

Groningen Institute of Archaeology

Annual Report 2021

April 20, 2022

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Reflection

In the second year of the Covid pandemic, there was more flexibility than in the previous year. It meant that our labs have functioned nominally, and that our fieldwork projects (in the Netherlands and abroad) were possible again. We expect that the longterm effect on (types of) output will therefore be limited.

2021 has been the year where the GIA staff renewal has started off as a result of retirements and strategic appointments. Within the next strategic period (2022-2027), circa one third of the tenured staff will retire. On the basis of a retirement, GIA has been able to hire an assistant professor in human osteology, fulfilling a strategic aim that will further increase our focus on bioarchaeology and mortuary archaeology. Moreover the Board of the University has appointed the director of the Royal Dutch Institute in Rome, Tesse Stek, as full professor at GIA (to be effected in 2022), while the Faculty Board has appointed GIA postdoc Sean Desjardin as assistant professor with the aim to create more capacity in the Arctic Centre (also to be effected in 2022).

2021 has also been the most successful year ever in terms of grant captures, with a total amount of 4.2 M€. This massive success also implies that the PI's of the various larger project have their hands full in managing these projects and that these figures will certainly decrease in the short term. Over the years, the output has shifted focus to more peer-reviewed articles to achieve more scientific impact. It is clear that in this second Covid year this major type of output has maintained strong.

Top 10 scientific publications

- Arnoldussen, S.**, R. Johnston, R. & M. Løvschal (eds.), 2021. *Europe's Early Fieldscapes: Archaeologies of Prehistoric Land Allotment* (Themes in Contemporary Archaeology 9). New York/Cham, Springer.
- Attema, P.**, P. Carafa, W. Jongman, C. Smith, **R. Bronkhorst**, M. Capanna, **T. de Haas**, **M. van Leusen**, G. Tol, R. Witcher & N. Wouda, 2021. The Roman Hinterland Project: Integrating Archaeological Field Surveys around Rome and Beyond. *European Journal of Archaeology*, 1461-9571.
- Çakırlar, C.**, F.J. Koolstra & S. Ikram, 2021. Tracking turtles in the past: Zooarchaeological evidence for human-turtle interactions in the ancient Eastern Mediterranean. *Antiquity* 95, 125-141.
- Frank, A. B., R. Frei, I. Moutafi, **S. Voutsaki**, R. Orgeolet, K. Kristiansen & K.M. Frei, 2021. The geographic distribution of bioavailable strontium isotopes in Greece – A base for provenance studies in archaeology. *Science of the Total Environment* 791, 148156.
- Keighley, X., M.T. Olsen, M. T., P. Jordan & **S. Desjardins** (eds.), 2021. *The Atlantic Walrus: Multidisciplinary Insights into Human-Animal Interactions*. London and Amsterdam, Elsevier.
- Nicolay, J.** & R.A. van Eerden, 2021. Wodan's mythical birds: Symbolic language on a small-long brooch of the Domburg type from Heiloo (prov. North-Holland / NL). *Archäologisches Korrespondenzblatt* 51 (1), 111-134.
- Nijboer, A.**, 2021. Entanglements, elite prerogatives, migratory swallows, and the elusive transfer of technological know-how into the western Mediterranean, 1000–700 BC. In: M. Gleba, B. Marín-Aguilera & B. Dimova, B. (eds.), *Making Cities: Economies of production and urbanization in Mediterranean Europe, 1000–500 BC*. Cambridge, McDonald Institute for Archaeological Research, 313-327.
- Raemaekers, D.**, **Ö. Demirci**, **S. Kamjan**, **T. Talebi Seyyedsaran**, M. Schepers, **H. Huisman**, **H. Peeters** & **C. Çakırlar**, 2021. Timing and Pace of Neolithisation in the Dutch Wetlands (c. 5000–3500 cal. BC). *Open Archaeology* 7, 658-670.
- Steenhuisen, F.** & M. van den Heuvel-Greve, 2021. Exposure radius of a local coal mine in an Arctic coastal system; correlation between PAHs and mercury as a marker for a local mercury source. *Environmental Monitoring and Assessment* 193 (8), 499.
- Vergidou, C.**, G. Karamitrou-Mentessidi, **S. Voutsaki** & E. Nikita, 2021. Oral health and its implications on male-female dietary differences: A study from the Roman Province of Macedonia. *Journal of Archaeological Science: Reports* 35, 102784.

Top 10 societal outreach activities

Arnoldussen, S., 2021. *Topvondsten van de opgravingen te Yesse: Digitale expositie in het kader van 'Van Yesse tot Sint Jan'*. Digital exposition with glossy catalogue to showcase the highlights of the Yesse excavations.

<https://prezi.com/view/o2zzp9WMCCcTTLNhlwQz/embed>

Attema, Peter, Remco Bronkhorst, Nikolaas Noorda, Bart Campman, Frans van Hoesel, Pjotr Setachov. *The Untold Story of ancient Crustumerium*. 3D exploration of an archaeological mound near Rome.

<https://www.youtube.com/watch?v=Rg1OYer2mjk>

Desjardins, S., 2021. Ontario Archaeological Society (OAS) Indigenous Archaeological Monitor Training Program. Co-instructor/facilitator, along with **Jelke Take**.

Loonen, Maarten, 2021. Lintjesregen 2021: dit zijn de Groningse gedecoreerden. *RTVNoord & Dagblad van het Noorden*, 26-04-2021. (Maarten Loonen awarded royal honour, *Officier in de Orde van Oranje-Nassau*).

Neef, Wieke de, Antonio Larocca, **Peter Attema**, 2021. *Pollino Archaeological Landscape Project (PALP)*, un progetto archeologico internazionale strettamente legato ai monti del Pollino. *Appolinea* 25 (2), 20-23.

Peeters, H., B.I. Smit, J. Zomer, R. Schrijvers, D.H. Schmutzhart & D. Jansen, 2021. *Archeologische Kaart IJsselmeergebied*. Amersfoort, Rijksdienst voor Cultureel Erfgoed.

Raemaekers, Daan, Özge Demirci, Canan Çakırlar, Oliver E. Craig & Alexandre Lucquin, 2021. Ontdekking oudste koemelk van Nederland verschuift onze boerengeschiedenis eeuwen naar voren. *De Volkskrant* 13-02-2021.

Vermeersch, Shyama, Canan Çakırlar & Nynke de Boer, 2021. Contribution to *Zpannend Zernike*.

Voutsaki, S., 2021. Δέκα χρόνια μετά. Το Βόρειο Νεκροταφείο στον Άγιο Βασίλειο. (Ten years later. The Ayos Vasileios North Cemetery). *Pharis* 74, 15-20.

Voutsaki, S., T. Dijkstra, O. Jones, L. de Jong, V. Kalenderian, P. Kalkman, E. Milka, E. Panagiotopoulou, I. Rom, C. van Toor, P. Tritsaroli, F. Tsempera & C. Vergidou, 2021. Pronkjewails in verre oorden: Gronings onderzoek naar de dood in het oostelijk Middellandse Zeegebied. *Paleo-aktueel* 31, 135-144.

SWOT-analysis

The following is based on the 2022 self-study.

Strengths

1. GIA maintains a high output level, both in terms of quantity and quality, and focus on Open Science;
2. GIA is successful in obtaining major research grants;
3. GIA collaborates with key scientific partners of international standing;
4. GIA has strengthened its scientific scope by the appointment of professors of special appointment that have contributed to its grant capture, publications and standing;
5. GIA maintains world class collections in archaeobotany and archaeozoology;
6. GIA collaborates with key societal partners;
7. GIA is a research community in which undergraduate students, PhD students, postdocs and senior staff collaborate.

Weaknesses

8. GIA is poorly visible on social media;
9. GIA has outdated internal regulations in which tasks and responsibilities have been laid down;
10. GIA tenured staff is imbalanced in terms of diversity;
11. Our world-class collections are housed in out-dated facilities.

Opportunities

12. To add a data publication strategy to the current output strategy;
13. To reposition GIA on the basis of current strengths and strategic aims on the basis of new staffing, especially in the fields of Arctic Studies and Mediterranean Archaeology;
14. to include diversity in our hiring strategies;
15. To increase the number of PhD students and strengthen collaborations by means of Sandwich PhD projects;
16. To strengthen our multi-proxy research by integrating human osteology with existing strengths in bioarchaeology and material culture studies;
17. To set up a human osteology lab;
18. To strengthen our bioarchaeology assets by updating the housing of our collections and lab facilities as part of the refurbishing of the Harmoniebuilding, turning our archaeobotanical and archaeozoological collections into UG assets and by setting-up an isotope prep lab;
19. To strengthen our geoarchaeological work by developing a collaboration with a department in earth sciences;
20. To increase our visibility in social media.

Threats

21. NWO has restricted access to its funding schemes (new grant proposals cannot be sent in during the period a current NWO project is running). As a result the number of NWO funded PhD's and postdocs will decrease;
22. The rehousing plans for the Harmoniebuilding may exclude GIA and the current issues with our collections and lab facilities will persist.

Progress since MTR (see also previous Annual Reports)

Scientific relevance

1. Rehousing our lab facilities and collections. GIA needs the Faculty Board to strive for rehousing GIA (one building, updated facilities), also if rehousing in the Harmoniebuilding cannot be realised.
2. With the restart of the UG bursary scheme in 2020, we intend to strengthen our collaboration with existing and new partners. We intend to use this scheme as platform for large new NWO and EU-funded grant schemes applications;
3. The PhD progression and completion rates can still be improved. See below;
4. We intend to re-position our archaeobotanical and archaeozoological collections as UG assets because of their importance for other disciplines. This ambition (The Vault) has been discussed between Faculty Board and Board of the University;

Viability

5. GIA's internal collaboration has increased in recent years through the collaboration in grant proposals, co-supervision of PhD students across chairs and the annual GIA PhD/post-doc day (since 2015). As a result GIA has become a tighter knit research community;
6. Most GIA associate professors have *ius promovendi* (PhD supervision rights) if and when possible, to counter NWO's regulations that restrict access to their schemes. This regulation remains a problem, especially for *NWO Promoties in de Geesteswetenschappen*. The remaining candidates await approval by the faculty board;

Relevance to society

7. The 2022 self-study will identify our stakeholders (societal project partners, government, enthusiasts, farmers) and use a targeted outreach strategy for all of these. We intend to renew our website and create a LinkedIn account to communicate about our running projects and results/publications. These actions need to be undertaken with professional support of the faculty's communication department.

Open Science

Archaeology is a discipline in which Open Science is relatively well developed. For 58 publications from 2021 registered in Pure OA was ascertained; 18 other publications were registered as non-OA. That brings the percentage of OA publications to 76%. For 39 other publications it was not clear. We advise that the University Library contacts GIA to discuss this latter group of publications.

Open Science also includes the sharing of knowledge in a more general sense. This diffusing of knowledge also takes places within GIA projects by means of cooperation with various societal partners. These activities include contract research for the government and collaboration with museums, local volunteers and co-organised lecture series.

PhD supervision

In 2021 a total of 8 PhD students defended their thesis, a figure far above the year-long average. An extra appendix to this report presents the delay of those PhD students graduated in the period 2020-2021 (n=12). On the basis of this group of graduated PhD students, it seems that the EU-funded three year contracts need more attention in terms of expectation management – of supervisors and PhD students alike. As of 2021 GIA has a detailed description of what a PhD should entail (attached) and the GIA director carries out a feasibility check of the Training and Supervision Protocol before this documents is signed and accepted by the GSH. In early 2022 a meeting was held to discuss supervision culture with supervisors, chaired by prof. Petra Hendriks. This meeting allowed us to exchange best practices and made implicit expectations explicit – certainly a topic to continue to discuss.

Table 1. Research Staff (SEP Table E2: Input of research staff, #/FTE)**NB1: margin of error in fte's c. 10%****NB2: date on support staff are not collected**

	2019	2020	2021
Scientific staff (1)	14 / 7.9	14 / 7.7	17 / 9.4
Assistant professor	5 / 2.6	5 / 2.5	7 / 3.7
Associate professor	5 / 3.0	5 / 3.0	6 / 3.6
Full professor	4 / 2.3	4 / 2.2	4 / 2.1
Postdocs (2)	10 / 5.2	11 / 6.3	11 / 7.6
PhD candidates (3)	26 / 18.9	22 / 17.8	19 / 16.8
Total research staff	50 / 32.0	47 / 31.8	47 / 33.8
Support staff			
Visiting fellows			
Total staff			

Table 2. Research Funding (vgl. SEP Table E3: Funding)**NB1: margin of error in fte's c. 10%****NB2: margin of error in % c. 3% (grants excluded by project control)**

	2019	2020	2021
GIA	FTE / %	FTE / %	FTE / %
<i>Funding:</i>			
Direct funding (1)	16.8 / 53 %	17.0 / 53%	17.7 / 50%
Research grants (2)	7.0 / 22%	6.3 / 20%	10.1 / 29%
Contract research (3)	8.2 / 26%	8.4 / 27%	7.6 / 21%
Other (4)			
Total funding	32.0 / 100%	31.7 / 100%	35.4 / 100%
<i>Expenditure (k€):</i>			
Personnel costs	1,544 / 72%	1,759 / 67%	2,063 / 75%
Material costs	532 / 25%	798 / 30%	605 / 22%
Other costs	76 / 4%	780 / 3%	69 / 3%
Total expenditure	2,153 / 100%	2,636 / 100%	2,736 / 100%

Table 3. Research Output (SEP 2015-2021 Table D3b)

GIA	2019	2020	2021
Refereed articles	47	37	38
Non-refereed articles	7	4	2
Books	3	7	6
Book chapters	16	28	28
PhD theses	4	5	8
Conference papers	5	1	5
Professional publications	48	24	32
Publications aimed at the general public	13	6	15
Other research output	11	10	11
Total publications	154	122	145

Table 4. Research Grants

Title	Principal Investigator	Funding body	k€
NL Poolstation	Maarten Loonen	NWO	118
The Demise of the North Atlantic Grey Whale (Eschrichtius robustus)	Youri van den Hurk	KNAW Fonds Ecologie	6
Long-term diet perspectives of the Nile softshell turtle on the Levant	Willemien de Kock	KNAW Fonds Ecologie	6
Catastrophe or just a drama: Dating the Minoan eruption of Thera	Sofia Voutsaki en Michael Dee	NWO	222
Finding Suitable Grounds: Exploiting buried and submerged Mesolithic-Neolithic landscapes to reconstruct the introduction of crop cultivation	Hans Huisman	NWO	747
Bringing Back the Dead: investigating mortuary rituals in the Roman Near East	Lidewijde de Jong	NWO	1,499
Salt and Power Early States, Rome and Resource Control	Peter Attema	NWO	749
Salvage Crops, "Savage" People. A comparative anthropological and archaeobotanical investigation of Millet Assemblages in India	René Cappers	NWO	183
Using semantic modeling to create FAIR open data for archaeological field survey: a showcase and toolkit (SEMAFORA)	Martijn van Leusen	NWO	49
Nederlands Arctisch Programma International	Maarten Loonen en Annette Scheepstra	Ministerie van Buitenlandse Zaken	856
Geofysisch onderzoek naar drie borgen te Baflo/Rasquert	Albert Nijboer	Groninger Universiteits Fonds	20
Updaten database archeologisch depot Nuis	Daan Raemaekers	Provincie Fryslân	20
From Poldures to Pastures	Merita Dreshaj	Nederlands Museum voor Anthropologie en Praehistorie	5
Boek Noord-Holland in 1e millennium, presentatie Sachsensymposium 2021 ¹	Johan Nicolay	Provincie Noord-Holland	11
Halos Archaeological Project ¹	Tamara Dijkstra	Thessalika Erga	4
Fellowship ¹	Sofia Voutsaki	Centre of Hellenic Studies, Harvard University	18
The Emergence of Domesticated Animals in the Netherlands ¹	Jolijn Erven	Catharine van Tussenbroek fonds	2
No title ¹	Manuela Ritondale	Catharina van Tussenbroek fonds	3
AHEAD Scholarship ^{1, 2}	Thilanka Siriwardana	World Bank	32
Exploitation of the Atlantic walrus in the Canadian Arctic ¹	Emily J. Ruiz-Puerta	Canadian Museum of Nature	1
Research Fellowship Wiener Laboratory ¹	Theofania Tsempera	American School of Classical Studies at Athens	37
Grants awarded to (Re)MA students ¹		KNIR, Archon, HMS, GUF	3
Total			4.591

¹Not incorporated in table 2²Unclear if this is formally managed by project control

Table 5a. Graduation rate (SEP Table E4: PhD candidates)

Enrolment GIA			Success rates						
Starting year	Enrolment (male / female)		Total (M+F)	Graduated in year 4 or earlier	Graduated in year 5 or earlier	Graduated in year 6 or earlier	Graduated in year 7 or earlier	Not yet finished	Discontinued
2014	3	5	8	0 / 0%	0 / 0%	0 / 0%	2 / 25%	3 / 38%	1 / 13%
2015	0	4	4	0 / 0%	0 / 0%	1 / 25%	2 / 50%	2 / 50%	0 / 0%
2016	3	5	8	0 / 0%	5 / 63%	5 / 63%	5 / 63%	3 / 38%	0 / 0%
2017	0	4	4	0 / 0%	0 / 0%	0 / 0%	-	4 / 100%	0 / 0%
2018	2	4	6	0 / 0%	0 / 0%	-	-	6 / 100%	0 / 0%
2019	0	5	5	0 / 0%	-	-	-	5 / 100%	0 / 0%
2020	2	2	4	0 / 0%	-	-	-	3 / 75%	1 / 25%
2021	0	3	3	0 / 0%	-	-	-	3 / 100%	0 / 0%
Total	10	32	42	0 / 0%	-	-	-	29 / 69%	2 / 5%

Table 5b. Outflow PhD-cohorts per VSNU-type

functiotype	2012				2013				2014				2015				2016				2017			
	○	⊗	●	μ	○	⊗	●	μ	○	⊗	●	μ	○	⊗	●	μ	○	⊗	●	μ	○	⊗	●	μ
1a. Employed PhD candidate	4	1	3	25	2	2	0	n/a	6	2	3	30	4	2	2	21	4	3	1	13	2	2	0	n/a
1b. Employee in PhD track	0	0	0	n/a	0	0	0	n/a	0	0	0	n/a	0	0	0	n/a	0	0	0	n/a	0	0	0	n/a
2a. Scholarship PhD candidate own university	0	0	0	n/a	0	0	0	n/a	1	1	0	n/a	0	0	0	n/a	1	0	1	4	2	2	0	4
2b. Scholarship PhD candidate other provider	0	0	0	n/a	0	0	0	n/a	1	0	1	56	0	0	0	n/a	3	0	3	16	0	0	0	n/a
3. Externally financed PhD candidate	0	0	0	n/a	0	0	0	n/a	0	0	0	n/a	0	0	0	n/a	0	0	0	n/a	0	0	0	n/a
4. External PhD candidate	2	0	0	-	1	1	0	-	2	2	0	-	2	0	1	-	1	0	0	-	1	0	1	-
Unknown	0	0	0	n/a	0	0	0	n/a	0	0	0	n/a	0	0	0	n/a	0	0	0	n/a	0	0	0	n/a
total	6	1	3	25	3	3	0	n/a	10	5	4	36	6	2	3	22	9	3	5	13	5	4	1	2

○ = intake

⊗ = active

● = graduated

μ = average number of months + end date

Appendix SEP tables**Extra table: characteristics of the 12 PhD defences in 2020 and 2021.**

End of contract	Contract (months)	Manuscript accepted	Delay 1	Defence date	Delay 2
15-1-2018	48	31-1-2020	23	21-4-2020	3
30-6-2018	48	18-5-2021	32	23-9-2021	6
28-2-2019	53	19-6-2020	15	29-10-2020	4
31-1-2019	48	19-8-2019	6	12-5-2020	10
31-10-2019	50	3-3-2021	16	18-11-2021	8
30-9-2019	48	7-10-2021	24	20-1-2022	3
30-9-2020	48	30-10-2020	0	28-1-2021	3
30-9-2019	36	11-11-2020	13	1-2-2021	3
30-9-2019	36	17-8-2020	10	26-10-2020	2
30-9-2019	36	16-12-2020	14	18-3-2021	3
30-11-2020	48	25-1-2021	1	29-4-2021	3
30-11-2021	50	30-11-2021	0	7-4-2022	4

Appendix – the GIA PhD default

What is a University of Groningen PhD?

Universities have different, but always vague texts about what constitutes a PhD. The University of Groningen has the following two-fold definition: *the PhD thesis meets the required academic standard and can be regarded as an adequate demonstration of competence to carry out independent academic research* (based on article 5.1 PhD regulations 2018). This text is this vague to allow various forms of manuscripts to be accepted, depending on the specific publication traditions and expectations in the various disciplines. It is useful to define a PhD in terms of competences to be realised by the time of the accepted manuscript.

A PhD degree testifies that the laureate is capable of developing an independent, scientifically valid opinion. This result is based on the developed relevant scientific skills, and reflected in the written work (the PhD manuscript), presentations on the basis of the work and the creation of a relevant scientific network.

NB: these competences qualify a PhD laureate as an independent Early Career Researcher in academia and are at the same time transferable skills for a career outside academia.

What is a GIA PhD?

Publication traditions in the field of archaeology are varied as well. Traditionally PhD manuscripts in the Netherlands were monographs – with the exception of PhD manuscripts in bioarchaeology. These PhD theses were a collection of peer-reviewed articles (loosely) topically connected by means of an introduction and conclusion. This natural science model of a PhD is gaining ground at GIA, also because a large number of our PhD projects (partly) comprise archaeological science approaches. Moreover, a PhD thesis on the basis of articles has the benefit of increased visibility of the PhD student during the project period. This visibility is also useful when applying for grants and new research positions.

The default of a GIA PhD manuscript is one based on three articles. A monograph style PhD needs explicit argumentation in the Teaching and Supervision Protocol.

What is the structure of a GIA PhD?

The GIA PhD consists of the following parts:

1. Introduction
2. Article 1
3. Article 2
4. Article 3ⁱ
5. Conclusion

Ad 1. Introduction

The introduction section consists of two parts (sections or chapters). The first part connects the PhD articles to the larger field of study. It makes clear how the methods and data chosen relate to the major research problems. The second part gives an synthesis (*status questionis*) of the field: time, period, methods, questions and makes clear how the articles connect to these questions.

- Maximum word count: 10,000.
- The first part of the introduction is written as final part of the PhD manuscript to ensure that it raises the questions addressed in the conclusion.

Ad 2-4. Articles

The PhD manuscript comprises three articles, preferably peer-reviewed.

- It is proposed to use our *Palaeohistoria* series as a fall-back option for publication if an article manuscript has been dismissed twice. This implies that the digital publication of *Palaeohistoria* contributions will prelude to the bi-annual paper form.

- Please discuss co-authorship of the articles as part of the TSP. Make explicit what every co-author will contribute.

Ad 5. Conclusion

This text ties in the results of the three articles to the questions raised in the introduction. This is carried out in the same form as in the discussion section of the articles: a text structured on the basis of topics, not methods. The conclusion will make clear how the PhD has contributed to the major field. Optional is a short text with suggestions for further research.

- Maximum word count: 10,000.

ⁱ A four year PhD contract may comprise a fourth article, but this should always be organised in such a way that it remains possible to decide to leave it out at a late stage of the contract period.