

GIA ANNUAL REPORT 2018

	I. About GIA I.I GIA's mission I.2 Who are we? I.3-I.6 Research groups I.7 PhD programme I.8 Research integrity I.9 Our aims and ambitions I.10 GIA Staff	2 4 8	
THE PERSON NAMED	I.II Funding		
	2. Research within GIA 2.1 Publications edited and issued by GIA 2.2 Arctic and Antarctic Studies 2.3 Classical and Mediterranean Archaeology 2.4 Greek Archaeology 2.5 Archaeology of northwestern Europe	10 11 13 15	
	3. GIA in society 3.1 Arctic and Antarctic Studies 3.2 Classical and Mediterranean Archaeology (CMA) 3.3 Greek Archaeology 3.4 Archaeology of northwestern Europe	19 21 22	
	4. Narrative Traditions in times of change		



FOREWORD

The annual report is the place par excellence to look back on the previous year. 2018 was a year of major changes in the staffing of the institute. As of March 1, Sarah Willemsen handed over her work as coordinator to Flip Kramer, after three years of supporting the director and playing a central role in our institute's series *Palaeohistoria* and *Paleo-aktueel*. Peter Attema stepped down as director on September 1 and turned over the directorship to Daan Raemaekers. I would like to thank Peter for his management and energy, and look forward to upholding the quality of our research.

In October, our financial manager Fester Possel left GIA. This set off a complete re-arrangement in the financial support structure and a long period of difficult financial management. In due course, the GIA management from early 2018 has been fully replaced and the new team are ready to face the upcoming Midterm Review of our research in the autumn of 2019.

Fortunately, in terms of research 2018 was very much 'business as usual'. There were two PhD defences. Eleni Panagiotopoulou defended her work on diet and mobility in Bronze Age and Early Iron Age Greece, and Jorn Seubers defended his PhD on the development of Crustumerium and its environs between 850 and 300 BC in Central Italy. Six new PhD projects started, and we were able to secure more than €700k in grants. The number of publications was very similar to the average annual output of recent years. 2018 also saw the publication of volume 59/60 of our biennial journal Palaeohistoria. This annual report will offer the reader a good insight into our research highlights. Over the last few years our Dutch-language annual journal Paleoaktueel has developed into a platform not only showcasing our current research for a wide audience, but also holding more and more contributions that deal with the societal relevance of archaeology.

Daan Raemaekers, director

I. 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.

The GIA investigates the development of human societies from a uniquely long-term perspective. GIA staff are convinced that insights from the past also have relevance to present-day debates and the resolution of future challenges. GIA strives to contribute to the regional, national and international recognition of University of Groningen as a leading research university.

I.I GIA's Mission

The core mission of GIA is

- to conduct innovative, ethically-informed research that has high visibility and impact;
- to provide a supportive environment in which researchers perform at their full potential;
- to 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), northwestern 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.

I.2 Who are we?

The Groningen Institute of Archaeology comprises four chair groups: Arctic and Antarctic Studies, Classical and Mediterranean Archaeology, Greek Archaeology and Archaeology of Northwestern Europe. These link into the University of Groningen's educational departments of Archaeology and the Arctic Centre. The GIA operates as an integrated research community engaging with common research themes. The coordinators of the chair groups are full professors and form the GIA Management Team. The Management Team is supported by an Advisory Board, which consists of a representative selection of GIA staff. Members of the technical staff support GIA's research activities and fieldwork projects. The GIA maintains laboratories in Zooarchaeology, Archaeobotany and Conservation and Material Culture Studies (LCM).

Within the RUG, the GIA participates in the Graduate School for the Humanities of the Faculty of Arts, providing



the institutional setting for GIA's PhD training programme and the two-year Research Master programme in 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; as of 1 September 2018, Prof. Dr D.C.M. Raemaekers

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)
- Archaeology of northwestern Europe (Prof. Dr D.C.M. Raemaekers)

Research coordinator

Dr S.L. Willemsen; as of 1 March 2018, F. Kramer MA

Management Team

Prof. Dr P.A.J. Attema (chair until 1 September 2018),

Prof. Dr R.T.J. Cappers,

Prof. Dr P.D. Jordan,

Dr J.H.M. Peeters (until 1 September 2018),

Prof. Dr D.C.M. Raemaekers

(chair as of 1 September 2018),

Prof. Dr S. Voutsaki

Advisory Board

Prof. Dr P.D. Jordan (chair),

Dr C. Çakirlar,

Dr L. de Jong,

Dr P.M. van Leusen,

Dr M.J.J.E. Loonen



The landscape around Halos, Greece.





The Arctic has been occupied by different cultures for thousands of years. An Inuit family moves their boat across the summer pack ice toward open water off Igloolik Island, central Nunavut, Arctic Canada (photo Sean Desjardins).



Archaeological sites in the Arctic are often exceptionally well preserved but just reaching them can present major logistic challenges. A Twin Otter aircraft landing on the beach ridge at the archaeological site of Pingiqqalik (NgHd-I), central Nunavut, Arctic Canada (photo Sean Desjardins).

I.3 Arctic and Antarctic Studies

The AAS Research Group is based at the Arctic Centre, which was founded in 1970, and researches long-term human-animal-environment interactions in the Circumpolar 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-ecological systems. The Arctic Centre investigates these issues on

three interlocking timescales: palaeo, contemporary and future/predictive. In addition to conducting fundamental interdisciplinary research in the Polar Regions, Arctic Centre staff contribute to policy-driven debates in the Netherlands and internationally. Staff serve as expert advisors in all the main international Polar Science organisations, including the Scientific Working Groups of the Arctic Council (Conservation of Arctic Flora and Fauna (CAFF); the Arctic Monitoring and Assessment Programme (AMAP) and the Sustainable



The Arctic is getting 'greener' - these whale bones left by I7th-century European whalers on the beaches of Svalbard are now carpeted with vegetation which will accelerate their decay. Climate change is transforming the Polar Regions, generating both opportunities for shipping, tourism and resource extraction, but also major challenges for traditional economies and cultural heritage (photo Annette Scheepstra).





Crustumerium: GIA students digging the pars rustica of a Roman imperial villa.



Martijn van Leusen and Sander Tiebackx taking samples for Magnetic Susceptibility analysis from the first visible level of rubbish pit 245d at Monte San Nicola.

Development Working Group (SDWG)). They also represent the Netherlands in the Council of the International Arctic Science Committee (IASC) and its Social and Human Working Group. The Arctic Centre runs a thriving programme of fieldwork in archaeology, historical ecology, biology and pollution studies, and the staff manage the Netherlands Arctic Station on Svalbard. The Arctic Centre participates in three large Horizon2020 projects (ArchSci2020, EU-PolarNet, INTERACT II) and hosts a large community of PhDs, PostDocs and Visiting Research Fellows.

I.4 Classical and Mediterranean Archaeology (CMA)

CMA has a long-standing and firmly established tradition in Italian field archaeology. Its interdisciplinary projects in Central and Southern 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



Crustumerium: looking northwards from the excavation of the protohistoric mound 'Quilici O' to the Roman villa excavation.



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 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 Timpone della Motta (Calabria) and Satricum excavations (South Lazio). Its members have a strong track record in obtaining research funding and attract good numbers of bachelor and master students, PhD and postdoctoral researchers, all of whom play a central role in its research and valorization activities.

I.5 Greek Archaeology

The research activity 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



Corien Wiersma and team members at Ayios Vasilios.

international field projects in Greece, Turkey and the Middle East. They maintain an explicitly theoretical and interdisciplinary approach, combining archaeological, bioarchaeological, historical, iconographic and epigraphic data. Mortuary studies form a central theme in the chair group, as well as domestic 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



Arnoud Maurer at the Mavrikopoula swamp in the Othrys area.



heritage management in areas affected by warfare, political instability and financial crisis. Members of the chair group collaborate with the Departments of Ancient History and Classics, the Faculty of Religious Studies, the Centre for Isotope Research, as well as institutions in France, Greece, Turkey, and the United States. Greek Archaeology at the GIA is fast establishing a reputation as a centre of international excellence for methodologically innovative, theoretically sophisticated and socially engaged research.

I.6 Archaeology of northwestern Europe

In 2018 the chair group of 'Prehistory and Protohistory of Northwest Europe' was renamed 'Archaeology of northwestern Europe'. The chair group also includes GIA's bioarchaeology research, which is carried out in northwestern Europe, but also in the other GIA research regions. Our research focuses on long-term socio-cultural dynamics from Late Palaeolithic to early historical times. One line of research targets the economic and social/cosmological use and meaning of prehistoric cultural landscapes. Projects include long-term use and perceptions of landscapes by postglacial hunter-gatherers, the socio-economic role of crop cultivation and animal husbandry within the Swifterbant Culture, and the early agriculture of 'Celtic fields'. Another research focus deals with the late-prehistoric



Fieldwork in the Black Sea area of Turkey. Sacks are filled with chopped Esparcet (*Onobrychis viciifolia*), which will be stored at the farmhouse as fodder. In recent years, Esparcet has become a rare fodder crop. The chopped plant has been sampled for the GIA reference collection (Yazlik, August 2018).

and historical coastal and maritime cultural landscape, which in the northeastern Netherlands means the occupation history of the terp-mounds and peat districts, and their embedding in wider regional and international spheres of interaction. The chair group believes that it not only has a duty to conduct research of international interest and significance, but also that it has an important role to play in the debate about how archaeological research can contribute to contemporary society, regionally, nationally, and internationally.



Photo taken during a survey in Ald Terp, (Friesland, the Netherlands). The survey is part of the PhD research of Angelique Kaspers (photo A. Kaspers, RUG/GIA).



I.7 PhD programme

Chair groups of the Groningen Institute of Archaeology regularly have new openings for PhDs. These arise 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 typically are a combination of modules offered by the Faculty's Graduate School for the Humanities, the national research school ARCHON, and training modules tailored to the individual PhD student's requirements. The GIA offers first-rate supervision, research facilities and technical support, and maintains a dynamic yet supportive academic culture. It also facilitates and supervises self-funded PhD researchers.

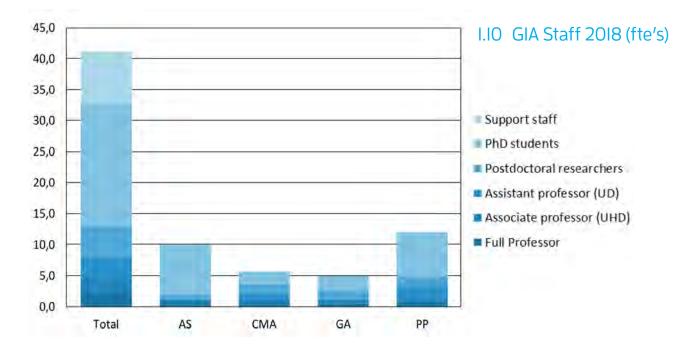
I.8 Research Integrity

The quality of research conducted at the Groningen Institute of Archaeology is assessed by 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, as well as reliability, verifiability and independence in research. As part of GIA's appointment procedures, 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.

1.9 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, in a spirit of collaboration with other partners both within and outside academia. The main domains of study are 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 valorization 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 the institute can fund only a small part of GIA's activities, GIA staff are very active - and successful - in attracting external funding.





I.II GIA Funding 2018

Project funding

Project title	Applicant	Financer	Amount in k€
Pigs, people and politics in the late Bronze Age- Early Iron Age Aegean (PhD)	D.C.M. Raemaekers	NWO	228
Limited choices, lasting traditions (Post-doc)	S.P.A Desjardins	NWO	250
Palynological research pingo scar Quatre Bras	D.C.M. Raemaekers	Province of Friesland	20
Synthese: Noord-Holland in the first millennium AD	J.A.W. Nicolay	Province of Noord-Holland	34
Excavation Rutten - Shipwreck NK 47-II	Y.T. van Popta	Municipality of Noordoostpolder	78
		Subtotal project funding	609

Direct funding

Project title	Applicant	Financer	Amount in k€
Archaeozoology terp excavations	G.J. de Langen	Province of Friesland	9
Pollen analysis cesspits Delft	M. Hondelink	Groningen University Fund	3
COST action 17131 'SAGA'	P. M. van Leusen	European Union	13
Horizon 2020 INFRAIA action 'ARIADNEplus'	P. M. van Leusen	European Union	61
14C dates PhD project	K. de Vries	Foundation National Museum Anthropology and Prehistory	4
Fieldwork Oldeboarn	G. de Langen	Province of Friesland	1
Contribution ARCHON conference	C. Çakirlar	Amsterdam University	1
Participation in meeting Arctic Frontiers - Emerging Leaders	M. Admiraal	Dutch ministry of Foreign Affaris	3
Participation in meeting Arctic Frontiers - Emerging Leaders	M. Admiraal	Willem Barentsz Foundation	0,4
Contribution to conference costs	M. Admiraal	Dr. C. van Tussenbroek Foundation	1
		Subtotal direct funding	95

Total	704



2. RESEARCH WITHIN GIA

GIA research output 2018	
Refereed article	36
Non-refereed article	5
Chapter	34
Book	2
Professional publication	46
Popular publication	9
Review	8
Edited journal	3
Edited book	4
Doctoral thesis	2
Total	149

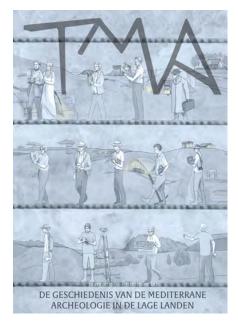
2.I Publications edited and issued by GIA

On GIA's annual Research Day in December 2018 we presented the latest issue of our peer-reviewed, scientific journal *Palaeohistoria* (vol. 59/60), as well as the annual issue of our popular outreach journal *Paleoaktueel* (vol. 28). Also noteworthy in 2018 are the two issues of *Tijdschrift voor Mediterrane Archeologie* (nos 59 and 60). *TMA* is edited by researchers and students at the GIA and contains papers by early-career researchers, with updates on new research projects across the Mediterranean. *TMA* enjoys a substantial academic readership in the Netherlands and Belgium.













Clusters of prehistoric house pits are visible in the sequence of raised premodern shorelines at Taborshamn, southwestern Sørøya Island, Arctic Norway. Changes in the prevalence of such features over time suggest major fluctuations in prehistoric population levels (photo Marianne Skandfer).



Eirik Haug Røe excavating prehistoric house pits with colleagues from the University of Tromsø (photo Peter Jordan).



Examples of clothing recovered in the early 1980s from the graves of European whalers who were buried on Svalbard in the 17th century. Arctic cultural heritage is disappearing fast owing to the impact of modern climate change, but the processes involved are poorly understood. Maarten Loonen has been awarded funding to conduct fieldwork and controlled experiments on Svalbard to investigate how melting permafrost is affecting the remaining graves. The results will inform future research and conservation strategies (photos Ben Bekooy).

2.2 Arctic and Antarctic Studies

In 2018, Arctic Centre staff conducted fieldwork across the Circumpolar North. Sean Desjardins worked with the Foxe Basin Inuit community to investigate early 20th-century settlement and subsistence strategies, combining archaeological surveys with archival research and interviews with elders. In Arctic Norway, Eirik Haug Røe and Peter Jordan joined colleagues from Tromsø University to excavate prehistoric house pits on Sørøya Island, part of a larger project investigating long-term human ecodynamics in the European Arctic. At the Netherlands Arctic Station, Maarten



The Dutch scientists and students staying at the Netherlands Arctic Station in Ny-Ålesund, on Spitsbergen (Svalbard), in August 2018. Loonen (on the right) is in charge of safety, logistics and scientific coordination to all research projects at the station (photo credits www.poolstation.nl).



Loonen investigated how warmer climates affect the behavioural ecology of migratory birds. Members of ArchSci2020 had a busy year, completing their 12-month secondments in Copenhagen, Groningen, Stockholm and York. The Arctic Centre also received major new funding: Sean Desjardins was awarded an NWO Veni grant to investigate long-term resilience in Foxe Basin Inuit communities; Maarten Loonen received funding from the Svalbard Environmental Protection Fund to investigate the various forms of impact of melting permafrost on Arctic cultural heritage; Peter Jordan was awarded a JSPS Invitational Research Fellowship to conduct research at Hokkaido University in 2019-2020. The JSPS also funded a new International 'Coreto-Core' Network in Indigenous Studies and Cultural Diversity (the Arctic Centre serves as the Netherlands Research Core). SSHRC (Canada) funded a major international consortium which will investigate prehistoric hunter-gatherer archaeology in Siberia, and provides matching funds for several new PhDs (the Faculty Board committed 'sandwich bursaries' to launching three new PhDs in 2019). Finally, Anna-Kaisa Salmi (University of Oulu) spent three months at the Arctic Centre as Visiting Research Fellow.

Key Publications

Admiraal, M., A. Lucquin, M. von Tersch, P. Jordan & O.E. Craig, 2018. Investigating the function of prehistoric stone bowls and griddle stones in the Aleutian Islands by lipid residue analysis. *Quaternary Research* (June 2018). https://doi.org/10.1017/qua.2018.83

Keighley, X., M.H. Bro-Jørgensen, P. Jordan & M.T. Olsen, 2018. Ancient pinnipeds: what paleogenetics can tell us about past human-marine mammal interactions. *SAA Archaeological Record* (September 2018) 38-45. *Academy of Science of the United States of America*, 115 (31) 7931–7936.

Brink, N.W. van den, I.B.R. Scheiber, M.E. de Jong, A. Braun, A. Arini, N. Basu, H. van den Berg, J. Komdeur, M.J.J.E. Loonen, 2018. Mercury-associated neurochemical response in Arctic barnacle goslings (*Branta leucopsis*). *Science of The Total Environment* (624) 1052-1058. https://doi.org/10.1016/j.scitotenv.2017.12.191.

Scheiber, I. B. R., B.M. Weiß, M.E. de Jong, A. Braun, N.W. van den Brink, M. J. J. E. Loonen & J. Komdeur, 2018. Stress behaviour and physiology of developing Arctic barnacle goslings (*Branta leucopsis*) is affected by legacy trace contaminants. *Proc. R. Soc. London B: Biological Sciences* 1893 (285). https://doi.org/10.1098/rspb.2018.1866

Highlighted

Desjardins, S.P.A., 2018. Neo-Inuit strategies for ensuring food security during the Little Ice Age climate-change episode, Foxe Basin, Arctic Canada. *Quaternary International* https://doi.org/10.1016/j.quaint.2017.12.026.

Inuit communities occupy large tracts of the modern Arctic. They all trace their ancestry directly back to Thule Culture, which emerged in the Bering Strait and expanded rapidly across the Eastern Arctic around AD 1200 during a period of warmer climates and reduced sea ice. The Thule brought with them a new kind of lifestyle, which involved exploitation of bowhead whales and supported large village-based communities. However, shortly after arrival, these Thule colonists were heavily impacted by the onset of the Little Ice Age (AD 1300-1900), which increased sea ice and threatened access to their main food resource. This study investigates how Foxe Basin Thule Inuit communities developed resilience to the colder environmental conditions by shifting their hunting efforts to walrus and developing new storage strategies. By contrast, most other Thule groups underwent major transformation, switching to small bands that were highly nomadic.



Walrus relaxing at an Arctic haul-out site (photo Frits Steenhuisen).



2.3 Classical and Mediterranean Archaeology (CMA)

In 2018, CMA research staff, postdocs and PhDs carried out field research in Central and Southern Italy and worked on various digital projects and publications. During summer, a team of staff and students uncovered a large Roman villa at Crustumerium (north of Rome) and studied the complex stratigraphy of a protohistoric mound with embedded tombs, earthworks and terrace walls. Meanwhile, GIA's support staff worked on the conservation, restoration and drawing of the artefacts recovered in 2017.

South of Rome research into the human environment of the Pontine Region continued, focusing on palaeoenvironmental reconstructions and the excavation of a prehistoric cave and salt-production site, respectively. In Southern Italy a team excavated the remains of a Final Bronze Age settlement as part of the Raganello Archaeological Project.

Two international workshops were organized in the framework of the NWO-funded digital data integration project "Integrating field surveys, Rome and Beyond", a big-data project that aims at merging data from three major landscape-archaeological projects to facilitate socio-economic and demographic analysis of the ancient hinterland of Rome. In preparation of the third and final book publication on the excavations carried out at protohistoric Satricum in the 1980s, the remaining analogue records (find recording sheets, field drawings) were digitized for stratigraphic analysis and interpretation.

A new publication initiative is the 'Archaeological Illustrated Manual' (AIM) in collaboration with Groningen University Press (GUP).

In 2018, KMA welcomed a new PhD student, Remco Bronkhorst. He will study the urban and rural economy of Latium during the Archaic period, on the basis of excavation and survey data.



Crustumerium: GIA student Renée de Vries digging a trench in the protohistoric mound 'Quillici O'.



Crustumerium: GIA students digging a trench in the protohistoric mound 'Quilici O'.



Key publications

Attema, P.A.J., 2018. Urban and Rural Landscapes of the Pontine Region (Central Italy) in the Late Republican period. Economic growth between colonial heritage and elite impetus. *Bulletin Antieke Beschaving* 93, 143-164.

Leusen, P.M. van & G.R. Nobles, 2018. 3D Spatial Analysis: the road ahead. In: Matsumoto, M. & E. Uleberg (eds), 2018. CAA2016: Oceans of Data: Proceedings of the 2016 Annual Conference on Computer Applications and Quantitative Methods in Archaeology Archaeopress, pp. 471-478.

Nijboer, A.J., 2018. Across cultures: The introduction of iron in the western Mediterranean, 10th and 9th centuries BC. In: Bentz, M. & T. Helms (eds), 2018. *Craft production systems in a cross-cultural perspective.* "Studien zur Wirtschaftsarchäologie" (Studies on Economic Archaeology), Vol. I, Verlag Dr. Rudolf Habelt GmbH, Bonn, pp. 61-81.

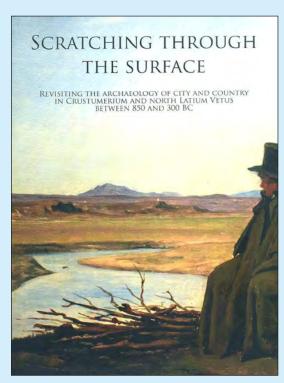
Nijboer, A.J. 2018. Diversity in death: a construction of identities and the funerary record of multi-ethnic Central Italy from 950 to 350 BC. In: Edward Herring & Eòin O'Donoghue (eds), 2018. *Papers in Italian Archaeology* VII: The Archaeology of Death. Proceedings of the Seventh Conference of Italian Archaeology, held at the National University of Ireland, Galway, April 16-18, 2016. Oxford, Archaeopress Archaeology, pp. 107-127.

Tol, G.W., T.C.A. de Haas, P.A.J. Attema & K. Armstrong, 2018. The late Roman and medieval settlement of Astura (Lazio, Italy): a synthesis of GIA investigations 2005 -2014, *Palaeohistoria* 59/60 (2018) 167-189.

Plicht, J. van der & A.J. Nijboer, 2018. Around 1000 BC; absolute dates for the Final Bronze age — Early Iron age transition in Italy: wiggle match 14C dating of two tree-trunk tombs from Celano. *Palaeohistoria* 59/60 (2018) 99-108.

Highlighted

On 11 October 2018, GIA PhD Jorn Seubers received his doctoral degree for the thesis Scratching through the Surface, iting the archaeology of city and country in Crustumerium and north Latium Vetus between 850 and 300 BC. Alongside Sarah Willemsen's thesis on the funerary record of Crustumerium, completed in 2014, Seubers' thesis deals with the settlement record of this important protohistoric settlement north of Rome. On the basis of his own fieldwork and an evaluation of all previous archaeological work at the site, Seubers reconstructs the occupation of Crustumerium's urban area and its surrounding countryside from the foundation of this settlement around 850 BC to its abandonment around 500 BC.



Cover of Seubers' thesis Scratching through the Surface.

A major achievement in 2018 was the submission and acceptance by the top-rated journal *Quaternary International* of the proceedings of the international expert meeting on "Distal impacts of major volcanic eruptions on pre-industrial societies in the Mediterranean" held in June 2016 in the Observatory on mount



Vesuvius (eds Jan Sevink, Mauro A. di Vito, Martijn van Leusen, Michael H. Field). This publication has appeared in early 2019 and will be presented at the Royal Netherlands Institute at Rome (KNIR) and the Istitituto Nazionale di Geofisica e Vulcanologia (INGV). For one month in the autumn of 2018, Peter Attema acted as visiting professor to the Dipartimento di Studi Umanistici of the Roma Tre University, teaching and participating in a sequence of research seminars on landscape archaeology.

Martijn van Leusen joined the ARIADNE+ project, which is part of the Horizon2020 Infrastructure programme, supported with a € 60k budget to further the implementation and testing of an open-data solution for the sharing of archaeological fieldwalking datasets across Europe, using the CIDOC CRM approach. He also received € 12k for SAGA, a COST networking programme tasked with promoting interdisciplinary collaboration between soil scientists, archaeologists and geophysicists.



autumn 2018

2.4 Greek Archaeology

The excavations of the North Cemetery and the Ayios Vasilios Survey were completed. The results cast light onto the rise of Ayios Vasilios and force us to reconsider established ideas about the political organisation of the Mycenaean world. Corien Wiersma spent a study season at Ayios Vasilios. Sofia Voutsaki initiated the Halos Landscape project, a 5-year multidisciplinary project focusing on the reconstruction of landscape changes around Halos, Thessaly, by means of pollen analysis and the study of plant remains and animal bones from the sites of Old and New Halos.

Lidewijde de Jong started the second phase of the 'Funerary Life in Pisidia' project with colleagues from Isparta University (Turkey), aimed at mapping, excavating and analysing the funerary remains of Seleukeia Sidera. She also completed the prototype of the integrated database *Digital Tombs*, in collaboration with colleagues from the Geodienst (RUG). Rocco Palermo studied the Hellenistic ceramic assemblages of several projects in northern Iraq.

Iris Rom continued her research on burials of the Bronze Age in Western Greece and Vana Kalenderian worked on her PhD thesis on mortuary customs in Roman Beirut. Olivia Jones submitted a final draft of her doctoral thesis and was the lead bioarchaeologist on three excavation projects in Greece. Eleni Panagiotopoulou defended her PhD thesis on multi-isotopic analyses in Early Iron Age Thessaly.

Three new PhD students, addressing a wide range of topics and approaches (Theo Verlaan, emergence of imagery in the Bronze Age Greek mainland; Dimitris Filioglou, animal economy in Classical-Hellenistic Halos; Chryssa Vergidou, bioarchaeological analyses of human remains from Roman Macedonia) joined the research chair.



Fieldwalking, the Ayios Vasilios survey, Greece



Key publications

Jones, O.A., 2018. Demography and burial exclusion in Mycenaean Achaia, Greece. *Journal of Greek Archaeology* 3, 75-94.

Jong, L. de, 2018. Death and burial in early Palmyra. Reflections on urbanization, imperialism, and the creation of memorial landscapes. In: C. Eger & M. Mackensen (eds), Death and Burial in the Near East from Roman to Islamic Times. Research in Syria, Lebanon, Jordan and Egypt, Reichert Verlag, Wiesbaden, 11-28.

Palermo, R., 2018. After the Empire: Archaeology of the Achaemenid and Hellenistic Period in the Heartland of Assyria. In: B. Genito & G. Maresca (eds), *The Archaeology of the Achaemenid World in Light of the Ceramic Traditions*, Università degli Studi di Napoli "L'Orientale", Napels, 134-158.

Panagiotopoulou, E., J. Montgomery, G. Nowell, J.L. Peterkin, A. Intzesiloglou, P. Arachoviti, S. Katakouta & F. Tsiouka, 2018. EIA Population Movements In Thessaly Detected With Sr Isotopic Analysis. *European Journal of Archaeology* 21-4, 1-22 (open access).

Voutsaki, S., Y. van den Beld & Y. de Raaff, 2018. Labour mobilization and architectural energetics in the North Cemetery at Ayios Vasilios, Laconia, Greece. In: A. Brysbaert, V. Klinkenberg, A. Guttierez Garcia & I. Vikatou (eds), Constructing monuments, perceiving monumentality and the economics of building. Theoretical and methodological approaches to the built environment. Leiden, Sidestone Press, 169-191.



Screenshot of the Digital Tombs Database

Highlighted

Panagiotopoulou, E., J. Montgomery, G. Nowell, J.L. Peterkin, A. Intzesiloglou, P. Arachoviti, S. Katakouta & F. Tsiouka, 2018. EIA Population Movements In Thessaly Detected With Sr Isotopic Analysis. *European Journal of Archaeology* 21-4, 1-22 (open access).

This article presents evidence of population movements in Thessaly, Greece, during the Early Iron Age (11th-9th centuries BC). The method employed to detect non-local individuals is strontium isotope analysis of tooth enamel, integrated with the contextual analysis of mortuary practices and osteological analysis of the skeletal assemblage. During the Protogeometric period, social and cultural transformations occurred while society was recovering from the disintegration of the Mycenaean civilization in the 12th century BC. The analysis of the cemeteries of Voulokaliva, Chloe and Pharsala, located in southern Thessaly, showed that non-local individuals became integrated in the communities and contributed to the observed diversity in burial practices and to the redevelopment of social organization.



The 2018 publication of the *European Journal of Archaeology* includes an article by Eleni Panagiotopoulou.



2.5 Archaeology of northwestern Europe

One of the most visible parts of our research in 2018 was the excavation of a shipwreck from the first quarter of the 18th century by Y. van Popta. The excellent preservation of the ship and its accompanying finds was a great help in attracting media attention over the summer. Visibility of research can also be achieved through high-impact publications. A publication in Science Magazine, co-authored by C. Çakirlar, argued that the modern goat is the genetic outcome of plural processes of domestication in different regions. A. Nieuwhof took another pathway to high visibility. In a study with P. Vos (Deltares), she combined archaeological and geological data to study regional variation in sea-level rise in the Dutch Wadden Sea. The authors concluded that the present-day differences in Mean High Water levels between the western and eastern part where already present in the first millennium BC. A final example is S. Arnoldussen's overview article on his Celtic Field excavations. He proposes that the archaeobotanical remains from these fields are not to be interpreted as evidence of local cultivation, but reflect non-local settlement proxies, brought to the fields together with the excrement-rich sods used for manuring the fields.



Excavation trench of the Celtic fields of Someren - De Hoenderboom (published as *Grondsporen* report 40 in 2018).

Key publications

Arnoldussen, S., 2018. The fields that outlived the Celts. The use-histories of Dutch later prehistoric field systems (Celtic fields or raatakkers) in the Netherlands. *Proceedings* of the Prehistoric Society 84, 303-327

Birch, S.P., A. Scheu, M. Buckley & C. Çakirlar, 2018. Combined osteomorphological, isotopic, aDNA, and ZooMS analyses of sheep and goat remains from Neolithic Ulucak, Turkey. *Archaeological and Anthropological Sciences*, 1-13.

Cappers, R.T.J., 2018. Digital atlas of traditional food made from cereals and milk. Groningen Archaeological Studies no. 33, Groningen: Barkhuis & Groningen University Library (website).

Daly, K.G., P.M. Delser, V.E. Mullin, A. Scheu, V. Mattiangeli, M.D. Teasdale, A.J. Hare, J. Burger, M.P. Verdugo, M.J. Collins, R. Kehati, C.M. Erek, G. Bar-Oz, F. Pompanon, T. Cumer, C. Çakirlar, A.F. Mohaseb, D. Decruyenaere, H. Davoudi, O. Cevik, G. Rollefson, J.-D. Vigne, R. Khazaeli, H. Fathi, S.B. Doost, R.R. Sorkhani, A.A. Vahdati, E.W. Sauer, H.A. Kharanaghi, S. Maziar, B. Gasparian, R. Pinhasi, L. Martin, D. Orton, B.S. Arbuckle, N. Benecke, A. Manica, L.K. Horwitz, M. Mashkour & D.G. Bradley, 2018. Ancient goat genomes reveal mosaic domestication in the Fertile Crescent. Science Magazine 361(6397), 85-87. https://doi.org/10.1126/science.aas9411

Nicolay, J., 2018. *Huisplaatsen in De Onlanden:*De geschiedenis van een Drents veenweidegebied. 3 vols. Groningen: Barkhuis Publishing.

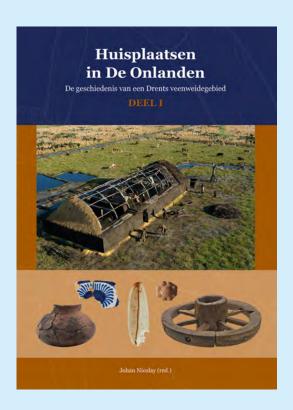
Nieuwhof, A. & P.C. Vos, 2018. New data from terp excavations on sea-level index points and salt marsh sedimentation rates in the eastern part of the Dutch Wadden Sea. *Netherlands Journal of Geosciences* 97, 31-43. https://doi.org/10.1017/njg.2018.2



Highlighted

Nicolay, J., 2018. *Huisplaatsen in De Onlanden:* De geschiedenis van een Drents veenweidegebied. Groningen: Barkhuis Publishing.

To secure the city of Groningen against flooding during extreme high water, an extensive tract of peatland directly south of the city was transformed into a water-storage area between 1998 and 2015. In this area over 60 late-medieval farmstead sites were located, which all were investigated by small test-trenches and some larger excavations. This exceptional, regionwide project shows that large-scale peat reclamation started in the 10th century. Despite the moving and raising of farmstead sites as the cultivated fields progressively subsided and flooded, the area had to be abandoned in the 14th century. Some of the older sites were reoccupied in the late 15th century, to be abandoned for good in the 19th century. The project neatly demonstrates how farmers not only struggled against, but for centuries also lived in close harmony with their natural surroundings in this typical wetland area.





An intact wagon wheel, as it was found during excavations at one of the late-medieval farmstead sites in the peatland south of the city of Groningen. The area has since been transformed into a water storage area (photo RUG/GIA).





One of the themes of modern terp research is sea-level rise, with studies combining modern and old excavation data. The photos from I933 show natural, laminated salt-marsh layers in relation to NAP (ordnance datum) under the terp of Ezinge (photo RUG/GIA).



3. GIA IN SOCIETY

3.1 Arctic and Antarctic Studies

Valorization, i.e. policy-relevant research, local community engagement and active public outreach, has become central to the Arctic Centre since its founding in 1970. Throughout 2018, staff made expert scientific contributions to the Working Groups of the Arctic Council. Maarten Loonen played a major role in communicating to an audience across the Netherlands the scale and pace of changes affecting the Arctic due to climate change, by participating in high-profile television documentaries. Annette Scheepstra attended the Arctic Observing Summit at Davos and the Arctic Science Ministerial Summit in Berlin. Finally, the ongoing research by Sean Desjardins in the Foxe Basin involves close community engagement through its focus on inherited traditions and local cultural heritage. His work involves intensive consultation with local elders, families and college students, helping to establish a body of knowledge that can be passed on to future generations.

Key valorization publications/activities

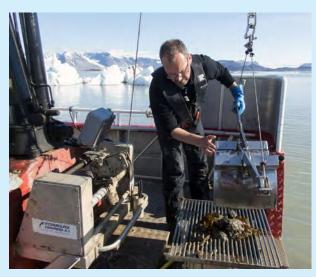
Roura, R.M., F. Steenhuisen & K. Bastmeijer, 2018. The shore is the limit: marine spatial protection in Antarctica under Annex V of the Environmental Protocol to the Antarctic Treaty. *Polar Journal* 8(2), 289-314. https://doi.org/(...)154896X.2018.1541549

Annette Scheepstra is a co-author of five Scientific White Papers that were published by the EU-PolarNet project. She specifically contributed to the White Paper *The Road to the Desired States of Social-ecological Systems in the Polar Regions.* The White Papers represent an important step towards developing an Integrated Polar Research Programme, to be presented to the European Commission in 2020.

Sköld, P., K. Baer, A.J.M. Scheepstra, K. Latola & N. Biebow, 2018. *The SDGs and the Arctic: The Need for Polar Indicators.* Paper presented at Arctic Observing Summit 2018, Davos, Switzerland. https://www.rug.nl/research/portal/files/57866287/The_SDGs_and_the_Arctic.pdf

Maarten Loonen made numerous Dutch television appearances, including the third episode of the TV Series 'IceScream 2' (broadcast March 2018). He also appeared in four newspaper articles, did one radio interview and gave several public lectures (for a full archive, see: http://www.maartenloonen.nl/pers).

Desjardins, S.P.A., 2018. Etnoarcheologie in Noord-Canada: hoe klimaatverandering en kolonialisme de traditionele manier van leven van de Inuit hebben beïnvloed vanaf 1300 AD tot nu [Ethnoarchaeology in Arctic Canada: exploring how climate change and colonialism impacted traditional Inuit life, ca. AD 1300 to the present]. *Paleo-Aktueel* 29, 71-76.



Frits Steenhuisen sampling for anthropogenic pollution (mercury and PAHs) in King's Bay, Svalbard. He also serves as Netherlands Observer in the Arctic Monitoring and Assessment Programme of the Arctic Council and two AMAP expert groups, and gives expert advice to various Netherlands Ministries (photo Frits Steenhuisen).



Screenshot from the third episode of TV series IceScream, broadcast 2 March 2018 on national television. M.J.J.E. Loonen as Climate Change Scientist and Guide on Spitsbergen (Svalbard) on two trips with Bernice Notenboom and one with AKZO (now Nouryon).





A modern Inuit summer hunting camp, near Igloolik, central Nunavut, Arctic Canada (photo Sean Desjardins).



Igloolik Inuk Jeena Kadlutsiak and her baby at their family's summer hunting camp on Igloolik Island, central Nunavut, Arctic Canada (photo Sean Desjardins). In addition to conducting archaeological, ethnographic and archival research in close collaboration with local Arctic communities, Sean Desjardins also serves as Netherlands Observer in the Sustainable Development Working Group of the Arctic Council and gives policy-related advice to the Netherlands Ministry of Foreign Affairs.

Highlighted

Annette Scheepstra was invited by the Director of the NWO Netherlands Polar Programme to join the Netherlands Scientific Delegation at the Arctic Science Ministerial Summit in Berlin (25-26 October 2018), where she represented Arctic Social Sciences in the Netherlands. The aims of this second ministerial meeting were to promote the results of the first Arctic Science Ministerial meeting (hosted by the White House in September 2016), to increase capacity to respond to major societal challenges in the Arctic, and to encourage further scientific cooperation between nation states and indigenous communities. She also gave a presentation in the session 'Assessing the vulnerability, and building resilience of Arctic environments and societies'.



Annette Scheepstra representing the Netherlands at the Arctic Science Ministerial meeting in Berlin (25-26 October 2018). She also participated in sessions addressing vulnerability and resilience in Arctic communities and their local ecosystems. (photo Dick van der Kroef, director of the NWO Netherlands Polar Programme).



Bernice Notenboom and the three-masted schooner Rembrandt van Rhijn - voyages with bankers, resulting in the Spitsbergen Declaration to the Dutch governmental climate negotiation table (photo Maarten Loonen).



3.2 Classical and Mediterranean Archaeology (CMA)

Martijn van Leusen tendered and contracted the company ScienceDoc for the production of a documentary and educational video shorts about the scientific activities carried out by the researchers working in the Avellino project, a research project on the distal effects of the great Bronze Age eruption of Mount Vesuvius on the human environment of the Pontine Plain south of Rome. The video will be produced in 2019. GIA's Peter Attema, Nikolaas Noorda and Remco Bronkhorst worked with Frans van Hoesel and his team of the High Performance Computing and Visualisation department of RuG's Centre for Information Technology, on a 5-minute item about their excavation of a complex artificial mound at Crustumerium (Italy), for publication on the internet. The short film in a nutshell explains the range of digital and analogue recording methods used in this project, and presents a virtual reconstruction of the mound from the ground up, covering the centuries between 850 and 500 BCE. Peter Attema was interviewed for RuG's portfolio book Samen kennis en innovaties ontwikkelen: digital society (Together developing knowledge and innovations: digital society). Gert van Oortmerssen initiated a project on making the documentation relating to the collection of classical art objects in the GIA digitally accessible.

Key valorization publications/activities

- 'Digitaal opgraven, sneller, preciezer en in 3D', interview met Peter Attema. In I. Kleine, T. Smit and I. Vis (eds), *Samen kennis en innovaties ontwikkelen: digital society* (portfolio book), University of Groningen, pp. 18-19.
- Leusen, Martijn van & Neeltje Oome, 2018. Q130: surveys op het terrein van een hellenistische en Romeinse boerderij in Zuid-Italië. *Paleo-aktueel* 29, 27-34.
- Trienen, Tom & Peter Attema, 2018. Cropmarks in het Tiberdal: onderzoek naar gebruik en bewoning van de Tibervallei nabij Crustumerium in de Romeinse Tijd. *Paleo-aktueel* 29, 35-42.

- Attema, P. & L. Alessandri, 'Territorio e insediamenti dall'età del Bronzo al periodo romano nel territorio di Sezze: alcune riconsiderazioni. Sezze, i Monti Lepini e il basso Lazio tra Preistoria e Protostoria', 22 Aprile 2018, Museo Archeologico, Sezze, Italy. This lecture gave an overview on the activities of the GIA in the Pontine region for a partly local audience.
- P. Attema, 3D field archaeology? Research and teaching perspectives. Lecture given at opening of the VR/AR hub, Smitsborg, CIT, 14 mei 2018.



Festive evening at the Crustumerium excavations (Italy) for visitors, with theatre and music.



Items in GIA's classical art collection.



3.3 Greek Archaeology

Public outreach and the investigation of the role of archaeology in contemporary society remains a central component of the chair group's activities. Political crisis and conflict in several areas of the Middle East continue to take their toll on the archaeological heritage and the communities caring for this heritage. In Greece and other Mediterranean countries the financial crisis and the avid quest for new investment and economic development bring new challenges to the protection of their cultural heritage. At the same time, nationalism, populism and xenophobia often feed on distorted readings, if not blatant abuse of the past. Therefore opening a dialogue with local communities, engaging with local heritage issues and presenting alternative and nuanced interpretations of the local past is a priority in our projects.

Rocco Palermo assisted a team from Harvard University in training members of the antiquities service of the Kurdistan Regional government in Iraq in mapping and analyzing archaeological sites with satellite and drone imagery (see photo below).

PhD students organized the very successful workshop Mortuary Archaeology Today, which generated a lively debate on the new directions mortuary studies are currently taking, as well as questions about display of mortuary materials in museums.



Rocco Palermo working with a drone in northern Iraq.

Key valorization publications/activities

Workshop: Necropoleis Research Network Meeting in Beirut organized by Vana Kalenderian and Lidewijde de Jong (see more below)

Publication: Wiersma, C. (2018). De eerste resultaten van de veldsurvey in Ayios Vasilios (Laconië, Griekenland). *Paleo-aktueel* 29, 11-18.

Contribution to exhibition catalogue: Voutsaki, S., 2018. Vor der mykenischen Kultur. Die Mittelbronzezeit auf dem griechischen Festland. In: *Mykene. Die sagenhafte Welt des Agamemnon,* Special exhibition catalogue, Schloss Karlsruhe, Baden-Württemberg, 30 November 2018 - 2 June 2019.

Public lecture: *Halos' Landscape Then and Now* by Sofia Voutsaki. Public archaeology event in village square, September 2018, Platanos, Magnesia, Thessalv.

Activity: Meeting of Halos Project team with mayor of Almyros, local authorities, cultural associations and sponsors, September 2018, Almyros, Thessaly.

Highlighted

Vana Kalenderian and Lidewijde de Jong co-organized the third annual workshop of the Necropoleis Research Network in Beirut. Among other topics, the paticipants discussed the current problems facing archaeological research, preservation, and outreach in Lebanon. Although Lebanese law protects archaeological remains, large-scale construction projects in all major Lebanese cities continue to create problems for the excavation and study of the country's rich archaeological record. Participants of the workshop also visited some of the key archaeological sites in Lebanon where preservation issues continue to arise, such as the Roman remains in the city of Tyre (see photo below) which are hemmed in between the modern city, a Palestinian refugee camp and the Mediterranean Sea.



Participants of the Necropoleis Research Network Meeting in Beirut visiting Tyre.



The landscape around Ayios Vasilios, Greece



On Mount Othrys with the 'Thessalika Ergd' Land Rover, Greece.

3.4 Archaeology of northwestern Europe

Archaeological research in the northern Netherlands started in Groningen with the establishment of the Biologisch-Archaeologisch Instituut in 1920. The chair group continues to engage in activities aimed at improved understanding and increased support for the sustainable preservation of archaeological heritage. We work towards this goal by presenting our research to the wider society through publications, lectures, public media (television, radio, newspapers), as well as involvement in developer-led archaeology, for instance as member of the advisory board of the leading commercial firm ADC (Raemaekers), as a consultant in developing a new narrative of the Early Middle Ages in the province of Noord-Holland (Nicolay), or as a botanical specialist: Cappers co-organised and co-taught a three-day workshop in seed identification that aimed to improve the identification of seeds found as impurities in commercial seed samples.

This year we also launched a new project, funded by the Wenner-Gren Foundation. With 'Hybrids: Camels and Cultural Blending in the Near East brings' Çakirlar leads an international research team to search for the Iron Age origins of Bactrian x Dromedary cross breeds in the Ancient Near East.

Since Dutch legislation requires formal quality standards for all archaeological work, our staff in 2018 obtained their so-called 'KNA Senior actor status', allowing us to continue our involvement with Dutch archaeology in practical work.



Extraction of ancient DNA from archaeological camel bones.



Key valorization publications/activities

Moolenbroek, J.J. van & S. Arnoldussen, 2018. Twee pauselijke zegels en de vroege geschiedenis van het Cisterciënzer vrouwenklooster Yesse te Haren. Historisch Jaarboek Groningen 2018, 6-15.

A. Nieuwhof, 2018. -650 Terpen langs de Noordzee, in: Heerma van Voss, L., M. 't Hart, K. Davids, K. Fatah-Black, L. Lucassen & J. Touwen (eds), Wereldgeschiedenis van Nederland. Amsterdam: Ambo/Anthos, 45-50.

Nieuwhof, A., J. Nicolay & J. Wiersma (eds), 2018. De geschiedenis van terpen- en wierdenland. Een verhaal in ontwikkeling. Groningen: Vereniging voor Terpenonderzoek.

Raemaekers, D. & K. Wilson, 2018. Nieuwe oude gezichten: de verbeelding van de prehistorie. Archeologie in Nederland 2(1), 16-23.

Schepers, M., A. Maurer & J. van der Laan, 2018. Archeobotanie: wetenschappelijk onderzoek aan plantenresten. Paper presented at jubilee event of the Drents Prehistorische Vereniging.





Cover of the journal Archeologie in Nederland, aimed at the general public. The main photo refers to the article on the need to diversify Dutch facial reconstructions.

Highlighted

Nieuwhof, A., J. Nicolay & J. Wiersma (eds), 2018. De geschiedenis van terpen- en wierdenland. Een verhaal in ontwikkeling. Groningen: Vereniging voor Terpenonderzoek.

The project Terpen- en Wierdenland, financed by the Dutch Waddenfonds, officially ended in 2018. It was aimed at enhancing awareness and appreciation of the historical landscape and archaeology among the public, especially the inhabitants of the northern coastal region marked by ancient dwelling mounds, which is indispensable for its long-term preservation. The project comprised an inventory of older research, as well as new research in which local residents participated. One of the results is this richly illustrated book, which gives an overview of the results of modern archaeological and landscape research in this region, and in which the citizen science projects serve as case-studies.





Public outreach during the field-school excavations (training dig) at Yesse Monastery (Haren, Groningen).



4. NARRATIVE

Among the many research projects the following is highlighted to give an idea of the cross-pollination of academic research and societal relevance.

Traditions in times of change

In 2018, Arctic Centre postdoc researcher Sean Desjardins received an NWO Veni grant to study the resilience of Inuit traditional life in Arctic Canada. In this narrative, he tells us about his interdisciplinary approach and how he co-operates with indigenous communities. Besides his ambition to perform high-quality research, Desjardins is clearly motivated by the relevance of his research for the area and for indigenous societies around the world.

The Arctic and its inhabitants

Sean Desjardins is a Canadian, but his interest in the Arctic actually started during his studies in anthropology in Florida. "The climate and society of Florida couldn't be further from that of the Arctic. Nevertheless, it was this stark contrast that intrigued me. The Arctic is a massive, sparsely-populated region, which, I would come to learn, has an incredibly rich ecology and cultural history. It is a history of immense change over the past couple of thousand years. How did Arctic Indigenous peoples deal with these changes while preserving their cultural identity and heritage? It's this question that forms the basis of my research over the past several years - especially the Veni I am beginning now."

Over the past several hundred years, traditional practices of Indigenous peoples across the circumpolar Arctic have been impacted significantly by both ecological and social stresses. Our collective understanding of climate change in polar areas is influenced by popular images of starving polar bears, but the livelihood of human beings is equally affected. What happens if people cannot reach their traditional hunting grounds because sea-ice is no longer seasonally predictable? If we also consider the impact of colonialist policies that restricted residential mobility and encouraged cultural assimilation of Arctic Indigenous peoples, we begin to better understand the stress these communities have faced.

As Desjardins states, "the aim of my current research project is to determine how and why some culture-defining Indigenous practices, such as subsistence hunting, were successfully adapted to changing conditions, while others faded away. An ideal case study through which to examine this problem is the Inuit occupation of Foxe Basin, Arctic Canada." There the remains of sod houses can be found that were in use during the colder months of the year well into the 1950s; sadly, this tradition is no longer practised. At the same time, a complex and vibrant system of hunting of caribou and marine mammals (mainly seal and walrus) has survived to the present day.

Interdisciplinary research and trust-building

To address this issue, Desjardins employs a unique combination of archeology and anthropology. Because Inuit are only half a century removed from a traditional, seasonally mobile lifestyle, elders can be consulted before any archaeological investigation is carried out. Desjardins benefits greatly from this traditional knowledge; learning, for example, how dwellings were constructed, and how particular animal species were hunted and butchered. In a region experiencing rapid and dramatic changes, it is logical to combine these first-hand accounts with archaeology. "As an anthropologist and archeologist I easily see how the disciplines can benefit from each other, and we are very fortunate elders are here to share their knowledge."

Of course, this type of research requires close co-operation with Indigenous communities. How does one establish the necessary trust? "For historical reasons, many Inuit are not very fond of researchers, government officials and others who say they mean well.









Sean Desjardins (left-hand photo, wearing baseball cap) consults with Inuit elders at the recent-historic archaeological site Avvajja (NiHg-I), central Nunavut, Arctic Canada (photo Scott Rufolo).

Knowing the recent history of 'Southern' interactions with Inuit, who can blame them?" From 1850 until 1980 it was governmental policy to intern Indigenous children in boarding schools, often without the free, prior and informed consent of their parents. This was done in order to assimilate them into broader Canadian society. The painful scars of this historical injustice are still visible in the Inuit communities of Nunavut—Canada's Arctic Territory. "I think it is important to stick to your promises and to show people that they can trust you. It's not a quick process; I have been doing research in the area for many years now, and locals know I return each year, do good work and am accountable. I respect their stories and objects, and I do my best to take their cultural wellbeing into account."

Desjardins continues, "This year, I'll be working with Inuit youth as well as elders. Many Inuit want youth in their communities to know more about their history and traditions. I have partnered with the Inuit-run organization Inuit Heritage Trust to carry out a small archaeological summer school for high-school students from the community of Igloolik, Nunavut. Not only will they learn about the archaeology and cultural history of the region, but they will also have the opportunity to learn directly from visiting elders."

There are important lessons to be learned

Desjardins is clearly concerned about the Arctic and the fate of its population. In addition to documenting the long-term history of the region, he is in a position to influence contemporary Arctic policy as the Dutch representative to the Sustainable Development Working Group (SDWG) of the Arctic Council.

And why is the Netherlands - a non-Arctic country-part of the Arctic Council? "The Netherlands is officially an Observer State at the Arctic Council. But we are, I would argue, an 'Active Observer.' This country has a long, rich history of exploration, research and commercial interest in the Arctic, beginning with the 17th-century Dutch whalers who established trading relations with the Inuit. The SDWG works to improve the social, economic and cultural lives of Arctic peoples. Given the great Arctic research being done by Dutch scientists, as well as our historical involvement in the region, the Netherlands has a lot to offer the Arctic Council."

Apart from the important issue of climate change there are additional lessons to be learned from Desjardins' research. "The relationship between traditions and identity is the focus of my research. These themes are the subject of debate in increasingly multicultural societies all over the world; in fact, contentious debates around changing values and cultural traditions are held frequently here in the Netherlands. My research among the Inuit is showing that those cultural traditions that survive and thrive are often the most flexible; many people tend to think of Indigenous traditions as almost sacredly static. In fact, experienced Inuit elders will often be the first to indicate that in order for traditions to survive, they need to adapt to change, be it social or ecological."

Saskia Visser, policy officer for public engagement



