SUDAN & NUBIA

The Sudan Archaeological Research Society	Volume 27	2023
Statement concerning Sudan		1
The Kirwan Memorial Lecture		1
Alloying copper, arsenic and tin – the first crucible evidence from Kerma Frederik W. Rademakers, Georges Verly, Kylie Cortebeeck, Patrick Degryse, Charles Bonn	et, and Séverine Marchi	2
Reports		
A desert Middle Nubian amethyst mining camp at Wadi el-Hudi Meredith Brand and Kate Liszka		24
Archaeological survey in the Melhab basin (Agig district), Red Sea region of Sudan: report on the 2023 field season Amanuel Beyin, Ammar Awad M. Abdalla, Fakhri H. Abdallah Hassan, and Musaab Khair		48
A fortified site to defend the Kerma basin before the Egyptian conquest Matthieu Honegger and Jérôme Dubosson		75
New work on landscapes of the Northern Dongola Reach Christopher Sevara, Tim Kinnaird, Ahmed El-Ameen Ahmed El-Hassan (Sokhari) and Sam Turner		86
Kerma settlement Site P5, Northern Dongola Reach: report on the 2023 season Steve Mills, Stephen Porter, Paul T. Nicholson, Loretta Kilroe and David Buchs		107
The Meroitic townsite of Kedurma 2023: new findings from the excavations of the c Mohamed Bashir and Claude Rilly	cemetery	131
Archaeological vegetation mounds in the el-Matas area at the el-Ga'ab depression, Northern Sudan – new discoveries Mohammed Nasreldein, Yahia Fadl Tahir and Ikram Madani Ahmed		148
Excavations in the Berber cemetery, the 2022 season and new chance discoveries in Mahmoud Suliman Bashir	1 the Berber Region	159
Preliminary report on the excavation of Building 1000 at Naga Karla Kroeper and Christian Perzlmeier		172
The Isis Temple at Wad Ben Naga (WBN 300) Pavel Onderka		188
Early Neolithic gouges from north-western Butana: new light on contacts between Ladislav Varadzin, Katarína Kapustka and Lenka Varadzinová	the Nile and its hinterlands	207
Studies		
Following the footprints of a jackal from Meroe to London. The origin of British Mu Michael H. Zach	iseum EA68502	214
Replicating prehistoric Sudan: Anthony Arkell's object casts		219

Replicating prehistoric Sudan: Anthony Arkell's object casts Anna Garnett

Chronology, correspondence analysis, and Lower Nubia in the 3 rd century BC: a reassessment of the Meroitic cemetery at Faras Henry Cosmo Bishop-Wright	230
Giraffes at Faras – the exchange of goods and ideas across Kush Loretta Kilroe	247
Darfur focus	
Darfur. Threats and dangers to archaeological sites and possible ways to protect them Ibrahim Musa Mohamed Hamdon	257
We are all for Nyala (KAMAN), South Darfur. A note concerning a local initiative to preserve cultural heritage Ashraf Abdalla	263
The Centre for Darfuri Heritage at Nyala University: a driver for cultural development Gafar A. F. Ibrahim	265
Book reviews	287
Obituaries	291
Biographies	297
Miscellanies	302

Front cover. Block 1000.0049 from Naga (photograph courtesy Karla Kroper). Above. Pottery jar with decoration of sorghum heads from BMC 60, Berber (photograph courtesy Mahmoud Suliman Bashir).

Sudan & Nubia is a peer-reviewed journal. The opinions expressed within the journal are those of the authors and do not reflect the opinions or views of the Sudan Archaeological Research Society or its editors.

George Pagoulatos (1946-2022)



Photo courtesy H. Völkel.

He would have loved to study at university himself, the legendary hotelier George Pagoulatos once told me, yet he became a godfather of Sudan academia for others. For without his skills to navigate Sudan's bureaucracy – in teamwork with Eleonora, his Sudan-born Italian wife of fifty years, his brothers Thanasis and Makis and their wives – countless scholars could not have conducted their research missions, especially archaeologists about whom he said: 'We are like a family.'

Born in Khartoum, George grew up in the heyday of Sudan's Greek minority. While his mother Flora was a Greek from Alexandria, his father Panagiotis left Cephalonia in an era when poverty and wars prompted mass emigration to Africa. In 1952 they founded the Acropole Hotel in Khartoum, and after Panagiotis' death in 1967, the three brothers started managing it with the enduring guidance of Flora. Just as they considered emigrating because of Sudan's economic decline,

the 1984/85 famines in Darfur and Ethiopia brought many humanitarians as new guests, amongst them Mother Teresa and Bob Geldof. Their efforts all hinged on George who solved logistical problems, as US-journalist Edward Girardet mused, 'with the courtesy and aplomb of the captain of a luxury liner'.

When I last saw George, he showed me the Greek cemetery in Khartoum and mentioned that they reburied a sibling, who died young, in Greece because of Sudan's instability. Unlike Eleonora and Thanasis, George did not live to see the Acropole in the epicentre of urban warfare following 15th April 2023. Roman Deckert



Ross and Mish.

Ross Iain Thomas (1978-2022)

Ross Iain Thomas (7th May 1978 – 14th November 2022), archaeologist and museum curator, was a friend of many SARS members and British Museum colleagues, as well as of scores of Sudanese archaeologists and the villagers that he met in the course of his fieldwork in Sudan.

Ross's career in archaeology, especially maritime archaeology and ceramic studies, was steady and surefooted, beginning as a volunteer on excavations prior to university and ending, prematurely, as field director of the British Museum's Naucratis project. Following a childhood spent on the Isle of Wight, Ross studied at Durham University, obtaining his BA in archaeology in 1999, then at Southampton University, where he was awarded an MA in 2001 with a dissertation on *Early Imperial Roman amphora stoppers of the Egyptian Eastern Desert*, followed by a

Deckert, R. 2023 [http://doi.org/10.32028/SN27pp291]. Welsby-Sjöström, I. 2023 [http://doi.org/10.32028/SN27pp291-293]



Ross at Tomb 5, Kawa.

PhD entitled Maritime cultures of the Erythraean Sea in 2009. He participated extensively in fieldwork in the UK, Egypt, Jordan, Israel, Italy, Sudan and the UAE, but the main focus of his work was in Egypt. There he most notably worked at Berenike with Steven Sidebotham, at Kom Firin with Neal Spencer and as co-director, together with Lucy Blue and J. D. Hill, on the Red Sea Shipwrecks Survey Project. From 2011 onwards he was employed by the British Museum in the Department of Greece and Rome, first as project curator (2011–2016) and then as curator. He obtained several grants from the renowned Honor Frost Foundation to fund fieldwork on behalf of the British Museum at Naucratis (2014–2022), as well as acting as the fieldwork coordinator on the British Museum's Pantanello project at Hadrian's Villa at Tivoli (2014-2022). In the midst of all this, Ross also worked for five seasons in Sudan between 2006 and 2014.

Dozens of articles, several edited volumes, chapters in books and book reviews, catalogue entries and work on exhibitions (in particular, *Sunken Cities: Egypt's lost worlds* at the British Museum in 2016), as well as the

role of commentator in documentaries are the tangible highlights of Ross's work, signalling a memorable scholarly career in the making. In the course of the academic research, museum duties and fieldwork Ross also contributed to assisting in training colleagues from abroad. No doubt he was very proud of his appointment in 2022 as a trustee of Brading Roman Villa, next door to his childhood home on the Isle of Wight.

His fieldwork in Sudan initially was on multi-period surveys in the 4th Cataract where he worked both as a field archaeologist and as a pottery specialist, and then at the Pharaonic and Kushite site of Kawa, a SARS project directed by Derek Welsby. His appointment as Project Curator at the British Museum in 2011 signalled the beginning of the end of his direct involvement in Sudanese archaeology, although he was



Ross bathing at Site H25 in the Northern Dongola Reach.

still able to take leave to direct the first season of excavation of the QSAP project at Site H25, a transitional Kerma–New Kingdom settlement within the Northern Dongola Reach, both the culmination and the last of his work in Nubia. The archaeology of Sudan may have been far removed from his interest in underwater archaeology and Mediterranean and Red Sea trade, but Ross's enduring interest in ceramics stood him in good stead, and was also very helpful to all the projects he was involved with.

I first met Ross while he was working



Ross by the Nauri inscription.

with Steven Sidebotham (University of Delaware) near Merowe, on a rescue survey prior to the building of the Merowe hydroelectric dam; the following winter he joined the SARS Amri to Kirbekan survey, then in its final season, and later still he worked at Kawa (2008–2009 and 2009–2010 seasons), both as site supervisor and pottery specialist. His work on the Meroitic and later ceramics from the SARS survey in the 4th Cataract is one of his still forthcoming publications.

As a colleague in the field Ross was easy to work with, providing good company, enthusiasm and expertise to

enliven the long hours spent recording pottery in whatever shade there was to be had - from a northfacing wall or, at best, a rustic veranda. The work was fuelled by innumerable cups of tea and coffee and occasional chocolate bars sourced from the village shop. Throughout, a shortwave radio kept us notionally connected to the outside world and gave scope for discussions beyond the topics of fabrics, sherd counts, imported wares and possible dating of assemblages. He was particularly excited by the find of an intact table version of a Dressel 2-4 amphora from a grave at R18, the necropolis of Kawa, and his broad experience with Eastern Mediterranean amphorae was a great bonus, although sadly few of these had made their way to Kawa.

At Christmas in the field he was memorably generous with both mince pies and Christmas cake, all baked by his mother and exceedingly delicious. Christmas was also the time of the 'Secret Santa' dig tradition, giving Ross ample opportunity to show his good nature, as he received horrendously tacky presents with good grace and apparent delight. In the course of our leisure time he was keen to get the team members to play board games, thus satisfying his competitive streak, and in the 4th Cataract he organised a football tournament between locals and incomers; he was always happy to share the viewing of films on his laptop at 'Friday night' screenings. He was ready to help with practical infrastructure matters, such as fixing the kitchen roof or starting a campfire and sharing the cooking when an overnight field-trip meant preparing dinner over an open fire. All of these traits, a great delight to fellow team members, are corroborated by colleagues who worked with him on other projects. Ross was also a friend to the various dig cats that enhanced the field seasons, particularly to Mish, rendered paraplegic by an accident when still a kitten. However, his appreciation of animals did not extend to insects, and Ross's Achilles' heel was and remained his arachnophobia.

Knowledgeable, generous and kind, Ross's tragically unexpected and untimely death at the age of 44 came as a shock to all, leaving a void amongst his friends and colleagues, both from a professional as well as a personal perspective. He leaves behind his much loved family, his children Ethan and Ayla, and his wife, Elisabeth O'Connell.

With thanks to Neal Spencer (*The Guardian*, 18 December 2022) and Steven Sidebotham for additional information.

Isabella Welsby Sjöström

Hans-Åke Nordström (December 25th, 1933–August 23rd, 2022)



Hans-Åke Nordström surveying at Jabal al-Ṭārif, 1975. Photography by Douglas Kuylenstierna.

Hans-Åke Nordström, after a long illness, at 88 years, has gone from time (*gått ur tiden*), a Swedish expression that is especially apt for someone who dedicated his working life to bringing the people of the past closer to those of the present.

Hans-Åke was born in the Stockholm region and lived in his family home in Saltjöbo, on the archipelago coast. He began his career with a degree in North European Archaeology, studying in the Gustavianum, the 17th century building where Torgny Säve-Söderberg, then professor of Egyptology, and his interest in Nubia, could be found.

After the finishing this degree, Hans-Åke went on to establish a career in Swedish archaeology. This was upended in 1959 when the construction of the High Dam, long forewarned, was put on fast track. The UNESCO international rescue campaign answered the Sudanese request for assistance with the appointment of William Y. Adams and Hans-Åke Nordström, tasked with identifying coming problems. Then 26 years old, Hans-Åke found himself stationed at Wadi Halfa.¹

Hans-Åke was part of three different expeditions while acting as a UNESCO advisor. He joined Bill Adams in the investigation of the west bank stretch from Faras to Gemai,² right across from the Scandinavian Joint Expedition (SJE) concession on the east bank. Crossing over, Hans-Åke provided essential assistance in the analysis and organisation of the massive number of SJE finds, dominated by pottery and shards, unearthed during that expedition's four seasons. Hans-Åke also joined the investigation of the area from Gemai to Dal³, led by Tony Mills.

Staying on as a UNESCO representative through the evacuation of Wadi Halfa, Hans-Åke witnessed the human consequence of the High Dam construction. In a report, Hans-Åke is described as an 'ex-pat' having lived in Sudan some six years. His time abroad came to an end however, and in 1966 he returned home.

Once in Sweden, Hans-Åke re-entered the archaeological workforce while remaining involved in the SJE research team. On one hand the many, many crates of finds had to be unpacked and magazine storage organised and on the other, publication pressure was already in place and he was assigned two volumes in the planned series, those covering the Neolithic and A-group (Vol. 3) and the C-group and Pan-grave sites (Vol. 4).

Troy, L. 2023 [http://doi.org/10.32028/SN27pp294-296].

¹ Säve-Söderbergh, T. (ed.) 1987. *Temples and Tombs of Ancient Nubia. The International Rescue Campaign at Abu Simbel, Philae and Other Sites*. London-Paris gives an account of the events leading up to the international involvement in rescue missions. Cf. esp. 72, 75, 189.

² Nordström, H.-Å. 2014. The West Bank Survey from Faras to Gemai. 1. Sites of Early Nubian, Middle Nubian and Pharaonic Age. Oxford; Adams, W. Y. 2005. The West Bank Survey from Faras to Gemai. 2. Sites of Meroitic and Ballana Age. Oxford; Adams, W. Y. 2005. The West Bank Survey from Faras to Gemai. 3. Sites of Christian Age. Oxford.

³ Mills, A. J. and H.-Å. Nordström 1966. 'The archaeological survey from Gemai to Dal: preliminary report on the season 1964-65', *Kush* 14, 1-15; Edward D. N. and A. J. Mills. 2020. *The Archaeological Survey of Sudanese Nubia, 1963-69: The Pharaonic Sites.* Oxford.

The aims for the publication series went beyond the traditional find lists. A new way of recording pottery was needed, one that could provide an objective documentary record and contribute to an understanding of the pottery's cultural context. It was against this background that Hans-Åke, with years' experience of handling the vast amount of SJE pottery, designed an analytic model that highlighted ware and shape.

In 1972, Hans-Åke not only published Vol. 3 in the series, *Neolithic and A-Group Sites*, but also used the first three chapters of that volume, slightly reworked, as his PhD dissertation in Northern European Archaeology at Stockholm University.⁴ The evident regional incongruity was disregarded as the department chair Greta Arvidsson recognised that the work's methodological innovations could apply to the needs of Swedish archaeology. In Uppsala, the high quality of the work led to the title *Docent* (comparable to Reader), in Archaeological Science at Uppsala University, a title created specifically for Hans-Åke.

In 1975 Hans-Åke participated in the expedition to Middle Egypt headed by Torgny Säve-Söderbergh and James Robinson of Claremont College in California. Its initial aim was to relocate the place where the papyri, known as the Nag Hammadi Library, were found. Once in place, the expedition experienced the local family feuds as a disruptive element and although the initial goal was not reached, the expedition did locate an Old Kingdom cemetery.⁵

Soon after returning from Egypt, Hans-Åke was appointed Director of the Bronze Age Section at Swedish History Museum (Statens Historiska Museum) in Stockholm. He held this position until 1993. While mounting important international exhibits, his support for the establish of a laboratory for conservation and research became an important focus, and an issue of the short-lived journal *Laborativ arkeologi* (vol. 7, 1993) recognised his contribution with a dedication.

While Hans-Åke's work life involved issues of preservation, documentation and display of Swedish artefacts from 1700-500BC at the Stockholm museum, he also continued to contribute to the volumes of the SJE, authoring sections in *Late Nubian Textiles* (Ingrid Bergman, Vol. 8, 1975), *New Kingdom Pharaonic Sites. The Pottery* (Rostislav Holthoer, Vol. 5:1 1977), and *Late Nubian Cemeteries* (Torgny Säve-Söderbergh (ed.), Vol. 6 1981). His workload at the museum prevented him however from fulfilling his commitment to author the Middle Nubian volume. Hans-Åke's extensive preparatory work for this volume, including the ceramic analyses, was acknowledged by Säve-Söderbergh, who completed the work as editor (*Middle Nubian Sites* Vol. 4: 1-2, 1989).

In the late 1980s, a small group of enthusiasts gathered in Uppsala to discuss the creation of a new reference work for Egyptian and Nubian ceramics. This was the early roots of what became the Vienna System. This was a good fit for Hans-Åke, as the goal of the group was to standardise an analytic model for pottery description, not unlike that which he had created for the early Nubia pottery.⁶

In 1993, at age 60, Hans-Åke was awarded a research grant that allowed him to turn his attention to the A-group. This began a period of research productivity that included studies of the social organisation,

⁵ Säve-Söderbergh, T. 1994. The Old Kingdom Cemetery at Hamra Dom (El-Qasr Wa es-Saiyad). Stockholm.

⁴ 1972. Cultural ecology and ceramic technology: early Nubian cultures from the fifth and the fourth millennia B.C. Acta Universitatis Stockholmiensis, Studies in North-European archaeology 4. Stockholm.

⁶Nordström, H.-Å. And J. Bourriau. 1993 'Ceramic Technology: Clays and Fabrics' in D. Arnold and J. Bourriau (eds), *An Introduction to Ancient Egyptian Pottery*. Fascicle 2. Deutsches archäologisches Institut, Abteilung Kairo. Sonderschrift 17. Mainz, 143-190; Nordström, Nordström, H.-Å. 2016. 'Pottery in context: the use of relational databases' in B. Bader, C. M. Knoblauch and E. C. Köhler (eds), Vienna 2 – ancient Egyptian ceramics in the 21st century: proceedings of the *international conference held at the University of Vienna*, 14th-18th of May, 2012. Leuven, 451-457. Cf. H.-Å. Nordström 2011. 'The significance of pottery fabrics', in D. Aston, B. Bader *et. al.* (eds), *Under the potter's tree: studies on ancient Egypt presented to Janine Bourriau on the occasion of her 70th birthday.* Leuven-Paris-Walpole, MA., 723-730.

particularly related to gender, revealed in the distribution of the finds.⁷

A reorganisation of the department structure in Uppsala also involved another move of the SJE finds and records. This opened another discussion of the future of this material. Hans-Åke's engagement in this issue was essential in the creation of a permanent archive incorporating the objects and documents as a resource for future research. The increased accessibility attracted young researchers and Hans-Åke willingly functioned as a guide, mentor, and later, collaborator.⁸

Although formal retirement came in 1998, publications continued to come, not least the volume, published in 2014, that completed the series documenting the West Bank Survey, bringing his career in Nubian archaeology full circle.

The accomplishments were many during a long, highly successful, career. Hans-Åke's passing was noted in remembrances in national and local newspapers. These texts, while recognising his status in the academic world, preferred to speak of his personal qualities. Hans-Åke is described as an inspirational boss that made the day-to-day work in the museum a pleasure. Memories of deep friendships were shared, painting a picture of motor trips across Europe and beyond, and long meals and meaningful conversation in bright summer evenings. One remembrance revealed that Hans-Åke's skill as a cook could be traced to the Nubian expedition house where cookbooks were the only available reading.

Among former colleagues, news of Hans-Åke's passing was met with sadness, as all said the same, 'he was such a nice man'. A simple understated comment, reflecting memories of a reliable decency conveyed with a warm smile and many kindnesses.

Hans-Åke is survived by his wife Lena, and his three children, with families. His was a life well lived.

Lana Troy

⁸ E.g., Gatto, M. C., J. C. Darnell *et. al.* 2009. 'Archaeological investigation in the Aswan-Kom Ombo region (2007-2008)', *Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo* 65, 9-47.

⁷ Nordström, H.-Å. 1996. 'The Nubian A-Group: ranking funerary remains', *Norwegian Archaeological Review* 29 (1), 17-39; Nordström, H-Å. 2002. 'The Nubian A-group: women and copper awls', in T. A. Bács (ed.), *A tribute to excellence: studies offered in honor of Ernö Gaál, Ulrich Luft, László Török.* Budapest, 361-371; 2004. 'The Nubian A-Group: perceiving a social landscape', in T. Kendall, (ed.), *Nubian Studies 1998: proceedings of the Ninth Conference of the international Society of Nubian Studies, August 21-26, 1998, Boston, Massachusetts. Boston,* 134-144; 2004. 'Gender and social structure in the Nubian A-Group', in T. Oestigaard, N. Anfinset and T. Saetersdal (eds), *Combining the past and the present: archaeological perspectives on society.* Oxford, 127-133.