Groningen Institute of Archaeology (GIA) Annual Report 2016

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Foreword

Central to the year 2016 was the external Peer Review Assessment of the Institute based on the Institute’s Self-Evaluation Report in which GIA reflects on what it has attained over the past 6 years and sets out its strategy for the next 6 to 12 years in 10 points meant to implement reinforcing measures to produce high-quality output, secure research income and train PhDs and post-docs.

The international committee, presided by Peter van Dommelen, Joukowsky Family professor of Archaeology and professor of Anthropology at Brown University (Providence, Rhode Island, USA) consisted of internationally renowned scholars Johannes Müller, professor of Prehistoric Archaeology and director of the Institute of Pre- and Protohistoric Archaeology at Kiel University (Germany), Paul Lane, professor of Global Archaeology at Uppsala University, Naomi Sykes, associate professor in Zooarchaeology at the University of Nottingham, UK and Jos Bazelmans, head of the Department of Archaeology of the Dutch Cultural Heritage Agency and professor in Archaeological Heritage at the Free University of Amsterdam. The actual site visit took place on the 7th and 8th of November at which occasion GIA staff, support staff, post-docs and PhDs, in various constellations, were interviewed by the commission.

Based on the self-evaluation report and the interviews, the committee wrote a constructive Research Review entailing useful recommendations that, in combination with the Self-Evaluation, will form the basis for further development and implementation of GIA’s research strategy for the years to come. Central issues are relocation of GIA’s research groups and facilities in one building and stimulation of scientific interaction between GIA’s research groups, ideally resulting in the formulation of joint research projects. Such actions need dedicated meetings and discussion on how to meet current scientific and societal challenges (e.g. archaeology’s digital future, data management and archiving, engagement with the University’s main research themes, ways to attract (more) EU research funding, public outreach). While the committee’s review was very positive on GIA’s functioning, output and potential – as expressed in the judgments: Research Quality : Very Good, Societal Relevance : Good, Viability : Good – it also gave food for thought and action!


2016 has been a fruitful year for the Groningen Institute of Archaeology with exciting fieldwork, new research contracts for PhDs and postdocs, 3 promotions, workshops, conferences and a range of public outreach activities. Its staff members were able to obtain external grants amounting to more than 1 Million euro! While the basic facts and figures can be viewed on GIA’s website (http://www.rug.nl/research/groningen-institute-of-archaeology/about-the-institute/annualreport), the Annual Report limits itself to highlighting major feats of GIA staff members in the field, in the laboratory and in a range of academic and societal contexts. It features key publications and staff members who tell about their fascination for archaeological research in the field and in the lab. This Annual Report is the last to present GIA research along the lines of the four chair groups that make up the GIA (Arctic and Antarctic Studies, Classical and Mediterranean Archaeology, Greek Archaeology and Pre- and Protohistory of Northwest Europe). Following up on an internal discussion in the GIA Management Team about the position and visibility
of the Bioarchaeology group sparked by the 2010 external review and in anticipation of the 2016 it has been decided to position Bioarchaeology as a separate Research Group within GIAs organisation, the main reason being that GIAs bioarchaeologists have developed their own research identity and in practice interact with all chair groups. This has led the GIA Management to decide that from 2016 GIA is structured along the lines of five Research Groups instead of the current four chair groups. From 2016 onwards the Annual Report will be structured accordingly. This decision will promote further interdisciplinary integration within GIA while emphasizing its bioarchaeological expertise.

1. About GIA
The Groningen Institute of Archaeology is based in the Faculty of Arts of the University of Groningen, and is responsible for all archaeological research within the university. It contributes to research agendas within the humanities by integrating research perspectives from both the natural and social sciences, and by developing and incorporating novel methodologies and theories. GIA investigates the development of human societies from a uniquely long-term perspective. GIA staff is convinced that insights from the past also have relevance to present-day debates and the resolution of future challenges. GIA strives to add to the regional, national and international recognition of University of Groningen as a leading research university.

GIA’s Mission
The core purpose of GIA is to:
- conduct innovative, ethically-informed research that has high visibility and impact;
- provide a supportive environment in which researchers perform at their full potential;
- effectively disseminate research results to diverse audiences in appropriate formats;

To fulfill this mission GIA organizes its research so that it can focus critical mass on:
- understanding specific periods and processes of transition within well-defined geographical regions, specifically the Mediterranean (Italy, Greece, Near East), NW Europe and the Circumpolar North;
- applying an integrated field- and laboratory-based approach to research, underpinned by engagement with diverse theoretical perspectives, and a commitment to methodological innovation.

Who are we?
The Groningen Institute of Archaeology consists of five Research Groups; Arctic and Antarctic Studies, Bioarchaeology, Classical and Mediterranean Archaeology, Greek Archaeology and Prehistory and Protohistory of Northwest Europe. These link into the University of Groningen’s educational departments of Archaeology and the Arctic Centre. GIA operates as an integrated research community engaging with common research themes. The coordinators of the research groups are professors and form the GIA Management Team. The Management Team is supported by an Advisory Board composed of a representative selection of GIA personnel. Members of the technical staff support GIAs research activities and fieldwork projects. GIA also maintains laboratories in Zooarchaeology, Archaeobotany and Conservation and Material Culture Studies (LCM).

Within RUG, GIA participates in the Graduate School for the Humanities of the Faculty of Arts, providing the institutional setting for GIAs PhD training programme and the two year Research Master in Art History and Archaeology. GIA is also a member of ARCHON, the national Dutch institute for Research Master and PhD training programmes in Archaeology.
Director of GIA
Prof Dr P.A.J. Attema

Chair groups
- Arctic and Antarctic Studies
  (Prof Dr P.D. Jordan)
- Classical and Mediterranean Archaeology
  (Prof Dr P.A.J. Attema)
- Greek Archaeology
  (Prof Dr S. Voutsaki)
- Prehistory and Protohistory of Northwest Europe
  (Prof Dr D.C.M. Raemaekers)

Research coordinator
Dr S.L. Willemsen

Coordinator of GIA PhDs
Fester Possel

Management Team (MT)
Prof Dr P.A.J. Attema (chair),
Prof Dr R.T.J. Cappers
Prof Dr P.D. Jordan
Dr J.H.M. Peeters
Prof Dr S. Voutsaki

Advisory Board (AB)
Prof Dr P.D. Jordan (chair)
Dr C. Cakirlar
F.B.J. Heinrich MA, MSc
Dr L. de Jong
Dr P.M. van Leusen
Dr M.M.J.E. Loonen
M.A. Los-Weijns

Cross-Cutting Research Themes:
- Material culture and artefact studies
- Settlement archaeology and cultural landscape research
- Mortuary archaeology
- Long-term human-environment relations

Research Facilities:
- Labs (Zooarchaeology, Paleobotany, Laboratory for Conservation and Material Studies)
- Collections (Zooarchaeology, Paleobotany, Material culture)
- Documental archive
- Maceration unit
- Storage and artefact processing facilities

In-House Publishing
- Palaeohistoria
- Paleo-aktueel
- Books/PhD theses
- Site reports

Support and Technical:
- Drawing Office
- Finance Officer
- Archivist
- Research Coordinator
- Lab Personnel

Director of GIA
Prof Dr P.A.J. Attema
Arctic and Antarctic Studies
The AAS Research Group is headquartered at the Arctic Centre, which was established in 1970, and researches long-term human-environment interactions in the Polar Regions. The work of the Arctic Centre aligns closely with the university’s ‘Sustainable Society’ theme. The overarching concern is to understand what drives long-term fragility and resilience – and ultimately sustainability - in Arctic social and ecological systems; the Arctic Centre investigates this issue at three inter-locking timescales: paleo, contemporary and future/predictive. In addition to conducting fundamental inter-disciplinary research, Arctic Centre staff contribute to policy-driven debates in the Netherlands and internationally. Staff serve as expert advisors in all the main Polar Science organisations, including the Scientific Working Groups of the Arctic Council (Conservation of Arctic Flora and Fauna (CAFF); Arctic Monitoring and Assessment Programme (AMAP) and Sustainable Development Working Group (SDWG)). They also represent the Netherlands in the Council and the Social and Human Working Group of the International Arctic Science Committee (IASC). The Arctic Centre maintains a thriving programme of fieldwork in archaeology, historical ecology and biology, and manages the Netherlands Arctic Station on Svalbard. It participates in three large Horizon2020 projects (ArchSci2020, EUPolarNet, INTERACT), and hosts a growing international community of PhDs and PostDocs.

View over the fjords in Arctic Norway.
Classical and Mediterranean Archaeology

CMA has a longstanding and firmly established tradition in Italian field archaeology. Its interdisciplinary projects in Central and South Italy combine excavations with landscape archaeological approaches to study the dynamics of Italy’s urban and rural past in a long-term perspective. Covering the period from the Bronze Age to Late Antiquity, its researchers integrate geoarchaeological, palaeoecological and material culture studies to contribute to current understanding of the formation of early complex indigenous societies, interactions with the colonial Greek and Roman world, and Roman Republican and Imperial urbanization. The group conducts internationally renowned landscape archaeological projects, such as the Pontine Region and Raganello Archaeological projects, and works on the integration of large survey datasets to compare regional settlement and land use dynamics over the Mediterranean to facilitate long term demographic and economic analyses. Its members publish widely on protohistoric Latin, Etruscan and Roman archaeology. CMA is leading partner in the international excavations at the ancient Latin site of Crustumerium, near Rome and former partner in the Satricum excavations. Its members have a strong track record in obtaining research funding and attracts good numbers of master students, PhDs and postdoctoral researchers, all of whom play a central role in its activities.

The excavation site of Crustumerium.
Greek Archaeology

The research chair of Greek Archaeology covers the archaeology of the Greek world in the broader sense, but focuses on Aegean prehistory and the Hellenistic and Roman periods in the eastern Mediterranean and the Near East. Members of the chair group lead international field projects in Greece, Turkey and elsewhere in the Middle East. They maintain an explicitly theoretical and inter-disciplinary approach, combining archaeological, bioarchaeological, historical, iconographic and epigraphic data. Mortuary studies form a central theme in the chair group, as well as household and landscape archaeology. Questions of social change (the emergence of complex societies, but also periods of crisis and decline) and the redefinition of identities in increasingly connected worlds occupy a central position in research activities. In terms of teaching, research, and outreach we are developing a strong focus on archaeology and heritage management in areas affected by warfare, political instability and financial crisis. Members of the chair collaborate with the Departments of Ancient History and Classics, the Faculty of Religious Studies, the Centre for Isotope Research, as well as institutions in Greece, Iraq, Lebanon and Turkey. Greek Archaeology at the GIA is quickly establishing a reputation as a centre of international excellence for methodologically innovative, theoretically sophisticated and socially engaged research.
Prehistory and Protohistory of Northwest Europe

Research of the chair group of Prehistory and Protohistory of Northwest Europe focusses on socio-cultural dynamics, and long-term dynamics of human-environment relations from Late Palaeolithic to early historic times. One line of research is that of prehistoric cultural landscapes, with a focus on economic and social/cosmological use and meaning of the environment. Projects include: long-term use and perceptions of landscapes by postglacial hunter-gatherers, the socio-economic role of crop cultivation within the Swifterbant Culture and the early agriculture of ‘Celtic fields’. Another context is that of the late prehistoric and historic coastal and maritime cultural landscape. Research is focused on the occupation history of the terp-mounds and peat districts, and their embedding in wider regional and international spheres of interaction. Research is also concerned with the social and ideological role of material culture. Even though the study of material culture is the bread and butter of archaeology, the study of ‘old’ collections permits new interpretations when considered in the context of new interpretive frameworks. The chair group believes that it not only has a duty to conduct research of international interest, but also that it has an important role to play in the debate about how archaeological research can make a contribution to contemporary society, regionally, nationally, and internationally.

Archaeobotany

Archaeobotany is central to many projects of the chair group of Prehistory and Protohistory of Northwest Europe. However, it also contributes to projects of other chair groups and conducts research in collaboration with a wide range of external partners. It has launched a new book series in cooperation with Kiel University, Advances in Archaeobotany, which intends to provide a platform for the publication of research results of international interest. Importantly, GIA’s archaeobotanical laboratory houses internationally significant reference collections. Increasing use is made of these collections by colleagues from other countries, including Greece, Turkey and Italy. The collection is continuously expanded through the addition of new specimens, and linked to an updated taxonomy. Recently, many samples of traditional food made of cereals and/or milk with a long shelf life have been added to the collection. Laboratory staff has conducted ethno-archaeological fieldwork in Morocco, Turkey, and Senegal, not only to examine how traditional crop and food processing can be identified in subfossil food remains, but also how wear patterns can be linked with technology and implements. This work is augmenting
the corpus of reference materials. Meanwhile, the botany department is involved in various archaeobotanical projects, most of them related to other GIA research lines. Examples are the ship wreck excavations by Yftinus van Popta and Stijn Arnoldussen’s ongoing Celtic field project. Mans Schepers’ NWO funded Veni-project targets crop cultivation in coastal wetland environments and includes experimental cultivation to allow for a better interpretation of archaeological data. Human-environment relations are a key component of GIA’s archaeobotanical research, and will become increasingly relevant in times of global climatic challenges.

**Zooarchaeology**

The zooarchaeological research group investigates a large variety of past phenomena that involve interactions between humans and animals by means of diverse methods, including comparative osteomorphology, aDNA, ZooMS, and stable isotopic analyses. Present research foci include secondary neolithisation (western Anatolia, Bulgaria, Turkey), origins of super-animals (e.g. hybrid camels), exploitation of marine species in the ancient Mediterranean with specific focus on threatened species (e.g. groupers and turtles), and changes in animal exploitation in situations of rapid acculturation. Current projects involve: the introduction of animal husbandry to areas west of Çatalhöyük; the introduction of domestic animals to the prehistoric Netherlands; and economic systems of early urban centres. The group also conducts research on data literacy and reuse in zooarchaeology, and the use of 3D technologies in developing zooarchaeological tools. Collaborations in fieldwork and data analysis exist within a large international network of research groups, notably those based at Boston University, the American University of Beirut, Manchester University, the Istanbul Archaeology Museums, and Mainz University. The unit also manages GIA’s extensive skeletal reference collection; these responsibilities include curation work, development and expansion of the collection, and the provision of access and support to researchers, students, and the general public.

**PhD programme**

Chair groups of the Groningen Institute of Archaeology regularly have new openings for PhDs. These result from annual allocations from the Faculty, as well as national competitions and externally funded projects and international collaborations. Apart from research, PhD students at the Groningen Institute of Archaeology follow training programmes up to 30 ECTS. These programmes are typically a combination of modules offered by the Faculty’s Graduate School for the Humanities, National Research Schools, and training modules tailored to the individual PhD student’s needs. GIA offers excellent supervision, research facilities, technical support and maintains a dynamic yet supportive academic culture. It also facilitates and supervises self-funded PhD researchers.

**Research integrity**

The quality of research conducted at the Groningen Institute of Archaeology is assessed in light of the highest international standards. GIA complies with the professional rules drawn up by the Association of Universities in the Netherlands (VSNU: Vereniging van Universiteiten), which can be found in the Dutch Code of Conduct for Scientific Practice. The primary values and principles enshrined in this code of conduct include a
duty of care to colleagues and students, and also reliability, verifiability and independence in research. As part of appointment procedures at GIA new staff and researchers are required to declare that they are familiar with the Dutch Code of Conduct for Academic Practice and will follow it during their professional activities.

**Our aims and ambitions**
GIA’s primary aim is to carry out interdisciplinary problem-oriented research projects in which students, PhDs, postdoctoral researchers and staff cooperate and which evolve in a spirit of collaboration with other partners, both within and outside academia. The main domains of study are within landscape, settlement, ecological and social archaeology. Currently GIA accommodates over 30 fte researchers who maintain a high output of peer-reviewed papers and books; it also organises major international conferences and is active in the valorisation of its research results. GIA research spans much of the globe, and extends over considerable time depths. Projects are typically based on primary data collected by fieldwork or analysis of collections, but also include elaboration and critical synthesis of existing datasets. As only a small part of GIA’s activities can be funded by the institute, GIA staff is very active - and successful - in attracting external funding. In 2016 the GIA obtained a total of more than 1 Million euros of external research funding which was used to run existing projects and also to launch new initiatives.
# Funding

## Project funding

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<thead>
<tr>
<th>Name</th>
<th>Grant</th>
<th>Amount</th>
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<td>Aspasiapremie L. de Jong</td>
<td>NWO beleidsontwikkeling en - ondersteuning</td>
<td>200,000</td>
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<tr>
<td>A taste of historic cookery</td>
<td>NWO Top Talent M. Hondelink</td>
<td>213,474</td>
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<tr>
<td>Beyond the rivers of Babylon</td>
<td>NWO VENI R. Palermo</td>
<td>247,000</td>
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<td>A look from pingo scars in the province of Fryslan</td>
<td>Provincie Friesland</td>
<td>43,000</td>
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<td>Veldkarteringen noordelijk Westerigo</td>
<td>Provincie Friesland</td>
<td>134,000</td>
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<tr>
<td>INTERACT Arctic Station</td>
<td>EU</td>
<td>17,950</td>
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<td>Estimating input of mercury from historical local sources and long range transport into the coastal marine system of Kongsfjorden, Svalbard</td>
<td>Svalbard Environmental Protection Fund</td>
<td>64,000</td>
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## Direct funding

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<td>De honden van Van Giffen</td>
<td>KNAW/ DANS</td>
<td>10,000</td>
</tr>
<tr>
<td>Nieuwe atlas van de Nederlandse hunebedden</td>
<td>Gratama-stichting</td>
<td>13,250</td>
</tr>
<tr>
<td>Aardewerksstudie kustgebied Vroege Middeleeuwen</td>
<td>Provincie Noord-Holland</td>
<td>12,000</td>
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<tr>
<td>Terp composition in respect to earthquake risk</td>
<td>NAM</td>
<td>4,000</td>
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<tr>
<td>Advies vogelaanvaringen Schiphol</td>
<td>Min. van Infrastructuur en Milieu</td>
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<td>Contribution salary PhD Student</td>
<td>University of Alberta</td>
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<td>Bijdrage IFMAF onderzoek</td>
<td>Stichting Nieuwland</td>
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<td>Grotten in context</td>
<td>Gratama-stichting</td>
<td>12,000</td>
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<td>EIA Geodesie Arctic Centre</td>
<td>Norwegian Polar Institute</td>
<td>5,400</td>
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<td>Actualisatie Wierdenbestand provincie Groningen</td>
<td>Provincie Groningen</td>
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<td>Crowd funding onderzoek Noordse Stern</td>
<td>Ubbo Emmius Fonds</td>
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<td>Dissertation Fieldwork Grant V. Kalenderian</td>
<td>Wenner-Gren Foundation</td>
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<td>Luchtfotokartering Friese veenweidegebied</td>
<td>Provincie Friesland</td>
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<td>Standardisierung in der Archeobotanik</td>
<td>Deutsches Archaologisches Institut</td>
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<td>CIDOC-CRM compatibel deponeren van archeologische verkenningen</td>
<td>KDP, DANS</td>
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## Outreach

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<td>Cultural History of Death (Fac. Theology, Fac. of Arts)</td>
<td>E-learning, RUG, CIT</td>
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## Total funding 2016

€1,129,497
2. Research within GIA

<table>
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<tr>
<td>Refereed article</td>
<td>27</td>
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<tr>
<td>Non-refereed article</td>
<td>13</td>
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<tr>
<td>Chapter</td>
<td>17</td>
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<tr>
<td>Book</td>
<td>7</td>
</tr>
<tr>
<td>Professional publication</td>
<td>57</td>
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<tr>
<td>Popular publication</td>
<td>16</td>
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<td>Review</td>
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<td>Edited journal</td>
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</tr>
<tr>
<td>Edited book</td>
<td>4</td>
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<td>Doctoral thesis</td>
<td>4</td>
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<td><strong>Total</strong></td>
<td><strong>150</strong></td>
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**Publications edited and issued by GIA**

At GIAs Annual Research Day in December 2016 the annual issue of GIAs popular outreach journal Paleoaktueel (vol. 27) was presented, as well as vol. 57/58 of the peer reviewed, scientific journal Palaeohistoria. Also noteworthy in 2016 are the two issues of the Tijdschrift voor Mediterrane Archeologie (vol. 55 & 56) edited by researchers and students at the GIA and consisting of papers from early career researchers, with updates on new research projects across the Mediterranean (see: http://tijdschrift.mediterrane-archeologie.nl). TMA enjoys a substantial academic readership in the Netherlands and Belgium.
Arctic and Antarctic Studies
The research of the Arctic Centre now enjoys full circumpolar coverage thanks to the launch of many new international collaborations in 2016. Ongoing PhD and Post-Doc projects are based in Alaska and the Aleutians, Svalbard and in Northeast Asia and focus on Polar Historical Ecology and Circumpolar Archaeology. Seven new PhD projects were launched in 2016 and greatly expand this geographical coverage. Six form part of ArchSci2020, a €4Million Horizon2020 European PhD Training Network run by Copenhagen, Groningen Stockholm and York. Research themes include: human-animal relations and the chronology, subsistence and technology of circumpolar cultures and societies. A seventh PhD investigates Early Dorset Culture in Greenland and launches a new collaboration with the Greenland Research Centre at the National Museum of Denmark. The Arctic Centre also hosted a visiting PhD from Trondheim who completed collaborative work in Polar Ecology. Staff conducted archaeological survey work in Arctic Norway and completed further fieldwork on the historical ecology of Svalbard. New funding from Canada and Japan will bring two new Post-Docs to the Arctic Centre in 2017 to work on Polar Ecology and Circumpolar Archaeology.

Key publications
Highlighted

How do humans cope with climatic change? In this paper we looked backwards in time to explore how small-scale societies in living Northeast Asia coped with the massive environmental transformations that occurred at the end of the last Ice Age. Our results indicated that they had innovated and consistently used pottery for the processing aquatic resources despite thousands of years of ecological change. We concluded that pottery was attractive because it offered a resilient social and culinary strategy that enabled the sustainable exploitation of aquatic resources in an uncertain and rapidly changing world.
Classical and Mediterranean Archaeology

In the Pontine Region, augering campaigns were carried out to study the environmental and demographic impact of the great Bronze Age eruption of the Vesuvius. Good progress was made with palynological analyses and palaeogeographical reconstructions, and with excavation of caves. A major event in this project was the international conference organised by the Avellino team on distal effects of volcanic eruptions, held in the old observatory on the slopes of the Vesuvius.

The fieldwork on minor centers of the Roman period in the Pontine region was concluded and this project is now in the phase of synthesis.

At the protohistoric site of Scarlino, Puntone Nuovo (Tuscany), remains of marine salt production during the late Bronze and Early Iron Ages were excavated on the shores of a now filled-in inland lagoon following geophysical prospections in 2015.

In the summer, CMA staff and students carried out the 10th excavation campaign at the protohistoric site of Crustumerium centred on the excavation of a huge fortification and burial complex. The team obtained funding for 3D documentation and modelling from the Faculty’s Digital Humanities scheme. Three PhD’s obtained their degree, all on CMA's projects in Calabria, South Italy (see below highlighted) of which Wieke de Neef’s “Surface Subsurface: A methodological study of Metal Age settlement and land use in Calabria” was awarded the Ted Meijer prize issued by the Royal Dutch Institute at Rome.
Marianna Fasanella Masci, Wieke de Neef and Francesca Ippolito after their successful defence.

**Highlighted**

*Three dissertations on fieldwork in Calabria.*

On the 20th of October Wieke de Neef, Marianna Fasanella Masci and Francesca Ippolito defended their theses. For this triple promotion event a choice of international scholars was invited to come to Groningen to discuss the results of their work not only during the actual defence ceremonies, but also at a conference on the following day. In combination, the three dissertations add significantly to settlement and pottery knowledge of the Sibaritide in Calabria, where promoter Attema and co-promoters Nijboer and Van Leusen have long been involved in excavations, landscape archaeology and material culture studies.

**Key publications**

Attema, P. 2016, Sedimentation as Geomorphological Bias and Indicator of Agricultural (Un)sustainability in the Study of the Coastal Plains of South and Central Italy in *Journal of Archaeological Science* (http://dx.doi.org/10.1016/j.jasrep.2016.07.024).


Greek Archaeology

In 2016 the Ayios Vasilios North Cemetery excavation was completed, while the survey (with Corien Wiersma as Field Director, and Wieke de Neef responsible for the geophysics) continued. Lidewijde de Jong continued her work in the Erbil Plain archaeological survey, explored possibilities for a new project in Saudi Arabia and initiated a project in Pisidia, Turkey. She received an Aspasia grant by NWO, and a grant by the Centre for Digital Humanities for her ‘Digital Tombs’ project. A new VENI, Rocco Palermo, has been appointed. Corien Wiersma became Assistant Editor of the Journal of Greek Archaeology. Members of the chair were very active in the (co-)organization of conferences or conference sessions and presented their research in different venues around the world. The PhD candidates have distinguished themselves in different ways: Vana Kalenderian has received a prestigious Wenner-Gren award; Tamara Dijkstra was Visiting Researcher at the University of Frankfurt am Main;
Eleni Panagiotopoulou received a Research Fellowship by the Netherlands Institute at Athens, and Olivia Jones was invited to study the human remains from Mycenaean sites in Achaia. The first annual meeting of the Necropoleis Research Network took place in Groningen, and various activities are planned for the next years. Finally, the intensive course on location on Death in the Greek World was very successful.

Architectural mapping at Seleukeia Sidera, Pisidia, Turkey.

Key publications


Highlighted


This volume attempts to explain processes of social and economic change in the Greek mainland and the surrounding islands during the Bronze Age. The main focus is on the period between the disruptions at the end of the Early Bronze Age and the pervasive transformations at the end of the Middle Bronze Age. This timeframe enables us to consider how mainland societies recovered from a period of crisis and regression and how they eventually developed into the differentiated, culturally receptive and competitive early Mycenaean polities. The papers address changes in material culture – e.g. pottery and domestic architecture– and in social practices –e.g. burial customs or sumptuary behaviour– in order to explore what is after all the core of archaeological investigations: the relation between material culture, social practices and social strategies.
**Prehistory and Protohistory of Northwest Europe**

Research focused on prehistoric socio-cultural dynamics and cultural landscapes was conducted from various perspectives. Peeters was involved in the synthetic analysis of research results concerning Early Prehistory from 10 years of development-led archaeology in the Netherlands (commissioned by the National Heritage Agency), and a scientific synthesis about the Prehistory of Flevoland (commissioned by ProRail). Raemaekers engaged in a NWO-funded project (led by the commercial firm ADC) on the analysis of the unique TRB settlement and cemetery of Oosterdalfsen. Arnoldussen continued his work on Bronze Age artefacts, which this year consisted of a full inventory and analysis of bronze sickles. Nieuwhof continued her analysis of the Ezinge excavation results, with a focus on the layout and history of the settlement, and its relationships with the surrounding salt marsh prior to medieval embankment. Van Popta made a palaeogeographical reconstruction of the Noordoostpolder region between 1100 and 1400 AD, based on archaeological, geological and historical data. Contrary to what was long assumed, large parts of the area were inhabited until (at least) the 13th century. Fieldwork focussed on the Celtic field complex at Westeinde-Noormansveld (Arnoldussen), and the remains of a 18th century shipwreck near Rutten (Van Popta). Gary Nobles defended his PhD on the spatial analysis of Late Neolithic (Corded Ware Culture) sites in Noord-Holland.

**Key publications**


Excavation of a shipwreck near Rutten.
Highlighted

Computer models provide powerful tools to develop further understanding of patterns in the archaeological record and socio-cultural processes in the past. This volume, deals with the pressing issue of uncertainty in archaeological modelling. Detecting where and when uncertainty is introduced to the modelling process is critical, as are strategies for minimizing, reconciling, or accommodating such uncertainty. Included chapters, written by American and Dutch scholars, provide perspectives on uncertainty in archaeological modelling, ranging in both theoretical and methodological orientation. It is shown that there is no quick fix for uncertainty in archaeological modelling; indeed, each model requires intensive consideration of uncertainty and specific applications for calibration and validation.
3. GIA in society

**Arctic and Antarctic Studies**

The work of the Arctic Centre has direct societal relevance on several levels. Within the Netherlands, it provides expert scientific and policy-related advice on Arctic and Antarctic issues to several government ministries. Internationally, the work of the Arctic Centre ensures that the Netherlands makes an active and visible contribution to the Working Groups of the Arctic Council. These contributions are supported by a research subsidy from the Netherlands Ministry of Foreign Affairs, which was renewed in 2016, and will be worth 0.7 Million € over the next five years. The Arctic Centre also houses the Willem Barentsz Polar Network which is a Dutch national network of polar scientists. Locally, it runs 10 IMAKA lectures per year, which are directed at communicating recent developments in Polar research to the general public. The work of the Arctic Centre is widely reported in the media, thanks to energetic outreach efforts. For example, RTV Noord made a series of short films about the ecological fieldwork of Maarten Loonen on Spitsbergen (http://www.rtvnoord.nl/nieuws/165441). He was also interviewed by several Dutch newspapers about the first European climate refugees, which reached a total readership of some 1.2 million people.

![Maarten Loonen being interviewed for RTV-Noord.](image)

**List of key publications/activities**

- Steenhuisen (Arctic Centre) contributes to the Arctic Council's Arctic Monitoring and Assessment Programme (AMAP), whose mandate is to inform policy makers and the public about Arctic environmental issues. He serves in the AMAP Radioactivity Expert Group (much of the Arctic was polluted by weapons testing and the dumping of radioactive waste). Steenhuisen was co-author of this 2016 report, which presents in-depth analysis of the most important threats and developments, including the impacts of the 2011 Fukushima nuclear accident on the Arctic. It makes policy-related recommendations pertaining to actions required to reduce risks to Arctic ecosystems and indigenous peoples.
Classical and Mediterranean Archaeology

In 2016 the research group realized two exhibitions, one on Crustumerium in Copenhagen (highlighted below) and one on the archaeology of the Pontine marshes in the local museum of Pontinia near Latina (Italy). In the latter area the research group has been active ever since the late 1980’s within the framework of the Pontine Region Project. The exhibition was held in the local museum of the small agrotown of Pontinia, located in the fieldwork area and organized by CMA post-docs Tymon de Haas and Gijs Tol. The exhibition is part of the NWO landscape archaeological project “Fora, Stationes and Sanctuaries, the role of Minor Centres in the economy of Roman central Italy”. Both exhibitions were successful and ran for months on end attracting many visitors. CMA will continue to invest in exhibitions as an effective way to inform the public at large on the at times astonishing results of its projects. In 2016 a good number of popular scientific publications were made to make CMA’s results available to a broad audience. Martijn van Leusen participated in the realization of a book on the Atlas of Beckering, subject of an exhibition in the Groningen Museum.

List of key publications/activities


The Crustumerium exposition in the Ny Carlsberg Glyptotek.
Highlighted

On May 18th, “Crustumerium, Death and Afterlife at the Gates of Rome” opened in the famous art museum of the Glyptoteket in the centre of Copenhagen. The exhibition showed the excavations in the burial grounds of protohistoric Crustumerium CMA has been involved in since 2006, attracting thousands of visitors. Innovating was the installation of a laboratory where GIA staff carried out micro-excavations on so-called blocklifts, chunks of soil including artefacts and human skeletal remains too fragile to excavate in the field. The catalogue was prepared at the GIA appearing much in demand.

Greek Archaeology

Public outreach and the investigation of the role of archaeology in contemporary society remains a central component of the chair’s activities. Efforts are directed in two directions, in Sofia Voutsaki’s ethnographic survey in Ayios Vasilios and in Lidewijde de Jong’s initiatives to increase public awareness of the vulnerability of the archaeological heritage in times of conflict. The ethnographic survey in Ayios Vasilios explores the ways the past is perceived and experienced by the local inhabitants in the region of Laconia, a region with a problematic and loaded relation to its past, but also how attitudes to the past are redefined in a period of growing nationalism, financial uncertainty and political polarization. Preliminary results were presented at the EAA meeting.

Lidewijde de Jong is engaged in a series of initiatives developed to increase public awareness of the vulnerability of archaeological heritage in the Middle East. A public lecture about the documentary The Destruction of Memory delivered at the Dutch International Science
Film Festival in Nijmegen (InScience) focused on the violence against archaeological heritage as deliberate acts of war. Two public lectures on Palmyra provided a critical discussion of the benefits and drawbacks of virtual (3D) reconstructions of the damaged archaeological heritage at this site.

List of key publications/activities

Palmyra provided a critical discussion of the benefits and drawbacks of virtual (3D) reconstructions of the damaged archaeological heritage at this site.

Commentary/public lecture by Lidewijde de Jong on the documentary *The Destruction of Memory* for the InScience - Dutch International Science Film Festival in Nijmegen.

Lecture on Palmyra by Lidewijde de Jong (Opening lecture of the Academic year, Classical Studies at the University of Groningen).

Lecture on Palmyra by Lidewijde de Jong at an informational session for future students.

Paper by Sofia Voutsaki on archaeology, heritage and sustainable development in Laconia at session *Archaeology and Heritage on the Way to Sustainability* in EAA meeting.


Highlighted

Commentary/public lecture by Lidewijde de Jong on the documentary *The Destruction of Memory* for the InScience - Dutch International Science Film Festival in Nijmegen

This lecture and Q&A followed a public viewing of the documentary *The Destruction of Memory* (director: Tim Slade). This documentary discusses violence against cultural heritage as an integral part of warfare, and the limitation of the current legal framework to address and prevent such destruction. The lecture focused on the example of ancient Palmyra, and the damage to its archaeological and ethnographic remains due to shelling, plunder, and deliberate destruction. The lecture highlighted the unique character of Palmyra on the crossroads of several cultural traditions of the past, as well as its place in contemporary Syrian history.
Prehistory and Protohistory of Northwest Europe

Archaeological research in the northern Netherlands started in Groningen with the establishment of the Biologisch-Archaeologisch Instituut in 1920. Ever since that time, the university has been a leading player in archaeological research and heritage management in the region. The chair group aims to maintain this tradition of regionally embedded research and outreach, but expands its expertise at a national and international level.

Because a safe future for archaeological remains in situ cannot be taken for granted, the chair group continues to engage in activities aimed at a stronger support base for the sustainable preservation of archaeological heritage by means of various activities. We work towards this goal by presenting our research to wider society via publications, lectures, public media (television, radio, newspapers), as well as involvement in ‘commercial’ projects, for instance as member of an advisory board.

In 2016 several projects were undertaken in which staff members played a key role. Schepers developed a ‘wierden-menu’ (terp-mound menu) in cooperation with Café Hammingh. The publication of a scientific paper on the diet of Mesolithic hunter-gatherers that once lived in the North Sea basin (Doggerland), as well as the development of an ‘archaeology map’ for the Dutch sector of the North Sea with the involvement of Peeters attracted attention from several media, notably in the Science Supplement of one of the leading newspapers (NRC Weekend).

List of key publications/activities
Meijles, E., Aalbersberg, G. & Groenendijk, H. 2016, Terp composition in respect to earthquake risk in Groningen. NAM.
Van Holk, A., Prummel, W. & de Roever, J.P. (eds), Swifterbant Pionieren in Flevoland 6500 jaar geleden. Barkhuis Publishing & Groningen University Library.
In the context of the NWO-Veni project ‘Fields of opportunity’, Mans Schepers initiated an activity focussed at the development of awareness among inhabitants and visitors of the terp-mound region about the range of edible resources present in these parts in late prehistoric and historic times. The initiative involved the cooperation between the Museum Wierdenland, Café Hammingh, and the GIA. Café Hammingh served a menu composed of ingredients which were regionally available in the past, and archaeological information was provided on specially designed place-mats with four themes: wild plants, crop cultivation, animal husbandry, and hunting & fishing. This was complemented by an archaeological exhibition at Museum Wierdenland, where visitors had the opportunity to identify plant remains with a microscope.
Narrative
Among the many research projects the following is highlighted to give an idea of the cross-pollination of academic research and societal relevance.

Ayios Vasilios: Between olive trees and ancient legends
In Homer’s Iliad, Helena, the beautiful queen of Sparta, was taken away from her husband Menelaos’ palace by the Trojan prince Paris. This incident started the Trojan war. It is a mythical story, but if it had any historical ground, the palace of Menelaos may have been situated at about 12 km south of Sparta. Today, this is the location of the chapel of Ayios Vasilios, surrounded by olive orchards. This is where Corien Wiersma carries out her NWO VENI project, the surface survey of the Ayios Vasilios hill. The survey is co-directed by Sofia Voutsaki (GIA) and Adamantia Vasilogamvrou (Emerita, Archaeological Service, Ministry of Culture).

The survey is part of the Ayios Vasilios Project, directed by A. Vasilogamvrou and carried out under the auspices of the Archaeological Society at Athens. The excavations at Ayios Vasilios are considered one of the most significant archaeological projects in the world. Is that because of the story about Helena and Menelaos? Corien laughs: “No, archaeologists are generally not very keen on those associations. The excavation is very important because it has brought to light an impressive palatial complex with rich finds, which is currently excavated by A. Vasilogamvrou and her team. However, the general public are more likely to think of Homer’s epic - or of the Hollywood movie about Troy! We understand that this kind of stories provide the audience with an image of this time and region which will be stronger than our description of a palace dating to the Late Bronze Age (around 1400 BC). However, Helena’s story is a myth and that is not what we are after. Archaeologically it is interesting, because few palaces from this period are well documented. Some palaces were excavated in the late 19th or early 20th century, while now we are able to find out much more thanks to modern excavation techniques. In addition, research used to focus only on the elite, monumental structures and precious finds. Nowadays, we take the surrounding settlement into account as well, and we also try to reconstruct the life of ordinary people.”
Corien Wiersma is responsible for the surface survey around the palace site, which is combined with a geophysical prospection carried out by Wieke de Neef (University of Ghent). The aim of the project is to map the extent of the settlement and its growth through time by using non-invasive methods. The results will also be invaluable for the management of the site. “We have to map the archaeological remains very well. That way, we know where we should dump the soil from the excavation, or where a car park can be placed in the future. Indeed the results from the survey will provide the basis for a site management plan in order to make the site accessible for the public while ensuring the protection of the remains.”

Contact with the local community is essential

Land can be expropriated if it turns out that it contains important archaeological finds. At the same time, the land has often been owned by a family for generations and is a source of income for the farmer. Wiersma: “I do understand that it makes the locals a little nervous when archaeologists appear. In Greece it is often very hard to determine who owns which plot. That’s why we organised a village meeting to inform everybody about our plans. That contact proved valuable to us as well. In our survey we systematically walked the fields and counted the sherds on the surface, estimating the extent of habitation. In one specific area, we found no sherds, but the farmer told us they were present in deeper layers. He had come across a considerable amount of sherds when he planted new trees some 50 years ago.

The local community is very welcoming and interested. Even emigrants from the area, who now live in Canada, are actively involved in raising funds for the excavation. We always work with a mixed group of Groningen and
Greek students. I find it important to work together with Greeks, because it is their heritage, and we are their guests. We have also organised educational activities with the primary school of the neighbouring village.

Admittedly, there may be some tension between what you tell the local inhabitants, and what you leave out. You want people to be proud of their environment and to help protecting their own heritage. At the same time, you do not want to attract treasure hunters.”

A broader perspective
Sofia Voutsaki, the co-director of the survey, argues that it is no longer fitting to employ an isolated approach.

“We are not here only to do archaeology. We also need to explore the context within which we work. Because of the excavation, all of a sudden the village receives a lot of attention as well. How does this impact the inhabitants? What do they think about archaeology, or about the past? Together with anthropologist Tryfon Bampilis we plan an ethnographic survey which will involve interviewing the local inhabitants. Also, together with film maker Filippos Koutsaitis we are working on a documentary based on these interviews. Indeed, the area we are working in, Laconia, has a complex and loaded relationship with the past – both ancient Sparta, the city which has fed the European imagination since the French Revolution but also inspired the Nazi ideology, and the ruins of byzantine Mystra, which attract thousands of tourists every year, are only some 12-15 km away. This area also carries the traces of a recent violent past, the Greek civil war (1945-1949: 160,000 victims), while nowadays the population is affected by the economic crisis and migration. The extremist Golden Dawn, which is partly inspired by ancient Sparta, is very popular in the region. We hope that our dialogue with the local people will offer them a better understanding of the past and an opportunity for the future: An archaeological site in this beautiful environment offers great possibilities for sustainable development – for instance, in cultural or natural tourism.”