

**GIA** – Groningen Institute of Archaeology  
University of Groningen

**ANNUAL REPORT 2006**

Cover illustration: Crustumerium (Italy) 2006, excavation of a 7<sup>th</sup> c BC tomb.



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## FOREWORD

Writing annual research reports compels one to look back and summarize the results of a year filled with research. The Groningen Institute of Archaeology (GIA) is the smallest of the three research institutes of the Faculty of Arts and encompasses all archaeological research at the University of Groningen.

This annual report makes clear that GIA is thriving. The number of our *promovendi* has increased in recent years; the coming years should see the results of their work. In 2006 GIA also undertook successful initiatives to strengthen its research ambitions. Attema was awarded a subsidy by the Netherlands Organisation for Scientific Research (NWO) allowing a one-year teaching substitution in 2007, Nicolay was awarded a three-year postdoctoral position by NWO, while Hacquebord received funds from both NWO and the Swedish Research Council for his LASHIPA project: positions for a three-year post-doc and a two-year post-doc, in addition to a PhD student and a data manager for one year. Loonen was awarded a NWO subsidy for a three-year post-doc position and an assistant for two years.

In 2006 GIA carried out field work in various parts of the world. Common ground was found in our 2004-2009 research programme 'Society and Environment'. Members of our staff carried out excavations and field surveys in the Netherlands (Anjum, Swifterbant), Italy (Crustumerium and Nettuno in Latium, the Raganello valley in Calabria), Greece (Halos), Ukraine (western Crimea) and on Greenland, Spitsbergen and Antarctica. The first results are to be found in this annual report.

In recent years GIA has collaborated with the *Nieuw Land Erfgoedcentrum* (Lelystad), the province of Flevoland and the Dutch State Service for Archaeological Heritage Management to establish a specialization in Maritime Archaeology. Last November the university and partners finalised the agreement, so in 2007 we hope to appoint a professor in Maritime Archaeology.

The last topic is of a more personal nature. Reinder Reinders retired in March 2006 as the director of GIA and professor of the Archaeology of Eurasia. Since 2002 I have worked alongside him with much pleasure as a so-called Van der Leeuw professor. On 1 April I lost my 'Van der Leeuw' label and began operating as the professor of Prehistory and Protohistory of Northwestern Europe. At the same time I succeeded Reinders as the director of GIA. I hope that Reinders may continue pursuing his scientific ambitions for many years to come.

Daan Raemaekers

## **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 Department of Arctic Archaeology.

### **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 and graduate school for archaeology, which comprises archaeology departments at five universities (University of Amsterdam, Vrije Universiteit Amsterdam, University of Groningen, University of Leiden, Radboud University Nijmegen), and RACM (= National Service for Dutch 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 Eurasian, Mediterranean and Arctic 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 historically 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**

Reinders, Prof. Dr. H.R. (until April 2006)

Raemaekers, Prof. Dr. D.C.M. (from April 2006)

#### **Advisory board**

Attema, Prof. Dr. P.A.J.

Galestin, Dr. M.C.

Lanting, Drs. J.N.

Prummel, Dr. W.

Satijn, Drs. O.

#### **Management team**

Attema, Prof. Dr. P.A.J.

Cappers, Dr. R.T.J.

Hacquebord, Prof. Dr. L.

Raemaekers, Prof. Dr. D.C.M.

Reinders, Prof. Dr. H.R.

#### **Members**

Attema, Prof. Dr. P.A.J.

Bos, Dr. J.M.

Cappers, Dr. R.T.J.

Galestin, Dr. M.C.

Hacquebord, Prof. Dr. L.

Kooi, Dr. P.B.

Lanting, Drs. J.N.

Leusen, Dr. P.M. van

Nijboer, Dr. A.J.

Prummel, Dr. W.

Raemaekers, Prof. Dr. D.C.M.

Reinders, Prof. Dr. H.R.

Stapert, Dr. D.

Veluwenkamp, Dr. J.W.

Voutsaki, Dr. S.

#### ***Promovendi***

Abbink, Drs. B.P.

Alessandri, Drs. L.

Dam, Drs. K.I.M. van

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

Mulder, Drs. S.A.

Mulders, Drs. K.E.A.

Niekus, Drs. M.J.L.T.

Roura, Drs. R.

Satijn, Drs. O.

Smit, Drs. B.I.

Thilderqvist, Drs. J.G.M.

Woltinge, Drs. I.

#### **Post doc**

Loonen, Dr. M.J.J.E.

Nicolay, Dr. J.A.W.

#### **Support Staff**

Boersma, S.E.

Bolhuis, E.

Entjes-Nieborg, G.

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.

Steenhuisen, F.

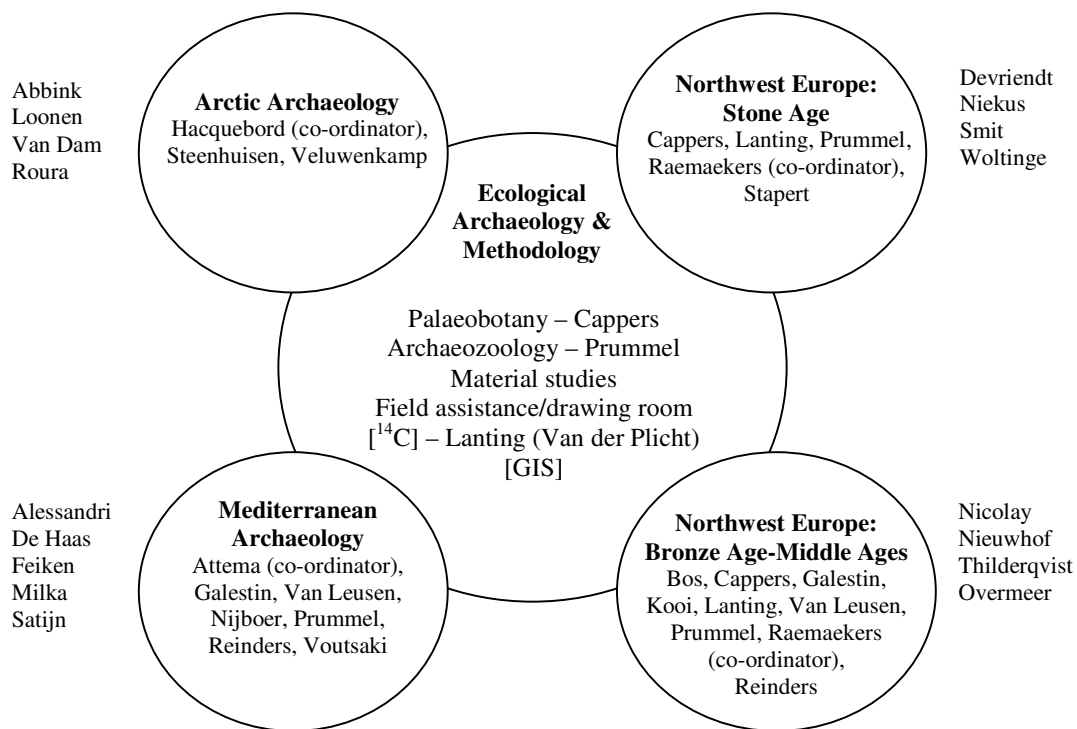
Tiebackx, S.

Tol, L.

Woldring, ing. H.

Zwier, J.H.

**GRONINGEN INSTITUTE OF ARCHAEOLOGY: SOCIETY AND ENVIRONMENT**



Inside diagram: members; outside diagram: *promovendi* and post-docs  
Names between brackets: associated researchers; 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 understanding, on the one hand, 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, the reader is referred to GIA's website: [www.rug.nl/let/gia](http://www.rug.nl/let/gia).

### **2.1 GENERAL THEMES**

#### ***Archaeological Heritage Management***

##### *Predictive Modelling for Dutch Archaeological Heritage Management (Van Leusen)*

Also known as the BBO project, this NWO-funded project continued in 2006 at a low level of activity; the project was officially completed. A second expert meeting was held in May at Leiden University and a second volume, co-edited with H. Kamermans and including several of Van Leusen's contributions, is in preparation (to appear in 2007).

##### *Opgravingshandleiding KNA 3.1 / Excavation manual (Nieuwhof)*

A new Dutch quality standard for excavations (Kwaliteitsnorm Nederlandse Archeologie 3.1) was formulated in the first half of 2006. When the new Monuments law will be ratified in the course of 2007, GIA is obliged to follow the KNA. To this end, an excavation manual was written that combines the new standard with common GIA practice. It is meant as a textbook for students learning to do fieldwork, and as a reference book for experienced archaeologists.

#### ***Taphonomy of the archaeological archive***

##### *Taphonomy of plant remains from cereal fields in ancient Egypt (Cappers)*

To improve the reconstruction of off-site vegetation based on on-site sampling, a model has been developed for the selection of archaeological contexts. This model takes account of the processes acting on plant material from cereal fields from the Roman times onwards (viz. cultivation of free-threshing cereals). The model was published in 2006 and will be adapted in coming years for crop production in areas with a Mediterranean climate.

#### ***Isotopes in archaeology: diets and chronology***

##### *Radiocarbon chronology of Middle and Late Iron Age (Lanting)*

A detailed survey of the dating evidence, including <sup>14</sup>C dates, for Middle and Late Iron Age features in the Netherlands was finished and published.

##### *The absolute chronology of the Iron Age in the Mediterranean (Nijboer)*

In 2006 Nijboer was invited to present his research at three international conferences (Lisbon, Cornell University (Ithaca) and Lille). The research dealt with radiocarbon sequences obtained in past years for the period 1200 to 800 BC. The presented papers will be published. In the next two or three years Nijboer



hopes to complete this project on the absolute chronology of the Iron Age in the Mediterranean with the publication of additional papers and a book.

### *Vegetation, fauna and the human impact*

#### *Digital seed atlas project (Cappers)*

The availability of reference material is a basic necessity for archaeobotanical research. To improve the identification of plant remains, it was decided to publish a series of standard works that fills this need. Each of these volumes will be published as both a book and a website, the latter being part of the digital library of the University Library of the RUG. The first volume, a 'Digital atlas of the Netherlands' was published in 2006. The next volume, 'World atlas of economic plants', will deal with all kinds of economic plants (e.g. food plants, condiments, plants used for fuel, medicines or poisons, plants used in social and environmental contexts), with special emphasis on the Old World. This atlas will be produced with the 'Deutsches Archäologisches Institut' (R. Neef) and the 'Community and Conservation Ecology group' (R. Bekker). Production of this second volume started in 2006; publication is scheduled for 2008.

#### *Excavation and survey in the Fayum (Egypt) (Cappers)*

The GIA/UCLA Fayum project continued in 2006. The survey of the northeastern part of the Fayum continued with special emphasis on the taphonomic processes of lithic assemblages. This information will be used for modelling the mobility of the hunter/gatherer and early farmer communities. In addition, a magnetic survey was made of the Kom-K settlement and the excavation of an undisturbed part of this Kom was initiated.

Excavation at the Roman site Karanis continued. This is aimed at: (1) exploring the destruction of the 'sibakh' in the centre of the city during the early part of the 20<sup>th</sup> century; (2) fixing the fringes of the settlement (supported by magnetic survey); (3) testing the model dealing with the on-site reconstruction of cereal fields. The 2006 season included specialists and students from the Netherlands, Belgium, USA, Belgium, Norway, United Kingdom, Poland and New Zealand. The research project involved archaeological/magnetic surveys and excavations, the study of pottery, stone artefacts and flints, plant remains, animal remains, milling stones/presses, geological processes and the conservation of architectural features. Special attention is being paid to site management at Karanis in order to produce a three-dimensional reconstruction of the site enabling exploration of the different phases of the settlement. All standing walls of the city centre have been photographed. These pictures will be integrated with those taken of the previous excavations to display the original condition of the buildings and their current state. A pilot version of the programme has been developed.

#### *Theban Desert Road Project (Egypt) (Cappers)*

Since 1992, Prof. J.C. Darnell and D. Darnell (Yale University) have been investigating the old routes through the large Quena bend of the Nile. The plant remains have been studied by Cappers from 1998 onwards. To date samples have been studied from the Pharonic period. In 2006, Cappers and Van Rooij (student) visited Egypt to study plant remains retrieved from a cave that are dated to the Predynastic period. These remains are preserved by desiccation and display a rich spectrum of cultivated and wild plants. There is evidence of the exploitation of *Blepharis edulis*, the first archaeobotanical evidence of this desert plant. Fruit remains of another striking species, the liana *Coculus pendulus*, are present in many samples. This seems to indicate that in Predynastic times the Nile Valley must have been a forested area.

#### *Berenike (Egypt) (Cappers)*

2006 saw the publication of a monograph on the archaeobotanical research carried out from 2001 to 2005. The reconstruction of subsistence and trade is based on the study of subfossil plant remains as well as ethno-archaeobotanical research and the study of the current desert vegetation. The results have been described for scholars interested in the Roman trade, including archaeobotanists, historians, biologists and anthropologists.

*Drenthe Plateau (Woldring)*

The past distribution and migration of Bog myrtle (*Myrica gale*) was examined. Palynological evidence from the Drenthe Plateau shows a gradual increase on the higher sandy soils of Bog myrtle since the Boreal. From the Subboreal on, the species profits from the activities of man (deforestation) and becomes fairly widespread. In the second half of the Holocene Bog myrtle migrates into the bogs in the west of the Netherlands and north Friesland, owing to protection from the sea by barriers and lower dunes. A publication has been prepared: 'Van hoog naar laag: migratie van *Myrica* in het Holoceen', *Belgeo* 2006-3 (with P. Cleveringa and D. van Smeerdijk).

*Messchenveld/Assen (Drenthe) (Woldring)*

The geological, palynological and wood research of Messchenveld/Assen (with P. Cleveringa en J. Schokker NITG/TNO and amateur archaeologists F. van Beemt, J. van Rijn and H. van Rees) will continue and be (partly?) published in 2007.

*Noordenveld (Woldring)*

The palynological examination of sediments from pingo scars and brook valleys in the northern province of Drenthe (Gemeente Noordenveld) will continue and possibly be finished in 2007.

*Saglik Ovasi/Gavur Gol (South Turkey) (Woldring)*

The palynological examination of Saglik Ovasi/Gavur Gol (South Turkey) will be finished in 2007 and be published as a preliminary paper. The examination of cores from locations in central Anatolia (e.g. Golludag) will continue.

***Material studies and conservation***

*Fabric analysis on ceramics from Latium Vetus (Italy) (Nijboer & Van Oortmerssen)*

This long-term project concerns the analysis of ceramic fabrics to improve our understanding of pottery production and of (local and regional changes in) pottery technology in *Latium Vetus*. The analyses contribute to the reading of the pottery production and distribution in the region around Rome between 1200 and 300 BC. See: [www.lcm.rug.nl](http://www.lcm.rug.nl) -> research -> fabric analysis on ceramics from Lazio, Italy. In 2006 the fabric analysis of the excavation at P13 near Nettuno was published (in cooperation with P.A.J. Attema, Cluster 3).

## 2.2 NORTHWEST EUROPE: STONE AGE

### *Stone Age society: pattern and process*

#### *The Middle Palaeolithic in the northern Netherlands (Stapert)*

Considerable time has been spent studying Middle Palaeolithic finds from the northern Netherlands together with M. Niekus (GIA), J. Beuker (Drents Museum) and L. Johansen (Archaeological Drawings & Analyses, Haren). This has led to the creation of a catalogue which describes many finds in detail, including the identification of several (failed) preforms of probable leaf points (Zeijen, Balloo) suggesting a more extensive occupation by the most recent Neanderthals during the Middle Pleniglacial of the Weichselian than previously thought. A short publication containing a map of findings from Drenthe has appeared (Beuker, Niekus & Stapert, 2006). Material from several finds in the provinces of Friesland, Overijssel and Flevoland was also studied. The well-known site at Mander produced several new finds. A hand axe from Dronten (Rhenen Industry?) was studied and described in detail. At a site near Raalte, suction-dredging has produced a series of artefacts dating from the Eemian or the Early Weichselian.

#### *Traces of Middle Palaeolithic children (Stapert)*

Flint artefacts from Early and Late Middle Palaeolithic were studied (with L. Johansen and, partly, M. Niekus) to identify work by pupils in the art of flintknapping, i.e. children. Flintknapping by children has been abundantly documented for the Upper Palaeolithic (e.g. at the Hamburgian site of Oldeholtwolde) but to date hardly any examples have been described for older periods. At Rhenen (Kwintelooijen Quarry) and Site K (Belvédère Quarry), both of which are Early Middle Palaeolithic sites of some 250,000 years ago, examples of such work could be identified with some confidence. Short publications on this work appeared in *Paleo-aktueel* 17. An English publication was completed with L. Johansen (to appear in 2007 in a volume edited by M. Sørensen, Copenhagen); another paper is in press (*Archäologisches Korrespondenzblatt*).

#### *The Hamburgian site at Ureterp (Friesland) (Stapert)*

The largest Hamburgian site in the Netherlands is Ureterp, excavated by A. Bohmers for *Das Ahnenerbe* in 1943-1944. In 2005 Hans Zwier (GIA) rediscovered the original of the excavation plan, containing a lot of data including find numbers. Prompted by this find, the 'Ureterp Project' was started together with L. Johansen. In 2006 a digital file in the ANALITHIC format was created with information about and coordinates of 4684 flint artefacts and 258 stones of other kinds. In the northern part of the excavation, a possible 'tent ring' of larger stones could be discerned. A first publication appeared in *Paleo-Aktueel* 17. In years to come, as many flint artefacts from Ureterp will be studied as possible.

#### *Firemaking tools from the Stone Age (Stapert)*

Several flint tools probably used in combination with pyrite for making fire, dating from the Late Palaeolithic and later periods, were studied together with M. Niekus and L. Johansen. Two interesting tools from Euvelgunne (excavated by G. Kortekaas), were described in (stereomicroscopic) detail.

#### *The Mesolithic occupation in the northern Netherlands: Time, space and subsistence (Niekus)*

In 2006 the spatio-temporal analyses of Mesolithic radiocarbon dates in the northern part of the Netherlands was completed and the results were published in *Palaeohistoria*.

One of the most important conclusions of the study is that during the Atlantic period there seems to have been a change in the location of Mesolithic settlements. These results broadly confirm the earlier studies by Waterbolk. Analyses of the landscape setting (soil type, geomorphology, distance to water) of Mesolithic sites in the province of Drenthe were started. The first results are very promising, indicating a

relation between different tool types and landscape setting. The typological development of Mesolithic triangles was investigated and published in cooperation with B.I. Smit. The study on Mesolithic/Early Neolithic mace heads continued with E. Drenth (RACM).

*Valuable flints (Smit)*

The results of the fieldwork campaign in Deventer (2005) have been published. The fieldwork experiences also provided input for several lectures. The main focus of these lectures is the difference between the research of remains from early prehistory compared to remains from later prehistory. This problem has been studied and the results form part of a forthcoming dissertation. Several microtriangles from the northern Netherlands were studied together with M. Niekus. The results are published in *Paleo-aktueel* 17.

*Bell Beaker culture in northeast Netherlands and northwest Germany (Lanting)*

A lengthy survey of the Bell Beaker culture and its background in the northeast Netherlands and northwest Germany was completed in 2006 and will be published in the next *Palaeohistoria*.

*Neolithic pottery (Raemaekers)*

Two Hazendonk pottery assemblages (c. 3600 BC) were studied. The assemblage from Ypenburg (near the Hague) derives from a coastal dune site, similar to the recently published Schipluiden dune (Raemaekers & Rooke 2006). The Ypenburg pottery provides an important reference: it is similar in terms of ceramic morphology and technology but has its singularities. The presence of two ceramic subgroups attested at Schipluiden proved to be duplicated at the 3/C level of Ypenburg, suggesting that in this phase two pottery producers were at work. In the 11/K level, the subgroups are absent. The second Hazendonk pottery assemblage comes from Nijmegen-'t Klumke. The relevance of this small assemblage lies in its position between Hazendonk to the west, late Swifterbant to the north, early TRB to the northeast and Michelsberg to the south. The analysis proved cultural affinities to all these groups.

*Origins and spread of agriculture*

*The Swifterbant culture (Raemaekers, Cappers, Devriendt, Prummel)*

In 2006 the publication of the 2004 excavation at Swifterbant S2 took shape. The most important find category is certainly the bone material studied by Prummel. The animal remains of the 1960s and 1970s excavations at S2 were also studied for this publication. The formation processes of the preserved bone sample were discussed. The animal bones from S2 were heavily fragmented due to trampling and burning. The conditions for *in situ* preservation of animal bones proved to be good. These results correspond with the results of microscopic and pedologic studies at the RACM in Amersfoort. Part of the bone material of the 2005 excavation at site S4 was studied with two students.

During the 2006 field work the excavation of levee site S4 at Swifterbant was continued. The remaining part of the child burial was excavated; at the same time it was concluded that it was not accompanied by other burials to the east. The immediate surroundings to the west of the burial were not excavated. The prime interest of this campaign was to gain more insight into the stratigraphical relation between levee and creek filling. To this end, a section was dug into the creek bordering S4. The section proved most important: the dark cultural layer broke into several thin dark layers intertwined with grey clay deposits. Extensive ecological research on diatoms, shells, pollen and macrobotanical remains is now being undertaken to gain more insight into the sedimentation history.

Devriendt concluded the analysis of the flint and stone from the 2004 Swifterbant excavation at S2; the research on the flint and stone material from 2005 and 2006 was continued. In 2006 the material analysis of the flint artefacts of the old Swifterbant excavations (S3, S4, S5, S6) was started. Two research assignments of students were monitored and checked.

Plant material was studied from the 2005 and 2006 seasons. The 2005 season yielded reasonable quantities of charred barley. Its distribution and preservation demonstrates the secondary dispersal in the domestic area. Material from the original deposition is characterized by large numbers of well-preserved

grain kernels, whereas secondary dispersed grain kernels are present in low quantities and in a bad state of preservation and can be classified as part of the settlement debris. As it turned out, the sampling procedure did not reveal the desired combination of crop plants and their accompanying weed plants. As preservation conditions differed, both were different (Master's student Van Rooij).

The 2006 season yielded an organic deposit that has been identified as a tidal mark. The analysis of this deposit yielded a variety of plants, including cultivated plants such as hop (*Humulus lupulus*) and apple (*Malus sylvestris*). Statistical analysis of the wild plants was performed to reconstruct vegetation types, with special interest for missing species (Master's students Schepers and Schepens).

*Rijpmakanaal/Zwartdam (Groningen) (Woldring)*

Pollen and wood analyses of Rijpmakanaal/Zwartdam were completed and published in *Paleo-aktueel* 17 (with P. de Boer, J.N. Bottema-MacGillavry & R.T.J. Cappers).

The pollen diagram reflects the vegetation development from 9000 to c. 4000 BP. Varied aquatic vegetation dominates the pollen picture until the Early Atlantic. From c. 7300 BP onwards rising groundwater levels led to the (local) expansion of alder carr. Regional peat formation started in c. 5000 BP. Wood remains of yew (*Taxus baccata*, 4480 BP) and pine (*Pinus sylvestris*, 4350 BP) were recovered from arable land at Zwartdam. The conifer forest is not reflected in the pollen diagram of Rijpmakanaal, two km away from Zwartdam. The wetter conditions since 7300 BP may have forced Mesolithic man to abandon the relatively low-lying plains.

*Polderwijk/Zeewolde (province of Flevoland) (Woltinge)*

Fieldwork was conducted in October. Sieve residues were analysed and the report on the results is currently being written. The general idea at the moment is that there has been considerable erosion in the area and that archaeological remains will therefore not be preserved *in situ*.

## 2.3 NORTHWEST EUROPE: BRONZE AGE-MIDDLE AGES

### *Occupation history of the sandy soils*

#### *Midlaren (province of Drenthe) (Cappers, Prummel, Thilderqvist, Woldring and students)*

The archaeobotanical analysis of plant material from Midlaren has been completed and a publication has been prepared for the monograph on this site. The article includes waterlogged and charred plant remains. Special attention is paid to the reconstruction of former field vegetations in which absolute numbers of subfossil remains are converted to an estimate of field size and species density. Several cores from the Hunze river valley and a plaggen soil were investigated palynologically. Two papers have been prepared for publication in a monograph edited by J.A.W. Nicolay.

Although preservation conditions for unburned bone were bad in the sandy soil of the site, some unburned bone was found in deeper features, such as pits and wells. Nonetheless, the burned bones found in sandy soils – 49% of the hand-collected and 99% of the sieved material – are much better preserved than unburned bones. Cattle, sheep/goat, pig, horse and dog were identified for most of the occupation periods of the site, ranging from the Iron Age up to and including the Carolingian period. Cattle and sheep were the most common species. Pigs were quite common (9% – 25%) due to the forests in the surroundings of the site. Horses became more numerous in the Merovingian period. An unburned red deer antler fragment and freshwater fish bones provide the only information on wild fauna. Animals also proved to have had ritual functions at De Bloemert. Cattle skulls were deposited in sunken huts and pits during the Roman period and the Migration period. Cremated bones of possibly domestic animals were found in a human cremation grave of the Migration period. Finally, the cremated remains of cattle, pigs, sheep/goats and dogs were deposited in a probably ritual pit of the Carolingian period. The manuscript was finished in 2006.

#### *Archaeozoological research of the site Eexterzandvoort at the Hunze (Drenthe) (Prummel)*

Medieval (13<sup>th</sup>-15<sup>th</sup> century) animal bones recovered during reconstruction work of the original course of the Hunze River at Eexterzandvoort were studied with Florentina Carmen Oleniuc, an exchange student from Iasi (Rumania). Most bones – those of dog, horse, cattle, pig, sheep/goat and domestic duck – originate from settlements along the river. The presence of beaver and otter bones, probably originating from animals dying a natural death, show that these animals lived in the river during the Middle Ages. The results were published in 2006.

#### *Ritual bones or common waste – A study of bone deposits in northwest Europe (Thilderqvist)*

The examination of the bone material from Midlaren ended in January. However, the material was later deemed unsuitable for inclusion in the thesis, at least not as primary material. This was mainly due to the early dating for most of the material and the difficulty of studying taphonomic processes in detail on such poorly preserved material.

The search for other material is ongoing. Previously examined animal bone material from Dongjum was considered suitable and has been reanalysed with special regard for the registration of taphonomic processes. Some problems with dating of the bone material were encountered and needed to be dealt with quickly. Analysis has begun on bone material gathered from the recently finished excavation of Oldehoofsterkerkhof in Leeuwarden. Further activity during 2006 consisted primarily of writing chapters of the thesis dealing with practical methods of analysis and butchery practices in the area.

### ***Exploration and exploitation of the coastal area***

#### *'Oldehoofsterkerkhof'/Leeuwarden (Friesland) (Cappers)*

Plant material from a selection of contexts from this site has been analyzed. The results will be used to model the taphonomic processes of sods, dung-related contexts and wells. Because more samples were offered for analysis at the end of 2006, the work will continue in 2007. The publications will be available in 2007.

#### *Dwelling mounds (Feiken)*

Feiken finished an article about Neolithic and Bronze Age stone axes from terp mounds in Groningen. These finds were deposited by people from the (Roman) Iron Age and Medieval period as a result of collecting stones in areas with Pleistocene soils for various, often unknown purposes.

#### *Medieval brooches from Friesland (Bos)*

The first papers on the metal finds were published; the series on medieval brooches from Friesland will be continued. The inventory of Anglo-Saxon pottery was completed in a student paper by Krol, and a start was made on the analysis of the early medieval cemetery of Aalden (Drenthe) (Bos & Saan, 2006), both suggesting intensive relations between the terpen area of Friesland and the province of Drenthe.

#### *Medieval habitation history (Kooi)*

A local stronghold was spotted southeast of Warffum (Groningen) after the discovery of finds of pottery, bones and bricks. The site illustrates the expansion of habitation during the 12<sup>th</sup>–14<sup>th</sup> century.

#### *Habitation history of the Groninger/Frisian islands (Kooi)*

Pottery finds on the beach of Rottumeroog, ranging from the Middle Ages to the 18<sup>th</sup> century, are being studied in relation to the habitation dynamics of the Wadden Sea islands of Ameland, Schiermonnikoog and Rottumeroog.

#### *Ritual remains in the northern Netherlands coastal area (Nieuwhof)*

This PhD project involves making an inventory of all the finds and find complexes that may be the remains of rituals dating from the beginning of habitation to the early Middle Ages. Recognizing these ritual remains is an important part of the research. Subsequent interpretation will focus on three major find categories: human bone, animal bone and ceramics. People in the coastal area were probably related in many ways to the inhabitants of the Pleistocene sandy soils; comparison with the Pleistocene hinterland may therefore be revealing, although the conditions for conservation in both regions are quite different.

#### *Excavation at Englum (Groningen) (Nieuwhof)*

The terp of Englum was excavated in 2000 but at the time the results were left unpublished. Since these results are of major importance to Nieuwhof's PhD research project, a start has been made on their publication. To date the introduction and chapters on landscape, ceramics, ritual finds and stone have been completed. Other authors will write chapters on features, bone, wood, botanical, macro remains and metal. Publication is due in 2007.

#### *The terp of Hoxwier (Friesland) (Nieuwhof, Prummel)*

During the digging of a new canal near Mantgum (Friesland) in 2003, the remains of several features belonging to the nearby terp of Hoxwier were found. The finds and features could now be described, including some interesting observations concerning the surrounding landscape. The results will be published in the beginning of 2007.

The animal remains from the Late Iron Age and Early Roman layers in the terp site were studied. Only domestic mammals are represented, presumably because no sieving was done at the site. The proportions for sheep/goat and cattle, respectively 22% and 71% of NISP of domestic mammals, fit in with those of

other terp sites in southern Westergo of this period. The conditions for intensive sheep husbandry such as found on the salt marshes of northern Westergo were absent in the southern part. A cattle rib fragment was made into a scraper and horse and cattle metapodia were worn down by some polishing or scraping activity.

*Auroch finds in the terpen/wierden area of the provinces of Groningen and Friesland (Prummel)*

An overview was made of the auroch finds from terpen/wierden in the northern coastal areas of Groningen and Friesland. As many as 25 auroch bones are known to come from this region. Twelve bones are horn cores or skulls, the remainder are other kinds of bone, including an almost complete auroch skeleton dating between AD 250 and 430. The auroch proved to be not such a rare species in this former salt marsh area. Probably it was attracted by the nutritious grazing found in salt marsh vegetation. Several samples of these auroch bones as well as auroch horn samples from peat marshes in the province of Drenthe were sent to Prof. Alan Cooper of the University of Adelaide (Australia) for ancient DNA analysis of the European auroch. The samples might indicate whether aurochs from the salt marshes of Groningen and Friesland belong to the same population as the Drenthe aurochs, which would show seasonal movements between marshes and the pleistocene sand, or that the two groups formed separate populations. Cattle bone samples from terp sites from various periods were also taken.

*The habitats of the Atlantic lagoon cockle and the common cockle in the terpen/wierden area of the provinces of Groningen and Friesland (Prummel, Knol [Groninger Museum] & Streurman [Centre for Isotope Research])*

Work on this subject continued and the publication was completed. Some more sites of the Atlantic lagoon cockle (*Cerastoderma lamarcki*) were found at the GIA excavations in Englum (2000) and Anjum (2006). The Atlantic lagoon cockle proved to be a common species in the tidal flat and salt marsh area of the northern Netherlands. Stable isotope <sup>18</sup>O-analysis showed that it occurred in brackish to salty water. <sup>13</sup>C-analysis showed that the Atlantic lagoon cockle lived in stagnant water, whereas the common cockle (*Cerastoderma edule*) lived in open water. The Atlantic lagoon cockle was eaten like the common cockle. Large areas of habitat for the Atlantic lagoon cockle disappeared with the building of dykes from the 12<sup>th</sup> century onwards. Nowadays it is very rare in the Wadden Sea, whereas the common cockle is still very common.

***Interrelationships, exchange and trade***

*Relations between Frisians and Romans; Roman artefacts in non-Roman contexts (Galestin)*

The investigation of relations between Frisians and Romans continued with the study of Frisian soldiers in the Roman army, which has brought to light new information. Although Friesland was not incorporated in the Roman Empire, Frisians were active in the Roman army from the beginning of the 1st century to the 3rd century. Frisian soldiers can be recognized by the use of their ethnic identity in inscriptions (in official and personal documents) and also by the use of their own material culture. The Frisians kept their own religious practices in the Roman army and, last but not least, there are some indications that Frisian soldiers were accompanied by their relatives (women and children).

The investigation of Roman artefacts from non-Roman contexts (beyond the Roman frontiers) continued with the study of Roman pottery from the excavation at Midlaren. More than three hundred Roman pottery sherds were excavated, dating from the 1st to 4th centuries. Among the sherds are *terra sigillata*, smooth wares, coarse wares and so-called *terra nigra*-like wares, wheel-turned pottery from unknown origin. The sherds belonged to pottery destined for food consumption, especially for drinking purposes. But pottery for food preparation was also present, in the form of Roman *mortaria*. The Roman pottery does not seem to have come directly from the Roman area south of the Rhine but via the coastal area in the north, probably in exchange for products that were not available in the coastal region.



*The interpretation of 6<sup>th</sup> and 7<sup>th</sup> century gold finds from the northern Netherlands (Nicolay)*

The coastal area of the northern Netherlands (the ‘terp region’) is rich in 6<sup>th</sup> and 7<sup>th</sup> century gold finds. The finds discovered in the 19<sup>th</sup> century and more recently with metal detectors have been presented in an article and interpreted in the light of early medieval power formation (Nicolay, 2006). The most important conclusion is that the richness of gold finds in the Frisian part of the terp region is not the result of post-deposition causes, but probably related to the formation of a Frisian kingdom with its power centre in the area around Wijnaldum and Dronrijp. The significance of early medieval valuables in a larger area around the North Sea will be the subject of a VENI research project entitled ‘Kings of the North Sea; the development of kingship in West-Germanic societies during the “Dark Ages” (5<sup>th</sup>-7<sup>th</sup> century AD)’.

*The Sailing Route from Uffelte to Utrecht (Reinders)*

In the past decade the Utrecht ship, excavated in the 1930s, has attracted a great deal of attention from scholars. Van de Moortel relates Utrecht-type ship finds of the 10<sup>th</sup>-12<sup>th</sup> centuries to shipping on the river Rhine, while Goodburn even relates them to overseas trade after the discovery of fragments of this type of vessel in London. The Bishop of Utrecht was also Count of the inland province of Drenthe in the northeast of the Netherlands, a remote sandy region surrounded by large peat bogs. Both the Bishop and the Chapter of St Pieter possessed land, farmsteads and manors in Drenthe, which annually produced quite a large quantity of money, honey, butter and rye. Farmsteads and manors belonging to the Bishop and St Pieter, dating to the 12<sup>th</sup>-14<sup>th</sup> centuries, are known from excavations in Drenthe. Data have been collected on the distribution and the yields of this property, which gives rise to the question of how they managed to transport goods from Drenthe to Utrecht. Boats of the Utrecht type were possibly used for transport of rye from Drenthe to Utrecht in the 10<sup>th</sup>-12<sup>th</sup> centuries and small bogs in the late medieval period.

*Dutch clinker-built ships in the 15<sup>th</sup> and 16<sup>th</sup> centuries (Overmeer)*

A PhD study of late medieval clinker-built ships found in the Netherlands began in July 2005. Dutch clinker-built ships show characteristics found in the already known medieval ship-building traditions in Scandinavia (built with rove and rivet and caulked with hair), the Baltic (with small wooden nails) and the Dutch IJsselmeerpolders, the area of reclaimed land in the former Zuiderzee (caulked with moss). However, none of these ships can be classified under one single tradition. This research attempts to allocate the Dutch clinker-built ships, with their deviant features, to the medieval shipbuilding traditions of Europe. In 2006 the study focused mainly on the construction and inventory of the largest clinker-built ship found in the Netherlands, the U 34.

## 2.4 MEDITERRANEAN ARCHAEOLOGY

### *Centralization of settlement, urbanization and colonization processes, land use*

#### ITALY

##### *Pontine Region Project (PRP)*

###### *Carta Archeologica del Comune di Nettuno (Attema, De Haas & Tol)*

During six weeks in June and July, GIA staff, *promovendi* and undergraduates concluded the fieldwork for the archaeological map of the municipality of Nettuno and finished drawing and describing artefacts from the survey and the local museum collection. With C. Moffa (Metis, Rome) geophysical prospects were carried out at several Roman sites in order to reveal possible subterranean wall remains. This was successful in two cases. Compilation of the preliminary site catalogue was finalized and translated into English. In September Gijs Tol was appointed to GIA on a subsidy from the Regione Lazio to start work on the final publication of the project, due end of 2007. The Carta will appear in the international series of the British Archaeological Reports edited by Attema, De Haas and Tol. The Nettuno project will continue as a self-funded PhD project by Gijs Tol for the period 2006–2010, concentrating on Roman settlement dynamics (supervisor: Attema). Several funds and a fellowship of the Royal Dutch Institute in Rome for 2007 (KNIR) were acquired for this new project, entitled 'The archaeological map of Nettuno; site classification and analysis of a local settlement system (700 BC – 500 AD) in a regional context'. Three other PhD studies are well under way in the Pontine Region Project:

- *Landscape and human settlement in protohistoric southern Latium, Italy (Alessandri)*

Luca Alessandri finished both the catalogue and the first chapters of the thesis. Completion of the typescript is planned for March 2007. An edited version of his graduate thesis on settlement patterns along the South Latial coast was submitted for publication as a monograph in the British Archaeological Reports.

- *The Romanization of the Pontine Region (De Haas)*

Tymon de Haas continued work on this PhD project with the preparation of three databases on which later analysis will be based; a database of available literature (reference manager); a database with information on archaeological sites (Access) and a database with spatial data (ArcGIS). He also performed preliminary analyses of the data from the surveys in the Nettuno area. An article on these analyses is currently under review.

- *A socio-economic and political landscape archaeology of transition: southern Lazio from the Late Roman period to incastellamento (Satijn)*

Olaf Satijn completed chapters on the status quo of research, the toponymical research and the Nettuno case study. Final analysis of the case study will take place in January 2007. The site database has been completed and final analyses of chapters four, five and seven have begun. He stayed at the Royal Dutch Institute in Rome for 2.5 months, from Nov 2005 to mid-Feb 2006.

##### *Crustumerium Project (Attema & Nijboer)*

The summer of 2006 marked the first campaign of the Groningen Institute of Archaeology (GIA) at Crustumerium, a protohistoric settlement along the Tiber about 20 km from the centre of Rome. A team composed of students from the Department of Archaeology, undergraduates and supporting staff investigated five tombs, among which were an intact 7<sup>th</sup> century BC so-called 'loculus tomb' (grave with niche) and a chamber tomb dating to the 6<sup>th</sup> century BC. Gert van Oortmerssen and Bert Nijboer worked on the restoration and conservation of artefacts from tomb 207-1, excavated by the Soprintendenza Archeologica di Roma, as well as on objects recovered from the tombs investigated by the GIA team. The

project is carried out in close cooperation with the Soprintendenza Archeologica di Roma (Prof. F. di Gennaro). GIA obtained a permit for the temporary export of tomb inventories for restoration, conservation and further study.

*Raganello archaeological project (NWO project) (Attema, Van Leusen & Woldring)*

The material campaign of October 2006 was dedicated to a study by Peter Attema of protohistoric find assemblages of Final Bronze Age storage jars – so-called *doli cordonati* – and a study of Hellenistic find assemblages by Neeltje Oome, both to be published in *Palaeohistoria*. Fieldwork in this project was carried out within the framework of the NWO-funded Hidden Landscapes Project (Van Leusen) in two new transects in respectively the middle and upper valley of the Raganello. An overview of the results of the project in the period 2004-2005 was presented by Peter Attema at a conference held in Francavilla Marittima. Work on the second preliminary report (2004-2005) was delayed, but has been taken up by Research Master's student Harry Pape. The report is due to be published in February 2007, edited by Attema, Van Leusen and Pape. In November 2006, Attema and Van Leusen wrote an application for a survey and excavation permit for the period 2007-2010. In 2006 several publications on the project appeared. Funds and a two-month fellowship at the Royal Dutch Institute in Rome (KNIR) in 2007 were acquired by Neeltje Oome, who is working on a self-funded PhD on Hellenistic settlement patterns entitled '*Hellenistisch aardewerk en Hellenistische sites in de Sibaritide*'. A major publication of this PhD project is in preparation.

The palynological research of Fontana Manca, Calabria, Italy, was published in *Paleo-aktueel* 17 (H. Woldring, Y. Boekema, P.A.J. Attema & J. Delvigne). The gradual decrease of the montane Turkey oak forest indicates human impact, deforestation and probably cattle herding in the late Neolithic and early Bronze Age. Mainly as a consequence of animal herding, quite erosive conditions occurred during the Middle and Late Bronze Age.

*Regional pathways to complexity (NWO project) (Attema & Van Leusen)*

Attema and Van Leusen worked on writing and editing the remaining chapters of the synthesis of the RPC project (with Dr G.J. Burgers of the Free University Amsterdam). Publication of this monograph is due end of 2007.

*Hidden landscapes of central and southern Italy (NWO project) (Van Leusen & Feiken)*

2006 was the first full year of this project. The work concentrated on exploratory fieldwork in both Lazio and Calabria, the production of landscape classification maps, and the checking and processing of field data collected in the period 2000-2005. One pollen core (Fontana Manca) was analyzed and published, another (Il Lago) collected for future analysis. Geophysical experiments started in 2005 were continued this year with multiple instruments, and have resulted in a preliminary report.

As part of his PhD project Feiken continued the preparation (in GIS) of two landscape classification maps and a chapter on the landscape development of the Monti Lepini and the Raganello catchment. He also worked on an article describing methods of landscape classification used by the Hidden Landscape project and wrote a contribution on landscape development in the area around Nettuno.

*Late Bronze and Iron Age chronology in the Mediterranean (Nijboer)*

Nijboer published a paper in *BABesch* 81, 2006 entitled 'An interpretation of the radiocarbon determinations of the oldest indigenous-Phoenician stratum thus far, excavated at Huelva, Tartessos (southwest Spain)' (with H. van der Plicht) and sent in the paper 'Italy and the Levant during the Late Bronze and Iron Age (1200-750/700 BC)' to be published in 'Beyond the Homeland: Markers in Phoenician Chronology', edited by Claudia Sagona and appearing as a monograph in the series *Ancient Near Eastern Studies*, Peeters Press, Leuven. One of the most striking conclusions of this project is the correspondence between the radiocarbon dates and some historical events mentioned in ancient literature. Thus the project substantiates a late 9<sup>th</sup> century BC date for the foundation of Phoenician Carthage. It also confirms accounts in the Scriptures mentioning King Hiram I of Tyre under whose reign the Phoenicians

made long-distance voyages over sea, amongst others to a region called Tarshish that can be identified as the region labelled Tartessos in South West Spain, on the Atlantic. Another outcome is that the radiocarbon data create some problems for the perceived conventional absolute chronology of the Greek Geometric sequence, especially for the 9<sup>th</sup> and 8<sup>th</sup> centuries BC.

#### **WESTERN CRIMEA, UKRAINE**

##### *Tarkhankut peninsula survey (Attema)*

In May 2006 a team consisting of Peter Attema (GIA), Dr Pia Guldager Bilde (director of the Centre for Black Sea Studies [CBS], Arhus) and Dr Vladimir Stolba (University of St Petersburg and senior researcher at CBSS) looked into the possibilities for a joint landscape archaeological project focusing on the ancient Greek colonization of the Tarkhankut peninsula in the western Crimea (Ukraine). The team visited various known ancient Greek farm sites on the coast and surveyed a number of test fields inland for remains of Hellenistic pottery and other artefacts. Attema wrote a report on this pilot on the basis of which the Dutch/Danish team will devise a strategy to investigate how far inland the Greeks exerted their influence in the Tarkhankut area, traditionally seen as the pasture grounds of Skythian nomads. The first survey is planned for May 2007.

#### **GREECE**

##### *New Halos and medieval Almiros (Reinders & Prummel)*

Fieldwork at New Halos continued in area K of the Southeast Gate, the last of a series of eight excavation campaigns in the period 1995-2006. Meanwhile a team of authors is preparing contributions for a monograph on the Southeast Gate and the second habitation period of the site as a large farm.

Following the liberation of Thessaly in 1881, the Turkish city of Ermiye was renamed Almiros after its medieval predecessor. Written sources mention Almiros as an important trading port in the 12<sup>th</sup> and 13<sup>th</sup> centuries AD, where an international community of Venetians, Pisans, Genoese and Jews lived. Several authors consider the city of Almiros to be the second harbour of the Byzantine Empire, after Constantinople. Medieval Almiros is also known from archaeological sources. At the end of the 19<sup>th</sup> century a large number of Byzantine artefacts collected in the eastern part of the Almiros plain along the shore of the Pagasitic Gulf came into the collection of the Almiros Museum. In the period 1990-2006 the Groningen Institute of Archaeology conducted an archaeological survey in the Almiros and Sourpi plains, resulting in the location of a large number of archaeological sites. About 30 of these sites can be dated to the Middle and Late Byzantine periods. Apart from the site of medieval Almiros, surveyed in 2006, the data and artefacts from a fort, small villages, farmsteads, a storehouse and a small monastery were documented, studied and analysed. The first results will be published in a Master's thesis. The medieval trading port '*Oi duo Almuroi*' of the medieval written sources was located along the shore in the area of Tsingeli and Karagats and the greater part of the sites in the hinterland of Almiros were situated in the Sourpi plain.

The identification of animal remains from dwellings at the Southeast Gate of New Halos was (almost) finished in July 2006. The *Athene* species bones from New Halos and Kárystos (Évia Island), considerably larger than the extant species *Athene noctua* (little owl) and showing deviating proportions between the various skeletal elements, were discussed in December 2006 with Dr Cécile Mourer-Chauviré, retired avian palaeontologist of the University of Lyon. It was concluded that the New Halos and Kárystos bones belong to a separate, undecided subspecies of *Athene noctua*.

##### *Shifting Identities (NWO project) (Voutsaki and Milka)*

In 2006 Sofia Voutsaki continued directing and coordinating this NWO project, as well as the new sub-project 'Publication of the MH Tumuli at Argos'. Various analyses were completed in 2006: osteological

analysis, as well as  $^{14}\text{C}$  and stable-isotopes analyses of the Lerna burials;  $^{14}\text{C}$  analysis of the Asine burials;  $^{14}\text{C}$  and stable-isotopes analysis of the Aspis burials. The aDNA pilot analysis is progressing, but has not been completed because of damage to the lab generator incurred during a student strike. The study of the archaeological material is also progressing; study of the MH and LH finds from the Argos Tumuli has been completed. The analysis of funerary data from Lerna, Aspis and Asine is progressing well. The study of the settlement material has begun. The study of the archival material on the Argos Tumuli has begun, although there are still problems with the permit. The results of the project were presented at international conferences and were very well received. A jointly organized international conference proved extremely successful. The proceedings will be published in 2007-2008.

In the PhD project 'The analysis of the funerary data from the Middle Helladic cemeteries of Lerna and Asine, Argolid, Southern Greece' Eleni Milka further analyzed burial data from the cemeteries of Lerna, Aspis and Asine (collected in 2004-2005). The corresponding chapters are now close to completion.

Burial data were collected from the 'tumuli' of Argos, an important site in the Argolid. First the burial offerings were systematically re-examined and photographed at the Argos Museum. The photographic archive of Argos excavations held at the Nauplion Museum was also studied. In the second stage, all available archaeological and anthropological data from the Argos cemetery was encoded in a relational database. In total, 101 burials were included. This is the last site to be thoroughly analysed in the thesis. In the summer Milka participated as trench supervisor in the excavation of a Late Helladic chamber cemetery in Ancient Nemea, southern Greece. See also: [www.mhargolid.nl](http://www.mhargolid.nl)

## 2.5 ARCTIC ARCHAEOLOGY

### *Exploration and exploitation of the polar areas*

#### *LASHIPA-3, Spitsbergen fieldwork (Hacquebord)*

The objective of the LASHIPA-3 survey of August 7, 2006 was to find, identify and select sites on Spitsbergen that can be used for archaeological investigations during the International Polar Year. Our focus area was the great fjord region of Western Spitsbergen – Isfjorden, Bellsund, Van Mijenfjorden, Van Keulenfjorden and Reserchefjorden. During the first half of the field campaign, the research team worked in separate groups. One group surveyed and documented mining camps in Gipsdalen (Bünsowland) and the areas around Heerfjellet and Finneset at Grønfjorden. The second group mapped the remains of a coal mining settlement on Bohemanflya and a whaling/fur hunting station at Kokerineset at Grønfjorden. During the second half of the field campaign, both groups worked together in the Bellsund area. Field camps were successively established at Gipsvika, Gipsdalen, Bohemanneset and Kokerineset. A ship (Farm) was used as field camp at Heerfjellet, Finneset and in the Bellsund area. The Swedish Polar Secretariat and ALW/NWO provided financial and logistic support for the fieldwork. More information can be found on <http://www.LASHIPA.nl>

#### *Arctic goose ecology (Loonen)*

The long-term ecological study of the arctic-breeding Barnacle goose population on Spitsbergen continued in 2006 with intensive fieldwork at Ny-Ålesund, the northernmost village in the world. Goose-vegetation interaction is still part of the study even though the end report of the Fragile project appeared in 2006. Vegetation change, production and consumption was measured using small fenced areas that exclude grazers (enclosures). Predator-prey interaction has become an important part of the study as the number of predators has increased over the years. The goose study is the main scientific activity at the Netherlands Arctic Station. More information about this station and its research can be found on <http://www.arcticstation.nl>

#### *Bird health (Loonen)*

The role of pathogens and parasites in individual performance and population processes of Arctic breeding birds is the focus of a new research project. The international project has several counterparts in the Netherlands and abroad (Norway, Canada, Russia) and is coordinated from the Arctic Centre as a special programme in the International Polar Year 2007-2008. The focus of the research is on geographical and temporal variation in the occurrence of pathogens and parasites and also the intensity of immune defence in geese, gulls, ducks and waders. More information can be found on <http://www.birdhealth.nl>

#### *Arctic environmental cooperation (AMAP/NRPA/ACD) (Steenhuisen/Hacquebord)*

Due to illness in the first half of 2006 Steenhuisen had to restart his work in the international project groups in the summer. At the end of June the Arctic Monitoring and Assessment Programme (AMAP) working group convened in Stockholm. In September the AMAP Oil and Gas hydrocarbons group convened in Victoria, Canada. The Arctic Centre is involved in collecting and processing spatial data for this project. For the Norwegian Radiation Protection Authority (NRPA) work was continued on modelling radioactive fallout from the bomb test period in the 1950s and 1960s. Since August Steenhuisen has been involved in a new project looking at the environmental impact of nuclear fuel handling by the Russian northern fleet. Within the Arctic Coastal Dynamics framework (ACD), several GIS-related (Geographic Information Systems) activities were carried out, mapping changes in the Arctic coastline as a consequence of climate change. The data collected in this project are also used to calculate changes in the carbon flux from permafrost in Arctic coastlines. Steenhuisen gave a working-group report on GIS

development and Hacquebord presented a paper on the human dimension in the coastal area.

*The Arctic products markets (Veluwenkamp)*

The findings on entrepreneurial behaviour and family networks in Dutch-Russian commerce (1590-1750) were elaborated upon. The analysis of commercial behaviour among Dutch-Russian merchants confirms and illustrates the theoretical notions explaining the existence of commercial family networks among Dutch entrepreneurs. Conversely, these theoretical notions help to explain what happened in the Russian business. The family networks were the direct result of four widespread business strategies: merchants specialized, maintained long-term business relations with buyers and suppliers, cooperated with merchants in the same line of business, preferably relatives, and transferred their businesses to the next generation. These strategies are the substance behind the fragments of business life revealed by the sources. Research was also started in cooperation with Tresoar (Leeuwarden) on Frisian shipmasters as a social group in the early modern period. This work was granted NWO start-up funds to apply for an investment subsidy for REDS: Realization Electronic Database Sound Toll Registers (1497-1857).

*Science and politics in polar areas*

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

In the third year of this PhD project, three more chapters of the thesis were written (in draft version). Another chapter is nearly finished. Research has been done in the archives of the Council of Europe in Strasbourg. Five people in total were interviewed in Belgium, the Netherlands and Germany, including the most important key figure of Belgian polar research: Baron Gaston de Gerlache de Gomery. These efforts were presented in a lecture at an international workshop in Santiago, Chile, on 21-22 September.

*Regional identity and sustainable development in Nunavut, North Canada (Van Dam)*

The beginning of 2006 was used to analyse data collected during the fieldwork of 2005 and information from the written sources. Soon after, however, work concentrated on writing and discussing chapters of the dissertation. The PhD thesis will be ready to be defended in the course of 2007. Additional activities included participation in meetings of the Sustainable Development Working Group of the Arctic Council in Moscow in September 2006.

*Polar heritage, management and change (Roura)*

Fieldwork was carried out in both the Antarctic and Arctic, including conducting interviews, field observations and site surveys. In Antarctica, the fieldwork took place at Fildes Peninsula, King George Island, South Shetland Islands during February 2006. The area has Historic Sites and Monuments (HSMs) – such as busts and plaques – designated under Annex V of the Protocol of Environmental Protection to the Antarctic Treaty. Fildes Peninsula also contains unprotected shipwreck remains and sealing sites from the early 19<sup>th</sup> century, which inherently are far more significant than other sites designated HSM as they are represented among the earlier remains of human presence in Antarctica. Fieldwork also took place in the Arctic archipelago of Svalbard, based in the administrative capital, Longyearbyen, during September 2006. This work built a picture of several aspects of cultural heritage in Svalbard, including what constitutes cultural heritage, how it is used for tourism purposes, how it is protected and monitored and how the protection mechanisms in place reinforce Norwegian control over the archipelago.

### 3. RESEARCH ACTIVITIES

#### 3.1 FIELDWORK

##### ITALY

**Cori**, 21 January–5 February: Survey in the Monti Lepini

Director: Martijn van Leusen

Staff: Rik Feiken, Tymon de Haas

Participants: Edmee Sleijpen, Wieke de Neef, Jan Sevink, John Wamsteeker

Cooperation: Prof. Jan Sevink (UvA), Dr H. Kamermans (UL), Nick Ryan (University of Kent), Carmela Anastasia

**Sezze** (Suso), 20 May–10 June: Geomorphology of the Monti Lepini, Hidden Landscapes Project

Director: Martijn Van Leusen

Staff: Rik Feiken

Participants: Edmee Sleijpen, Timothy Price, Gemma Ramaekers

Cooperation: Michelangelo Larosa, Carmela Anastasia

**Nettuno**, 17 June–29 July: Survey and ceramic studies

Director: Peter Attema

Staff: Gijs Tol, Tymon de Haas, Siebe de Boer, Erwin Bolhuis

Participants: Sarah Willemsen, Tanja van Loon, Tim Kauling, Harry Pape, Tycho Derks, Chris Luinge

Cooperation: Soprintendenza per i Beni Archeologici di Lazio (Dr G. Cassatella), Regione Lazio, Comune di Nettuno, Antiquario di Nettuno (Dr A. Liboni), Michelangelo Larosa

**Bassiano**, 27 June–19 July: Survey in the Monti Lepini

Director: Martijn van Leusen

Participants: Wieke de Neef, Christine Marcoux, Jeremy Thompson, Isa Azier, Michiel Remmelink, Arle Zweers, Tom van Wijck, Antje Visser, Annelies Berends, Kees van der Veer

Cooperation: Comune di Bassiano, Carmela Anastasia; Nick Ryan and Ben Smith (University of Kent)

**Crustumerium**, 1 July–29 July: Excavation at the Monte del Bufalo cemetery (Iron Age)

Directors: Peter Attema, Bert Nijboer

Staff: Gert van Oortmerssen, Erwin Bolhuis

Trench supervisors: Elly Weistra, Jorn Seubers, Mariëlle Bannink

Participants: Evert Hensbroek, Sarah Willemsen, Tanja van Loon, Mark van der Weg, Maaike Peters, Rosa Dorelijers, Annelies Berends, Kees van der Veer, Tim Kauling

Cooperation: Soprintendenza Archeologica di Roma (Prof. F. di Gennaro)

**Francavilla Marittima**, 6 October–28 October: Raganello Archaeological Project

Directors: Peter Attema, Martijn van Leusen

Staff: Sander Tiebackx, Siebe Boersma, Tymon de Haas, Jan Delvigne, Nick Ryan, Alette Kattenberg

Team leaders: Christina Williamson, Wieke de Neef

Participants: Monica Pendavingh, Paul van Ginneken, Neeltje Oome, Michele Massa, Marie Lefere, Sarah McMaster, Harry Pape, Marlies van Kruining, Wieke de Neef, Michel Hagedorn, Christina Williamson

Cooperation: Soprintendenza Archeologica di Calabria (S. Luppino), Associazione 'Lagaria' (P. Altieri), Gruppo Speleologico 'Sparviere' (A. Larocca), Comune di Francavilla



**Pontinia**, 15–25 October: Survey around Pontinia and ceramic studies of the Nettuno area

Director/Participants: Peter Attema

Staff: Gijs Tol, Tymon de Haas

Cooperation: Arnaldo Liboni, Michelangelo Larosa, Comune di Nettuno

#### WESTERN CRIMEA, UKRAINE

**Chorno'morske**, 19–28 May: Tarkhankut peninsula pilot survey

Directors: Peter Attema, Pia Guldager Bilde with Vladimir Stolba

Cooperation: Centre for Black Sea Studies (CBSS) of the Danish National Research Foundation, University of Simferopol (Ukraine)

#### GREECE

**Ayia Sotira, Ancient Nemea**, 25 May–15 July: Excavation of a Late Bronze Age chamber tomb cemetery

Directors: Robert Angus Smith (Brock University), James Wright (Bryn Mawr College, USA), Evangelia Pappi (4th Ephoreia of Prehistoric and Classical Antiquities, Ministry of Culture, Greece), Mary Dabney (Bryn Mawr College, USA), Sevasti Triantaphyllou (Sheffield University, UK)

Staff (trench supervisors): Eleni Milka (University of Groningen), Jessica Miller (Oxford University), Dr Dimitris Nakassis (University of Texas at Austin)

Participants: Crystal Fulton, Lesley-Ann Morin, Cindy Lee Scott, Valerie Wolfkamp (Brock University), Johanna Best, Eliese Dow, Kate Kemezis, Emre Kurucayirli, Allison Siegenthaler (Bryn Mawr College), Eleutheria Tsihli (University of Thessaloniki)

Cooperation: The project operated under the auspices of the Canadian Institute in Greece with permission of the Greek Ministry of Culture and overseen by the 37th Ephoreia of Prehistoric and Classical Antiquities. The work was sponsored by Brock University (Canada) and Bryn Mawr College (USA)

**Almiros (Thessaly)**, 20 June–1 July: Survey of medieval Almiros

Director: Reinder Reinders

Staff: Paulien de Roever

Participants: Ypie Aalders, Sascha Benerink, Marloes Bergmans, Gert Bunt, Naomi Huisman, Julia Luinge, Marije Meddeler, Anne Roos Meywaard, Esther Rozema and Jasmijn van der Veen

Cooperation: 13<sup>th</sup> Ephorate of Prehistoric and Classical Antiquities (Volos, Greece)

**New Halos (Thessaly, Greece)**, 3 July- 1 August: Excavation Southeast gate

Director: Reinder Reinders

Staff: Wietske Prummel, Colette Beestman-Kruyshaar, Paulien de Roever

Participants: Ypie Aalders, Sascha Benerink, Marloes Bergmans, Gert Bunt, Naomi Huisman, Julia Luinge, Marije Meddeler, Anne Roos Meywaard, Esther Rozema and Jasmijn van der Veen

Cooperation: 13<sup>th</sup> Ephorate of Prehistoric and Classical Antiquities (Volos, Greece)

## EGYPT

**Fayum**, November: Neolithic and Graeco-Roman period, introduction and development of agriculture

Directors: René Cappers, W.Z.W. Wendrich

Participants: Deborah Arnold, Hans Barnard, Marianna Betti, Barbara G.E. Boehm, Johanna Bos-Seldenthuis, Arjen V.A.J. Bosman, Tessa Bryant, Artur Buszek, Antonius (Tonny) De Wit, David Depraetere, Abigail Deras, Justin Eichelberger, Patricia Fanning, Christian Fischer, Sonali Gupta-Agarwal, Arie Maarten Hense, Tomasz Herbich, Guro Hjulstad, Simon Holdaway, Hanneke Jacobs, Mohsen Kamel, Hendrik Kars, Lora Landon (Stevens), Joachim La Poutré, Kimberly Le, Veerle Linseele, Rebekah Merriman, Arthur Muir, Vanessa Muros, David Oppenheimer, Kandace Pansire, Deborah Patton, Rebecca Phillipps, Sabastian Pietrzak, Melina Goddard Ring, Bastiaan Seldenthuis, Mans Schepers, Noriyuki Shirai, Angela Susak, Joanna Then, Roberta Tomber, Willem van Neer, Sigrid van Roode, Inge van Stokkom, Eric Wells, Leigh Winiata and Ingrid Ystgaard

Cooperation: GIA-UCLA

## THE NETHERLANDS

**Oostrum**, 23–27 February: Rescue excavation of part of a TRB site (Middle Neolithic)

Director: J. Deeben (RACM)

Staff: A. Müller (RACM), Bjørn Smit (GIA)

Participants: J. Schreurs (RACM), W. Jonk (RACM), N. Lubbers (Grontmij), M. Schepers, J. Vosselman, R. Fens and J. van Rooij (GIA students)

Cooperation: RACM, Grontmij (Assen)

**Swifterbant**, 26 June–21 July: Excavation of Middle Neolithic settlement site S4

Director: Daan Raemaekers

Staff: Izabel Devriendt

Participants: S. Beckerman, C. Boom, L. Edens, R. Grefhorst, H. Kranenburg, R. Kruisman, J. Mendelts, A. Pleszynski, M. Schepers, D. Volkerink, J. Vosselman, M. van der Wal (students), S. Rathje (University of Münster), M. Brouwer (University of Michigan), volunteers from Archeologische Werkgemeenschap Nederland

Cooperation: Dick Velthuisen (NLE), H. Huisman (RACM), P. Cleveringa, H. de Wolf

**Anjum**, 19 August–7 September: Excavation of the remains of a terp site near Anjum

Director: Johan Nicolay

Staff: Robert Kosters, Sander Tiebackx, Erwin Bolhuis

Participants: Daniël Postma, Johannes Bloem, Johan van Gent, Brigitte Saan, Ashley Tamminga, Melvin van der Veen, Eddie de Vries

Cooperation: Province of Friesland, TNO-NITG

**Zeewolde, Polderwijk**, 23–27 October: Test trenches in selected areas

Director: Inger Woltinge (senior archaeologist Daan Raemaekers)

Participants: Mans Schepers, Tineke Roovers (students)

Cooperation: Axel Müller (RACM), Dick Velthuisen (NLE), Archeologische Werkgemeenschap Nederland

## THE ARCTIC

**Greenland**, Kangerlassuaq, Illulisat, Qeqertarsuaq, Ilimanaq, Oqaatsuk, Saqqaq, Uummannaq, Maarmorujuk, Qaamarujuk, Upernavik, Qingussaq and Kingigtorsuaq, 18–30 June: Archaeological survey of Stone Age sites

Staff: Louwrens Hacquebord

Participants: Adam Garde (Denmark), Ko de Korte

Cooperation: Ocean Wide Expedition and the Greenland Geological Service, Nuuk

**Spitsbergen**, Ny-Ålesund, 27 June–17 August: Arctic Goose Ecology/BIRDHEALTH

Staff: Maarten Loonen

Participants: Cecilia Sandström, Daan Vreugdenhil, Olga Dolnik, Vincent Munster, Janwillem Loonen, Marion van Rijssel

Cooperation: Norwegian Polar Institute and University of Birmingham

**Spitsbergen**, Isfjord and Bellsund, 7–24 August: Archaeological survey and mapping campaign

Director/Staff: Louwrens Hacquebord

Participants: Wouter Ytsma, Ben Bekooy, Dag Avango (Sweden), Ulf Gustafsson (Sweden) and Cameron Hartnell (Australia)

Cooperation: Swedish Polar Secretariat, Michigan Technical University, Michigan USA, Royal Technical University of Stockholm, Sweden

**Spitsbergen**, Longyearbyen, 14–25 September: Fieldwork on cultural heritage in Svalbard

Staff: Ricardo Roura

## ANTARCTICA

**Antarctica Peninsula/Wedell Sea**, 27 January–14 February: Fieldwork at cultural heritage sites

Staff: Louwrens Hacquebord

Cooperation: Ocean Wide Expeditions

**South Shetland Islands**, King George Island, Fildes Peninsula, 4–12 February: Fieldwork at cultural heritage sites (early 19<sup>th</sup> century onwards)

Director: Louwrens Hacquebord

Participants: Ricardo Roura, Hans Ulrich Peter (Germany)

Cooperation: Friedrich Schiller University, Jena, Germany; Federal Environmental Agency, Germany; Federal Ministry of the Environment, Germany; Russian Antarctic Expedition, Russia; Antarctic and Southern Ocean Coalition (ASOC)

### 3.2 WORKING VISITS

Abbink, B.P.

- 7 March, The Hague (Netherlands): Meeting of the Dutch Commission of the International Polar Year, 2007-2008.
- 17 March, Zingem (Belgium): Interview with the driving force of the Belgian Antarctic involvement in the 1950s and 1960s, and of the Dutch Antarctic involvement in the 1960s, the late Baron Gaston de Gerlache de Gomery (1919-2006).
- 4 June, The Hague (Netherlands): meeting of the Dutch Commission of the International Polar Year, 2007-2008.
- 22-23 June, Strassbourg (France): Council of Europe, research in archives.
- 30 June, Bremerhaven (Germany): Interview with former (West-)German politician Horst Grunenberg.
- 10 July, Gedinne (Belgium): Interview with polar researcher Baron Xavier de Maere d' Aertrycke.
- 20 September, Santiago (Chile): Interview with the Executive Secretary of the Antarctic Treaty Secretariat and former policy official of the Dutch Ministry of Foreign Affairs Johannes Huber.
- 20 October, The Hague (Netherlands): Meeting with Youth Steering Committee and Education & Outreach Committee of the Dutch Commission of the International Polar Year, 2007-2008.

Attema, P.A.J.

- 8-11 January, Sandbjerg (Denmark): Congress meeting of Cultures in the Black Sea region: Between conflict and coexistence.
- 28 January, Cori and Privernum (Italy): Field visit to the Hidden Landscapes Project and participation in workshop on current research in the southeast part of the Pontine Region (presided by Prof. Dr. M. Cancellieri (Università la Sapienza, Rome).
- 10-11 February: Free University Amsterdam (Netherlands): Seminar Mediterranean Field Surveys.
- 20-23 May, Kerch (Ukraine): Participation in the 7th edition of the congress, Bosphoran readings on 'oikos'.
- 20-21 October, Francavilla Marittima (Italy): Congress V<sup>a</sup> Giornata Archeologica Francavillese.
- 14 December, UVA Amsterdam (Netherlands): Meeting on Satricum exhibition planned for November 2007 (with Dr M. Gnade and T.C.A. de Haas).

Bos, J.M.

- various dates: Peizermaden (Netherlands): excavation adviser/consultant.

Cappers, R.T.J.

- 2-5 July, London (UK): 4<sup>th</sup> International Workshop of African Archaeobotany.

Dam, K.I.M. van

- 24-26 February, Reykjavik (Iceland): Conference Images of the North.
- 6-9 September, Moscow (Russia): Meeting of the Sustainable Development Working Group.

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

- 4 February, Leiden (Netherlands): Steentijddag (Stone Age archaeology).
- 17 February, Amersfoort (Netherlands): Visit to P. Deckers for information on Swifterbant.
- 28 February, Amersfoort (Netherlands): Visit to J. Schreurs and H. Peeters for information on flint and flint technology.
- 5 May, Ghent (Belgium): Visit to P. Crombe for information on flint technology.
- 13 September, Anjum (Netherlands): Visit to J. Nicolay for information on terpen.

- 28 November, Ghent (Belgium): International workshop 'Plant processing from a prehistoric and ethnographic perspective'.

Feiken, H.

- 18 January, Amersfoort (Netherlands): NoA-lectures Predictive Modelling, Dr H. Kamermans and Ph. Verhagen.
- 28 January, Priverno (Italy): *Convegno* on the archaeology of the Pontine Region.
- 10 February, Amsterdam (Netherlands): Survey workshop.
- 23 February, Groningen (Netherlands): Research seminar.
- 27-28 February, Ghent (Belgium): Symposium Broadening Horizons, poster presentation.
- 15 March, Groningen (Netherlands): Ancient World seminar.
- 29 September, Groningen (Netherlands): Workshop on Francavilla Marittima.
- 15 December, Groningen (Netherlands): Annual meeting GIA.

Galestin, M.C.

- 4-11 September, Spain: Astorga, Zamora, Campo Torres, Lad Medulas, Begidum.
- 25 September, Leeuwarden (Netherlands): Fries Museum.
- 2 October, Leeuwarden (Netherlands): Fries Museum.
- 30 November, Nijmegen (Netherlands): Museum Valkhof.
- 15 December, Groningen (Netherlands): Annual meeting GIA.

Haas, T.C.A. de

- 28 January, Priverno (Italy): *Convegno* on the archaeology of the Pontine Region.
- 10-11 February, Amsterdam (Netherlands): Survey workshop.
- 19 April–25 May, Rome (Italy): Research grant at the *Koninklijk Nederlands Instituut Rome* (KNIR).
- 18 May, Rome (Italy): Survey meeting (Stek, Pelgrom, De Haan, Di Giuseppe and De Haas).
- 30 May, Groningen (Netherlands): Meeting on socio-economic and ancient historical perspectives (Jongman, De Haas).
- 29 September, Groningen (Netherlands): Workshop on Francavilla Marittima.
- 15 December, Groningen (Netherlands): Annual meeting GIA.
- various dates, Groningen (Netherlands): GIA research seminars.
- various dates, Groningen (Netherlands): Ancient World Seminar.

Hacquebord, L.

- 22-24 January, Stockholm (Sweden): IASC Executive Committee Meeting.
- 25 January, The Hague (Netherlands): Meeting Committee for Polar Research (CPO-NWO).
- 6 March, Utrecht (Netherlands): Meeting Committee for Polar Research (CPO-NWO).
- 7 March, The Hague (Netherlands): Meeting of the National IPY Committee.
- 17 March, Amsterdam (Netherlands): Meeting National SCAR Committee KNAW.
- 22-27 March, Potsdam (Germany): Council meeting IASC, Arctic Science Summit Week.
- 2-5 April, Munich (Germany): Meeting of the International Polar Heritage Committee.
- 12 April, Utrecht (Netherlands): Meeting of the Organizing Symposium Committee, Polar Symposium 9 March 2007.
- 14 June, Groningen (Netherlands): Meeting with the Dutch Ambassador in Oslo, R. van Roeden.
- 20-22 August, Barentsburg (Spitsbergen): Conference on archaeological researches in Spitsbergen and the IPY.
- 17-19 September, Stockholm (Sweden): Meeting of the Executive Committee of IASC.
- 20-25 September, Quebec City (Canada): Conference, The View from Here: History and Ecology of the North Atlantic Region, NABO 2006. Lecture and Session Chair.
- 28 September, The Hague (Netherlands): Meeting of the Committee for Polar Research, NWO.
- 13 October, Amsterdam (Netherlands): Meeting of the National SCAR Committee, KNAW.

- 22-26 October, Groningen (Netherlands): ACD workshop.
- 29 October–1 November, Tromsø (Norway): Tromsø University: Conference Tops of the World: Theory and Method in Arctic, Subarctic and Subantarctic Archaeology.
- 21 & 28 November, Dordrecht (Netherlands): Community Depot, historical research.
- 15 December, Groningen (Netherlands): Annual meeting GIA.

Kooi, P.B.

- 17 February, Ezinge (Netherlands): Contents Museum Wierdenland.
- 23 June, Warffum (Netherlands): Wadden Conference.
- 15 December, Groningen (Netherlands): Annual meeting GIA.

Leusen, P.M. van

- 10-11 February, Amsterdam (Netherlands): Survey workshop VU.
- 6-8 April, Heereburen (Netherlands): RPC publication meeting.
- 16-17 June, Leiden (Netherlands): Survey workshop.
- 19-24 September, Krakow (Poland): EJA Board of Editors meeting.
- 14-16 December, Rome (Italy): KNIR Workshop conference on Landscape Archaeology.

Loonen, M.J.J.E.

- 11 January, Rotterdam (Netherlands): Virology Erasmus University.
- 15-16 February, Brussels (Belgium): Netherlands Flemish Ecological Society.
- 21 February, Haren (Netherlands): Presentation of book Nature's Limits.
- 27-29 March, Potsdam (Germany): Arctic Science Summit Week / NySMAC.
- 16 November, The Hague (Netherlands): International Polar Year meeting.

Milka, E.

- 11-15 January, North Carolina (USA): Visit to Dr C. Zerner who is responsible for the publication of 'The Middle Helladic period in Lerna' (with Dr S Voutsaki).
- 13-15 March, Argos and Mycenae (Greece): Visit to Dr K. Sarri and Dr S. Voutsaki at the museums of Argos and Mycenae to discuss MH pottery (with Prof. O. Dickinson).
- 15 July-30 August, Argos and Nauplion (Greece): Study of the burial offerings and the photographic archive of the 'tumuli' of Argos.
- 15 December, Groningen (Netherlands): Annual meeting GIA.

Nicolay, J.A.W.

- 10 November, Eindhoven (Netherlands): Reuwendagen.
- 15 December, Groningen (Netherlands): Annual meeting GIA.

Niekus, M.J.L.T.

- 24 March, Amersfoort (Netherlands): RACM, concerning the Mesolithic site Hempens-Wäldwei.
- 7 April: Assen (Netherlands): Drents Museum, for study of Mesolithic mace heads.
- 7 October: Assen (Netherlands): Drents Museum workshop 'Neanderthals in Europe'.
- Several dates, Assen/Nuis (Netherlands): Drents Museum and the Noordelijk Archeologisch Depot for the study of Middle Palaeolithic finds in the province of Drenthe (with D. Stapert, L. Johansen & J.R. Beuker).
- Several dates, the 'Hanzelijn' (Netherlands): Stone Age excavation (Late Upper Palaeolithic, Mesolithic and Neolithic).

Nieuwhof, A.

- 19 January, Amsterdam (Netherlands): Archaeology & Theory Congress.
- 14 February, Amersfoort (Netherlands): Conference on KNA 3.0 – SIKB.
- 15 February, Leeuwarden (Netherlands): Excavation Oldehoofsterkerkhof.
- 16 May & 7 June, Wilhelmshaven (Germany): Niedersächsisches Institut für historische Küstenforschung.
- 6 & 13 September, Anjum (Netherlands): Excavation visit.
- 26 September, Leiden (Netherlands): Seminar on burial practices.
- 28 September, Amsterdam (Netherlands): Symposium University of Amsterdam.
- 29 September, Bentumersiel (Germany): Excavation of Roman settlement.
- 2-3 November, Leiden (Netherlands): Workshop ‘Bring out your dead’, Faculty of Archaeology.
- 9-10 November, Eindhoven (Netherlands): Reuvsdagen.
- 15 December, Groningen (Netherlands): Annual meeting GIA.

Nijboer, A.J.

- 20 February-17 March, Rome (Italy), KNIR: Research on Chronology and Mediterranean Archaeology. Meetings on the Crustumerium excavations in which the GIA will participate.
- 15 December, Groningen (Netherlands): Annual meeting GIA.

Oortmerssen, G.J.M. van

- 25 January, Amersfoort (Netherlands): ROB, National Reference Collections, Guus Lange.
- 16 November, Utrecht (Netherlands), Boon and Pont, Dept. of Physics and Man, Utrecht University: Digitization of ceramics for fabric analysis.
- 15 December, Groningen (Netherlands): Annual meeting GIA.

Overmeer, A.B.M.

- 10-13 February, Mainz (Germany): Informal round-table meeting on clinker-built ships.
- 30 March, Groningen (Netherlands), GIA/Groninger Museum: Farewell party for Professor Reinders.
- 11 April, Amersfoort (Netherlands), Archeologisch Diensten Centrum (ADC): Inspection of possibly reused wood from ships found at the Leeuwarden-Oldehoofsterkerkhof excavation.
- 7 June, Wilhelmshaven (Germany): Informal meeting at the Niedersächsisches Institut für historische Küstenforschung (NIhK).
- 13 June, Groningen (Netherlands), GIA: Inaugural speech Professor Daan Raemaekers.
- 18 July, Swifterbant (Netherlands): Visit to the Swifterbant excavation site.
- 25-29 September, Mainz (Germany): International Symposium for Boat and Ship Archaeology (poster presentation).
- 9-10 November, Eindhoven (Netherlands): Reuvsdagen, poster presentation.
- 24 November, Lelystad (Netherlands): Symposium voor Houten Scheepsbouw, poster presentation.
- 15 December, Groningen (Netherlands): Annual meeting GIA.

Prummel, W.

- 4 February, Leiden (Netherlands): Steentijdtag (Stone Age archaeology).
- 25 April, Utrecht (Netherlands): Final meeting of the CvAK ‘archaeological specialists’ working group on the new version of KNA.
- 29 September, Bentumersiel (Germany): Visit to the excavation by the Wilhelmshaven Institute.
- 2 November, Leiden (Netherlands): Symposium on ancient DNA.
- 3 November, Amsterdam (Netherlands): Kroonlezing.
- 9-10 November, Eindhoven (Netherlands): Reuvsdagen.
- 15 December, Groningen (Netherlands): Annual meeting GIA.
- 19 December, Lyon (France): Discussion with Dr. Cécile Mourer-Chauviré on bones of the *Athene noctua* subspecies from New Halos and Karystos (Greece).

Raemaekers, D.C.M.

- 19 January, Amsterdam (Netherlands): Archaeology & Theory Congress.
- 4 February, Leiden (Netherlands): Steentijddag (Stone Age archaeology).
- 16 March, Amersfoort (Netherlands), RACM: Lecture Bjørn Smit on flint scatters.
- 23 March, Groningen (Netherlands): BBO programme research day.
- 24-25 March, Schwerin (Germany): International Workshop 'Innovation and Continuity'.
- 26-29 April, San Juan (Puerto Rico): Annual Meeting Society of American Archaeologists.
- 7 June, Wilhelmshafen (Germany): Niedersächsisches Institut für historische Küstenforschung.
- 22 September, Lüneburg (Germany): Jahrestagung des Nordwestdeutscher Verband für Altertumforschung.
- 29 September, Bentumersiel (Germany): Excavation visit.
- 20-21 October, Schleswig (Germany): International workshop on Early Pottery in Northern Europe.
- 29 November, Amersfoort (Netherlands): Annual meeting Palynologische Kring.
- 15 December, Groningen (Netherlands): Annual meeting GIA.

Roura, R.

- 30 January-3 February, King George Island (Antarctica), Bellingshausen Station: Workshop 'Opportunities for Environmental Management of the Fildes Peninsula and Ardley Island'.
- 17 February, Punta Arenas (Chile): Research visit, Instituto Antártico Chileno (International management of Fildes Peninsula).
- 20-22 February, Buenos Aires (Argentina): Research visit, Instituto Antártico Argentino (Antarctic tourism, cultural heritage in the Antarctic).
- 23 March, Groningen (Netherlands): Meeting with Maria Gavrilov, Arctic and Antarctic Research Institute, St Petersburg, Russia (Cultural heritage in Svalbard).
- 2-3 June, Tilburg (Netherlands): Expert Meeting, International Book Project 'Practising International Environmental Impact Assessment'.
- 9-10 June, Edinburgh (Scotland): Committee for Environmental Protection workshop 'Antarctica's Future Environmental Challenges'.
- 7 August, Christchurch (New Zealand): Meetings with Nigel Watson, Director, New Zealand Antarctic Heritage Trust (Antarctic cultural heritage) and Neil Gilbert, Environmental Manager, Antarctica New Zealand (Antarctic cultural heritage, fieldwork opportunities).
- 29 September, The Hague (Netherlands): Stakeholder workshop 'Toerisme in Antarctica: Beleid voor de toekomst' (Tourism in Antarctica: Management for the future).
- 3 October, Amsterdam (Netherlands): Meeting with Ann-Isabelle Guyomard, Nantes University of Law, France (Cultural heritage in the Antarctic).
- 13 October, Amsterdam (Netherlands): Meeting with Machiel Lammers, ICIS, Maastricht University (Antarctic tourism).
- 5 December, Utrecht (Netherlands): Meeting with Kees Bastmeijer, University of Tilburg (various).

Smit, B.I.

- 4 February, Leiden (Netherlands): Steentijddag (Stone Age Archaeology).
- 23 March, Groningen (Netherlands): Meeting of research group Beheer, Behoud en Ontwikkeling (Management, Maintenance and Development) (BBO/NWO).
- 20 April, Groningen (Netherlands): Colloquium on early prehistory and archaeological heritage management in the Netherlands.
- 7-8 June, Lochem (Netherlands): Annual meeting of BBO research group (NWO).
- 13 June, Groningen (Netherlands): Inaugural lecture Professor D.C.M. Raemaekers.
- 15 December, Groningen (Netherlands): Annual meeting GIA.
- Various dates: Several PhD-meetings with members of RACM and provincial archaeologists to discuss the problems pertaining to early prehistory and archaeological heritage management.



Stapert, D.

- 3 February, The Hague (Netherlands): Museon (study of Wouters collection).
- 4 February, Leiden (Netherlands): Steentijddag (Stone Age congress).
- 5 February, Leiden (Netherlands): Von Sieboldhuis Museum.
- 8 February, Leiden (Netherlands): Institute of Prehistory, workshop on Palaeolithic research.
- 9 February, Leiden (Netherlands): University, member dissertation committee D. de Loecker.
- 6 March, Nuis (Netherlands): Provincial Archive, study of Middle Palaeolithic finds.
- 9 May, Copenhagen (Denmark): National Museum, Westerby Prize for Dr L. Johansen.
- 27 June, Assen (Netherlands): Drents Museum, study of Middle Palaeolithic finds.
- 21 August, Raalte (Netherlands): study of MP artefacts, visit to sand quarry.
- 25 September, 9 & 16 October, Assen (Netherlands): Drents Museum, study of MP artefacts.
- 2 November, Hilversum and Kortenhoef (Netherlands): Study of several amateur collections of MP artefacts.
- 3 November, Amsterdam (Netherlands): Free University, congress, 'Hot Spots in Palaeoanthropology'.

Steenhuisen, F.

- 28-30 June, Stockholm (Sweden): 20<sup>th</sup> AMAP working group meeting.
- 11-15 September, Victoria (BC Canada): AMAP Oil and Gas Hydrocarbons assessment workshop.
- 14-16 August, Oslo (Norway): NRPA/Statens Strålevern.
- 20-24 November, Oslo (Norway): NRPA/Statens Strålevern.
- 22-26 October, Groningen (Netherlands): ACD workshop.

Thilderqvist, J.G.M.

- 2 February, Lund (Sweden): Lund University symposium, 'Animals and Humans: Rituals, Sacrifices and Symbols'.
- 3 February, Lund (Sweden), Lund University, public defence of the doctoral thesis: 'Tracking wild boar and hunters – Osteology of wild boar in Mesolithic south Scandinavia' by Ola Magnell.
- 7 June, Wilhelmshaven (Germany): General exchange and presentation of current research.
- 13 September, Anjum (Netherlands): Excavation visit.
- 29 September, Bentumersiel (Germany): Excavation visit.
- 2 & 3 November, Leiden (Netherlands): University of Leiden workshop, 'Bring out your dead! Mortuary practice and handling of the body'.
- 17 November & 1 December, Leiden (Netherlands), University course 'Theorizing ritual'.
- 15 December, Groningen (Netherlands). Annual meeting GIA.

Veluwenkamp, J.W.

- 13 & 17 January, Leeuwarden (Netherlands): Meeting with Tresoar on Frisian shipmasters and Sound Toll Registers project.
- 20 January, Utrecht (Netherlands): Editors' meeting *Tijdschrift voor Zeegechiedenis*.
- 9 May, Amsterdam (Netherlands): WAR NIP (Scientific Advisory Board Netherlands Institute St. Petersburg).
- 2 June, Utrecht (Netherlands): Editors' meeting *Tijdschrift voor Zeegechiedenis*.
- 15 June, Leeuwarden (Netherlands): Meeting with Tresoar on Frisian shipmasters and Sound Toll Registers project.
- 13 July, Leeuwarden (Netherlands): Meeting with Tresoar on Frisian shipmasters and Sound Toll Registers project.
- 6 September, Amsterdam (Netherlands): PhD ceremony (committee member).
- 20 September, Leeuwarden (Netherlands): Meeting with Tresoar on Frisian shipmasters and Sound Toll Registers project.
- 21 September, Amsterdam (Netherlands): WAR NIP (Scientific Advisory Board Netherlands Institute St

Petersburg).

- 20 October, Utrecht (Netherlands): Editors' meeting *Tijdschrift voor Zeegeschiedenis*.
- 16 November, The Hague (Netherlands): NWO meeting International Polar Year.
- 14 December, Leeuwarden (Netherlands): Meeting with Tresoar on Frisian shipmasters and Sound Toll Registers project.
- 15 December, Utrecht (Netherlands): Presentation of the Netherlands Institutes abroad (Institutedag).

Woldring, H.

- 31 March, Messchenveld (Netherlands): Sampling with J. van Rijn and H. van Rees.
- 12 April, Noordlaren (Netherlands): Top of pingo ruin deposit dated to c. 1500 AD (with Y. Boekema).
- 19 July, Swifterbant (Netherlands): Sampling diatoms/pollen.
- 11 August, Beverwijk (Netherlands): Sampling diatoms/pollen (with H. de Wolf and P. Cleveringa).
- 1 & 17 November, Kampen (Netherlands): Fieldwork visit in cooperation with Grontmij (Assen) and municipal archaeologist A. Jager (Kampen).
- 24 November, Osdijk (Netherlands): Fieldwork visit with P.C. Vos (NITG/TNO).

Woltinge, I.

- 7-8 December, Amsterdam (Netherlands): Preservation of Archaeological Remains in Situ (PARIS3) Conference.
- 15 December, Groningen (Netherlands): Annual meeting GIA.

### 3.3 LECTURES

Abbink, B.P.

- 22 September, Santiago (Chile): 'Belgian-Dutch Antarctic cooperation in the 1960s: the policy behind it'.

Attema, P.A.J.

- 8 January, Sandbjerg (Danmark): 'Indigenous settlement and Greek colonization in the foothills and hinterland of the Sibaritide; evidence from the Francavilla excavations and the Ragnello Archaeological Project'.
- 28 January, Privernum (Italy): Workshop on the Hidden Landscapes Project, introduction.
- 1 March, Groningen (Netherlands): Introductory lecture for the exposition: 'Archeologie in het stroomdal van de Raganello, Gronings veldwerk in Zuid-Italië'.
- 7 September, Groningen (Netherlands): Introductory course GLTC/GRS: 'Archeologie van landschap en nederzetting in de Sibaritide, Zuid-Italië, het Raganello Archaeological Project'.
- 29 September, Groningen (Netherlands): GIA workshop on recent research in the Sibaritide, 'Portieri, a new Hellenistic site'.
- 20 October, Francavilla (Italy): V<sup>a</sup> Giornata Archeologica Francavillese, 'Nuovi Risultati del Raganello Archaeological Project: le campagne 2004-2005. Materiali per la seconda relazione preliminare'.
- 14 December, Amsterdam (Netherlands), UVA: Research Master's seminar, 'Griekse en inheemse interactie in de Sibaritide (Calabrië, Zuid-Italië)'.

Cappers, R.T.J.

- 11 March, Leiden (Netherlands): Dutch symposium on the Ancient Near East, 'Archaeobotanical research at Ilipinar (Turkey)'
- 22 July, Amsterdam (Netherlands): HOVO course (Nederlanders in de steppe), 'Archeobotanisch onderzoek in het Nabije Oosten'.

Dam, K.I.M. van

- 24 February, Reykjavik (Iceland): 'Contemporary identities of Nunavut: multiple images of a new region' at the conference 'Images of the North' (with P. Groote and L. Hacquebord).
- 25 February, Reykjavik (Iceland): 'Place identities and tourism representations in Nunavut, Canada' at the conference 'Images of the North' (with A. Logtmeijer).

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

- 23 March, Groningen (Netherlands), University of Groningen: Research seminar: 'The problems occurring during the study 'Stone and flint artefacts from the Swifterbant sites'.
- 6 April, Lelystad (Netherlands), Nieuwlanderfgoedcentrum: 'De stenen van Swifterbant. Een ontdekkingsstocht naar prehistorische artefacten'.
- 6 December, Groningen (Netherlands), University of Groningen: 'Het gebruik van steen in de prehistorie en het belang ervan binnen de archeologie'.

Feiken, H.

- 4 May, Groningen (Netherlands): Meeting on Fieldwork preparation Monti Lepini May-June 2006, 'Veldwerk Mt Lepini mei-juni 2006. Bijeenkomst 4 mei 2006'.
- 29 September, Groningen (Netherlands): Workshop on Francavilla Marittima, 'Work in progress RAP. Landscape classification Raganello Valley'.

Galestin, M.C.

- 5 September, Leon (Spain): XXth International Congress of Roman Frontier Studies, 'Frisian soldiers on the move'.

Haas, T.C.A. de

- 15 March, Groningen (Netherlands): Ancient World seminar, 'De Nettuno-surveys: veranderingen in nederzetting en landgebruik in de kustzone'.

Hacquebord, L.

- 17 January, Wehe Den Hoorn (Netherlands), Brouwersgilde: 'Als de Noordpool warmer wordt'.
- 20 January, Spitsbergen, De Schierstins Veenwouden: 'Gevonden in het ijs', lecture on the excavation of Smeerenburg.
- 22 February, Baflo (Netherlands): NUT, 'Als de Noordpool warmer wordt'.
- 29 March, Spitsbergen, Kunstacademie Breda: 'Gevonden in het ijs', lecture on the excavation of Smeerenburg.
- 3 April, München (Germany): IPHC, lecture on Historic sites of the Antarctic Peninsula.
- 21 August, Barentsburg (Spitsbergen): Conference on Archaeological research and the IPY, 'European Whalers and their Relation to the Pomor Fur Hunters on Spitsbergen'.
- 22 September, Quebec (Canada): Conference 'The View from Here: History and Ecology of the North Atlantic Region, NABO 2006, 'Two Centuries of Whaling and its Impact on the Avifauna of Spitsbergen'.
- 16 October, Groningen (Netherlands), RUG Faculty of Spatial Sciences: 'De Arctic; een region in verandering'.
- 23 October, Groningen (Netherlands): ACD Workshop, 'Arctic Coastal Processes, the Human Dimension'.
- 30 October, Tromsø (Norway): Conference Tops of the World: Theory and Method in Arctic, Subarctic and Subantarctic Archaeology, 'Arctic Archaeology Organizations'.
- 1 November, Tromsø (Norway): Conference Tops of the World: Theory and Method in Arctic, Subarctic and Subantarctic Archaeology, 'The Role of historic settlements/stations on Svalbard in the image building of the Arctic as a resource frontier region'.
- 9 November, Groningen (Netherlands), Willem Lodewijk Gymnasium: 'Als de Noordpool warmer wordt'.
- 16 November, Ameland (Netherlands), Historische Vereniging: 'Gevangen in het ijs'.
- 22 November, Oldenburg (Germany), Landesbibliothek: Exhibition Große, Fette Wale, Die Geschichte des Walfangs in Drucken des 15-21 Jahrhunderts, 'Die Legende der Arktis'.

Leusen, P.M. van

- 28 Januari, Priverno (Italy): 'Aims and Approaches of the Hidden Landscapes Project'.
- 23 Februari, Groningen (Netherlands): GIA Seminar, 'Regional bias factors & what to do about them'.
- 27-28 February, Ghent (Belgium): Conference, Broadening Horizons 1, poster presentation 'Hidden Landscapes'.
- 2 Maart, Leiden (Netherlands): BBO workshop 2, 'Reasoning with Uncertainty'.
- 15 December, Rome (Italy): Archeologia del paesaggio: dalla costa alle aree interne 'Questions and Future Directions'.
- 19-20 December, London (England): Environmental and industrial geophysics group, poster presentation 'Magnetic Susceptibility Prospection in Northern Calabria'.

Loonen, M.J.J.E.

- 19 April, Wageningen (Netherlands): Ecology of Influenza Symposium.
- 21 October, Leiden (Netherlands): Netherlands Ornithologist Union.
- 15 December, Groningen (Netherlands): Annual meeting GIA, 'Veranderingen in periglaciale en

toendralandschappen onder invloed van dierpopulaties’.

Milka, E.

- 7 January, Montréal (Canada), American Institute of Archaeology (AIA): Annual meeting, ‘Mortuary Differentiation and Social Structure in Middle Helladic Lerna, Southern Greece, 2000-1500 B.C.’.
- 25 January, Groningen (Netherlands), Ancient World PhD seminar: ‘Mortuary Differentiation and Social Structure in the Middle Helladic Argolid, 2000-1500 B.C.’.
- 10 March, Athens (Greece), MESOHELLADIKA conference: ‘Burials upon the Ruins of Abandoned Houses in the MH Argolid’.

Nicolay, J.A.W.

- 10 November, Eindhoven (Netherlands): ‘Archeologisch onderzoek Midlaren-De Bloemert: 1400 jaar bewoningsgeschiedenis aan het Zuidlaardermeer’.
- 15 December, Groningen (Netherlands): Annual meeting GIA, ‘Recent terpenonderzoek in Friesland: de opgraving in Anjum’.

Niekus, M.J.L.T.

- 26 January, Groningen (Netherlands): GIA research seminar, ‘Radiocarbon dates and the Mesolithic of the northern Netherlands’.
- 11 March, Herne (Germany), Westfälisches Museum für Archäologie: Mesolithikum AG 2006, ‘The Mesolithic and the Early Swifterbant culture in the northern Netherlands – using <sup>14</sup>C-dates for identifying population dynamics for the period 9600-5600 BP’.
- 12 April, Nuis (Netherlands), Noordelijk Archeologisch depot: Lecture on general aspects of the Stone Age in the northern Netherlands in cooperation with J.R. Beuker (Drents Museum, Assen) for a group of amateur archaeologists.

Nieuwhof, A.

- 7 June, Wilhelmshaven (Germany): ‘Das Nord-Niederländische Küstengebiet und andere interessante Untersuchungsgebiete’.
- 3 November, Leiden (Netherlands): ‘De schedels van Englum’.
- 15 December, Groningen (Netherlands): Annual meeting GIA, ‘Aardewerk in rituele context’.

Nijboer, A.J.

- September 8, Lisbon (Portugal): XV Congress of the International Union for Prehistoric and Protohistoric Sciences (UISPP), ‘The Iron Age in the Mediterranean: a Chronological Mess or Trade before the Flag’, Part II.
- December 8, Lille (France): Centre de Recherches HALMA, ‘Archaeological Contexts versus Ancient History and Greek Centuries of Darkness’.
- November 3-5, Ithaca (New York), Cornell University, ‘Tree-Rings, Kings and Old World Archaeology & Environment’; Cornell Dendrochronology-Archaeology Conference in honour of Peter Ian Kuniholm, poster presentation on chronological research.

Overmeer, A.B.M.

- 31 March, Amsterdam (Netherlands), Free University: Symposium for Young Archaeologists (SOJA), ‘Op zoek naar de Missing Link? Een onderzoek naar overnaadse schepen in de 15de en 16de eeuw’.
- 30 April, Lelystad (Netherlands), Nieuw Land Erfgoedcentrum: Glavimans Symposium, ‘Schepen van verre kusten? Overnaadse schepen in Nederland in de 15de en 16de eeuw’.
- 7 June, Wilhelmshaven (Germany): Informal meeting at the Niedersächsisches Institut für historische Küstenforschung (NIhK), ‘Searching for the Missing Link? PhD research on clinker-built ships of the 15th and 16th centuries’.

Prummel, W.

- 8 February, Groningen (Netherlands), Seniorenacademie: 'Dieren op de wierden'.
- 24 August, Mexico City (Mexico): 9th ICAZ-conference, 'Coastal food in Hellenistic Greece'.

Raemaekers, D.C.M.

- 1 February, Groningen (Netherlands), Seniorenacademie: 'De spiegel van Swifterbant'.
- 4 February, Leiden (Netherlands): Steentijddag, 'Het Nieuwe Swifterbant Project'.
- 8 February, Utrecht (Netherlands), Archeologische Werkgemeenschap Nederland: 'Het Nieuwe Swifterbant Project'.
- 24-25 March, Schwerin (Germany): International workshop 'Innovation and Continuity', 'How to deal with the dead?'
- 20 April, Groningen (Netherlands): MA workshop, 'Steentijd Monumentenzorg', 'Pingo-ruïnes als schatkamer van de Vroege Prehistorie?'
- 26-29 April, San Juan (Puerto Rico): Annual meeting of Society for American Archaeologists, 'The spread of agriculture in the Netherlands. A singularity?'
- 7 June, Wilhelmshaven (Germany), Niedersächsisches Institut für historische Küstenforschung: 'Wetsingermaar. Trial research at a covered middle Neolithic settlement in the Groningen coastal area'.
- 13 June, Groningen (Netherlands): Inaugural lecture 'De Spiegel van Swifterbant'.
- 22 September, Lüneburg (Germany), Jahrestagung des Nordwestdeutscher Verband für Altertumsforschung: 'Wetsingermaar. Trial research at a covered middle Neolithic settlement in the Groningen coastal area'.
- 21 October, Schleswig (Germany): International workshop on Early Pottery in Northern Europe, 'Early Swifterbant pottery. Research History, Age and Function'.
- 29 November, Amersfoort (Netherlands): Annual meeting, Palynologische Kring, 'Oude Blauwe Zeeklei, brakwaterdiatomeeën en zoetwatervis'.

Reinders, H.R.

- 26 January, Athens (Greece): Annual presentation at Netherlands Institute, 'New Halos in Achaia Phthiotis, a Creation of Demetrios Poliorketes?'
- 13 March, Diever (Netherlands): 'De Hof Calthorne en Kalteren'.
- 18 March, Volos (Greece): Second Archaeological meeting of Thessaly and Central Greece, 'New Halos in Achaia Phthiotis, a Creation of Demetrios Poliorketes?'
- 22 March, Assen (Netherlands): 'De Hof Calthorne en Kalteren'.
- 28 September, Mainz (Germany): International Symposium on Boat and Ship Archaeology 11, 'The Sailing Route from Uffelte to Utrecht'.
- 8 November, Larisa (Greece): International Congress History and Culture of Thessaly, 'The Medieval City of Almiros and its Hinterland'.
- 24 November, Lelystad (Netherlands): Congres Reconstructie en Replicabouw, 'Scheepsarcheologie, reconstructie en replicabouw'.

Roura, R.

- 8 August, Christchurch (New Zealand), University of Canterbury/Te Whare Wānanga o Waitaha: Seminar at Antarctic Gateway, 'Ground-truthing Antarctic Politics: Environment, Cultural Heritage, and Tourism'.
- 27 November, Berlin (Germany): International Workshop of Antarctic Competent Authorities. German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, 'Ground-truthing the Implementation of the Madrid Protocol'.

Satijn, O.

- 7 February, Rome (Italy), Associazione Internazionale di Archeologia Classica: 'A socio-economic and political landscape archaeology of transition: southern Lazio from the late Roman period to incastellamento'.
- 15 December, Groningen (Netherlands): Annual meeting GIA, 'De reconstructie van het post-Romeinse archeologische landschap in Zuid-Lazio, midden Italië: Nettuno als casestudy'.

Smit, B.I.

- 16 March, Amersfoort (RACM) (Netherlands): 'Vondstrooiingen versus grondsporen'.
- 23 March, Groningen (BBO/NWO) (Netherlands): 'Vondstrooiingen versus grondsporen'.
- 23 May, Leiden (RAAP) (Netherlands): 'Vondstrooiingen versus grondsporen'.
- 1 June, Deventer (Netherlands): 'Steentijdonderzoek Olthof Noord 2005, Epse'.

Stapert, D.

- 15 February, Groningen (Netherlands), Seniorenacademie: 'Sporen van kinderen uit de Oude Steentijd'.
- 8 October, Assen (Netherlands): Congres Neanderthalers in de Lage Landen, 'Neanderthaler-kinderen en hun vuurstenen'.

Steenhuisen, F.

- 23 October, Groningen (Netherlands): Working Group report, 'GIS development', at the ACD workshop.

Thilderqvist, J.G.M.

- 7 June, Wilhelmshaven (Germany), Archaeological Institute. Short presentation of thesis, 'Ritual bones or common waste – A study of bone deposits in North-western Europe'.

Voutsaki, S.

- 15 December, Groningen (Netherlands): Annual meeting GIA, 'The NWO Project on the Middle Helladic Argolid: a mid-way report'.

### 3.4 WORKSHOPS AND EXHIBITIONS

- 28 January, Priverno (Italy): ‘Incontro sui Lepini’, organized by P.M. van Leusen and M. Cancellieri.
- 1-2 March, Leiden (Netherlands): ‘BBO Expert Meeting 2’, organized by P.M. van Leusen and H. Kamermans.
- 1 March-4 April, Groningen (Netherlands): ‘Archeologie in het stroomdal van de Raganello, Gronings veldwerk in Zuid-Italië’, joint exhibition of GIA and the University Library of the University of Groningen, organized by P.A.J. Attema, T. Derks, J. Seubers.
- 23-24 March, Groningen (Netherlands): ‘BIRDHEALTH’, workshop organized by M. Loonen.
- 20 April, Groningen (Netherlands): MA workshop ‘Steentijd Monumentenzorg’, organized by D.C.M. Raemaekers.
- 7-10 May, Groningen (Netherlands): Mini-workshop ‘LASHIPA report fieldwork 2005 and preparing fieldwork 2006’, organized by L. Hacquebord.
- 23-28 August, Mexico City (Mexico): 9th International Conference of the International Council of Archaeozoology (ICAZ), session ‘Exploitation of Coastal Resources: New and Old World Perspectives’ (24 August 2006), organized by Florencia Borella (Argentina) and W. Prummel (Groningen).
- 29 September, Groningen (Netherlands): GIA workshop on ‘Recent research in the Sibaritide’ (with the Accordia Research Centre, London), organized by P.A.J. Attema.
- 22-26 October, Groningen (Netherlands): ‘Arctic Coastal Dynamic’ workshop, organized by N. Boschman, L. Hacquebord and others, 31 participants from six countries.
- 22 November 2006-27 January 2007, Oldenburg (Germany), Landesbibliothek: Exhibition ‘Große, Fette Wale. Die Geschichte des Walfangs in Drucken des 15-21 Jahrhunderts’, organized by the Arctic Centre.
- 15 December, Groningen (Netherlands): GIA Annual meeting, organized by M.C. Galestin, J.N. Lanting, P.M. van Leusen and R.T.J. Cappers.



### 3.5 VISITING SCHOLARS

- 8 February: Dr. R. Knoop and Dr. P. Lulofs (University of Amsterdam), Fabrics Research LCM.
- 13-17 February: Christiane Singer, University of Frankfurt (Germany), reference collection Near Eastern pollen material.
- 3-7 April: Leander Depijpere, University of Ghent (Belgium).
- 13 April: Svea Rathje (MA) (Germany), Swifterbant material and fieldwork.
- 7-10 May: Dr. Dag Avango and Ulf Gustafsson (Sweden).
- 8 May: Dr. Jakob Wallinga (NCL, TU Delft).
- 5 July: Dr. Lawrence Berg, University of British Columbia, Kelowna (Canada).
- 15-29 September: Dr. Samina Stanc, Iasi (Rumania), teaching exchange.
- 29 September: Dr. E. Herring, Department of Classics, University of Galway (Ireland); lecture on 'Theorising colonial relations in South Italy', a retrospective and respondent GIA workshop on recent research in the Sibaritide.
- 29 September: Prof. R. Whitehouse and Dr. J.B. Wilkins, Accordia Research Institute, University of London (England), respondent GIA workshop on recent research in the Sibaritide.
- 18 October: C. Beestman, fabric analysis Halos ceramics.
- 8-24 November: Aldona Kurzavska, Poznan (Poland), molluscs of Poland and Jordan.
- 8 December: Dr. Klaus Fleischmann, Weiß, Cologne (Germany), history of German Antarctic involvement.
- 8 December: David Gill, Premier Secrétaire, Embassy of Canada.
- 19 December: Prof. William Lasser, Clemson University (South Carolina, USA), preliminary visit for planning a visit with students in May 2007.

### 3.6 EDITORSHIPS AND REPRESENTATION ON BOARDS AND COMMITTEES

Abbink, B.P.

- Advisor to the Dutch Committee of the International Polar Year 2007-2008

Attema, P.A.J.

- Head of the Department of Archaeology
- Director of the Research Master in Art History and Archaeology
- Member of the GIA Management Team
- Chairman of the GIA Advisory Board
- Co-editor *Palaeohistoria*
- Member of the Advisory Board, *Journal of Mediterranean Archaeology (TMA)*
- Member of the Editorial Board, *Groningen Archaeological Studies (GAS)*
- Member of the Exam Committee, promotion Catharina Boullart

Bos, J.M.

- Secretary of the Foundation for the Archaeology of the Middle Ages
- Member of the Board of the Frisia Project
- Member of the Editorial Board, *Groningen Archaeological Studies (GAS)*

Cappers, R.T.J.

- Member of the GIA Advisory Board
- Member of the GIA Management Team
- Member of the scientific committee of the Netherlands School of Archaeological Research (ARCHON) (graduate school).
- Member of the Curatorium of the Netherlands Institute for the Near East (NINO)
- Member of the Berenike Foundation
- Member of the Editorial Board, *Groningen Archaeological Studies (GAS)*
- Member of the Editorial Board, *Palarch*

Dam, K.I.M. van

- Representative of the Netherlands in the Sustainable Development Working Group, Arctic Council

Galestin, M.C.

- Member of the GIA Advisory Board

Haas, T.C.A. de

- Head Editor, *Journal of Mediterranean Archaeology (TMA)*

Hacquebord, L.

- Vice President of the International Arctic Science Committee (IASC)
- Council member and delegate for the Netherlands in IASC
- Member of the International Polar Heritage Committee ICOMOS
- Member of the Editorial Board of the International Network for Whaling Research Digest
- Leader of the IPY-LASHIPA project ([www.LASHIPA.nl](http://www.LASHIPA.nl))
- Member of the Editorial Board, *Groningen Archaeological Studies (GAS)*
- Member of the Editorial Committee, *Circumpolar Studies*
- Board member of the Centre for Canadian Studies

- Member of the Committee for Polar Research of ALW/NWO
- Member of the Interdepartmental Polar Research Committee, Ministries of BUZA, V&W, LNV, OCW and VROM
- Core member of the National Committee International Polar Year 2007-2008
- Executive Secretary, Willem Barentsz Foundation, Groningen

Kooi, P.B.

- Member of the Northern Archaeological Platform (NAP)

Lanting, J.N.

- Co-editor, *Palaeohistoria*
- Co-editor, *Paleo-aktueel*
- Corresponding member of the *Altertumskommission für Westfalen*

Loonen, M.J.J.E.

- Chairman of the study group 'Ecology of the Polar areas' of the Netherlands Flemish Ecological Society (NecoV)
- Member of the Scientific Advisory Committee Foundation for Bird Research (SOVON)
- Netherlands representative, Ny-Ålesund Science Managers Committee (NySMAC)
- Netherlands representative for the Committee Arctic Flora and Fauna (CAFF)
- Station leader Netherlands Arctic Station
- Treasurer, Underwater Biology Foundation
- Webmaster, Netherlands Ornithological Union ([www.nou.nu](http://www.nou.nu))
- Webmaster, international bird journal, ARDEA ([www.ardeajournal.nl](http://www.ardeajournal.nl))

Leusen, P.M. van

- Secretary of the Educational Board, Archaeology
- Member of the Advisory Board of the Faculty of Arts for ICT
- Member of the Union Internationale des Sciences Préhistoriques et Protohistoriques (UISPP) Commission IV: Methodology
- Co-editor, *European Journal of Archaeology*
- Co-editor, *Paleo-Aktueel*

Nijboer, A.J.

- Member of the Departmental Board, Archaeology
- Member of the Educational Advisory Board, Archaeology
- Co-ordinator, International Educational Exchange
- Co-ordinator, Library Groningen Institute of Archaeology
- Co-editor, BABesch
- Member of the Editorial Advisory Board, 'Beyond the Homeland: Markers in Phoenician Chronology'

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.

- Editor, Year Reports of the Vereniging voor Terpenonderzoek
- Board member of the Vereniging voor Terpenonderzoek

Prummel, W.

- Member of the GIA Advisory Board
- Member and chair of the Educational Advisory Board Archaeology
- Member of the Editorial Board, Groningen Archaeological Studies (GAS)
- Co-editor, *Palaeohistoria*
- Member for archaeozoology in NOA (Nationale OnderzoeksAgenda)
- Member of the scientific committee of the Nationale Referentie Collectie
- Member for archaeozoology of the Advisory Committee on quality criteria for scientific research in Dutch archaeology for the College voor de Archeologische Kwaliteit (CvAK) (Board for the protection of quality in archaeology)
- Bibliography, Groningen
- Jury member for the W.A. van Es Award of SNA (Foundation for Dutch Archaeology)
- Member of the Board, Faculty of Arts
- Member of the ICAZ International Committee (IC)

Raemaekers, D.C.M.

- Director of GIA (from April 1)
- Member of the GIA Management Team
- Member of the Board of Research School ARCHON
- Member of the Educational Advisory Board, Archaeology
- Secretary of the Department of Archaeology
- Member of Educational Board, Research Master in Art History and Archaeology
- Member of National *Verkenningcommissie* Archaeology, Royal Dutch Academy of Sciences
- Co-author National Research Agenda, chapter Early Prehistory
- Member of the Editorial Board, Groningen Archaeological Studies (GAS)

Reinders, H.R.

- Director of GIA (until April 1)
- Member of the GIA Management Team (until April 1)
- Member of the Editorial Board, Groningen Archaeological Studies (GAS)

Roura, R.

- Chair, Stichting Antarctica Netwerk (ASOC)

Satijn, O.

- Member of the PhD committee of ARCHON
- Member of the Editorial Board, *Journal of Mediterranean Archaeology* (TMA)

Stapert, D.

- Co-editor, *Paleo-aktueel*

Steenhuisen, F.

- Netherlands representative for AMAP
- Member of the Steering Committee of the ACD Working Group

Veluwenkamp, J.W.

- Member of the Board of the Northern Maritime Museum Association
- Member of the Board of the Acker Stratingh Foundation
- Member of the Board of the Willem Barentsz Foundation
- Member of the Editorial Board, *Journal of Maritime History*
- Member of the Scientific Advisory Board, Netherlands Institute, St Petersburg

- Board Member of the Foundation Friends of St Petersburg

Voutsaki, S.

- Member of the Council of the Archaeological Dialogues Foundation
- Member of the Advisory Board of *Hesperia*, the official Journal of the American School of Classical Studies at Athens
- Member of the Editorial Board, Groningen Archaeological Studies (GAS)

## 4. PROMOVENDI TRAINING PROGRAMME

The training programme for students is the responsibility of the Research Schools: *promovendi* follow courses organized by ARCHON, the Archaeological Research School of the Netherlands. Since 2004, *promovendi* of GIA have followed practical and interdisciplinary modules at the Groningen Research School for the Study of the Humanities (OGWG). Plans for a Graduate School for Humanities are in preparation.

### 4.1 CURRENT PROJECTS

#### **Peter Abbink**

*Dutch Antarctic policy and research since 1945 in comparison with that of Belgium and Germany*

Supervisors: L. Hacquebord & J.W. Veluwenkamp

#### **Luca Alessandri**

*Landscape and human settlement in protohistoric Southern Latium, Italy*

Supervisors: P.A.J. Attema, R. Peroni & A. Vanzetti

#### **Kim van Dam**

*Reception of sustainability in the Inuit territory Nunavut*

Supervisor: L. Hacquebord

#### **Izabel Devriendt**

*Flint and other stone material from Swifterbant*

Supervisor: D.C.M. Raemaekers

#### **Rik Feiken**

*Geo-archaeological approaches to the hidden landscapes of Italy*

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

#### **Tymon de Haas**

*The Romanization of the Pontine region*

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

#### **Eleni Milka**

*Mortuary differentiation and social structure in the Middle Helladic Argolid*

Supervisors: P.A.J. Attema & S. Voutsaki

#### **Marcel Niekus**

*Stone Age occupation of the northern Netherlands. Time, space, location and subsistence*

Supervisor: D.C.M. Raemaekers

#### **Annet Nieuwhof**

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

Supervisor: D.C.M. Raemaekers

#### **Alice Overmeer**

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

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

**Ricardo Roura**

*Polar heritage: policies, management and change*

Supervisor: L. Hacquebord

**Olaf Satijn**

*A socio-economic and political landscape archaeology of transition: Southern Lazio from the late Roman period to incastellamento*

Supervisor: P.A.J. Attema

**Bjørn Smit**

*Valuable flints? Assessment and selection of stone age sites in the northern Netherlands*

Supervisor: D.C.M. Raemaekers

**Johan Thilderqvist**

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

Supervisors: W. Prummel, R.T.J. Cappers & D.C.M. Raemaekers

**Inger Woltinge**

*What lies beneath? The value of buried Stone Age landscapes*

Supervisor: D.C.M. Raemaekers

#### 4.2 PROMOVEDI PROJECTS 2000-2006

This table lists GIA *promovendi* for the period 2000-2006.  
(B = Begin date, E = End date, D = Defence, S = Stopped)

Name	2000	2001	2002	2003	2004	2005	2006
Alessandri, L.			1-11 B				31-10 E
Bakker, R.				8-5 D			
Bosma, K.L.B.		28-2 E					
Dam, K.I.M. van		1-6 B					31-5 E
Devriendt, I.I.J.A.L.M.					1-9 B		
Feiken, H.						1-9 B	
Gerrets, D.A.	16-1 E						
Haas, T.C.A. de						1-9 B	
Hekman, J.J.				15-5 D			
Jelsma, J.	15-5 D						
Joolen, E. van			31-8 E	12-6 D			
Karstkarel, N.					1-6 E	9-6 D	
Leusen, P.M. van			30-5 D				
Milka, E.				1-11 B			
Mulder, S.A.					1-9 B	1-2 S	
Mulders, K.E.A.					31-5 E		
Niekus, M.J.L.Th.			1-9 B				
Nieuwhof, A.							1-4 B
Roura, R.M.						1-3 B	
Satijn, O.		1-11 B					30-4 E
Smit, B.I.					1-1 B		
Tensen, M.A.				16-8 B	15-8 E		
Thilderqvist, J.G.M.						1-9 B	
Woltinge, I.							1-9 B



## 5. EMERITI AND OTHER RETIRED RESEARCHERS

### **BUTLER, J.J. (IN COOPERATION WITH H. STEEGSTRA)**

#### *Research activities*

Analysis of distribution patterns of the socketed axe in the Netherlands and adjacent areas; identification and recording of bronze objects (for the Rijksdienst voor Archeologie, Cultuurlandschap en Monumenten (RACM), Archaeological Centre Leiden, Hoorn depot, city of Eindhoven, Erfgoedhuis Assen and various metal detector users). Cooperation with Professor H. Postma on the analysis of bronze. Attendance at the Dover Boat conference, Dover and the annual excursion of the Bronze Age Studies Group.

#### *Publications:*

Butler, J.J. & Hannie Steegstra, 2006. Bronze Age metal and amber in the Netherlands (II:2), Catalogue of socketed axes, part C. *Palaeohistoria* 47/48. pp. 207–240.

Butler, J.J. & Hannie Steegstra, in preparation. Hoards and rich graves of the late bronze age Part IV. *Palaeohistoria* 49/50.

### **KLEIBRINK, M.**

#### *Research activities*

In March 2006 Marianne Kleibrink held an ‘ides of March’ lecture at Edinburgh University on the new ramifications regarding the Middle Geometric ‘House of Weaving’ and the Late Geometric Athenaion at Francavilla Marittima. In March, Kleibrink also held a lecture in Kasteel Bergh on ‘incastellamento’ settlements in Italy, especially in the south.

Kleibrink spent two spring months at Francavilla Marittima. Activities included preparing the new mayor and his administration to help with forthcoming archaeological campaigns in the autumn. Unfortunately, community politics are unstable and protecting the future of the International Archaeological Field School of Lagaria, founded four years ago with the help of local inhabitants, is an ongoing task. The School has formal contracts of participation with the Groningen and Cosenza Universities, organizes educational programmes for local elementary schools and maintains contacts with tourists guides, who have been educated in the lecture programmes held by the school.

A preliminary report on the GIA-excavations 1991–2004 at the Timpone della Motta (Francavilla Marittima, Calabria) appeared. This happy occasion was further enhanced by a one-day workshop, during which Kleibrink also commented on the Francavilla archaeology, at the GIA Institute where Ruth Whitehouse, Edward Herring and John Wikins from the Accordia Institute, University of London were GIA’s guests.

In the autumn, Kleibrink was involved in several research campaigns which took place at Francavilla Marittima:

1. Attema’s Raganello Archaeological Project.
2. Jacobsen’s Danish pottery project.
3. The ‘Lagaria Archaeological Park project’, which is the Lagaria School’s attempt to convert the GIA excavation area into an archaeological park with a museum. In 2006 with the help of eight students in conservation technology from Cosenza University under Rossella Pace, assisted by Lucilla Barilla, a large area of the tumulus graves was cleaned and made ready for visitors, by laying out paths and erecting panels with Kleibrink’s maps and explanations. In October, a poster exhibition at Cosenza University showed the results.

4. The 5th 'Giornata Archeologica Francavillese', held in the Town Hall, attracted a large audience. The occasion saw the publication of the 4th Giornata Francavillese 2005. As an antidote to so much southern Italian archaeology a number of expert opinions were given on recently found ancient engraved gems.

*Publications:*

Kleibrink, M. (red.), 2006. *Oenotrians at Lagaria near Sybaris, a native proto-urban centralised settlement, A preliminary report on the excavation of two timber dwellings on the Timpone della Motta near Francavilla Marittima, southern Italy* (Specialist Studies on Italy, Vol.11). London, Accordia Research Institute, University of London, 201 pp.

**WATERBOLK, H.T.**

*Research activities*

In 2006 H.T. Waterbolk finished a comparative study of prehistoric monuments on ancient topographical maps of the province of Drenthe. He is preparing a book on excavated prehistoric and protohistoric house plans on the sandy soils of the northern Netherlands (*Getimmerd Verleden*), to be published in the series 'Groningen Archaeological Studies'. He was involved in the preparation of a final volume on the excavation of a Neolithic settlement in a bog at Niederwil in the Swiss canton of Thurgau, in close cooperation with the local archaeologists. He is awaiting the publication of two papers that were prepared in preceding years, i.e. the entry 'Zeijen' for Hoops Reallexikon der Germanischen Altertumskunde, and a paper on the early human occupation of the raised bog area on the central part of the Drenthe plateau ('Zwervend tussen de venen'), to be published in a 'Festschrift' for Dr J.A. Bakker.

*Publications:*

Waterbolk, H.T., 2006. Grafheuvels en andere archeologische monumenten op oude topografische kaarten van Drenthe. *Nieuwe Drentse Volksalmanak* 123, 97–153.

## 6. PUBLICITY

### 6.1 DOCUMENTATION

GIA regularly received requests for the supply of pictures or figures from GIA archives in 2006 – sometimes the requests contained consent of the (re)use of GIA figures. Mostly it concerned institutions of cultural heritage, like the Drents Museum, Groninger Museum and Fries Museum and the Drents Plateau, but also included requests from Great Britain and France. An important and time-consuming activity was the contribution to the exhibition concerning Professor A.E. van Giffen in the Groninger Museum. Another activity was the inventories made for the benefit of archaeological desk-research, university thesis or archaeological depots. Last but not least was the effort put in a major project: the transference of a photo-collection of the Dutch megalithic tombs (*hunebedden*). The photographs were made in 1918 and in the fifties of the preceding century. The 350 negatives were properly scanned, formally described and recorded on cd-roms. Then the photographs were officially transferred, including all (copy)rights, to the Drents Plateau.

### 6.2 PRESS ACTIVITIES

- 3-9 April: *Groninger Forum*, weblog within the framework of the exhibition in the Groninger Museum ‘Professor van Giffen en het Geheim van de Wierden’ (W. Prummel). (<http://www.groningerforum.nl/frontpage/index.php?id=334>)
- 13 June: *Archeobrief*, a published summary. *Wereldomroep* (radio), interview about the inaugural lecture ‘De Spiegel van Swifterbant’ with D.C.M. Raemaekers, Professor of Prehistory and Protohistory of Northwestern Europe (D.C.M. Raemaekers).
- 22 June: *Wereldomroep* (radio), interview with Willemien de Groot (M.J.J.E. Loonen).
- 30 June: *NRC-Handelsblad*, *Dagblad van het Noorden*, *Radio Noord*, *Radio Drenthe*, and *RTV Noord* covered the presentation of the publication ‘Digital seed atlas of the Netherlands’ at the Biological Centre in Haren (R.T.J. Cappers).
- July: *UK* (university newspaper), an extensive review about the publication ‘Roman footprints at Berenike. Archaeobotanical evidence of subsistence and trade in the Eastern Desert’ (R.T.J. Cappers).
- 12 July: ‘*La Provincia*’ di Latina, article on the GIA surveys in the Monti Lepini (P.A.J. Attema and P.M. van Leusen).
- 18 July: *VPRO* (radio) programme *Onderzoek/Noorderlicht* ‘Wetenschap op reis’, interview with Pieter v.d. Wielen about the research at Spitsbergen (L. Hacquebord).
- 19 July: *Groninger Gezinsbode* (M.J.J.E. Loonen).
- 29 July: *NRC-Handelsblad*-Science supplement, article on chronology research entitled ‘Op orde’ by Theo Toebosch (A.J. Nijboer).

- 6 August: *VPRO* (radio) programme ‘Onvoltooid Verleden Tijd’, interview about the Spitsbergen expedition of Jan P. Strijbos (M.J.J.E. Loonen).  
(can be heard on: <http://loonen.fmns.rug.nl/arcticstation/weblog.php?nr=82>)
- 27 August: *VARA* (radio) programme ‘Vroege Vogels’, interview (M.J.J.E. Loonen).
- 7 September: *UK*, ‘Van der Waals nam je in zijn verhalen mee langs opgravingen’ (L. Hacquebord).
- 8 September: *Fries Dagblad*, ‘Terp in Anjum herbergt zeehistorie’ (J.A.W. Nicolay).
- 8 September: *Fries Dagblad* and *Leeuwarder Courant*, ‘Lauwerszee veel ouder dan gedacht’ (J.A.W. Nicolay).
- 13 September: *KRO* (radio), *Omrop Fryslân* (radio), *Omrop Fryslân* (TV), interviews about the excavation at Anjum (J.A.W. Nicolay).
- 14 September: *UK*, article ‘Terp Anjum werd al in negende eeuw bewoond’ (J.A.W. Nicolay).
- 15 September: *Dagblad van het Noorden* (M.J.J.E. Loonen).
- September: *Quest*, article ‘Louwrens Hacquebord graaft naar de ijzige resten van de Nederlandse walvisvaart. Archeoloog van de Noordpool’ (4 pp.) (L. Hacquebord).
- 19 November: *Nordic*, article ‘Hollanders in de voetsporen van Willem Barentsz’ due to the handover of the Smeerenburg Collection to Norway (L. Hacquebord).
- 8 October: *VPRO* (radio), programme ‘Onvoltooid Verleden Tijd’, interview about the lecture ‘Neanderthaler-kinderen en hun vuurstenen’ on 7 October at the Congres Neanderthalers in de Lage Landen (D. Stapert).
- 18 October: *TV Noord*, programme ‘Adam’s Appel’ (M.J.J.E. Loonen).  
(For the articles see: <http://loonen.fmns.rug.nl/pers>)
- 12 December: *Radio 1 News*, contribution about diminution of ice in the Atlantic Ocean (L. Hacquebord).

## 7. PUBLICATIONS

### Number of publications

<i>Department</i>	<i>sp</i>	<i>pp</i>
Archaeology (non-resident members included)	57	43
<b>Total</b>	<b>57</b>	<b>43</b>

### 7.1 SCIENTIFIC PAPERS

- AKKERMANS, P.M.M.G., **R.T.J. CAPPERS**, O. CAVALLO, B. NIEUWENHUYSE, B. NILHAMN & I.N. OTTE, 2006. Investigating the early Pottery Neolithic of northern Syria: new evidence from tell Sabi Abyad. *American Journal of Archaeology* 110, pp. 123–156.
- ATTEMA, P.A.J., 2006. Il Raganello Archaeological Project, obiettivi e primi risultati. In: N.N. (red.), *IV Giornata Archeologica Francavillese*. Francavilla Marittima, Associazione ONLUS, pp. 1–8.
- ATTEMA, P.A.J., 2006. Sulla contestualizzazione dei “luoghi naturali” nell’ archeologica del paesaggio italiana. In: *Studi di Protostoria in onore di Renato Peroni, All’ Insegna del Giglio*. Firenze, pp. 522–527.
- ATTEMA, P.A.J., 2006. La produzione del sale nel lazio protostorico, recenti scavi dell’ istituto archeologico di Groningen tra Nettuno e Torre Astura. In: N.N. (red.), *Atti del convegno "Astura, Satricum, Pometia, un itinerario alle origini di Latina", 27 marzo 2004, Città di Latina*. pp. 47–71.
- ATTEMA, P.A.J., J.J. DELVIGNE & P.M. VAN LEUSEN, 2006. Sezione 1. Recenti ricerche nei pressi di Timpone della Motta, vicino Francavilla Marittima (Calabria). In: P.A.J. Attema, P.M. van Leusen & P. Roncoroni (red.), *Il progetto archeologico Raganello* (= Rapporto preliminare 2002-2003). Groningen, Groningen Institute of Archaeology, pp. 8–15.
- ATTEMA, P.A.J. & P.M. VAN LEUSEN, 2006. Sezione 2. Relazione preliminare sulla campagna di ricognizione SIBA2003, Francavilla Marittima (Calabria). In: P.A.J. Attema, P.M. van Leusen & P. Roncoroni (red.), *Il progetto archeologico Raganello* (= Rapporto preliminare 2002-2003). Groningen, Groningen Institute of Archaeology, pp. 16–21.
- ATTEMA, P.A.J., P.M. VAN LEUSEN & P. RONCORONI, 2006. Sezione 3. Relazione sui reperti archeologici nel territorio comunale di San Lorenzo Bellizzi (CS) e un “pilot survey” a la Maddalena di un sito protostorico. In: P.A.J. Attema, P.M. van Leusen & P. Roncoroni (red.), *Il progetto archeologico Raganello* (= Rapporto preliminare 2002-2003). Groningen, Groningen Institute of Archaeology, pp. 22–25.
- ATTEMA, P.A.J., P.M. LEUSEN & P. RONCORONI (red.), 2006. *Il progetto archeologico Raganello*. Rapporto preliminare 2002-2003. Groningen, Groningen Institute of Archaeology. 84 pp.
- ATTEMA, P.A.J., J.J. DELVIGNE, S. ELEVELT, F. GUANDALINI, T. HOEKSTRA, M. SANGINETO, M. VINK & J. VAN DE WETERING, 2006. Various contributions in: M. Kleibrink (red.), *Oenotrians at Lagaria near Sybaris, a native proto-urban centralised settlement, A preliminary report on the excavation of two timber dwellings on the Timpone della Motta near Francavilla Marittima, southern Italy* (Specialist Studies on Italy, Vol. 11). London, Accordia Research Institute, University of London.
- BERGEN. C., **M.J.L.Th. NIEKUS** & V.T. VAN VILSTEREN, 2006 (2<sup>e</sup> druk). *Mumien aus dem Moor*. Assen, Drents Museum; Hannover, Niedersächsisches Landesmuseum; Hull-Ottawa, Canadian Museum of Civilization; Calgary, Glenbow Museum; Zwolle, Waanders Verlag bv.

- BOS, J.M., 2006. Medieval brooches from the Dutch province of Friesland (Frisia): a regional perspective on the Wijnaldum brooches. General introduction. *Palaeohistoria* 47/48, pp. 447–454.
- BOS, J.M., 2006. Medieval brooches from the Dutch province of Friesland (Frisia): a regional perspective on the Wijnaldum brooches. Part I: small equal-armed brooches. *Palaeohistoria* 47/48, pp. 455–477.
- CAPPERS, R.T.J., 2006. *Roman Footprints at Berenike, Archaeobotanical Evidence of Subsistence and Trade in the Eastern Desert of Egypt* (Monograph 55). Los Angeles, University of California Cotsen Institute of Archaeology, 229 pp.
- CAPPERS, R.T.J., 2006. The reconstruction of agricultural practices in Ancient Egypt: an ethnoarchaeobotanical approach. *Palaeohistoria* 47/48, pp. 429–446.
- CAPPERS, R.T.J., R.M. BEKKER & J.E.A. JANS, 2006. Digitale zadenatlas van Nederland/Digital Seed Atlas of the Netherlands. Groningen Archaeological Studies, Vol. 4. Groningen, Barkhuis Publishing, 502 pp.
- CAVALLO, C., K. ESSER, R. LAUWERIER, W. PRUMMEL, L. SMITS & J. ZEILER, 2006. Archeozoölogie en fysische antropologie (versie 1.0), Nationale Onderzoeksagenda Archeologie (Stand van zaken archeozoölogisch en fysisch-antropologisch onderzoek in Nederland; onderzoeksagenda voor deze vakgebieden; handvat voor het schrijven en beoordelen van Programma's van Eisen en Plannen van Aanpak voor archeologisch onderzoek). Uitgave van: Rijksdienst voor het Oudheidkundig Bodemonderzoek, Amersfoort (<http://www.noaa.nl>, <http://www.archis.nl/noaa/content/toc/balk1-4-10.asp>, 1-1-2006).
- CLEVERINGA, P. & H. WOLDRING, 2006. Van hoog naar laag: migratie van *Myrica* in het Holoceen. *Belgeo* 3, pp. 219–241.
- DEEBEN, J., H. PEETERS, D.C.M. RAEMAEKERS, E. RENSINK & L. VERHART, 2006. De vroege prehistorie. In: N.N. (red.), De Nationale Onderzoeksagenda Archeologie. Amersfoort, Rijksdienst voor het Oudheidkundig Bodemonderzoek, pp. 1–48.
- DICKENSON, C.P., L. RADLOFF & H.R. REINDERS, 2006. The Southeast Gate of the Hellenistic City of New Halos: description and analysis of the architectural remains. *Pharos: Journal of the Netherlands Institute at Athens* 13, pp. 77–92.
- DOLNIK, O.V. & M.J.J.E. LOONEN, 2006. First finding of *Tyzzeria parvula* (Kotlàn, 1993) Klimeš, 1963 (Protozoa: Coccidiida) in Barnacle Geese (*Branta leucopsis* Bechstein, 1803) on Spitsbergen. *Zoosystematica Rossica* 15, 214 pp.
- GALESTIN, M.C., 2005. Barriers for barbarians? In: Zsolt Visy (red.), *Limes XIX* (Proceedings of the XIXth International Congress of Roman Frontier Studies held in Pecs, Hungary, September 2003). Pecs, University of Pecs, pp. 221–226.
- GALESTIN, M.C., 2005. New evidence for old problems. In: Peter Attema, Albert Nijboer, Andrea Ziffero (eds), *Papers in Italian Archaeology VI, Volume II*. Oxford, BAR International Series 1452 (II), pp. 935–938.
- HACQUEBORD, L., 2006. The ecological impact of whaling and walrus hunting in Spitsbergen. In: V. Starkov (red.), *Spitsbergen in the history research works* (= tweetalige uitgave (Russisch en Engels) van: Russian Academy of Sciences, Institute of Archaeology). Moscow, Scientific World, pp. 351–365.
- HACQUEBORD, L., 2006. Two centuries of bowhead whaling around Spitsbergen; its impact on the arctic fauna. In: *Whaling and history II. New perspectives*. Sandefjord (Norway), Commander Chr. Christensen's Whaling Museum. pp. 87–94.
- HERMSEN, I. & W. PRUMMEL, 2006. Verbrand bot. In: I. Hermesen (red.), *Mesolitische haardkuilen of houtskoolmeiers aan de Vrouwenlaan* (= Archeologische Rapporten Zwolle 39). Zwolle, Gemeente Zwolle, p. 33-34.
- KLEINE, E., H. WOLDRING, R.T.J. CAPPERS, P.A.J. ATTEMA & J.J. DELVIGNE, 2006. Sezione 4. Il carotaggio del Lago Forano presso Alessandria del Carretto (Calabria, Italia). Nuovi dati sulla vegetazione olocenica e sulla storia dell'uso del suolo nella sibiritide interna. In: P.A.J. Attema, P.M. van Leusen & P. Roncoroni (red.), *Il progetto archeologico Raganello* (= Rapporto preliminare 2002-2003). Groningen, Groningen Institute of Archaeology, pp. 26–34.

- KUIJPER, D.P.J., J.P. BAKKER, E.J. COOPER, R. UBELS, I.S. JÓNSDÓTTIR & M.J.J.E. LOONEN, 2006. Intensive grazing by Barnacle geese depletes High Arctic seed bank. *Canadian Journal of Botany* 84, pp. 995–1004.
- LANTING, J.N., 2006. Bibliography of A.E. Lanting. *Palaeohistoria* 47/48, pp. 39–40.
- LANTING, J.N. & J. VAN DER PLICHT, 2006. De <sup>14</sup>C-chronologie van de Nederlandse pre- en protohistorie V: midden-en late IJzertijd. *Palaeohistoria* 47/48, pp. 241–427.
- LEUSEN, P.M. VAN & N. RYAN, 2006. Sezione 5. Educating the digital fieldwork assistant. In: P.A.J. Attema, P.M. van Leusen & P. Roncoroni (red.), *Il progetto archeologico Raganello* (= Rapporto preliminare 2002-2003). Groningen, Groningen Institute of Archaeology, pp. 35–52.
- NEER, W. VAN, S. HAMILTON-DYER, R.T.J. CAPPERS, K. DESENDER & A. ERVYNCK, 2006. The Roman trade in salted Nilotic fish products: some examples from Egypt. *Documenta Archaeobiologiae* 4, pp. 173–188.
- NIEKUS, M.J.L.Th., 2006. A geographically referenced <sup>14</sup>C database for the Mesolithic and the early phase of the Swifterbant culture in the northern Netherlands. *Palaeohistoria* 47/48, pp. 41–99.
- NIEKUS, M.J.L.Th., 2006. Natuur- en vuursteen. In: J.S. Krist & B. Silkens (met bijdragen van M.J.L.Th. Niekus, G.J. de Roller, J. Schoneveld, A. Ufkes & J.B. de Voogd), *Twee opgravingen met beperkingen en aanvullend archeologisch onderzoek te Holtum Noord II, gemeente Sittard-Geleen (L.)*. ARC-publicaties 133, Groningen, pp. 27–32.
- NIEUWHOF, A., 2006. Changing landscape and grazing: macroremains from the terp Peins-east, province of Friesland, the Netherlands. *Vegetation History and Archaeobotany* 15, pp. 125–136.
- NIEUWHOF, A., 2006. Opgraven volgens de Kwaliteitsnorm Nederlandse Archeologie 3.1. Handleiding Groninger Instituut voor Archeologie. Groningen, Rijksuniversiteit Groningen, 136 pp.
- NIEUWHOF, A. (red.), 2006. *De wierde Wierum (provincie Groningen). Een archeologisch steilkantonderzoek* (Groningen Archaeological Studies, Vol. 3). Groningen, Barkhuis & The University Library Groningen, 81 pp.
- NIJBOER, A.J., 2006. Organizzazione della produzione e modalita dello scambio dal Bronzo finale al periodo arcaico. In: D. Cocchi Genick (red.), *Materie Prime e Scambi nella Preistoria Italiana. Atti della XXXIX Riunione Scientifica*. Firenze, Istituto Italiano di Preistoria e Protostoria, pp. 109–143.
- NIJBOER, A.J., 2006. Coppe di tipo Peroni and the beginning of the Orientalizing phenomenon in Italy during the late 9th century BC. In: *Studi di Protostoria in onore di Renato Peroni. All'Insegna del Giglio*. Firenze, pp. 288–304.
- NIJBOER, A.J. & J. VAN DER PLICHT, 2006. An interpretation of the radiocarbon determinations of the oldest indigenous-Phoenicia stratum thus far, excavated at Huelva, Tartessos (south-west Spain). *BABesch* 81, pp. 31–36.
- NIJBOER, A.J., P.A.J. ATTEMA & G.J.M. VAN OORTMERSSEN, 2006. Ceramics from a Late Bronze Age saltern on the coast near Nettuno (Rome, Italy). *Palaeohistoria* 47/48, pp. 141–205.
- PACYNA, E.G., J.M. PACYNA, F. STEENHUISEN & S. WILSON, 2006. Global anthropogenic mercury emission inventory for 2000. *Atmospheric Environment* 40, pp. 4048–4063.
- PALAEOHISTORIA 47/48, 2006. P.A.J. Attema, J.N. Lanting, M.A. Los-Weijns, N.D. Maring-Van der Pers & A.J. Nijboer (eds). Groningen, Barkhuis Publishing, 553 pp.
- PRUMMEL, W., 2006. De oeros als bewoner van de kwelders. *Stad & Lande, Cultuurhistorisch tijdschrift voor Groningen* 15.1, pp. 8–11.
- PRUMMEL, W., 2006. Dierlijk bot. In: A. Nieuwhof (red.), *De wierde Wierum (provincie Groningen). Een archeologisch steilkantonderzoek*. Groningen Archaeological Studies, Vol. 3. Groningen, Barkhuis & The University Library Groningen, pp. 31–45.
- PRUMMEL, W., 2006. Bronze Age Dogs from Graves in Borger (Netherlands) and Dimini (Greece). In: L.M. Snyder & E.A. Moore (red.), *Dogs and People in Social, Working, Economic and Symbolic Interaction* (Proceedings of the 9th Conference of the International Council of Archaeology, Durham, August 2002). Oxford, Oxbow Books, pp. 67–76.
- PRUMMEL, W. & M. NIEKUS, 2006. De opgraving Jardinga 2003. *Vanellus* 59, pp. 190–191.
- RAEMAEKERS, D.C.M., 2006. *De spiegel van Swifterbant*. Inaugurele rede. Rijksuniversiteit Groningen.

14 p.

- RAEMAEKERS, D.C.M. & M. ROOKE, 2006. The Schipluiden pottery. *Analecta Praehistorica Leidensia* 37/38, pp. 119–135.
- RAEMAEKERS, D.C.M., A.J. BORSBOOM & A. MÜLLER, 2006. Unlocking the treasure box of Dutch Stone Age archaeology. Archaeological heritage management in the drowned landscape of Flevoland. In: E. Rensink & H. Peeters (red.), *Preserving the Early Past. Investigation, selection and preservation of Palaeolithic and Mesolithic sites and landscapes*. Amersfoort, Rijksdienst voor het Oudheidkundig Bodemonderzoek, pp. 185–200.
- REINDERS, H.R., 2006. Enceinte, Gates and Communication Lines of New Halos, a Reconstruction. In: *Archaiologyko Ergo Thessalias kai Stereas Elladas*. Volos, Ministry of Culture and University of Thessaly, pp. 137–144.
- REINDERS, H.R. & Y.I. AALDERS, 2006. Frisian Traders and the Clinker Technique. In: T. Arisholm, K. Paasche & T.L. Wahl (eds), *Klink og Seil, Festschrift til Arne Emil Christensen*. Oslo, Norsk Sjøfartsmuseum and Kulturhistorisk Museum, pp. 109–122.
- VELDHUIS, J.R. & **M.J.L.TH. NIEKUS**, 2006. Vuursteen. In: J.B. Hielkema (met bijdragen van H. Halici, M.J.L.Th. Niekus, G.J. de Roller, D.G. Smeerdijk, A. Ukes, J.R. Veldhuis, P.C. Vos & A.J. Wullink), *Jagers-verzamelaars langs de Wâldwei. Een archeologisch onderzoek van een vindplaats uit het Mesolithicum, het Midden-Neolithicum en de Late IJzertijd/Romeinse Tijd bij Hempens, gemeente Leeuwarden (Fr.)*. ARC-publicaties 131. Groningen, pp. 77–162.
- VELUWENKAMP, J.W., 2006. International Business Communication Patterns in the Dutch Commercial System, 1500-1800. In: H. Cools, M. Keblusek & B. Noldus (red.), *Your Humble Servant. Agents in Early Modern Europe*. Hilversum, Verloren, pp. 121–134.
- VERHAGEN, J.W.H.P., H. KAMERMANS & **P.M. VAN LEUSEN**, 2006. Whither archaeological predictive modeling? In: W. Boerner (red.), *10th Workshop 'Archaeologie un Computer': Kulturelles Erbe und Neue Technologien*. Wenen, Phoibus Verlag, 15 pp.
- VOUTSAKI, S., S. TRIANTAPHYLLOU, A. INGVARSSON-SUNDSTROM, S. KOUIDOU-ANDREOU, A.J. NIJBOER, D. NIKOU & E. MILKA, 2006. Project on the Middle Helladic Argolid: A report on the 2005 season. *Pharos, Journal of the Netherlands Institute at Athens* 13, pp. 93–117.
- WESTING, H. VAN, P.J. FRIKKEN, J.J. LENTING, **W. PRUMMEL**, W. OLENIUC, 2006. Een middeleeuwse constructie in het stroomdal van de Hunze. *Nieuwe Drentse Volksalmanak* 123, pp. 171–198.
- WILSON, S., **F. STEENHUISEN**, J.M. PACYNA & E.G. PACYNA, 2006. Mapping the spatial distribution of global anthropogenic mercury atmospheric emission inventories. *Atmospheric Environment* 40, pp. 4621–4632.



## 7.2 PROFESSIONAL PUBLICATIONS

- ALESSANDRI, L., 2006. Protohistorische vindplaatsen in en rond Tusculum (gemeente Monte Porzio Catone, Albaanse heuvels, Italië). *Paleo-aktueel* 17, pp. 97–102.
- ATTEMA, P.A.J. & BOLHUIS, E., 2006. Archeologie in het stroomdal van de Raganello, Gronings veldwerk in Zuid-Italië (Tentoonstelling 1 maart–4 april 2006, GIA en UB van de RUG). 42 pp.
- BEUKER, J., **M.J.L.TH. NIEKUS & D. STAPERT**, 2006. Neanderthalers in het Drentse landschap. *Het Drentse Landschap* 51, pp. 4–7.
- BOEKEMA, E.J., **P.A.J. ATTEMA** & J.J. DELVIGNE, 2006. Vegetatieontwikkeling en landgebruik in de Monte Sparviere (Calabrië, Italië). *Paleo-aktueel* 17, pp. 82–89.
- BOS, J.M. & F.B. SAAN, 2006. Het vroegmiddeleeuwse grafveld van Aalden (Dr.). Noord-Nederland in de Volksverhuizingstijd. *Paleo-Aktueel* 17, pp. 146–151.
- CAPPERS, R.T.J., 2006. Mijn favoriet: Oeverkruid en Lidsteng. *Natura* 3, pp. 72–72.
- CAPPERS, R.T.J., 2006. Onderzoek aan plantenresten van Tell Sabi Abyad. *Nieuwsbrief Stichting Friends of Sabi Abyad* 2, p. 9.
- DIJKSTRA, J. & **J.A.W. NICOLAY**, 2006. Een terp op de schop: het archeologisch onderzoek op het Oldehoofsterkerhof in Leeuwarden (Fr.). *Paleo-aktueel* 17, pp. 135–141.
- DRENTH, E. & **W. PRUMMEL**, 2006. De versieringswijze van twee TBR-potten uit hunebed G2 (Glimmer Es, gemeente Haren) (Gr.). *Paleo-Aktueel* 17, pp. 63–68.
- ENTJES-NIEBORG, G. & CAPPERS, R.T.J., 2006. Bibliography of Sytze Bottema. *Palaeohistoria* 45/46, pp. 3–10.
- FEIKEN, H. & E. KNOL, 2006. Stenen bijlen uit de Groninger klei. *Paleo-aktueel* 17, pp. 75–81.
- HAAS, T.C.A. DE, 2006. Boekbespreking van C. van Tilburs (red.), *Romeins verkeer. Weggebruik en verkeersdrukte in het Romeinse Rijk*. *Tijdschrift voor Mediterrane Archeologie* 18.35, pp. 44–45.
- HACQUEBORD, L., 2006. Recensie van: Jaapjan Zeeberg, *Into the ice sea: Barents' wintering on Novaya Zemlya – A renaissance voyage of discovery*. *Arctic, Journal of the Arctic Institute of North America* 59.2, pp. 228–229.
- HACQUEBORD, L. & J.W. VELUWENKAMP, 2006. Nova Zembla: Behouden Huis. De overwintering op Nova Zembla. In: M. Prak (red.), *Plaatsen van herinnering. Nederland in de zeventiende en achttiende eeuw*. Amsterdam, Bert Bakker, pp. 74–85.
- JONGE, W. DE & **D.C.M. RAEMAEKERS**, 2006. Een uit Voorburg verdwenen bijl van de Vlaardingengroep. In: W. de Jonge, J. Bazelmans & D. de Jager (red.), *Forum Hadriani van Romeinse stad tot monument*. Utrecht, Matrijs, p. 28.
- LEUSEN, P.M. VAN & P.A.J. ATTEMA, 2006. De veldverkenning SIBA2004-5 rond Francavilla Marittima (Calabrië, Italië): eerste resoluten. *Paleo-Aktueel* 17, pp. 90–96.
- NICOLAY, J.A.W., 2006. Nieuw licht op de late ijzertijd: twee vermoedelijke sierknoppen van gordelhaken uit het Friese terpengebied. *Paleo-aktueel* 17, pp. 130–134.
- NICOLAY, J.A.W., 2006. Een gouden Kolbenarmring uit Deventer. Vroegmiddeleeuwse elite op het spoor. *Archeobrief* 10.4, pp. 31–35.
- NICOLAY, J.A.W., 2006. Een koninklijk machtscentrum in vroegmiddeleeuws Friesland? De interpretatie van goudvondsten uit de late zesde en zevende eeuw na Chr. *De Vrije Fries* 86, pp. 33–94.
- NICOLAY, J.A.W. & J. DIJKSTRA, 2006. Een terp op de schop: het archeologisch onderzoek op het Oldehoofsterkerhof in Leeuwarden (Fr.). *Paleo-Aktueel* 17, pp. 135–141.
- NIEKUS, M.J.L.TH. & B.I. SMIT, 2006. Wie het kleine niet eert...Microdriehoeken in het Mesolithicum van Noord Nederland. *Paleo-Aktueel* 17, pp. 45–54.
- NIEUWHOF, A., 2005. Een steilkantopgraving in de wierde Wierum. *Historisch Jaarboek Groningen*, pp. 139–141.
- NIEUWHOF, A., 2005. Romeinse en vroeg-middeleeuwse sporen rond de terp te Raard. *De Vrije Fries* 85, pp. 212–213.

- NIEUWHOF, A. & S.J. TUINSTRAN, 2005. Hernieuwd archeologisch onderzoek in de terp Hoxwier te Mantgum. *De Vrije Fries* 85, pp. 240–244.
- NIEUWHOF, A., M. HUISMAN & S.J. TUINSTRAN, 2005. Een terp te Thomashof nabij Workum. *De Vrije Fries* 85, pp. 256–257.
- OOME, N. & P.A.J. ATTEMA, 2006. Portieri, een Hellenistische site in de voetheuvels van de Sibaritide (Calabrië, Italië). *Paleo-aktueel* 17, pp. 108–113.
- OORTMERSSEN, G.J.M. VAN, 2006. ...En de ton viel niet in duigen. Conservatie van een watterverzadigde houten emmer. *Paleo-Aktueel* 17, pp. 178–186.
- PALEO-AKTUEEL 17, 2006. J.N. Lanting, P.M. van Leusen, N.D. Maring-Van der Pers & D. Stapert (eds). Groningen, Barkhuis Publishing, 186 pp.
- RAEMAEKERS, D.C.M., 2006. De bevolking van West-Nederland in de Jonge Steentijd, de Vlaardingengroep. In: W. de Jonge, J. Bazelmans & D. de Jager (red.), *Forum Hadriani van Romeinse stad tot monument*. Utrecht, Matrijs, pp. 26–29.
- RAEMAEKERS, D.C.M., 2006. De spiegel van Swifterbant; rede uitgesproken bij de aanvaarding van het ambt van hoogleraar in de Pre- en Protohistorie van Noordwest-Europa bij de Faculteit der Letteren van de Rijksuniversiteit Groningen op 13 juni 2006. In: W.H.J. van der Most & H. Pruntel (red.), *Oud en Nieuw*. Cultuur Historisch Jaarboek voor Flevoland. Lelystad, Nieuw Land Erfgoedcentrum/Stichting Uitgeverij de Twaalfde Provincie, pp. 92–105.
- REINDERS, R., 2006. De Zuidoostpoort van Halos. *Paleo-Aktueel* 17, pp. 114–121.
- SCHEPERS, M., R.T.J. CAPPERS & I. HEIJEN, 2006. Neolitische graanopslag in de Fayum. *Paleo-aktueel* 17, pp. 55–62.
- SMIT, B.I., 2006. Op zoek naar de vroege prehistorie in het onderzoeksgebied Olthof-Noord (ON05); Aanvullend Archeologisch Onderzoek van verschillende locaties met vuursteen in Epse (gemeente Deventer). Rijksuniversiteit Groningen, Groninger Instituut voor Archeologie (intern rapport op cd-rom).
- SMIT, B.I., 2006. Plangebied Zonnewijzer (locatie vijver), gemeente Leidschendam-Voorburg; archeologisch vooronderzoek: proefsleuven (= RAAP-rapport 1295). Amsterdam, RAAP Archeologisch Adviesbureau BV.
- SMIT, B.I., 2006. Plangebied Zonnewijzer, gemeente Leidschendam-Voorburg; archeologisch vooronderzoek: proefsleuven (= RAAP-rapport 1314). Amsterdam, RAAP Archeologisch Adviesbureau BV.
- SMIT, B.I., 2006. Plangebied Hoeksche Waard, gemeente Binnenmaas; archeologisch vooronderzoek: een bureauonderzoek en inventariserend veldonderzoek (= RAAP-rapport 1425). Amsterdam, RAAP Archeologisch Adviesbureau BV.
- STAPERT, D., 2006. Jeugdige vuursteenbewerkers bij het kampvuur: een andere visie op Maastricht-Belvedere, Site K. (L.). *Paleo-Aktueel* 17, pp. 9–17.
- STAPERT, D. & L. JOHANSEN, 2006. De Hamburg-vindplaats bij Ureterp (Fr.): een opgraving tijdens de Tweede Wereldoorlog. *Paleo-Aktueel* 17, pp. 27–35.
- STAPERT, D., M.J.L.TH. NIEKUS & L. JOHANSEN, 2006. Curieuze vuistbijlachten van Rhenen (Utr.). Ook eens iets voor kinderen? *Paleo-Aktueel* 17, pp. 18–26.
- VELUWENKAMP, J.W., 2006. Boekbespreking van: O. Frost (ed.), Bering. The Russian discovery of America. *Tijdschrift voor Zeegechiedenis* 25, pp. 54–55.
- WOLDRING, H., 2006. De afkomst van de kwets: een reactie. *Pomospost* 1, pp. 26–29.
- WOLDRING, H., BOEKEMA, Y., P.A.J. ATTEMA, J.J. DELVIGNE, 2006. Vegetatieontwikkeling en landgebruik in de Monte Sparviere (Calabrië, Italië). *Paleo-Aktueel* 17, pp. 82–89.
- WOLDRING, H., P. DE BOER, N. BOTTEMA-MAC GILLAVRY & R.T.J. CAPPERS, 2006. De palaeoecologie van Duurswold (Gr.): vroeg-Holocene landsschapsontwikkeling. *Paleo-Aktueel* 17, pp. 36–44.