *Palaeohistoria* 49/50, 11–326.
- Loonen, M.J.J.E., 2008. Linnaeus as biologist. The importance and limitations of Linnaean Systematics in biology. *Tijdschrift voor Skandinavistiek* 29, 145–152.
- Matthews, S., 2008. Other than bronze: Substances and incorporation in Danish Bronze Age hoards. In: C. Hamon & B. Quilliec (eds), *Hoardings from the Neolithic to the Metal Ages: Technical and Codified Practices* (BAR International Series 1758). Oxford, Archaeopress, 103–120.
- Modderkolk, F., J.A.W. **Nicolay**, B. Versloot & H. Huisman, 2008. Werktuigen van natuursteen. De studie van een ‘ondergeschoven kindje’. In: J.A.W. Nicolay (ed.), *Opgravingen bij Midlaren*. Groningen, Barkhuis/University of Groningen, University Library, 467–498.
- Nicolay, J.A.W., 2008. *Opgravingen bij Midlaren: 5000 jaar wonen tussen Hondsrug en Hunzedal*. (Groningen Archaeological Studies 7). Groningen, Barkhuis/University of Groningen, University Library.
- Nicolay, J.A.W., 2008. Overige structuren: hutkommen, spiekers, roedenbergen en veekralen. In: J.A.W. Nicolay (ed.), *Opgravingen bij Midlaren*. Groningen, Barkhuis/University of Groningen, University Library, 127–150.
- Nicolay, J.A.W., 2008. Waterputten, waterkuilen en natuurlijke laagtes: de watervoorziening in en direct rondom de woonplaats. In: J.A.W. Nicolay (ed.), *Opgravingen bij Midlaren*. Groningen, Barkhuis/University of Groningen, University Library, 151–179.
- Nicolay, J.A.W., 2008. Kuilen met brandlagen: het lokaliseren van metaalwerkplaatsen. In: J.A.W. Nicolay (ed.), *Opgravingen bij Midlaren*. Groningen, Barkhuis/University of Groningen, University Library, 181–190.
- Nicolay, J.A.W., 2008. De fasering van de nederzettingssporen, inclusief de greppels. In: J.A.W. Nicolay (ed.), *Opgravingen bij Midlaren*. Groningen, Barkhuis/University of Groningen, University Library, 205–218.
- Nicolay, J.A.W., 2008. Keramische artefacten: aanwijzingen voor spinnen, weven, spel en jacht. In: J.A.W. Nicolay (ed.), *Opgravingen bij Midlaren*. Groningen, Barkhuis/University of Groningen, University Library, 347–361.
- Nicolay, J.A.W., 2008. Metalen voorwerpen: van ijzeren nagel tot bronzen badflesje. In: J.A.W. Nicolay (ed.), *Opgravingen bij Midlaren*. Groningen, Barkhuis/University of Groningen, University Library, 363–390.
- Nicolay, J.A.W., 2008. Glas, glaspasta en barnsteen: kralen, luxe serviesgoed en vensterglas. In: J.A.W. Nicolay (ed.), *Opgravingen bij Midlaren*. Groningen, Barkhuis/University of Groningen, University Library, 391–400.
- Nicolay, J.A.W., 2008. Sporen van gebouwen en woonerven uit de Romeinse tijd, de Volksverhuizingstijd en de Vroege-Middeleeuwen. In: J. Dijkstra & J.A.W. Nicolay (eds), *Een terp op de schop*. Amersfoort, ADC ArcheoProjecten, 43–98.
- Nicolay, J.A.W. & S.Y. Comis, 2008. Begravingen op De Bloemert: aanwijzingen voor het grafritueel van de late bronstijd tot in de volksverhuizingstijd. In: J.A.W. Nicolay (ed.), *Opgravingen bij Midlaren*. Groningen, Barkhuis/University of Groningen, University Library, 191–203.
- Nicolay, J.A.W. & P. den Hengst, 2008. Synthese: De Bloemert in een regionale context. In: J.A.W. Nicolay (ed.), *Opgravingen bij Midlaren*. Groningen, Barkhuis/University of Groningen, University Library, 577–622.

- Nicolay, J.A.W. & H.T. Waterbolk, 2008. Huisplattegronden: de ontwikkeling van de bronstijd tot in de Middeleeuwen. In: J.A.W. Nicolay (ed.), *Opgravingen bij Midlaren*. Groningen, Barkhuis/University of Groningen, University Library, 91–126.
- Nieuwhof, A. (ed.), 2008. De Leege Wier van Englum. Archeologisch onderzoek in het Reitdiepgebied. *Jaarverslagen van de Vereniging voor Terpenonderzoek* 91. Groningen, Vereniging voor Terpenonderzoek.
- Nieuwhof, A., 2008. Aardewerk. In: A. Nieuwhof (ed.), De Leege Wier van Englum. Archeologisch onderzoek in het Reitdiepgebied. *Jaarverslagen van de Vereniging voor Terpenonderzoek* 91, 47–75.
- Nieuwhof, A., 2008. Restanten van rituelen. In: A. Nieuwhof (ed.), De Leege Wier van Englum. Archeologisch onderzoek in het Reitdiepgebied. *Jaarverslagen van de Vereniging voor Terpenonderzoek* 91, 187–248.
- Nieuwhof, A., 2008. 14C-dateringen en stabiele isotopen. In: A. Nieuwhof (ed.), De Leege Wier van Englum. Archeologisch onderzoek in het Reitdiepgebied. *Jaarverslagen van de Vereniging voor Terpenonderzoek* 91, 249–254.
- Nieuwhof, A., 2008. Het handgemaakte aardewerk, ijzertijd tot vroege middeleeuwen. In: J.A.W. Nicolay (ed.), *Opgravingen bij Midlaren*. Groningen, Barkhuis/University of Groningen, University Library, 261–304.
- Nieuwhof, A. & M.J.L.T. Niekus, 2008. Natuursteen. In: A. Nieuwhof (ed.), De Leege Wier van Englum. Archeologisch onderzoek in het Reitdiepgebied. *Jaarverslagen van de Vereniging voor Terpenonderzoek* 91, 84–96.
- Nieuwhof, A. & P.C. Vos, 2008. Landschap en bewoningsgeschiedenis. In: A. Nieuwhof (ed.), De Leege Wier van Englum. Archeologisch onderzoek in het Reitdiepgebied. *Jaarverslagen van de Vereniging voor Terpenonderzoek* 91, 19–30.
- Nieuwhof, A. & H. Woldring, 2008. Botanische resten. In: A. Nieuwhof (ed.), De Leege Wier van Englum. Archeologisch onderzoek in het Reitdiepgebied. *Jaarverslagen van de Vereniging voor Terpenonderzoek* 91, 160–176.
- Nijboer, A.J., 2008. Article review of F. Sciacca, Patere Bacellate in Bronzo, Oriente, Grecia, Italia in eta Orientalizzante. *BABesch* 83, 210–211.
- Nijboer, A.J., 2008. Article review of L. Capuis & A.M. Chieco Bianchi, Monumenti Antichi, Este II. La necropoli di Villa Benvenuti. *BABesch* 83, 211–213.
- Nijboer, A.J., 2008. Article review of U. Gehrig, Die Greifenprotomen aus dem Heraion von Samos. Samos IX. *BABesch* 83, 213–215.
- Nijboer, A.J. & H. van der Plicht, 2008. The Iron Age in the Mediterranean: recent radiocarbon research at the University of Groningen. In: D. Brandherm & M. Trachsel (eds), *Proceedings of the XV World Congress (Lisbon, 4-9 September 2006)*. Oxford, Archaeopress, 103–118.
- Nijboer, A.J., P.A.J. Attema & G.J.M. Van Oortmerssen, 2008. Two excavation campaigns of the University of Groningen at Monte Del Bufalo, Crustumerium. Preliminary results and future plans. In: *Alla ricerca dell'identità di Crustumerium, Primi risultati e prospettive di un progetto internazionale, Atti della giornata di studio organizzata dall'Institutum Romanum Finlandiae e dalla Soprintendenza Speciale ai Beni Archeologici di Roma (Roma, 5 marzo 2008)*. Rome, Institutum Romanum Finlandiae, 1–10 (<http://www.irfrome.org/dokumentit/Nijboer.pdf>).
- Oome, N. & P.A.J. Attema, 2008. Portieri, a Hellenistic Fattoria in the foothills of the Sibaritide (Calabria, Italy), site report and shard catalogue. *Palaeohistoria* 49-50, 617–686.
- Overmeer, A.B.M., 2008. Vroeg-middeleeuws scheepshout in Midlaren? In: J.A.W. Nicolay (ed.), *Opgravingen bij Midlaren*. Groningen, Barkhuis/University of Groningen, University Library, 457–465.
- Popova, L.D. & J.W. **Veluwenkamp** (eds), 2007. *The Dutch in the Russian North in the XVI-XX centuries. Bibliographical Reference Book*. Arkhangelsk, Pomor University.
- Prummel, W., 2008. Dieren op de wierde Englum. In: A. Nieuwhof (ed.), De Leege Wier van Englum, Archeologisch onderzoek in het Reitdiepgebied. *Jaarverslagen Vereniging voor Terpenonderzoek* 91, 116–159.
- Prummel, W., B.P. Tuin & D.C. Brinkhuizen, 2008. Dierresten uit de opgraving Groningen - De Held III/2004. *Hervonden Stad* 2008, 115–126.
- Prummel, W., J. Holl, J.E.A. Jans, N. Huisman & J.G.M. Thilderqvist, 2008. Het dierlijk botmateriaal: voedselvoorziening en rituele praktijken. In: J.A.W. Nicolay (ed.), *Opgravingen bij Midlaren*. Groningen, Barkhuis/University of Groningen, University Library, 235–259.

- Raemaekers, D.C.M., 2008. Het aardewerk. In: H. Koot, L. Bruning & R. A. Houkes (eds), *Ypenburg-locatie 4. Een nederzetting met grafveld uit het midden-neolithicum in het West-Nederlandse kustgebied*. Leiden, Hazenberg Archeologie, 189–202.
- Raemaekers, D.C.M., 2008. The Schipluiden pottery: mobility, exchange and mode of production. In: H. Fokkens, B.J. Coles, A.L. van Gijn, J.P. Kleijne, H.H. Ponjee & C.G. Slappendel (eds), *Between Foraging and Farming. An extended broad spectrum of papers presented to Leendert Louwe Kooijmans*. *Analecta Praehistorica Leidensia* 40, 131–138.
- Raemaekers, D.C.M., B.I. Smit & M.J.L.T. Niekus, 2008. Bewoning uit de vroege prehistorie: Laat-Paleolithicum tot en met vroege ijzertijd. In: J.A.W. Nicolay (ed.), *Opgravingen bij Midlaren*. Groningen, Barkhuis/University of Groningen, University Library, 75–89.
- Raemaekers, D.C.M., W.A.B. van der Sanden & J.A.W. Nicolay, 2008. Voorgeschiedenis en onderzoeksstrategie. In: J.A.W. Nicolay (ed.), *Opgravingen bij Midlaren*. Groningen, Barkhuis/University of Groningen, University Library, 1–14.
- Roura, R.M., 2008. Antarctic scientific bases: Cultural heritage and environmental perspectives 1983–2008. In: S. Barr & P. Chaplin (eds), *Historical Polar Bases - Preservation and Management* (ICOMOS Monuments and Sites Series 18). Oslo, ICOMOS International Polar Heritage Committee, 38–52.
- Roura, R.M., 2008. Cultural heritage tourism in Antarctica and Svalbard (Spitsbergen): Patterns, impacts, and policies. In: J. Saarinen & K. Tervo (eds), *Book of Proceedings. Tourism and Global Change in Polar Regions. An International Conference 29 November - 2 December 2007, Oulu, Finland*. Oulu, Finland University Press, 54–66.
- Tin, T., A.D. Hemmings & R.M. **Roura**, 2008. Pressures on the wilderness of the Antarctic continent. *International Journal of Wilderness* 14, 17–12.
- Triantaphyllou, S., M.P. Richards, C. Zerner & S. **Voutsaki**, 2008. Stable isotope analysis and prehistoric diet: a case-study from Middle Bronze Age Lerna, Argolid, Greece. *Journal of Archaeological Science* 35, 3028–3034.
- Triantaphyllou, S., M.P. Richards, G. Touchais, A. Philippa-Touchais & S. **Voutsaki**, 2008. Stable isotope analysis of human bone from Middle Helladic Aspis. *Bulletin de Correspondance Hellénique* 130.2, 627–637.
- Veluwenkamp, J.W., 2008. Economic relations between Western Europe and Russia, 1600–1800. In: J. Holtrop & H. Slechte (eds), *Foreign churches in St.Petersburg and their archives, 1703–1917* (*Brill's Series in Church History* 29). Leiden/Boston, Brill, 33–40.
- Veluwenkamp, J.W., 2008. De tulpenhandel als cultuurcrisis. *Tijdschrift voor Geschiedenis* 121, 225–226. Book review of A. Goldgar, *Tulipmania. Money, honor, and knowledge in the Dutch Golden Age*. Chicago, University of Chicago Press, 2007.
- Veluwenkamp, J.W., 2008. Familiebedrijven en geotrooieerde compagnieën. De invloed van de overheid op de bedrijfsorganisatie in de Nederlandse handel in de 17de en de 18de eeuw. In: N.P. Kopaneva, I.M. Michajlova & J.D. van het Reve (eds), *Materialen van de internationale wetenschappelijke conferentie "Rusland-Nederland: op het kruispunt van meningen"*. St. Petersburg, Evropeysky Dom, 265–274.
- Veluwenkamp, J.W., 2008. Het Nederlandse handelsstelsel in de vroegmoderne tijd. Oude en nieuwe visies. *Leidschrift* 23, 63–76.
- Vos, P.C., H. **Woldring** & J.A.W. **Nicolay**, 2008. Landschapsynthese van het laat-paleolithicum tot heden. In: J.A.W. Nicolay (ed.), *Opgravingen bij Midlaren*. Groningen, Barkhuis/University of Groningen, University Library, 67–73.
- Voutsaki, S., A.J. Nijboer, G. Touchais & A. Philippa-Touchais, 2008. Radiocarbon analysis of Middle Helladic burials from Aspis, Argos. *Bulletin de Correspondance Hellénique* 130.2, 613–625.
- Voutsaki, S., 2008. The stone vessels: The marble open bowls. In: C. Renfrew, C. Doumas, L. Marangou & G. Gavalas (eds), *Keros, Dhaskalio Kavos: the investigations of 1987–88*. Cambridge, McDonald Institute for Archaeological Research.
- Wendrich, W.Z. & R.T.J. **Cappers**, 2008. De vroegste landbouw in Egypte: recente resultaten van veldwerk in de Fajoem. *Ta-Mery*, 25–29.
- Weninger, B., R. Schulting, M. Bradtmöller, L. Clare, M. Collard, K. Edinborough, J. Hilpert, O. Jöris, M. **Niekus**, E. Rohling & B. Wagner, 2008. The catastrophic final flooding of Doggerland by the Storegga Slide Tsunami (Neolithic Studies 15). *Documenta Praehistorica* 35, 1–24.
- Woldring, H., 2008. Pollenanalyse van de mestlagen: aanwijzingen voor intensivering van de begrazing in de Romeinse tijd. In: J. Dijkstra & J.A.W. Nicolay (eds), *Een terp op de schop*. *Archeologisch*

onderzoek op het Oldehoofsterkerkhof te Leeuwarden (ADC-monografie 3). Amersfoort, ADC-Archeoprojecten, 259–267.

Woldring, H. & Y. Boekema, 2008. Tussen Hunze en Hondsrug: vegetatie en landschap van het Hunzedal, in het bijzonder van neolithicum tot middeleeuwen. In: J.A.W. Nicolay (ed.), *Opgravingen bij Midlaren*. Groningen, Barkhuis/University of Groningen, University Library, 41–65.

8.2. PROFESSIONAL PUBLICATIONS

- Aalders, Y.I. & L. Hacquebord, 2008. Europese walvisvaarders en Russische jagers in Green Harbour, Spitsbergen. *Paleo-aktueel* 19, 210–215.
- Attema, P.A.J. & T.C.A. de Haas, 2008. Survey in de Steppe: de eerste veldcampagne van het Dzarylgac projekt (de Krim, Oekraïne). *Paleo-aktueel* 19, 142–150.
- Boekema, Y. & H. Woldring, 2008. Het palynologisch onderzoek van de Hassebergril (Sellingen, Gr.). *Paleo-aktueel* 19, 156–160.
- Cleveringa, P., H. **Woldring** & H. de Wolf, 2008. Sterven op staande voet. *Paleo-aktueel* 19, 39–45.
- Devriendt, I., 2008. De afgeronde vuurstenen artefacten van Swifterbant (Fl.). Vuurmakers, boren of toch iets anders? *Paleo-aktueel* 19, 66–70.
- Devriendt, I., 2008. Diamonds are a girl's best friend. Neolithische kralen en hangers uit Swifterbant. *Westerheem* 57, 384–397.
- Drenth, E. & M.J.L.T. **Niekus**, 2008. Geröllkeulen en Spitzhauen uit Nederland, in het bijzonder de provincie Drenthe. *Paleo-aktueel* 19, 46–55.
- Feiken, H., 2008. Review of World ecological degradation. Accumulation, urbanization, and deforestation 3000 B.C. - A.D. 2000. *Tijdschrift voor Mediterrane Archeologie* 20 (39), 37–39.
- Feiken, H., 2008. IJzertijd-bewoning in een dynamisch landschap gevormd door Vecht en Angstel (Utr.). *Paleo-aktueel* 19, 102–114.
- Fens, R.L., M.J.L.T. **Niekus** & F. de Vries, 2008. Knollen, blokken en brokken. *Nieuwe Drentse Volksalmanak* 125, 159–178.
- Haas, H.R. de, 2008. Hout blijft altijd gaan. De familie Nanninga, driehonderd jaar ondernemen in hout 1700-2000. *Historisch Jaarboek Groningen*, 78–97.
- Haas, H.R. de, 2008. Nederlandse ondernemers op poolavontuur. De Nederlandsche Spitsbergen Compagnie, 1920-1932. In: D. Veerman (ed.), *Tegenpolen. Op expeditie naar contrastrijke poolgebieden*. Zutphen, Walburg Pers, 10.
- Hacquebord, L., 2008. Klimaatverandering en geopolitiek in de Arctis. *Geografie* 17 (9), 26–28.
- Hacquebord, L., 2008. Smeerenburger spek en Groenlandse traan. Nederlandse walvisvaart in het Arctisch gebied. In: D. Veerman (ed.), *Tegenpolen. Op expeditie naar contrastrijke poolgebieden*. Zutphen, Walburg Pers, 79–88.
- Hacquebord, L. & D. Veerman, 2008. Van mythe naar waarheid. Beelden van het poolgebied in historisch perspectief. In: D. Veerman (ed.), *Tegenpolen. Op expeditie naar contrastrijke poolgebieden*. Zutphen, Walburg Pers, 11–17.
- Holk, A.F.L. van, 2008. IFMAF. In: R.C. van Diepen, W.H.J. van der Most & H. Pruntel (eds), *Speuren naar het verleden. Cultuur Historisch Jaarboek voor Flevoland*, 131–133.
- Holk, A.F.L. van & W. Waldus, 2008. Beschrijving van de scheepsresten. In: W. Waldus, *Een negentiende-eeuws werkschip bij Almere-Poort* (ADC Maritiem 1140). Amersfoort, ADC-Archeoprojecten, 8-10.
- Holk, A.F.L. van & W. Waldus, 2008. Beschrijving van de scheepsresten. In: W. Waldus, *Een zeventiende-eeuws vrachtschip bij Almere-Poort* (ADC Maritiem 1141). Amersfoort, ADC-Archeoprojecten, 10-13.
- Holk, A.F.L. van, A.B.M. Overmeer & H.R. Reinders, 2008. Een Scandinavische vrachtvaarder uit de Late Middeleeuwen? Het onderzoek van een scheepswrak in de Noordoostpolder. In: R.C. Van Diepen, W.H.J. van der Most & H. Pruntel (eds), *Speuren naar het verleden. Cultuur Historisch Jaarboek voor Flevoland*, 101–115.
- Holk, A.F.L. van, D. Velthuis, D. Biewinga & B. van Rosmalen, 2008. Een schip dat tot twee maal toe zoekraakte. *Westerheem* 57, 353–368.
- Huisman, H. & D.C.M. **Raemaekers**, 2008. De akker van Swifterbant. *RACM-Nieuwsbrief* 3, 16–18.
- Johansen, L., M.J.L.Th. **Niekus** & D. **Stapert**, 2008. De vindplaats Oudehaske en de Ahrensburg-traditie in Friesland. In: K. Huisman, K. Bekkema, J. Bos, H. de Jong, E. Kramer & R. Salverda (eds), *Diggelgoud. 25 jaar Argeologysk Wurkferbân: archeologisch onderzoek in Fryslân*. Leeuwarden, Fryske Akademy-Afûk, 45–48.
- Kelman, I. & K.I.M. van Dam, 2008. *Vulnerability and Adaptation to Climate Change (VACCA): An analysis of the scoping study data* (Technical Report --). Oslo, Cicero.
- Lanting, L., P.M. van Leusen, N.D. Maring-Van der Pers & D. Stapert, 2008. *Paleo-aktueel* 19.

- Nicolay, J.A.W., 2008. Een gouden pseudo-munthanger uit het Groningse terpengebied. De 9^e-eeuwse elite in beeld. *Paleo-aktueel* 19, 161–167.
- Nicolay, J.A.W., 2008. Een zwaard van koninklijke allure in Wijnaldum. In: K. Huisman, K. Bekkema, J. Bos, H. de Jong, E. Kramer & R. Salverda (eds), *Diggelgoud. 25 jaar Argeologisch Werkferban: archeologisch onderzoek in Fryslân*. Leeuwarden, Fryske Akademy-Afûk, 141–147.
- Nicolay, J.A.W., A. van Rooijen & W. K. Vos, 2008. Een paradehelm uit Romeins Woerden. *Archeobrief* 12 (2), 2–8.
- Niekus, M.J.L.Th., 2008. Een studie naar de ontwikkeling van trapeziumvormige pijlbewapening tussen 8100 en 4100 BP. *Paleo-aktueel* 19, 56–65.
- Niekus, M.J.L.Th., 2008. Enschede, Sleutelweg, Cascadeterrein. *Overijssels Erfgoed. Archeologische en Bouwhistorische Kroniek 2007*, 42–44.
- Niekus, M.J.L.Th., 2008. Haardkuilen als informatiebron voor het gedrag van mesolithische jagers-vissers-voedselverzamelaars. In: K. Huisman, K. Bekkema, J. Bos, H. de Jong, E. Kramer & R. Salverda (eds): *Diggelgoud. 25 jaar Argeologisch Werkferbân: archeologisch onderzoek in Fryslân*. Leeuwarden, Fryske Akademy-Afûk, 56–61.
- Niekus, M.J.L.Th. & E. Rensink, 2008. De Drentse Aa. Steentijdjagers in het Drentse landschap. In: E. Rensink (ed.), *Archeologie en beekdalen. Schatkamers van het verleden*. Utrecht, Uitgeverij Matrijs, 122–141.
- Niekus, M.J.L.Th., J. Beuker, L. Johansen & D. Stapert, 2008. Een tweede ‘Mander’: een recentelijk ontdekt kampement van Neanderthalers (Dr.). *Paleo-aktueel* 19, 1–9.
- Nieuwhof, A., 2008. Crematierestten uit Dronrijp-Noord. In: K. Huisman, K. Bekkema, J. Bos, H. de Jong, E. Kramer & R. Salverda (eds), *Diggelgoud*. Ljouwert, Fryske Akademy-Afûk, 127–131.
- Overmeer, A.B.M., 2008. Schepen van verre kusten? Overnaadse schepen in Nederland in de 15^{de} en 16^{de} eeuw. In: R. Oosting & J. van den Akker (eds), *Boomstamkano’s, overnaadse schepen en tuigage. Inleidingen gehouden bij het tiende Glavimans symposium 2006 te Lelystad*. Amersfoort, Stampij, 41–55.
- Overmeer, A.B.M., A.F.L. van Holk & H.R. Reinders, 2008. Een Scandinavische vrachtvaarder uit de Late Middeleeuwen? *Paleo-aktueel* 19, 184–193.
- Prummel, W., 2008. Prehistorische jagers langs de Boven-Tjonger. In: K. Huisman, K. Bekkema, J. Bos, H. de Jong, E. Kramer & R. Salverda (eds), *Diggelgoud*. Leeuwarden, Fryske Akademy-Afûk, 80–87.
- Prummel, W. & L. Olivier, 2008. Twee bijzondere terpvondsten uit Holwerd. *Van Wierden en Terpen. Mededelingen van de Vereniging voor Terpenonderzoek* 11, 5.
- Raemaekers, D.C.M., 2008. Emotie in de polder. In: L. Amkreutz & A. Willemsen (eds), *Tijdreizigers. Op zoek naar de archeologische sensatie*. Leiden, Rijksmuseum van Oudheden, 52–53.
- Raemaekers, D.C.M., 2008. Het einde van Malta? *Archeobrief* 12, 17–20.
- Raemaekers, D.C.M. & W.J.H. Hogestijn, 2008. Weg met de Klokbekerweg? De interpretatie van vondsten van de Klokbeker-cultuur in Swifterbant en de provincie Flevoland. *Westerheem* 57, 409–417.
- Roura, R.M., 2008. SPOT THE DIFFERENCE: Monitoring the transformation of Ny-London, a cultural heritage site in Spitsbergen. In: *Polar Symposium 14 May 2008*. Amsterdam, Nederlandse SCAR Commissie (KNAW) and Nederlands Polair Programma (NPP/NWO), 36.
- Roura, R.M., 2008. Tourism in Antarctica and Spitsbergen (Svalbard): Cultural heritage perspectives. In: *Abstract Volume, SCAR/IASC Open Science Conference, St. Petersburg, Russia, July 8-11-2008*. Saint Petersburg, Russia: State Scientific Centre of Russian Federation - Arctic and Antarctic Research Institute, 447–448.
- Roura, R.M., 2008. Vignetten van het hoge noorden. Tourisme in het Arctisch gebied. In: D. Veerman (ed.), *Tegenpolen: Op expeditie naar contrastrijke poolgebieden*. Zutphen, Walburg Pers, 114–222.
- Roura, R.M., M. dos Santos Afonso, C. Pérez Muñoz & T. Tin, 2008. Tourism and the human footprint at Deception Island, South Shetland Islands, Antarctica. In: *Abstract Volume, SCAR/IASC Open Science Conference, St. Petersburg, Russia, July 8-11-2008*. Saint Petersburg, Russia: State Scientific Centre of Russian Federation - Arctic and Antarctic Research Institute, 452.
- Schokker, J., H. **Woldring**, P. Cleveringa & J. Wallinga, 2008. Datering landschapsdegradatie te Messchenveld (Dr.). *Paleo-aktueel* 19, 168–173.
- Smit, B.I., 2008. De waarde van oppervlakte vindplaatsen en -collecties: een regionaal perspectief. In: K. Huisman, K. Bekkema, J. Bos, H. de Jong, E. Kramer & R. Salverda (eds), *Diggelgoud*. Leeuwarden, Fryske Akademy-Afûk, 62–70.
- Stapert, D., 2008. Kunstzinnige vingerwijzingen: sporen van paleolithische meisjes en jongens. *Paleo-aktueel* 19, 29–38.

- Stapert, D. & L. Johansen, 2008. Een bladspits met mogelijke sporen van schachting. *Paleo-aktueel* 19, 20–28.
- Stapert, D. & L. Johansen, 2008. Neanderthalers in Gaasterland. In: K. Huisman, K. Bekkema, J. Bos, H. de Jong, E. Kramer & R. Salverda (eds), *Diggelgoud*. Leeuwarden, Fryske Akademy-Afûk, 37–44.
- Stapert, D., J. Been, J. Beuker, L. Johansen, M. Niekus & P. Wiersma, 2008. Bladspitsen en andere middenpaleolithische vondsten rond het glaciële bekken van Steenwijk (Dr. en Ov.). *Paleo-aktueel* 19, 10–19.
- Verhagen, P., M. **van Leusen** & H. Kamermans, 2008. Een nieuwe impuls voor de archeologische verwachtingskaart. *Archeobrief* 12, 27–34.
- Waldus, W. & A.F.L. **van Holk**, 2008. *Onderzoek van een 19^e-eeuws vrachtschip in het Hollandsch Diep* (ADC Maritiem 999). Amersfoort, ADC-Archeoprojecten.
- Willemsen, S.L., 2008. De Amazone in Centraal-Italië: Symbool van een nieuw tijdperk. *Tijdschrift voor Mediterrane Archeologie* 39, 3–8.
- Woldring, H., Y.R. Niesink-van der Veen & P. Cleveringa, 2008. Vegetatiehistorie van de onverveende pingo 'De Oorsprong' (Noordlaren, Gr.). *Paleo-aktueel* 19, 174–183.
- Woltinge, I., 2008. *Proefsleuven in Polderwijk. Een methodologisch archeologisch onderzoek* (Grondsporen 3). Groningen, GIA (<http://archeologie.eldoc.ub.rug.nl/root/>).
- Woltinge, I., L. Johansen & D. Stapert, 2008. Vuurstenen met afgeronde uiteinden van Swifterbant (Fl.): vuurmakers? *Paleo-aktueel* 19, 71–80.