

HERITAGE TÜRKİYE

BRITISH INSTITUTE AT ANKARA



BIAA British Institute at Ankara

The British Institute at Ankara (BIAA) is internationally renowned for conducting world-class research on Türkiye and the Black Sea region in the humanities and social sciences. As one of the British International Research Institutes (BIRI) supported by the British Academy, the BIAA facilitates the work of UK-affiliated academics in Türkiye and promotes collaborations with scholars based in Türkiye and the Black Sea region. It has offices in Ankara and London, and is a registered UK charity, significantly dependent on voluntary income. The Institute welcomes members of all nationalities.

The BIAA provides a Centre for Research Excellence in Ankara for use by scholars and students, including a library of ca 65,000 volumes and laboratories for studying faunal and botanical material. Its extensive research collections include pottery, botanical, faunal and epigraphic material, all of which can be accessed online, as well as photographic and fieldwork archives, and maps. The Institute also offers a range of grants, scholarships and fellowships to support undergraduate to postdoctoral research.

In addition to its journal (*Anatolian Studies*), the BIAA also publishes this annual magazine (*Heritage Türkiye*), regular newsletters and scholarly monographs relating to the archaeology and history of Türkiye and contemporary Türkiye, with a particular emphasis on publishing the results of Institute-funded research. Furthermore, the Institute runs an extensive programme of public events in the UK and Türkiye pertaining to all facets of the research that it supports.

The BIAA is an organisation that welcomes new members. As its role in Türkiye develops and extends to new disciplines, it hopes to attract the support of academics, students and others who have diverse interests in Türkiye and the Black Sea region. The annual subscription (discounted for students and the unwaged) entitles members to:

- hard copies of *Anatolian Studies* and *Heritage Türkiye*, and regular electronic newsletters;
- use of the Institute's Centre for Research Excellence in Ankara, including the research library, the extensive research and archival collections, and the laboratories and hostel;
- attend all BIAA lectures, events and receptions held in the UK and Türkiye, and attend and vote at the Institute's Annual General Meeting;
- discounts on BIAA monographs published by Oxbow Books and books relating to Türkiye published by I.B. Tauris;
- discounts on Turkish holidays organised by travel firms closely associated with the BIAA.

Membership including subscription to *Anatolian Studies* costs £50 per year (or £25 for students/unwaged).

To join the Institute, or for further information about its work, please contact us at biaa@britac.ac.uk | www.biaa.ac.uk

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Front cover: On the Pisidia Heritage Trail, from Selge to Pednelissos, October 2023: see pages 6–8.

HERITAGE TÜRKİYE

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Ankara, October 2023

Dear Members,

January 2023 marked 75 years since the British Institute at Ankara, then the British Institute of Archaeology at Ankara, was officially inaugurated. We had planned a year of celebratory events, but the disastrous earthquakes of February 2023 made ‘celebrating’ feel totally inappropriate, and the focus here in Ankara turned exclusively to the many victims of the disaster, as well as the survivors. Everyone knew people – family, friends or acquaintances – who did not make it, and we were and are all deeply saddened by the devastating scale of the disaster. Unfortunately, it seems the news agenda has now moved on, and the continuous struggle to clear the immense amount of debris, and to revitalise the area, is simply not discussed. Reports from eyewitnesses make it very clear that there still is a very long way to go.

While the BIAA was unable to directly raise funds for the victims, we did come up with a new ‘Emergency Response Facilitation Grants’ scheme to offer some help to academics from the earthquake zone. With additional funding from the Cultural Protection Fund (<https://www.britishcouncil.org/arts/culture-development/cultural-protection-fund>), we were able to support eight academics from the region to come and work at the BIAA. The grant holders, from a variety of disciplines, were from Hatay Mustafa Kemal University (Antakya), Osmaniye Korkut Ata University, Gaziantep University and Adıyaman University. Having survived the devastating earthquakes, they especially appreciated the peace and quiet in the BIAA library, a place to focus on work. The BIAA staff were very happy to have them with us, as they were valuable additions to the small community here. Many have now returned to the earthquake area and are teaching online. Some commute between Ankara and their offices; some no longer have an office to go to. Please keep an eye on upcoming BIAA lectures (<https://biaa.ac.uk/our-events>) because several of our guests will present their work at a BIAA event in the coming months.

After a late start, we were able to mark the 75th anniversary of the Institute with a rich programme of events throughout the year, ranging from Pisidia Heritage Trail walks in the spring and autumn, to conferences, workshops and meetings drawing attention to the BIAA’s current work in heritage management and public archaeology, contemporary and Ottoman studies and archaeological research. You can read more about all our 75th anniversary events in the magazine.

Also this year, Daniel-Joseph McArthur-Seal’s tenure as Assistant Director of Ottoman and Contemporary Türkiye came to an end. We would like to thank him for all his work at the BIAA, especially the renewal of the website, his involvement in moving the BIAA’s collections from custom-made to internationally used systems and the introduction of a cloud-powered platform. We wish Daniel much success during his fellowship at the Scuola Superiore Meridionale in Naples. The incoming assistant director, Peter Cherry, is an expert in comparative literature. Peter already knows the BIAA well, since he was a postdoctoral fellow in 2017–2018. Having resolved some complicated visa and work permit requirements, Peter will join us in Ankara at the end of November. We look forward to welcoming him then!

The BA Mid-Career Fellowship of Işıl Gürsu, Assistant Director for Cultural Heritage Management, has been extended to the end of March 2024 to account for the time spent on earthquake-related work. We are grateful to the British Academy for this consideration. It also means that Hakan Tarhan, who is helping out with research during Işıl’s fellowship, can stay with us through to the end of March, as can Özlem Başdoğan, heritage management specialist, who is filling in on administrative tasks and assisting

with research for Işıl’s upcoming book. Both Hakan and Özlem are valued team members here at the BIAA.

I am pleased to report that Özlem Sarıtaş was offered an extension to her postdoctoral fellowship in recognition of her hard work in 2022–2023 and the interesting proposal she put forward for the coming academic year.

Equally positive is the news from digital archivist Orhun Uğur, who left the BIAA to take up an exciting position as Digital Repository Associate with the team of the AHRC Imagining Futures



Outgoing Assistant Director of Ottoman and Contemporary Türkiye, Daniel-Joseph MacArthur-Seal (left) and incoming assistant director, Peter Cherry.

Through Un/Archived Pasts project at Exeter (<https://imaginingfutures.world>). We are especially pleased about this because Imagining Futures has funded the BIAA via several grants.

Sadly, the BIAA had to say goodbye to Charlotte Jordan, BIAA Development and Communications Officer, who decided to concentrate on her position as Engagement Manager at the Egypt Exploration Society. We thank Charlotte for all her great work over the last four years, growing the BIAA's online presence, working on events, and much increasing the visibility of the BIAA. We would like to take this opportunity to welcome Nora Straw, our new Development and Communications Assistant, who was selected from among an impressive number of applicants. Abby Robinson, Executive Editor of *Anatolian Studies* and *Heritage Türkiye*, has also stepped down from her role. Abby kindly 'jumped in' after Gina Coulthard's unexpected death and was instrumental in keeping the BIAA's annual publications on track. For that, we owe her our gratitude. Thankfully, Abby will remain involved in the editing of BIAA monographs.

The BIAA Digital Repository was launched in March with a lecture by Nurdan Atalan-Çayırmezmez, BIAA Digital Repository Manager, who made setting the repository up seem deceptively easy. You can watch a video of the lecture, along with recordings of most other BIAA events, on the BIAA YouTube channel (<https://www.youtube.com/@theBIAAnkara>), or browse the digital repository via the BIAA website (<https://biaa.ac.uk/digital-repository>). Every day, new data are ingested, such as the results of Reflectance Transformation Imaging (RTI) of tombstones of British people from the Feriköy Protestant Cemetery in Istanbul, a joint project with other international schools and institutes in Türkiye, led by Daniel-Joseph McArthur-Seal for the BIAA. RTI allows us to read the often badly weathered inscriptions of the 18th–19th century tombstones, facilitating better understanding of the lives of past expats in Istanbul.

In September, The Duke of Edinburgh, Prince Edward, visited Türkiye, and the BIAA was given the opportunity by the British Embassy and Consulate General to present some results from the project *Water in Istanbul: Rising to the Challenge?* (about which you can read more in this magazine). Together with staff from Istanbul Metropolitan Municipality, we were able to show the Duke an Ottoman water tower as well as the magnificent, newly restored Basilica Cistern (Yerebatan Sarayı). Ender Peker (Middle East Technical University, Ankara) and I represented the BIAA and the project.

I am afraid that I must also mention some sad BIAA-related news, in that we lost several long-term supporters of the Institute this year, namely BIAA Vice-President Sir Matthew Farrer, as well as Sir Timothy and Patricia Daunt. Sir Matthew mostly stayed in the background, but the BIAA could always count on him if needed. Sir Timothy was a former British Ambassador to Türkiye and supported the BIAA in a variety of ways, including by chairing the Research Committee, for many years. We will miss him and his wife Patricia, who was also a staunch supporter of the Institute, as well as of archaeology and heritage in Türkiye more widely.

The contents of the magazine will take you through the research projects co-funded by the BIAA and share the results of the BIAA's own projects. We hope that the contributions reflect the wide variety of work currently undertaken by BIAA-associated researchers and scholars from UK HEI who receive funding. Enjoy!



The Duke of Edinburgh, Prince Edward, visits the restored Yerebatan Sarayı (Basilica Cistern) in Istanbul, with representatives of the BIAA (right), the British Consul General and representatives of Istanbul Metropolitan Municipality.

Lutgarde Vandeput, Director of the British Institute at Ankara

Tributes to Sir Matthew Farrer and Sir Timothy and Lady Patricia Daunt

William Saunders & Stephen Mitchell

All members of the British Institute at Ankara have been saddened by news of the deaths of Sir Matthew Farrer, aged 93, on 21 May, and Sir Timothy Daunt, aged 87, on 5 August, and of Timothy's wife Lady Patricia Daunt, aged 84, on 2 October 2023. Matthew and Timothy served respectively as Honorary Treasurer and Chair of the Council of the BIAA. The Institute owes a large debt to their discretion and skill at handling personalities, which provided guidance through turbulent as well as successful times over more than 25 years between 1980 and the early 2000s. Both subsequently became Vice-Presidents and continued to be enthusiastic and loyal supporters, frequently attending lectures and other events, and providing invaluable contacts based on their long and wide experience.

Sir Matthew Farrer

Matthew Farrer was born on 3 December 1929, the son of the King's solicitor, Sir Leslie Farrer. Fate would seem to have pre-ordained for him a career in the law, but his passion was for archaeology. His contemporary at Bryanston School (they were born one day apart) was David Winfield, the distinguished conservator and archaeologist in Turkey and Cyprus. Like David, Matthew went on to study history at Oxford. He subsequently spent a year immersing himself in Mediterranean archaeology before joining the family firm and commencing a distinguished legal career. However, he and his family continued to travel with David on numerous occasions across Turkey in subsequent years.

Matthew used always (with that characteristic twinkle in his eye) to blame David Winfield for persuading him to take over the Institute's Treasurership in 1977, though one may assume he did not strongly resist the chance to become involved again in Anatolian archaeology. He took office at a time when the Institute was still recovering from difficulties in the 1960s that might have been fatal to its continued existence in Turkey. In particular, the so-called Dorak Affair had resulted in a scandal that reached the national newspapers; and difficulties with the Institute's world-famous Neolithic site at Catal Huyuk (Catalhöyük) led to the banning from Turkey of its principal excavator and the cessation of work at the site for many years. In that situation, Matthew's standing (he had succeeded his father as Queen's solicitor in 1964) and expertise were ideally suited to steering the Institute into calmer waters. In addition, his interest in, and understanding of, the archaeologist in the field meant that he dealt sympathetically with the many varied characters engaged in the Institute's work.



Sir Matthew Farrer talks to Fiona Ligonnet, former London Secretary of the BIAA, at the memorial event for Alan Hall held in the British Academy in 2015.

The officers in turn recognised that Matthew was universally respected and lent to the Institute a standing that was valued by, among others, the British Academy (the Institute's principal funder). By the end of his tenure as Treasurer the scandals of the past had been largely forgotten and the site of Catal Huyuk was successfully re-opened in 1995, as Matthew handed over the reins to his successor.

In retirement Matthew (by now Sir Matthew) retained his interest in archaeology. He completed his term as a trustee of the British Museum and on the British Library Board, but he never lost his interest in the Institute and was often to be seen at the annual general meetings. As a trustee of the Charlotte Bonham-Carter charitable trust, he ensured that support continued to be given to the Institute's research activities.

Sir Matthew Farrer died on 21 May 2023. He is survived by his wife, Johanna, and their two children.

Sir Timothy and Lady Patricia Daunt

Sir Timothy Daunt, the UK's Ambassador to Turkey from 1986 to 1992, became a BIAA insider after his retirement. He was Chair of the Council from 1995 to 2005, and served subsequently as Chair of the Research Committee, and as one of the Institute's Vice-Presidents. This continued the practice established in the early 1960s of inviting ex-British ambassadors to Turkey to take the position, and his tenure overlapped with his final diplomatic posting as Lieutenant-Governor of the Isle of Man. He brought a light touch to the role, usually preferring to leave policy-making to the academic officers and council members. This stance reflected the Institute's circumstances after turbulence in

the mid-1990s. Council members were divided about the measures taken after the retirement of Director, David French, in 1994. For more than a year the Assistant Director David Shankland, an anthropologist, was named Acting Director, but the succession passed to an experienced Middle Eastern archaeologist, Roger Matthews, in 1996.

Timothy's experience and always unruffled temperament were vital factors in reducing potential internal conflicts. His term preceded the BIAA's shift to embrace a multidisciplinary agenda, which was already being advocated by voices inside and outside the Council, and was taken forward energetically by his successor, Sir David Logan. In fact, the late 1990s proved to be one of the most successful and fruitful periods of the BIAA's history as a centre of archaeological research. During this time, the Turkish Ministry of Culture became more liberal than at any previous time in granting permits both to Turkish and foreign excavation and survey teams to carry out fieldwork, and the BIAA accordingly maintained a level of between four and six major excavation or survey projects from 1994 to 2006, bringing many new researchers into the field. Under Timothy's guidance, and with the whole-hearted support of Peter Brown, then Secretary of the British Academy, the BIAA made important changes to its constitution and governance and introduced a much larger programme of awarding competitive research grants. Timothy played a crucial part as Chair in strengthening and guaranteeing the rigour and fairness of the process, as well as taking evident pleasure in the rapid expansion of BIAA activities in Turkey and the Black Sea region.

He was reserved, not extravagant, gentle in manner and humorous, but never slow to bring discussions and negoti-

ations to the point where differences could be resolved. His deference to professional academics was not uncritical when it came to some of their research. One can recall him, over a glass of wine, remarking of a particularly iconoclastic lecture, that this couldn't really be the new orthodoxy, and there was no reason to disagree with him. It is hard to remember an occasion when one left a meeting angry or frustrated because an important issue had been evaded. These diplomatic skills served the BIAA extremely well, and he remained a loyal and valued supporter into the last year of his life. A particularly touching moment was the last time that he attended a BIAA event, the Memorial Lecture in January 2023 for Gina Coulthard, with whom he worked very closely in the early 2000s.

He had met Patricia when both were working at the British Embassy in Ankara and they were married in 1962. They were enthusiastic and adventurous travellers with a shared passion for Turkey which stretched from the shores of the Bosphorus to the country's wilder reaches, its forests and mountains, and its historical and archaeological heritage. Patricia wrote a highly successful book, *The Palace Lady's Summerhouse and Other Inside Stories from a Vanishing Turkey*, drawing on articles which she had written over the years for *Cornucopia* magazine, to which she was a regular contributor. She was best known in archaeological circles as founder member and Honorary President of the Friends of Aphrodisias Trust. Patricia had been severely disabled after a riding accident in Jordan 2016, and Timothy had been her main carer in recent years. Aphrodisias was only one of the many causes to which she devoted herself, even after the restrictions of her final years.



Sir Timothy and Lady Patricia Daunt.





Walking the Pisidia Heritage Trail, October 2023.

doi:10.18866/biaa2023.03

The 75th anniversary of the BIAA, 2023

Lutgarde Vandeput, Işıl Gürsu & Daniel-Joseph MacArthur-Seal | British Institute at Ankara

In January 1948, the ‘British Institute of Archaeology at Ankara’ (BIAA) was inaugurated in the presence of the Turkish Minister of Education Reşat Şemsettin Sirer and the British ambassador Sir David Kelly.

Seventy-five years have now passed and the institute, still BIAA, is now known as the ‘British Institute at Ankara’, a name that better reflects the wide range of disciplines currently studied under its auspices. The BIAA now welcomes scholars from across the Humanities and Social Sciences and is a very different institute from the early days. But the central focus of its mission remains the same: the BIAA aims at enabling UK-based scholars to undertake research on Türkiye and the Black Sea Region and strengthening collaboration between academics from the UK and Türkiye. It continues to welcome scholars from the UK and the wider world to work with the research collections, from the rich library to squeezes and archaeological materials, housed at the Institute. The BIAA has also become a research-generating institution, and a variety of projects are conducted by its staff and fellows in collaboration with UK and Turkish HEI.

The terrible earthquakes in the southeast of Türkiye in February 2023 shook everyone in the country and beyond. As a result of the tragic loss of life and scale of damage across a

wide part of the country, there was an inevitable impact on academic life, with universities moving to online teaching, and a number of events, including some planned by the BIAA, were postponed or cancelled. Thanks to the support of the Cultural Protection Fund and the British Academy, the institute was able to welcome eight emergency research fellows from universities in the affected region, supporting them to relocate and restart their research activities in Ankara.

The series of events to mark the anniversary was kicked off with the launch of the guidebook to the Pisidia Heritage Trail, led by Işıl Gürsu, BIAA Assistant Director of Cultural Heritage Management. The book is a culmination of three decades of archaeological work in southwest Türkiye, bringing together a wide range of knowledge extending from archaeology to geography, and from botanical to intangible cultural heritage. Within the 75th-year anniversary programme of the BIAA, two Pisidia Heritage Trail tours (in May and October 2023) were organised by Equinox Travel and endorsed by the BIAA. Members of the Institute and of the interested community took part.

The most ambitious cultural heritage project of the institute during these 75 years was the SARAT Project (Safeguarding Archaeological Assets of Turkey), winner of

2020 Europa Nostra award. The project came to an end at the beginning of the Covid-19 pandemic, forcing us to postpone its closing meeting. As part of the 75th anniversary programme, a meeting was organised at the Erimtan Museum, Ankara, in March 2023, with the participation of SARAT's various stakeholders and heritage experts in attendance. The institute has been very active in the cultural heritage field in the last decade and currently, thanks to a British Academy Mid-Career Fellowship, Işlay Gürsu is bringing together the data, results and insights from this research in a monograph entitled *Public Understanding of Archaeology in Turkey*.

Cultural heritage has also featured regularly on the events agenda, with topics ranging from 'What's the meaning of Stonehenge? An exploration of public perceptions & public engagement' to the screening of the documentary *Olive*.

The BIAA's 75th anniversary coincides with the 100th anniversary of the declaration of the Republic of Türkiye, and so the year 2023 is particularly important for the study of modern Türkiye. The Institute has been closely engaged in such contemporary research since the early 2000s, as witnessed by the appointment of a series of assistant directors from the fields of modern history and social and political science, and the expanding remit of the institute's event organisation and grant giving.

The year has also seen the 100th anniversary of the Treaty of Lausanne, signed on 24 July 1923, which resulted in international recognition of the state's new borders and paved the way for the declaration of the Republic just over two months later. Professor Jay Winter, retired after an illustrious career at the universities of Yale and Cambridge, delivered an important lecture at the BIAA based on his recently published book on the Lausanne conference.

The Treaty of Lausanne included provision for the withdrawal of British, French, and Italian troops from Istanbul, where they had formed an occupying force for close to five years following the end of hostilities between



Marking the 100th anniversary of the declaration of the Republic of Türkiye at Anıtkabir, Ankara (above) and on the Bosphorus, with a view of Kız Kulesi (below).



Işlay Gürsu (the Institute's assistant director for cultural heritage) at the event with SARAT stakeholders, discussing SARAT and other BIAA cultural heritage management-related projects.

the Allies and the Ottoman Empire. The occupation has been the long-term research focus of the BIAA's Assistant Director from 2019 to 2023, Daniel-Joseph MacArthur-Seal. Throughout the year, an exhibition curated by Daniel and former BIAA post-doctoral research fellow Gizem Tongo has been on display at the Istanbul Research Institute, documenting the life of the city's residents and occupiers during this unique period (<https://www.iae.org.tr/Sergi/Mesgul-Sehir/209>). When it is published later this year, the Institute will host the Ankara launch of the exhibition catalogue.

The pains of occupation set Turco-British relations off to a rocky start, but subsequent decades witnessed a rapprochement that eventually led to formal alliance within the framework of the North Atlantic Treaty Organization (NATO). Tracking the transformation of this relationship was the goal of the BIAA research project *From Enemies to Allies: Turkey and Britain, 1914–1952*, a series of four workshops held over the years 2015–2019 which resulted in three journal special issues and culminated in the publication of an edited volume late last year.

Under the BIAA's Strategic Research Initiative on past and present UK-Türkiye relations, numerous other projects examining the topic have been supported in recent years, on such subjects as migration to the UK and Turkish perceptions of Britain.

In another anniversary event, a panel discussion on Turkish foreign policy over the past 100 years took place in London, chaired by Sir Dominick Chilcott, recently retired ambassador of the United Kingdom to Türkiye and newly elected president of the BIAA. Panellists included Prof. Yaprak Gürsoy, chair of contemporary Turkish studies at London School of Economics, Dimitar Bechev, author of *Turkey under Erdoğan* and analyst at Oxford Analytica, Dilek Barlas, Professor of International Relations at Koç University, and Selim Yenel, former diplomat within the Turkish Ministry of Foreign Affairs and current president of the Global Relations Forum.

Current research in what are often considered the more 'traditional' areas of expertise of the BIAA was equally well represented among the events. Topics of lectures ranged from a presentation of results of the ongoing interdisciplinary excavation project at Seuleukeia Sidera to a talk on hunting and early herding strategies in Neolithic sites of the Konya plain, based on archaeozoological analysis, and on genomics in the study of animal domestication. These topics reflect the wide range of approaches currently applied in archaeological research. The lectures are available via the BIAA YouTube channel (<https://www.youtube.com/@theBIAAnkara/videos>).

In addition to evening events, a number of workshops and conferences took place throughout the year. First in line was the conference linked to the project *Water in Istanbul and Beyond: Past, Present and Future*, which marked new approaches to research in the humanities by merging archaeological research with STEM disciplines and social sciences focusing on the contemporary needs of water management in Istanbul (see pages 24–26). The project illustrated that disciplines like archaeology can contribute to solutions to present (and future) problems. The same can be said of the project *Fragile Landscapes* (see pages 28–29), which also focused on past practices in water management and their potential importance in informing present and future challenges in the Konya Plain. These issues were discussed with stakeholders from a variety of regional and national authorities at a workshop at the BIAA in August.

In May, the conference 'Integrated Approaches to the Political Geography of Southern Anatolia, 1650–550 BCE', took place, co-organised by Bilkent University (Ankara) and the BIAA (<https://bilkentnews.bilkent.edu.tr/?p=4644>). The aim was to create an interdisciplinary platform to engage with the political geography of southern Anatolia between the mid-second and the mid-first millennium BCE.

A totally different workshop took place in July. This year was also the 750th anniversary of the death of the

BIAA British Institute at Ankara

BRITISH INSTITUTE OF PERSIAN STUDIES مؤسسه ایرانی‌شناسی بریتانیا

Jalal al-Din Rumi and his Legacy: Religion, Literature and Culture between Medieval Anatolia and the Persianate World, 13th-14th Centuries

Panelists:

| | |
|--|--|
| Mohammad Estelami McGill University | Sara Nur Yıldız Middle East Technical University |
| Matthew Lynch Oregon State University | Richard Piran McClary University of York |
| Alan Williams University of Manchester | Roderick Grierson Near East University |
| İktil Selçuk Özyeğin University | Murat İnan University of Victoria |
| Ali-Asghar Seyed-Ghorab Utrecht University | Zeynep Oktay Boğaziçi University |
| Zarifa Alikperova University of Oxford | Andrew Peacock University of St Andrews |
| Scott Redford SOAS, University of London | Maarten Holtzapffel Utrecht University |

6-7 July 2023
The British Institute at Ankara
Atatürk Biv No: 154, Çankaya, Ankara

Registration required, limited places
<https://biaa.ac.uk/events/jalal-al-din-rumi-and-his-legacy/>

BIRI
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Poster for the workshop on Jalal al-Din Rumi that took place at the BIAA in July 2023.

poet and religious scholar, Jalal al-Din Rumi, known in Turkish as Mevlana. In July, an important in-person workshop on Rumi's life and work was held at the Institute (<https://biaa.ac.uk/events/jalal-al-din-rumi-and-his-legacy/>). The event was a collaboration between the BIAA and the British Institute for Persian Studies, one of the BIAA's sister BIRI institutes. The conference brought experts from all over the world together to discuss Rumi, a figure who represents the long history of interaction between Persia and Anatolia.

Finally, a conference on the Konya plain in December 2023 celebrated 60 years' of BIAA-backed projects in the area and illustrated how sharing results and enabling overarching research on DNA or isotope analysis, for instance, adds up to much more than the sum of the data involved and changes perceptions on developments in the Neolithic period that are of importance for a much wider area than the plain alone.

All of this shows that the BIAA is very much alive and looking towards the future and exciting projects to come. We also anticipate continuing to share research with the international research community and the wider public through a wide range of events.

BIAA Masters Dissertation Prize

Catherine M. Draycott | Durham University

In 2022–2023 the British Institute at Ankara ran its inaugural Masters Dissertation Prize. The competition is open on an annual basis to taught postgraduate students of a UK-based university, for dissertations submitted in the past academic year. The second annual call for submissions was issued in September 2023 with a deadline of December 1.

The dissertation competition was developed to promote, recognise and encourage excellent research by scholars engaged in the study of Türkiye and the Black Sea in any period or discipline. Numerous BIAA members generously contributed to a fund-raising drive to support an annual prize of £500 plus membership of the BIAA.

The quality of entries in the first year was impressively high, and the judges found it difficult to select a winner, but Cathy Graham's dissertation *Plaster as a Vital Material: The Agency of Plaster in the Curation of the Çatalhöyük Skull* showed exceptional intellectual sophistication and ingenuity, and was felt to make a significant impact on the understanding of plastered skulls, uses of plaster and approaches to materials in general far beyond Çatalhöyük. The dissertation reconfigured the approach to long-known artefacts previously archaeologically assessed in a rational materialist framework, employing theories of ontology and materiality in an accessible and lucid discussion of how plaster, used in artefacts such as the Çatalhöyük skull, can be understood as a living material that could 'magically' bring such skulls to life as beings in the world and networks of those who lived with them.

Cathy Graham said,

I am delighted to have been awarded the BIAA dissertation prize for my interpretation of a Neolithic plastered skull discovered in Çatalhöyük. This skull, found in the arms of a female skeleton, has gripped my imagination ever since I learned about it in my Ancient Religions course at the University of Wales Trinity Saint David. The BIAA prize money has enabled me to go on a field trip for my PhD to study the 'Ain Ghazal statues, which share certain stylistic similarities to the Çatalhöyük skull, and I hope to further my knowledge of plaster as the Neolithic material of symbolic resonance by visiting Türkiye in the near future.

Other dissertations submitted covered a wide variety of topics, disciplines and time periods from Ottoman women to cutting-edge GIS techniques. In view of the excellence of the work, the panel felt that all of the authors deserved congratulations, and all eight were awarded Institute memberships.

If you would like to make a donation to the BIAA Masters Dissertation Prize Fund to ensure its long-term support, please contact biaa@britac.ac.uk, or use the form here: <https://app.etapestry.com/onlineforms/TheBritishInstituteofArchaeol/DonateMasters.html>.

| Name | Institution |
|-----------------------|---------------------------------------|
| Zhara Adal | Queen Mary, University of London |
| Oscar Beighton | Durham University |
| Tom Gavin | Wolfson College, University of Oxford |
| Cathy Graham | University of Wales, Trinity St David |
| Selin Gücüm | London School of Economics |
| Sólveig Hilmarsdóttir | University of Cambridge |
| Ibrahim Ince | University College London |
| Fiona Philips | University of Oxford |

The list of entrants, all of whom were highly commended.



Cathy Graham

BIAA publications enter a new era

Catherine M. Draycott | Durham University

In 2022, Tamar Hodos stood down after 10 years as Chair of the BIAA Publications Committee and editor of BIAA Monographs. She is succeeded in the role by Cathie Draycott.

Tamar oversaw the publication of several monographs in the series, including the final four volumes from the Çatalhöyük Research Project. One of the improvements that came with those Çatalhöyük volumes is a bounty of online, open access supplementary material (<https://biaa.ac.uk/publication/online-supplementary-material>), starting with PDFs and developing to include 3D imagery. This was enabled through the efforts of Tamar and of Abby Robinson, who also worked on the volumes. As well as her work on the BIAA Monographs series, Tamar also refreshed the two IB Tauris/Bloomsbury monograph series: *Contemporary Turkey* and *The Ottoman Empire in the Early Modern World*, now edited by Ceren Lord and Christopher Markiewicz respectively.

In 2023, another desideratum was achieved. Tamar had shepherded in e-books, putting David French's *Roman Roads and Milestones of Asia Minor* online, as well as other publications such as the booklet about French by Stephen Mitchell (<https://biaa.ac.uk/publication/open-access-electronic-publications>). Now, starting with a book dedicated to Geoffrey and Françoise Summers, entitled *From Midas to Cyrus and Other Stories*, BIAA Monographs will routinely be available as e-books. Readers will be able to order the volumes as e-books through distributors linked through Casemate Publisher's online shopfront, or in hardback, printed on demand.

At the same time, thanks to the work of editor Janine Su, the cover of the series was updated, bringing it in line with BIRI branding, and allowing more flexibility with cover images. Interior updates include title pages, illustrations and indexes.

Beyond reducing publishing costs, the benefits of pdf e-books include greater accessibility, enabling text-to-speech tools, the possibility of converting fonts to specialist ones for reading difficulties or impaired vision, and even translating the language of the text with the use of new online tools.

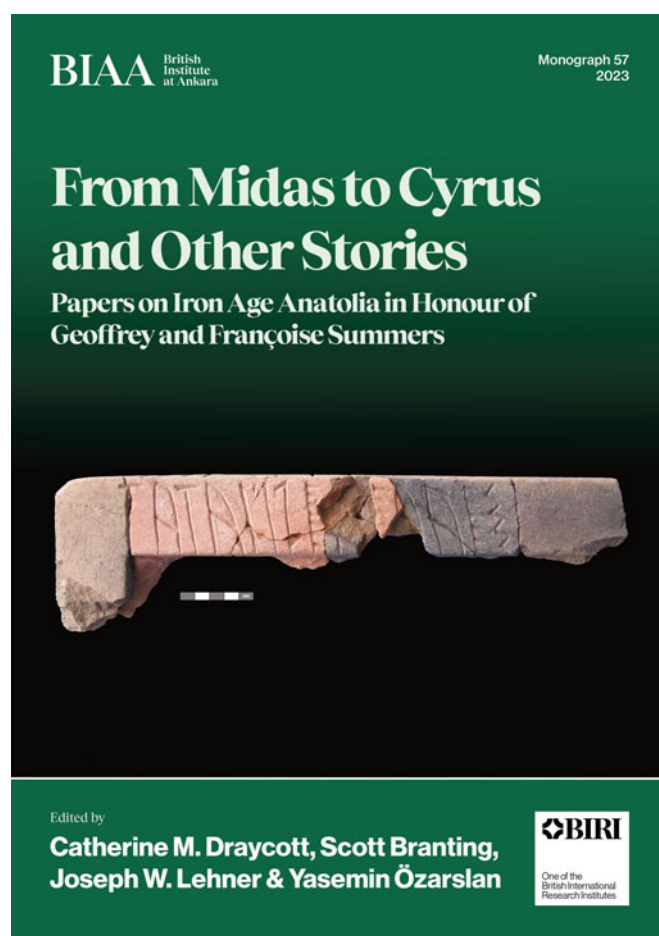
Researchers considering publishing with BIAA Monographs are welcome to contact the series editor to discuss their visions: publications.chair@biaa.ac.uk.

To order BIAA Monographs, see British Institute at Ankara under Partner Publishers on casemateacademic.com and casematepublishing.co.uk.

Editor of annual publications

Abby Robinson has held the position of Editor of Annual Publications since August 2022, manning the helm since the

sad loss of long-time editor Gina Coultard. While balancing the work on the Catalhöyük monographs and other projects, Abby pushed through the 2022 and 2023 editions of *Anatolian Studies* in partnership with the academic editors, as well as two issues of *Heritage Türkiye*. It has been no mean feat to fill Gina's shoes, since she had crafted her process over the decades. Abby's work has received praise from contributors to *Anatolian Studies*, who have remarked on her responsiveness and supportive feedback, and together with the academic editors she has produced clearly documented data management and work flow systems. Abby is now moving on to work on other projects, and we express our profound thanks to her for her contributions to the BIAA. At the same time, we are delighted to welcome Janine Su as her successor, after a competitive recruitment process. Janine has long experience with copy-editing and graphic design, including for BIAA publications, and has already (as mentioned) contributed her skills to the new look of the BIAA Monograph series.



The forthcoming volume dedicated to Geoffrey and Françoise Summers, featuring the new cover design.

CULTURAL HERITAGE, SOCIETY & ECONOMY

The promotion, management and regulation of cultural heritage is a complex process involving many different agents and stakeholders on local, national and international levels. This is a critical area of public policy involving a range of actors that includes international organisations, government ministries and agencies, political parties, businesses, museums and local communities. How cultural heritage is produced, interpreted and understood can have a profound impact on social and economic activity and decision-making. It influences the formation of social values and ideas as well as notions of common identity and history, and also affects management of the economy and infrastructure. The importance of cultural heritage management is increasingly recognised and acknowledged in Türkiye, and the field is developing rapidly. New issues and problems have emerged, for which solutions that comply with and enhance the highest international standards have to be found within Türkiye. This strategic research initiative sets out to examine the relationships between the many agents and actors in the field of cultural heritage in the Turkish context.

doi:10.18866/biaa2023.06

British Academy Mid-Career Fellowship: public understanding of archaeology in Türkiye

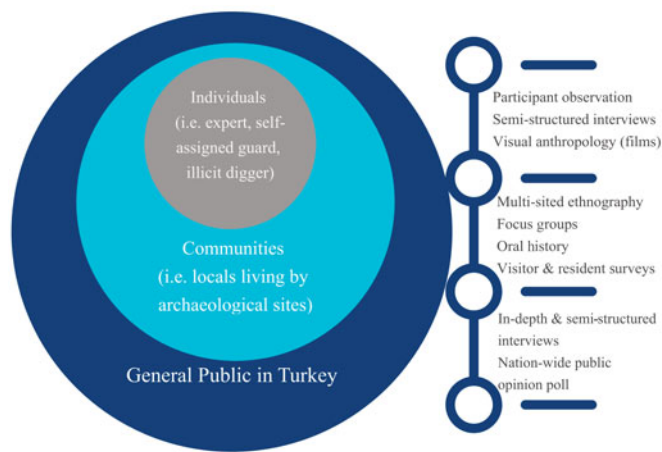
Işıl Gürsu | British Institute at Ankara

Readers of *Heritage Türkiye* will be familiar with the BIAA's cultural heritage management research initiative and its affiliated projects, underway since 2013. Last year, I was appointed as the Institute's assistant director for cultural heritage following my involvement in these projects in different capacities. Around the same time, I received positive news from the British Academy about my 2022 Mid-Career Fellowship application. Although this meant that I would be on a one-year long sabbatical nine months into my assistant directorship, it was a great opportunity to dedicate all my time to bringing together the data, results and insights of the last decade's experience. The Fellowship currently buys out my full-time employment until the end of March 2024 and provides research assistance from Özlem Başdoğan. Together we are concentrating on finishing a significant piece of work, while Hakan Tarhan takes over my duties at the BIAA for this period.

The main output of the Fellowship is a scientific monograph dedicated to the public understanding of archaeology in Türkiye (PUNAT). This project is deeply embedded in an understanding of Turkish society at the intersection of politics, history, sociology, economy, archaeology, anthropology and psychology: it is a Herculean task that must be shouldered through the use of various methodologies, at different scales. PUNAT comprises an

assessment of different types of engagement with archaeological heritage, targeting four groups: (a) the general public; (b) local communities living near archaeological sites; (c) heritage experts; and (d) individuals who have exceptional relationships with particular archaeological sites and landscapes, for professional or personal reasons (see chart, next page).

Türkiye's cultural and archaeological heritage is a huge asset and resource for innumerable individuals, groups and organisations that lay claim to it through consumption and commodification. Some stakeholders literally live off this heritage, others destroy it, and a significant fraction do both at the same time. The speed at which archaeological heritage is being eroded demands not only urgent protective measures, but also comprehensive investigation of the underlying reasons for loss and destruction. Experts are usually aware of the need to build stronger ties with the public and specific communities, but few have devised effective measures to achieve this successfully, and overarching methodologies need to be developed. Published studies are mostly anecdotal, usually based on small datasets, and often lack proper discussion of their impact on communities. Because of the range of socio-economic, cultural and political contexts in which solutions need to be found, there is no one-size-fits-all solution in efforts to



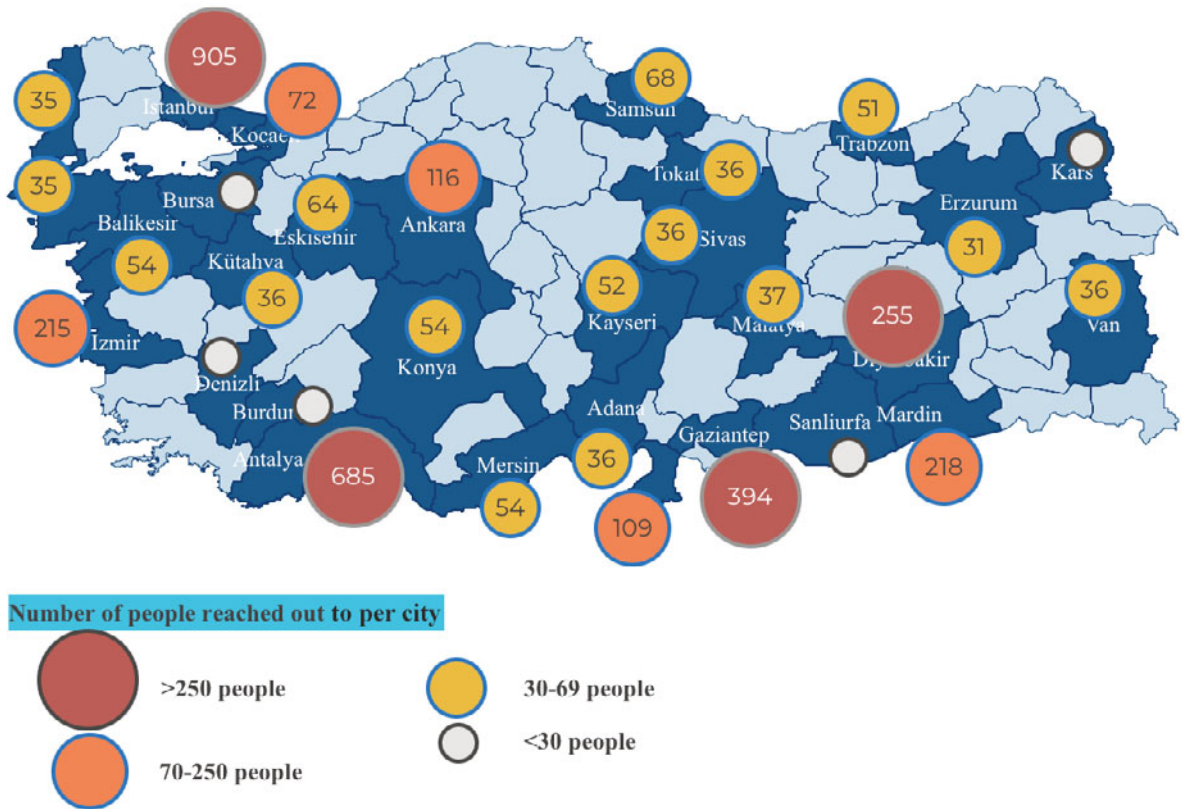
Different methodologies used for different publics.

safeguard archaeological heritage. Public engagement and involvement are among the most viable options, and citizen science represents an underexploited opportunity to stimulate movements addressing these challenges.

Additionally, it is not uncommon to come across negative or dismissive comments regarding the public's attitudes towards archaeology in Türkiye. To what extent do these comments reflect the reality? How interested and engaged is the public with Türkiye's archaeological assets? What kind of values are assigned to historical assets and by whom? What are the components of the cognitive landscape of archaeology? What are the key emotions that dominate this landscape: anxiety, curiosity, fear, pride or resentment? To what extent do perceptions shape engagement with archaeological assets? Are the experts really alone in their quest to safeguard heritage and if so, how can they get more support? These are some of the questions that the book is trying to answer through the insights gained from the cultural heritage projects of the BIAA. These projects have generated a nuanced picture of how people are affected by, think about and behave toward archaeology, archaeologists and archaeological remains. The research has also investigated how archaeologists value engagement with the wider public, specifically in relation to heritage protection. The most important outcome of the initiative has been to demonstrate that while general knowledge about archaeology is low, Türkiye's archaeological heritage triggers intense curiosity, spurs creative narratives about the past and is assigned a high intangible value. It is an urgent policy priority to channel this interest to safeguard heritage against serious threats, including a rapidly expanding construction industry, endemic illicit excavations, armed conflict and climate crisis. However, archaeologists and policymakers rarely turn to this implicit public support and interest because they are unaware it exists or they lack the tools to engage meaningfully with communities.

The BIAA initiative is currently the most comprehensive regional study in the eastern Mediterranean based on public understanding of and engagement with archaeology. It has turned the scientific spotlight onto the public body, underlining that this is never a monolithic entity, and that strategies and policies must be multivocal to reach their targets and have an effective impact. The initiative was based on an innovative methodological framework, used to create a flexible analytical framework that would be replicable in other contexts. It also generated a rich dataset that constitutes an indispensable resource to support a multi-layered assessment of national cultural heritage and to make the voice of the Turkish public heard in the national and international arena. The map opposite presents the total number of people reached via a nation-wide public opinion poll and follow-up in-depth interviews, both conducted within the SARAT (Safeguarding Archaeological Assets of Turkey) project, the multi-sited ethnography data collected via semi-structured interviews within the Living Amid the Ruins project, and the results of resident surveys conducted as part of the Aspendos Sustainable Development Project. These numbers are updated as I write and reach out to more people in the process.

The PUNAT project reflects nuanced insights into the views and positions of multiple stakeholders and clarifies a complex topic by breaking down public perceptions of archaeology and heritage into quantifiable and intelligible components. The main argument of the book is to bring together all the information in favour of public involvement in the safeguarding of Türkiye's archaeological assets. I believe that a monograph is the best platform for endorsing this cause. Over the course of the BIAA initiative, I have been involved in a series of public outreach events directed at audiences such as NGOs, academics, students, decision makers at local and national level, tourism representatives, funding bodies, heritage experts, and interested members of the public, both in Türkiye and in the UK. During these events, I have collected diverse feedback and taken note of differing perspectives on the issue of the involvement of public in safeguarding archaeological heritage. Although the topic has always raised interest, 30-minute talks or newspaper interviews could only highlight the most important research findings without a full methodological discussion of their implications and applicability. Fully grounded and thorough discussion and analysis are essential to trigger a shift in the mindsets of the experts, who are the potential facilitators of public involvement in the safeguarding of archaeological assets. The publication and dissemination of the results are aimed at building mutual trust between academics, practitioners and society, where public opinion becomes a resource for experts and policymakers rather than another obstacle to overcome.



Whose voices do we hear?



Visiting the ancient theatre at Termessos along Pisidia Heritage Trail (photo by Ekin Kazan).

Public perceptions of Byzantine heritage in Türkiye

Hakan Tarhan | British Institute at Ankara

My project at the BIAA focuses on the relationships between local people and Byzantine heritage assets in Türkiye. In an extension of my PhD research at the IMT School for Advanced Studies Lucca, I am implementing new methodologies to supplement the data I collected and deepen my analysis of the subject.

The relationship between cultural heritage and identity has long been recognised. Especially with the establishment of modern nation-states from the late 18th century onwards, the past and heritage have been used to justify a nation-state's existence and prove its distinctiveness. A glorious past would be chosen (sometimes even 'invented') from a nation's history and heritage appropriated to fit the national narrative. The selection of a certain past and heritage as 'national heritage' undoubtedly resulted in the destruction, deliberate or not, of the material traces of the pasts that were 'dissonant'.

Greece and Türkiye both underwent processes of this kind. Greece established its identity along two core axes: Classical Antiquity and Byzantium/Orthodox Christianity, disregarding its Ottoman past and uniting the modern Greek people and the state with Ancient Greek civilization. On the other hand, the modern Turkish state employed the Turkish War of Independence and the legacy of the historic Turkic tribes with roots in Central Asia. An intensive programme of 'shaping history' was undertaken to make the argument that Anatolia was always the homeland of the Turkic people. The selective creation of national narratives and 'national heritage' eventually resulted in the denial, neglect and to some extent, demolition of the heritage of the 'Other' in both countries.

Focusing on perceptions of two specific 'dissonant' heritages – Ottoman heritage in Greece and Byzantine heritage in Türkiye – I have investigated how national identities were constructed during the early years of these two independent nation-states. I have also looked at how national heritage discourses were subsequently created by excluding those cultural heritages deemed to belong to the 'Other' and by choosing material and immaterial cultural heritage appropriate to the national historiography as the 'national heritage'. I have then investigated the effects of these narratives on the material wellbeing of those dissonant heritage assets.

In addition, I have explored people's perceptions of the heritage of the 'Other' through public opinion surveys (443 in all) with the inhabitants of two towns in Greece (Trikala and Serres) and two in Türkiye (Trabzon and İznik). The questionnaires had three main parts: demographics; public interest and attitude towards cultural heritage in general; and public interest and attitude towards heritage of the 'Other'. The results in İznik and Trabzon, which underlie my BIAA project, provide meaningful insights into how locals feel about cultural



Hagia Sophia in Trabzon.

heritage in general and about the Byzantine cultural heritage in their cities. Interactions between individuals and Byzantine monuments appear to take place and increase when these monuments continue in use; for example, as city walls and gates, bridges or aqueducts, or when they are utilised for new functions; that is, as museums and cultural centres, but also as mosques, like the Hagia Sophia churches in İznik and Trabzon. These monuments are integrated into the daily lives of inhabitants, which helps to maintain their physical integrity and contributes to public acceptance. Most survey participants considered Byzantine heritage part of their town's history and culture, but fewer people considered it part of their personal histories and identities. Personal identifications with Byzantine monuments mostly occurred when participants had memories of them from their childhood or youth, or if their contemporary lives were somehow related to these monuments.

Türkiye's tourism-focused perception of its cultural heritage has also been influential. Like the heritage of other civilizations, Byzantine heritage in Türkiye is evaluated by the public for its tourist appeal and economic potential; but its 'otherness' is still reflected in Turkish people's opinions. Nevertheless, the potential benefits of Byzantine monuments in Türkiye make them 'worthy of protecting' for the people. On the other hand, since the 1950s, nationalisms in Türkiye have continuously expressed themselves through cultural heritage and, more specifically, by targeting Byzantine heritage. Gaining strength within the last two decades, this discourse has led to tangible outcomes which negatively affect the preservation of Byzantine monuments in Türkiye.

I will now use qualitative research to better understand the relationships between local people and Byzantine heritage assets, and the factors that affect that relationship. To this end, I will be conducting face-to-face, open-ended interviews with target groups living in İznik and Trabzon.

Sites of religious syncretism in Istanbul

Konstantina Georgiadou | University of Liverpool

The early 20th century saw the separation of Christian and Muslim communities in the eastern Mediterranean with the Lausanne Treaty of 1923 and the establishment of modern Greece and Türkiye. Aeons of cultural coexistence in the Mediterranean basin had resulted in a plurality of cultural expressions blending or overlapping within the built space. While the architectural heritage of these territories is a testament to their former diverse cultural interactions, urban space was employed by both countries to portray the new desired national identities through campaigns of cultural cleansing and ethnic homogenisation.

The devotional crossovers between the Muslim and Christian groups in the lands of the Ottoman Empire, closely linked to their shared culture, traditions and dogmatic flexibility, have been conducive to the creation of mixed spaces of worship. The Population Exchange marked the cessation of the majority of syncretic practices, as the two religious groups were separated and removed from their original settings. Displacement led to loss of architectural heritage and its associated traditions, which resulted from centuries of practice on the territory and had been influenced and shaped by the interactions of neighbouring ethnic and religious groups.

With the support of a BIAA Study Grant, the research project Sites of Religious Syncretism in Istanbul documented surviving interreligious spaces of worship along with their historical and contemporary contexts. This work is part of a wider project which delves into the causal nexus between the survival of architectural heritage and its religious importance as perceived by Muslim and Christian communities.

In the summer of 2022, six Christian and Muslim religious sites in Istanbul and on the island of Büyükada, identified in the foundational work of F.W. Hasluck, *Christianity and Islam under the Sultans*, were documented and studied. Fieldwork consisted of architectural and ethnographic surveys examining the use and role of the built fabric in the conduction of interreligious practices past and present. At three sites – the Christian monastery of Balikli, the Eyüp Sultan Camii and the Sünbül Sinan Efendi Tomb – traces of such activities have almost disappeared. However, these sites have retained their religious importance for their respective communities. Syncretic traces on the built fabric are gone, having been forgotten, neglected or physically erased by recent restoration efforts.

In contrast, the other three sites are still actively used for such practices. Every year on 23 April, thousands of Muslim pilgrims climb the hill to visit the monastery of St. George on Büyükada island, tying colourful threads on trees and expressing their wishes to the Saint. A monthly pilgrimage of Muslims also occurs at the Dormition of the Theotokos (Ayin Biri Kilisesi) at Vefa. Although the church is regularly attended

by the Rum Christian community, Muslim women visit it on the first day of each month and using a small golden key and other votives perform a ritual involving the icons and architecture of the church. Similar practices take place in Our Lady of Vlachernae church, centred around the icon of the Virgin.

A century after the separation of the populations, these practices have re-emerged and redefined these buildings, adding a new layer to the historic palimpsest. The two religious communities operate separately but not independently in these spaces, forming a novel practice, stemming from their syncretic interactions and often surpassing dogmatic limitations. Muslim visitors follow a new procession type, interacting with the icons, using votives and interacting with the holy water springs. The visitors' experience is deeply shaped by the physical arrangement of space, and in turn it challenges and reconfigures it.

In contrast to Christianity, the syncretic rituals are centred on physical objects and their interaction with the built space. The objects are not strictly votives, as some are brought to the religious spaces, while others are kept by the pilgrims as talismans. Additionally, the relationship between objects, icons and ritual is deeply rooted in the built space, as even though the practices are similar between these sites, they are also distinctly adapted to their context and are not transferable.

Regardless of the degree and intensity of the recorded interreligious activities, the analysis aided our understanding of the evolution of religious practices in all these important monuments, which are closely linked to their continued use and endurance. The fate of these structures contributes to cross-cultural understanding and dialogue between the countries, while fostering cooperation in the field of cultural heritage preservation.



Active Learning Protects Heritage and Archaeology (ALPHA)

Alan M. Greaves | University of Liverpool

Veysel Apaydin | University College London, Institute of Education

ALPHA is a three-year heritage conservation project that develops, pilots and evaluates Open Educational Resources (OER) in Turkish primary schools. In previous years, the ALPHA project focused on developing problem-solving, logic, communication and motor acuity (Year One) and developing Global Citizenship (Year Two). In the third and final year of our longitudinal study of how awareness of heritage conservation can be embedded in the mainstream primary curriculum in Türkiye, we focused on combining heritage awareness with the STEM (Science, Technology, Engineering & Maths) subjects that form part of the core of that curriculum. All schools need to teach STEM subjects, and by developing ready-to-use materials that provide stimulating classroom activities for teachers that are built on archaeological materials, the subject of heritage is introduced at an early age and then maintained across three years of the child's primary education.

We focus on the 8–10 age group, before the pressure of exams squeezes creative co-curricular activities out of the classroom, and train teachers, mostly online, to deliver the OER interventions and build their confidence in leading classroom discussions about heritage conservation and Türkiye's national history from prehistory to the present. History is a contested subject in many countries, and our non-directional approach allows each student to construct their own understanding of it is without the politicised narratives that can be found in some textbooks on the subject (Apaydin 2016). Following the training and classroom delivery of the learning activities, we then ask teachers to evaluate the OER materials before we edit and publish them, and gather their views on how the activities were received by children and how the class worked together as a group.

ALPHA therefore addresses three key issues that have dogged research into the effectiveness of heritage education interventions:

Lack of Consistent Evaluation Data. To date, there has been little systematic data-gathering on the effectiveness of heritage education programmes, and individual ad hoc outreach events connected to archaeological excavations have had limited impact (Apaydin 2018). In 2023, we began one-to-one interviews with selected teachers to balance the quantitative evaluation data with qualitative insights into how the introduction of active learning methods and heritage themes changes the classroom dynamics. These data form the basis of a series of articles in peer-reviewed journals that will provide an evidence base for the wider adoption of active-learning-based heritage education interventions in Türkiye and beyond.



Children working together on an ALPHA classroom activity.

Social Inclusion. ALPHA aims to decrease social and economic inequalities that exist within heritage education (including digital inequalities) by developing open access learning resources in the form of single A4 photocopyable worksheets and open-access videos and other resources that can easily be reproduced in any school, community or home environment. We select as our partners schools in socio-economically deprived districts that fall into one of the following three target categories: isolated rural communities, poor urban areas, or communities that have seen a significant influx of Syrian refugees.

Transferability. Although a national strategy for heritage education in Turkey is now emerging (for example, required visits to historical/archaeological sites of interest), our research shows that teachers are wary of teaching historical subjects, which are inherently political in Türkiye (Greaves et al. 2023a; 2023b). Nor has there been any validated research into the best pedagogical models by which to deliver heritage education, especially in the complex and increasingly mixed cultural environments teachers encounter in the modern classroom in Türkiye. Our Open Educational Resources (OER) and Continuing Professional Development (CPD) resources for primary school teachers are based on existing elements of the core primary curriculum but use heritage and archaeological examples to deliver them,

providing enriching classroom activities that promote not just heritage conservation but also generic educational outcomes to marginalised groups within Turkish society.

Cross-curricular learning is content-rich, stimulating, and allows students to see the real-world application of their learning. By using professionally developed STEM teaching materials and ready-made lesson plans we hope that our OER will be appealing to busy teachers with large classes who are under pressure to deliver science and maths. The archaeological content connects with previous years' OER materials and creates the sustained exposure to heritage throughout the early primary years that is so often lacking but leads to deeper learning and embedded understanding of heritage.

The Year Three Open Educational Resources focus on two classroom activities:

Mediterranean Climate and Water Conservation. A five-minute documentary video explains the water cycle and intermittent rainfall patterns in the Mediterranean. This leads into an examination of how Roman houses used the *impluvium* to capture and store rainwater under their central courtyard. Class worksheets will help children calculate the volume of water cisterns, facilitate class discussions about conserving water, and more.

Ancient Aqueducts and Eco-Friendly Cities. Using the example of Patara, a video explains how ancient aqueducts worked and how valuable water was used to maximum effect in fountains, bathhouses and public toilets. Classroom activities will include understanding the engineering behind an arch, slopes and gradients, and so on.



An example of the ALPHA games, which give children an idea of the geographical spread and age of heritage across the whole of Türkiye.



Teachers often use the ALPHA games as a starting point for creative classroom activities, such as independent study projects, classroom museum displays, and heritage-themed TV shows (pictured).

Our final publication will use interview data from teachers who delivered the OER in refugee camps and schools with a high proportion of Syrian children. For example, one of our participant teachers has 13 Syrian children in a class of 26 and found the discussion of heritage helped students explore areas of common identity, something that we had already demonstrated in our pilot project in Fethiye (Greaves 2023a; 2023b).

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Feriköy Protestant Cemetery

Daniel-Joseph MacArthur-Seal | British Institute at Ankara

In the final year of my assistant directorship, I oversaw the completion of two large projects at Feriköy cemetery, whose initiation was described in *Heritage Turkey* 2022. The plant survey conducted by Ilgın Deniz Can, Barış Necdet Uğurman, Gül Nilhan Tuğ, Necmi Aksoy and Ahmet Emre Yaprak was concluded in summer. The report provides a detailed inventory of plant life at the site, an assessment of its ecological value within the urban environment of Istanbul, and recommendations for the care of its many trees. The scanning and digitisation of 63 of the cemetery's oldest tombstones resting against its external wall, known as Monument Row, is also now complete. The results of both projects were presented at the summer showcase of the Feriköy Protestant Cemetery Initiative, alongside news of the ongoing restoration of a group of American tombs belonging to figures associated with Robert College, to an audience including members of the diplomatic governing board and interested public and academics. The data produced in the course of both projects are available for public access on the BIAA's Digital Repository at the following address: <https://digitalrepository.biaa.ac.uk/ferikoy-protestant-cemetery-collection>.

Access to the inscriptions provided by the detailed scans of the tombstones carried out by Aykan Akçay, a research assistant and PhD candidate at Akdeniz University in Antalya, together with Merve Eraslan, a graduate of the archaeology department at Selcuk University, has shone a light on numerous biographies of interest among the individuals buried at Feriköy. Given the absence of burial records related to these tombs, which were moved to Feriköy shortly after its establishment from an earlier burial place serving foreigners at Taksim, the inscriptions are in many cases the only evidence about the lives and deaths of these people. The inscriptions of most of the earlier graves are in Latin, which has been translated to English by former BIAA

research scholar Matthew Tanton and Annika Asp, both of whom wrote their doctoral theses on the late Byzantine period but were quick to adjust to the peculiarities of 17th and 18th-century Latin.

The tombstones show the diversity of the British community in Istanbul during the period. The majority of the graves belong to merchants associated with the Levant Company, like Thomas Pigot, who together with many colleagues signed a letter of protest calling for the release of English merchant ships detained in port in Smyrna during one of the Ottoman-Venetian wars, in 1646. There are a smaller number of doctors of the likes of William Parmentier, Edmund Frank and George Barron Brown, who were commemorated in a 1906 issue of *The Lancet*, and Thomas Baines, the personal physician to ambassador Sir John Finch, more on whom later. Others were consular staff serving in the English (later British) embassy, such as George Philip Albert, who served William Pagett, ambassador to Constantinople from 1693 to 1702. Many other graves belong to the wives and children of those whose professional lives brought them to the city. One tombstone is dedicated to the two daughters of Peter Wych, ambassador from 1627 to 1641, for whom he left the message "Farewell Deare Babes for I must Leave you here".

In some instances, the inscriptions reveal the causes of death. These changed over the period, with plague a common factor in the 17th century, while in the 19th century, deaths from cholera and typhus appear. The number of tombstones erected for children reveals the high levels of infant mortality, while several of the women buried in the cemetery died during childbirth.

The inscriptions further document the relationships between individuals whose tombstones are located at the site. The tombstone of Annetta Thomas Coke (d. 1725) is located close to that of her first husband, George Bridges (d. 1714). Bridges' will, available in the National Archives, states that he would leave her his Pera house but that inheritance of his English estate was conditional on her returning from Constantinople. In the event, she preferred to remain in the city, and remarried a local English merchant, John Lethieullier. Feriköy also holds the tombstones of both Jasper Abbot (d. 1723) and his grandson George Abbot (d. 1801). Jasper had initiated a dynasty of British merchants who spread over Ottoman lands, with branches of the family later establishing themselves in Thessaloniki and Aleppo.

Perhaps the most remarkable story to emerge from the Monument Row is connected to the tombstone of the doctor Thomas Baines (d. 1681). As mentioned, Baines had come to Istanbul in the service of Sir John Finch, but their



Aykan Akçay recording Monument Row in summer 2022.



Monument to Sir Thomas Baines, Sides A and B.

relationship was clearly much more significant than merely that of doctor and patient. Finch and Baines had met as students in Cambridge, where country squire Baines had acted as a sizar – receiving a kind of scholarship in exchange for the menial duties he provided to richer students, including the nobleman John Finch. They had later moved to Padua, where they studied medicine, before Finch was appointed ambassador to Florence and finally Istanbul in 1674. As ambassador, Finch would play an important role securing renewed capitulations for English subjects in the Ottoman Empire.

Their residence in Edirne and later Constantinople coincided with an outbreak of plague, but it was kidney stones that would cause the death of Thomas Baines in 1681. Finch was deeply affected, describing his friend's death as having 'cutt off the thread of all my worldly happinesse and application to business'. Finch had Baines' body embalmed so that it could be transported back to England. His organs, which could not be transported, were buried in Pera, however, and a monument of sorts was erected which bears a long dedication written by Finch for his deceased friend, celebrating the 'marriage of souls' between the pair. The monument bears a Latin inscription on both sides, running to almost 350 words in length.

The dedication was transcribed and translated by Edwin Peers, a long-term resident of Istanbul around the turn of the 20th century. Archibald Murray, in his 1917 study *Finch and Baines*, reproduces the inscription, which he

says was part of a more general work carried out by Peers to record the tombstones at Feriköy and which he deposited at the embassy chapel (Malloch 1917: 72). If such a document still exists, it would be extremely valuable for filling in indecipherable sections of the existing inscriptions given the likely better condition of the stones a century ago.

On his return to England, Finch also fell ill and set out his own will and testimony. He requested to be buried together with Baines at Christ's College Chapel, and endowed a number of scholarships in both their names. After Finch's death on 18 November 1682, a monument was built for the two men in Christ's College Chapel, with a second inscription noting that Finch had 'taken care of the viscera of his friend burying them in the Byzantine earth, adding an elegant marble where he thanked for their battle together', referring to the tomb now located in Feriköy. The chapel monument is joined by that of clergyman John Covel, who had met the pair in Edirne on his travels in Asia Minor, before being appointed Master of Christs College Cambridge from 1688 to 1723.

The epitaph to the monument was composed by their college tutor, Henry More. A translation is provided in Jean Wilson's 1995 article on the monument in the *Church Monuments* journal (75). As Wilson notes, the single urn at the top of the monument symbolised the union of their bodies after death. The two monuments are an important symbol of love at a time when homoromantic or homosexual relations were castigated. This is particularly relevant to today's Türkiye, where recent years have seen increasingly virulent language targeting LGBTQ-identifying individuals and pride demonstrations have been banned since 2015.

No doubt there are many more stories, if perhaps not such dramatic romances, to uncover among the tombstones at Feriköy.

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| | |
|-----------------------|----|
| <i>Merchants</i> | 29 |
| <i>Doctors</i> | 4 |
| <i>Engineers</i> | 5 |
| <i>Consular Staff</i> | 6 |
| <i>Sailors</i> | 2 |
| <i>Soldiers</i> | 1 |
| <i>Family members</i> | 10 |
| <i>Unknown</i> | 7 |

Professions recorded on the Monument Row tombstones at Feriköy.

MIGRATION, MINORITIES & REGIONAL IDENTITIES

Türkiye and the Black Sea region are situated within a range of different geographical and political areas: Europe and the Balkans, the former constituents of the Soviet Union, the Caucasus, Central Asia, Iran and the Middle East. This location inevitably has constituted them as a physical bridge and placed them at the crossroads of different historical forces and empires. This was as much a feature in prehistoric as in historic and contemporary times, when cross-boundary migration remains an important domestic and international concern. The interplay between geographical factors, diverse political entities and patterns of migration has been a significant factor in shaping the domestic and social make-up of Türkiye and the Black Sea region. It has played an important role in forming cultural identities, whether at individual, regional, national or supra-national level. Simultaneously, these processes in relation to migrant communities have also influenced neighbouring areas. This strategic research initiative aims to promote research across different academic disciplines that relate to the themes of migration, minorities and regional identities in Türkiye and the Black Sea region.

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Communication, trust and doctor-patient relationship: the case of immigrant doctors in Turkey

Hande Güzel | University of Cambridge

In the last issue of *Heritage Türkiye* magazine, I introduced my research project, Bridging the Gap between Patients and Migrant Doctors, where I explore the working and living conditions of doctors who have immigrated to Turkey from other countries, as well as the relationship they have with their patients. The project aimed to gauge what kind of barriers there might be between immigrant doctors and their patients in communication, understanding, building trust and finding mutual ground, whilst critically analysing the discrimination that immigrant doctors might be facing as they encounter various forms of bureaucracy, work alongside their colleagues, and go about their days outside of their workplaces.

Since then, I have conducted 15 in-depth interviews with immigrant doctors and their patients, and a survey with responses from 176 people on their views about immigrant doctors. In this article, I will share some of the main findings from the survey. In particular, I will focus on how patients and potential patients of immigrant doctors envision their communication with immigrant doctors, as online data analysis of forum entries on the topic and in-depth interviews with (potential) patients have also pointed to the importance of communication in the doctor-patient relationship.

A basic breakdown of the 176 survey participants shows us that 77% are women and 20% are men, while 3% have not stated their gender. Seventy per cent of the participants have at least an undergraduate degree. This is significant with

regards to the representativeness of the survey, as this percentage is much higher than the percentage of those who have an undergraduate degree in the overall population in Turkey, which was identified as 23.9% by the Turkish Statistical Institute in 2022. A similar difference in demographics can also be seen when it comes to participants' household income: 66% of participants stated that their monthly household income is 20,000 TL or above, whereas the average monthly income in Turkey was 8201 TL in 2022.* While the average income in 2023 is expected to be higher due to the increase in wages as a result of inflation, it is still possible to say that the findings from this survey are reflective of a sample with predominantly higher socioeconomic status.

Communication and the doctor-patient relationship

One of the most crucial determining factors in the quality of an interaction where the doctor is an immigrant and the patient is not is communication. While immigrant doctors applying for a work permit in Turkey are required to pass a Turkish language exam at the level of B2 within the Common

* Turkish Statistical Institute, Data Portal for Statistics: 'Ulusal Eğitim İstatistikleri [National Education Statistics], 2022,' 26 May 2023, <https://data.tuik.gov.tr/Bulten/Index?p=Ulusal-Egitim-Istatistikleri-2022-49756>; 'Gelir Dağılımı İstatistikleri [Income Distribution Statistics], 2022' 4 May 2023, <https://data.tuik.gov.tr/Bulten/Index?p=Gelir-Dagilimi-Istatistikleri-2022-49745>.

European Framework of Reference for Languages, having this level of language proficiency may not guarantee smooth communication between the two parties. Furthermore, many potential patients of immigrant doctors are not informed about the requirements to work as an immigrant doctor in Turkey. Hence, it can be expected that patients are apprehensive about being seen by a doctor with whom they may not be able to communicate well. To this end, one of the aims of the survey was to assess how potential patients of these doctors expect their communication to unfold, and how those who have been seen by immigrant doctors characterise their interaction in terms of maintaining a mutually accessible dialogue.

In order to assess how (potential) patients envision their communication with immigrant doctors, participants were asked their level of agreement with the following statement, 'It might be more difficult to communicate with a doctor who is not from Turkey'. Sixty per cent of 157 participants stated that they either agree or strongly agree with this statement, 24% indicated that they either disagree or strongly disagree, and 16% were neutral. In a similar vein, another question that patients or potential patients of immigrant doctors were asked on the survey was whether they thought a doctor from Turkey would understand them better when compared to a 'foreign' doctor. To this, 65% of participants responded with 'I agree' or 'I strongly agree', 24% with 'I disagree' or 'I strongly disagree', and 11% with 'neutral/I can't decide'. These findings suggest that patients may lean towards being seen by a doctor whose mother tongue is Turkish or may worry that they will not have problem-free communication with immigrant doctors. Here, it is important to note that not all patients get to choose which doctor they will see. In both private and public healthcare institutions, patients may see a specific doctor because they are the only one available, or if it is an emergency. Anticipating a language barrier might make patients nervous and worried about their exchange with their doctor, feelings which might already be present simply due to visiting a doctor. Hence, it is important that patients are informed about the language proficiency of doctors and reassured that their communication will not be affected by an anticipated language barrier.

This difference between what is anticipated and what is experienced warrants attention. When we look at the above percentages and compare the responses of those who have seen an immigrant doctor and those who have not, it becomes apparent that the agreement of the former with 'It might be more difficult to communicate with a doctor who is not from Turkey' is higher at 65% than that of the latter at 48%. A similar pattern is seen in regard to the statement, 'A doctor from Turkey would understand me better than a foreign doctor': 69% of those who have never seen an immigrant doctor agree with this statement, whereas the level of agreement among those who have seen an immigrant doctor is 55%. While percentages in both groups for both statements are still quite high, the difference hints at

the importance of informing patients about what seeing an immigrant doctor might look like in the clinic in order to build a better doctor-patient relationship.

Participants were also asked to what extent they agree with the following statement, 'Foreign doctors require translators in order to communicate with their patients'. To this, 44% of participants responded with 'I agree' or 'I strongly agree', 22% with 'I disagree' or 'I strongly disagree', and the remaining 34% with 'I am not sure'. While doctors without sufficient Turkish language proficiency may be accompanied by translators in their clinics in their first year of working in Turkey, the presence of a translator may be uncomfortable for patients who are not willing to discuss the reason for their visit in front of a third party.

It is not only the exchange between doctors and patients during the visit, but also patients' medical records that determine the treatment a patient should receive. Hence, participants were asked their level of agreement with the following statement, 'I worry that a foreign doctor may not understand my medical records'. Fifty-five per cent of respondents agreed or strongly agreed with this statement, 19% were not sure, and 26% disagreed or strongly disagreed. The way one's medical history is recorded and structured may differ from one healthcare system to another. Hence, it is imperative that doctors are familiar with the system in Turkey and that patients are reassured that immigrant doctors are familiarised with it.

While patients' worries about seamless communication with their doctors are not necessarily unwarranted and are sometimes due to mis- or lack of information, it is worth noting that patients do not perceive immigrant doctors equally. Further findings from the survey and the in-depth interviews illustrate a distinction made between doctors emigrating from or trained in overdeveloped countries versus underdeveloped countries. While those from the former are celebrated by (potential) patients, doctors who are from or trained in the latter are often not trusted. The impact of this bias on the doctor-patient relationship will be discussed in more detail in an upcoming publication by incorporating into the discussion doctors' experiences in the clinic as well.

While these findings point at issues of communication between immigrant doctors and their (potential) patients as perceived by the latter, it is significant to underline that the doctor-patient relationship, irrespective of where the doctor is from or where they trained, is imbued with many challenges and conflicts. When participants were asked to what extent they agree with the following statement, 'In Turkey, the doctor-patient relationship is built on trust', 59% remarked that they were either not sure, or that they disagreed with the statement. This percentage highlights problems with the healthcare system in Turkey that are not necessarily related to immigrant doctors. In the event that larger, structural problems in the healthcare system are resolved, this might be expected to have a ripple effect on perceptions of immigrant doctors as well.

CLIMATE CHANGE & THE ENVIRONMENT

As environmental issues become an increasingly acute concern worldwide, Türkiye is a country of prime interest in the field of climate studies. Due to its location, it presents an ideal opportunity to explore and understand climate development and the history of global environmental change within the context of contemporary international relations. Lake sediments, tree-rings, speleothems and peat deposits represent valuable natural ‘archives’ of environmental change that have been under-explored in both Türkiye and the wider Black Sea region. This programme of research into the vegetation and climate history of the region focuses on changes in vegetation, water resources, landscape stability and hazards in Türkiye, the Black Sea area and much of the wider Middle East over time. It also provides a key context of interaction concerning human use of the landscape from prehistory to the present day.

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Water in Istanbul and beyond: past, present, future

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Martin Crapper, Maria Monteleone | Northumbria University

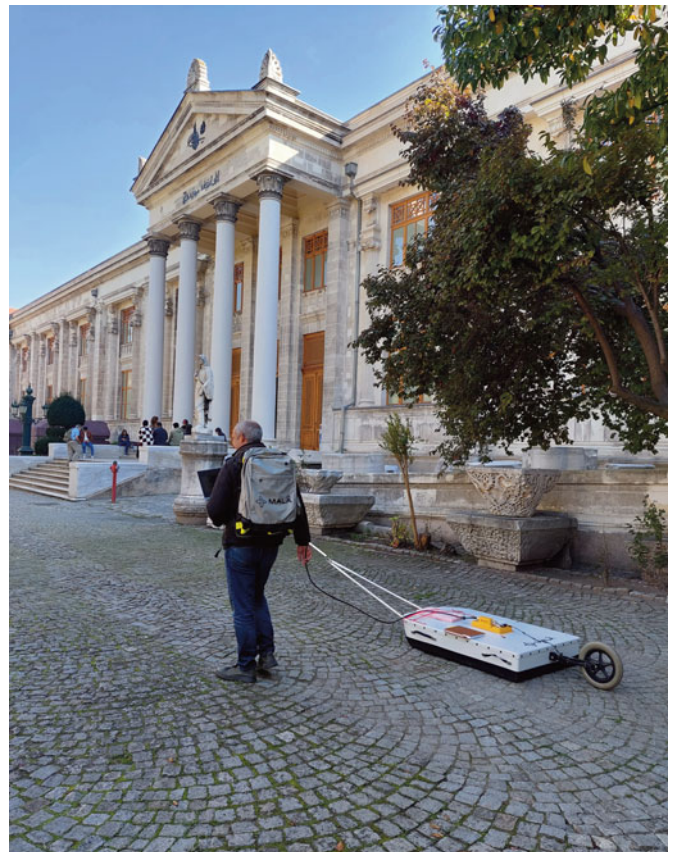
Akgün İlhan, Lutgarde Vandeput, Martyn Weeds | British Institute at Ankara

Caner İmren, Beril Karadöller, Çiğdem Özkan Aygün | Istanbul Technical University

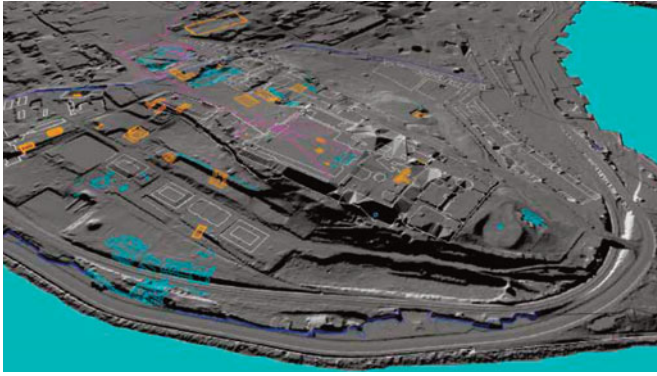
Ender Peker | Middle East Technical University & British Institute at Ankara

The BIAA-led Water in Istanbul: Rising to the Challenge? project brought together archaeologists, social scientists and hydraulic and geophysical engineers from the University of Edinburgh, Northumbria University, Istanbul Technical University (ITU), Middle East Technical University (METU) and the British Institute at Ankara (BIAA) to investigate the past and present water management infrastructure of Istanbul and explore how past practices can inform solutions to contemporary and future water-related challenges.

A major objective of the project was to develop a better understanding of the Ottoman system for supplying water to Istanbul’s First Hill, as this presented particular challenges due to its elevation. A survey was conducted around the Topkapı Palace, Ayasofya and Yerebatan Sarayı using Ground Penetrating Radar (GPR) in combination with targeted archaeological fieldwork to acquire precise data on water levels as well as conduit, channel and cistern sizes. The work carried out in the streets around the palace revealed a number of previously unknown water channels, while intensive research around the adjacent Archaeological Museum added considerably to previous knowledge of the water infrastructure in that area. The museum is built on a terrace dating from the Byzantine era, and GPR in the courtyard revealed new cisterns from that period and later, as well as related supply channels.



GPR survey work around the Istanbul Archaeological Museum.



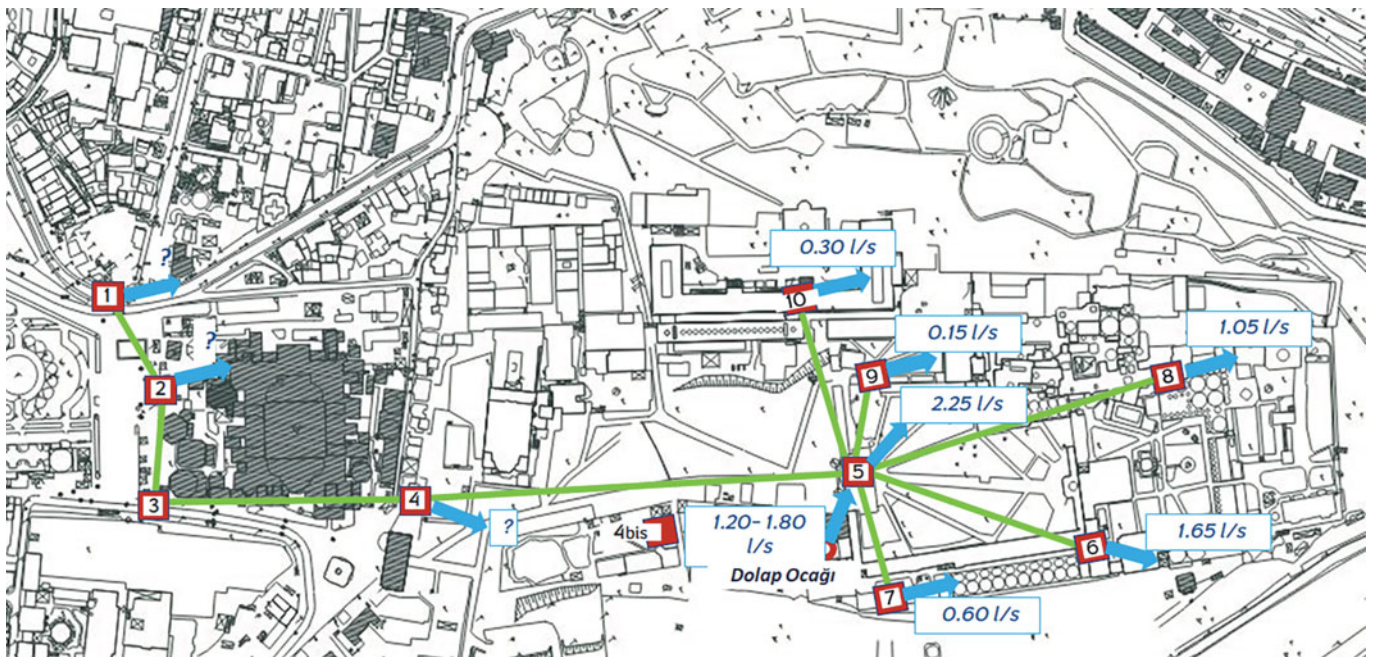
3D model of the First Hill showing the distribution of known cisterns (orange) and the outline of the principal Ottoman buildings.

To complement and inform the fieldwork, archival research brought hitherto unpublished information from earlier excavations around the museum to light, including evidence for channels, pipes and a Byzantine water shaft. This information, as well as results from previously published research, was incorporated into a Geographic Information System (GIS) 3D model of the First Hill and plotted in relation to Byzantine and Ottoman buildings.

The result is that – for the first time – all known remains of water-related infrastructure in the First Hill area have been integrated into a single model, contributing significantly to our understanding of how different elements of the historical water management infrastructure were linked and functioned together as an evolving system.

Detailed maps showing modern water supply lines and others dating from prior to the population explosion in the final decades of the 20th century were also integrated into the model to allow comparison between water usage and distribution networks over time.

The results of the GPR survey and GIS modelling informed engineering analysis of the Ottoman water distribution system within the Topkapı Palace and the possible Roman system that supplied the First Hill prior to the Ottoman conquest. There is no definitive archaeological trace of the earlier supply line, so engineering judgement combined with GPR observations and the locations of known cisterns were drawn upon. Previous work by Ward, Crow and Crapper (2017) concluded that the Hadrianic Aqueduct, which is known from contemporary sources to have supplied the Yerebatan Sarayı, approached the First Hill from the south, presumably passing between the cistern and Ayasofya, at which point it must have been no higher than around 33m above sea level (asl). This potentially ties in with the project's GPR investigations, which identified possible subterranean cavities on Osman Hamdi Bey Yokuşu and Soğuk Çeşme Sokak (see *Heritage Turkey* 2021), one or both of which might have been aqueduct channels, these having elevations of around 22–26m and 29m asl respectively. However, careful examination of Tezcan's (1989) data shows that the cistern beneath the Archaeological Museum courtyard has a base level of around 16m asl, so it would be possible for it to have been supplied in this way. The Yerebatan Sarnıcı could have been supplied by a branch leaving the



Hydraulic modelling of the 1509 water supply to the First Hill indicates that the total incoming flowrate (Beylik: 2–3 l/s and Kırkçeşme: 1.2–1.8 l/s) did not provide the amount of water required to operate all the Palace installations at the same time.



View of the current excavations, the Million and the line of the Ottoman pipes (photograph by J.C. Crow).

Hadrianic aqueduct further to the south and traversing the west side of the valley. The only way the First Hill could have been supplied would be by raising water, either from low cisterns or via channels to the bottom of the deep shafts known as the Dolap Ocağı, which although clearly Ottoman in construction likely succeeded a similar Roman structure or structures. A channel following our postulated route at close to ground level would have had a slope of 3 m/km and a capacity of around 0.97 m³/s if of a cross-section similar to the Fourth Century aqueducts observed in Thrace.

The problem of supplying the rapidly growing city with water is one that also challenges contemporary engineers, policymakers and urban planners, particularly in the context of climate change and increasing water scarcity. Inspired by past practices, discussions with Istanbul's water management authorities and other local stakeholders identified rainwater harvesting as a potential solution to the urgent need for an alternative water source for the city. However, challenges to implementation were found to exist on a number of levels. These challenges, and explorations of possible solutions, formed the main focus for a series of four participatory action research workshops which brought water management experts from Istanbul Metropolitan Administration (IBB), Istanbul

Water and Sewerage Administration (ISKI), district municipalities, ministries, academic institutions, private sector organisations and NGOs together for the first time.

As described in *Heritage Turkey 2021*, the first workshop defined the challenges that needed to be overcome in order to implement effective rainwater harvesting systems. The second workshop analysed and developed potential solutions to these challenges, while the third focussed on determining institutional ownership of the audit of the rainwater harvesting systems and on solving problems of ambiguity in methods and techniques. The results of this workshop led to changes in regulations and empowered ISKI to issue approval for rainwater harvesting systems before occupancy. A more detailed summary of the second and third workshops can be found in *Heritage Turkey 2022*.

While the first three workshops and related activities focused on rainwater harvesting systems for individual buildings, the fourth – held in November 2022 – examined how rainwater harvesting could be implemented in public spaces at street, neighbourhood and district levels, as well as how it can be incorporated into spatial planning processes. Eleven types of rainwater collection area (green areas, stream banks, gardens of public buildings, sports



Poster for the final conference, held at ITÜ in March 2023.

grounds, roadsides, public squares, coastal areas, parking lots, disaster assembly and shelter points, private gardens, and marketplaces) were defined. Of these, the first three were identified as the most promising for the implementation of rainwater harvesting systems. Relevant suggestions on legislative implementation tools and the appropriate actors to create and put them into action were incorporated into a report that was presented to all institutions involved.

The project formally concluded with a major conference held at Istanbul Technical University and online in March 2023. The conference attracted an international audience of approximately 250 academics, students, policymakers, municipality representatives and other stakeholders, as well as members of the public.

Based on the results of Water in Istanbul: Rising to the Challenge?, a follow-up project, led by the BIAA and

funded by UK International Development, is currently being implemented to develop and deliver an experience-based training programme to equip municipalities in Türkiye with the knowledge, resources and capacities to implement sustainable rainwater harvesting. In addition to the training programme itself, the main outputs of this project will be the initiation of a pilot project in Kadıköy Municipality and an online multimedia toolkit to widen impact to all municipalities in Türkiye (see below).

Running from 2021 to 2023, the Water in Istanbul: Rising to the Challenge? project was funded by the British Academy's Knowledge Frontiers International Interdisciplinary Research Scheme, the Scientific Research Projects Department of Istanbul Technical University, two BIAA research grants and the SFC GCRF Fund of the University of Edinburgh.

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Local climate action: empowering municipalities on rainwater harvesting

Ender Peker | Middle East Technical University & British Institute at Ankara

Akgün İlhan | Bogazici University & British Institute at Ankara

I consider myself fortunate to have an engineer in our department with expertise in rainwater harvesting systems, who is also dedicated to continuous exploration and development in this field. Thanks to him, we have successfully conducted rainwater harvesting implementations in some of our service buildings. However, it's worth noting that there is a noticeable lack of awareness among our municipal staff concerning this issue, as well as climate adaptation in general. Would it be possible for us to collaborate on addressing this matter?

(Director, Kadıköy Municipality, Istanbul)

This was the response we received from one of the key directors at Kadıköy Municipality during a feedback interview as part of the Water in Istanbul: Rising to the Challenge? project (see above), which aimed to draw lessons from past solutions to water-related difficulties that could be applied to contemporary challenges. As one of the pioneering municipalities in Istanbul, Kadıköy has taken some initial measures to address the risk of water scarcity in the face of climate change. To create an alternative water resource, the municipality has implemented rainwater harvesting (RWH) methods in four different public buildings. These initiatives have successfully replaced a portion of the mains water used for street cleaning in the district. The pilot projects were voluntarily designed and implemented by an engineer working under the guidance of the Directorate of Climate Change and Zero Waste.

However, as indicated by the quote, city officials working in various departments responsible for local climate action lack technical knowledge of rainwater harvesting systems.

With the support of a small research grant from the British Institute at Ankara, we have been conducting additional research with Kadıköy Municipality to better understand the challenges that emerge due to lack of resources – including staff, knowledge and tools – to implement rainwater harvesting systems. We conducted group interviews with directors and experts from the Directorates of Climate Change and Zero Waste, Strategy Development and Foreign Relations, Zoning and Urbanisation, Technical Works, Parks and Gardens, Plans and Projects, License and Inspection, and Construction Control. In total, we interviewed 23 experts, and the analysis of these interviews helped us identify the most frequently mentioned challenges and needs within these directorates. To share the findings with municipal staff and design the remainder of the process in a way that is meaningful to the municipality, we organised a roundtable meeting with key directors who hold significant responsibilities for rainwater harvesting facilities. They agreed on the need for a training programme where municipal staff could practise collaborative work while attending lectures provided by external experts. Here, a wide range of training needs were described, starting from learning how a simple rainwater collection system works at the building scale, and progressing to how complex systems can be designed at the urban scale.

We reached a consensus on the need for a training programme that incorporated hands-on workshops to provide trainees with practical learning experiences, alongside lecture-based sessions conducted by experts in rainwater harvesting. Additionally, the goal was to create a pilot project for rainwater harvesting in a public open space during the training programme, something that has not been done before in Istanbul. Subsequently, we met with the Mayor of Kadıköy, who pledged to execute a pilot project that has the potential for further development throughout this research and training process. While there are pilot projects at the building scale, this will be the first open-space rainwater harvesting system implemented in a public park.

While developing the training programme, we seized the opportunity to secure additional funding from UK International Development. With this extra funding, the number of participants in the training programme and the project design workshop could extend beyond Kadıköy Municipality staff to include personnel from Istanbul Metropolitan Municipality, Istanbul Water and Sewerage Administration (IWSA) and other district municipalities. We also expanded the pool of experts and incorporated case studies from different countries within/and beyond Europe. In this way, the project would be able to present the stakeholders with a wider range of examples and case studies, bringing them into contact with a wider range of options for dealing with issues related to water management in Istanbul.

The two-day training programme comprises: seminars on the current situation of RWH in Türkiye; lectures on RWH in buildings and open spaces, with examples from different countries; a panel discussion with professionals from IWSA and experts on Türkiye's experience with RWH; and hands-on workshops with the aim of co-designing a pilot RWH project in Kadıköy.

The training programme took place on 7–8 November 2023. On the first day, the programme, held in a hybrid format, attracted 102 participants attending physically and 297 participants online. The participants, who came from

various institutions, had the opportunity to hear about rainwater harvesting projects at different scales implemented in Australia, Germany, Iran, the Netherlands, the USA and Türkiye. This was followed by a panel who focused on interagency collaboration in RWH. This panel provided a comprehensive synthesis of the day's insights and set the stage for ongoing collaboration and knowledge-sharing. The attendance of Kadıköy Municipality Mayor Şerdil Dara Odabaşı and IWSA General Manager Şafak Başa underscores the significance and impact of the event.

Inspired by the applications of these practices, on the second day, the Kadıköy Municipality Rainwater Workshop was conducted. The 56 participants from different institutions and directorates were divided into four tables. In the workshop's first session, participants identified areas within the boundaries of the Kadıköy district that were potentially suitable for rainwater harvesting. In the second session, the strengths and weaknesses of the identified areas were evaluated based on planning and design principles. At the end of this session, the two places with the highest scores were selected. In the third session, participants generated design ideas specific to the two highlighted areas. In the final session, group moderators presented the knowledge produced at their tables to all participants. Subsequently, a collaborative exercise using democratic methods was conducted. At the end of the day, a common pilot project area was determined.

The training programme will now be converted into an online training toolkit. This will include videos of lectures, workshops and seminars about the technical, financial and governance dimensions of RWH in Türkiye, along with good-practice examples from selected countries. The training toolkit will be shared with other municipalities in Türkiye via a specific section of the BIAA's Digital Repository. This will allow them easy and free access to the programme. As we progress, this project will serve as a testament to the positive impact achieved when local governments, researchers, and experts collaborate to address urgent climate change issues.



Day 1: expert presentations



Day 2: participatory workshop

Fragile Landscapes/Kırılğan Çevreler: sustainability of water resources in the Konya Plain, Türkiye

John Wainwright | Durham University

Michele Massa | Bilkent University

Davide Motta | Northumbria University

Ender Peker | Middle East Technical University & British Institute at Ankara

Anlı Ataöv, Middle East Technical University; Gianna Ayala, University of Sheffield, Matthew Jacobson, Swedish University of Agricultural Sciences; Dan Lawrence, Durham University; Faruk Ocağolu, Eskişehir Osmangazi University; Sila Ozkavaf, Middle East Technical University; Meltem Uçar, Mersin University; Lutgarde Vandeput, British Institute at Ankara; İlker Yiğit, Burdur Mehmet Akif Ersoy University; Maddie Boon, University of York; Luke Hartnett, Sam Lyons & Sasha McEneaney, Northumbria University; Olgu Yurttaş, Ankara University; İsmail Yılmaz, Eskişehir Osmangazi Üniversitesi

The Fragile Landscapes project ran from March 2021 to August 2023, funded by the British Academy's Global Challenges Research Fund (GCRF). As with other GCRF projects, the aim was to foster partnerships to develop an understanding of and potential solutions to the United Nations Sustainable Development Goals. In our case, the goals related to the sustainability of water, and thus of food supplies and communities more generally. The underlying principle of the project was that to design present and future solutions to water scarcity, we need to understand how approaches to water management have evolved through time, and how they are embedded in the social and cultural development of a region. Given the limited scope of the GCRF grants, we intended Fragile Landscapes to be a pilot project to explore the potential of this idea in the study area (the Konya Plain), with a transdisciplinary approach that involved collaborating with academics from archaeology, history, anthropology, geography and hydrology, and with stakeholders from the study area.

The Konya Plain, a semi-arid region currently experiencing severe water stress, was chosen as an ideal example for this approach because it has been the focus of sustained archaeological, historical and palaeoenvironmental studies for more than 70 years, including BIAA-sponsored projects. The chronological focus spanned from 1518 CE, the date of the earliest preserved Ottoman tax register of the area, to 1912 CE, the year the largest irrigation system in Ottoman Anatolia was completed around Çumra. The whole period provided us with rich historical, archaeological and environmental archives to tap during our research.

The first strand of analysis focused on reconstructing the administrative structure of the water-management systems, the dynamics of land use (particularly as related to water) and the network of canals during the Ottoman period. This involved research by Meltem Uçar into legal and historical documents that depicted a system where a 'light touch', top-down approach to water governance was complemented by a structure of diffuse responsibility taken by large numbers of



The canalised River Çarşamba near the bridge at Kısıkyayla during the drought of 2021. Normally this channel would carry irrigation water to fields north of Çumra (photo M. Massa).

stakeholders – very different from the modern counterpart. The same research highlighted much continuity of the Ottoman water-management system from pre-existing structures.

İlker Yiğit translated several tax registers covering the whole area (dated 1518, 1584 and 1841 CE), and this incredibly detailed dataset shed light on the subsistence economy and land use in the Konya Plain. İlker's results show that cultivation of drought-tolerant wheat and barley dominated taxable activities across three centuries (over 80% of total tax revenues), in stark contrast with modern crop choices (see below). A broader analysis of the historical context also makes clear that most if not all Ottoman agricultural production was for domestic consumption, without export to other areas of the Empire, again contrasting with modern economic dynamics (see below).

Analysis of modern and historical (1960s–1980s) satellite imagery led by Michele Massa and Maddie Boon further revealed a dense network of ancient canals, which can be dated by their association with known surveyed settlements. While many predate the period under investigation, the correlation between these waterways and the toponyms from the

tax registers allowed us to define the area irrigated during the 16th to 19th centuries. A further result of this effort was the identification of numerous field systems that show the extent of agricultural activities around medieval/Ottoman villages.

A second thread of the project, carried out by Ender Peker, Anlı Ataöv and Sila Ozkavaf, concerned the development of agriculture in the Plain over the last few decades. This work involved three main components: the evaluation of statistical data on changing land-use patterns; discussions with farmers and other stakeholders involved in water use and management; and policy analysis. Land use in the Konya Plain evolved rapidly in the 20th century, not least because of the successful completion of the canal linking the Beyşehir-Suğla Lake system to the River Çarşamba in the southeast of the plain in 1912. Previous attempts to make this link had only been temporarily successful, but a string of severe droughts in the mid-19th century emphasised the need for it. From the 1960s on, there was significant construction of infrastructure, based on a channel system supplied principally from water stored in the Apa and May dams. These developments all provided a more consistent water supply. Together with the digging of deep wells, this supply has been used to develop more extensive irrigation agriculture: today, almost a third of the 1.9 million ha of agricultural land on the plain are irrigated, a proportion that is predicted to increase in the future. Wild irrigation is only rarely used as more efficient sprinkler and drip irrigation methods are increasingly employed. Over the last 15 years, crop types have changed from being dominated by wheat, barley and some sugar beet to being dominated by maize, sugar beet and sunflowers. All of these crops have significant water demand. They reflect changing decisions about crop types in relation to national and international markets since, in contrast with the Ottoman period, the agricultural sector is now integrated into a global system of production. Detailed discussions with farmers in several villages provided insight into the decision-making process underlying these major changes, and also demonstrated an appreciation of how rapidly water supplies are being depleted in the area. Water levels in some wells have dropped over 120m since the turn of the millennium, largely due to unregulated use of deep wells tapping into the groundwater table. The growing demand for water has been met by policy developments that attempt both to supply more water, for example, through inter-basin water transfers, and to encourage more sustainable practices.

The third strand of the project attempted to estimate past and present water demand with a view to predicting sustainability in the future. Led by Davide Motta, this part of the project required the integration of information from the first two parts of the project to produce land- and water-use estimates together with evaluations of past climate variability. At the core of this approach lies the idea of quantitatively assessing water availability and water consumption (in essence, a water budget) at different time slices, taking water

surplus as one of the possible proxies to evaluate sustainability of water-management practices. Computer simulations of water resources were carried out to look at the overall budget of water availability. For the 16th-century scenario, water use seems to have been largely in balance with the amount of water available. However, it may be that the resource was exploited to its practical limit, so that when climate variations, coupled with other social and political changes, occurred in the 17th century, it was no longer as sustainable. Several settlements that appear in the 1584 CE tax records are no longer in existence, but whether this was due to resource overexploitation and other factors will require further detailed analysis. The simulation of the present-day water budget shows a stark contrast with the Ottoman period. Water use significantly exceeds water supply, and the extraction of groundwater to meet this deficit has led to continued drops in the water table. A further set of scenarios were simulated to look at how projected climate change to 2050 will affect water availability and responses. This analysis suggests that land-use decisions are more critical than changing rainfall patterns, but even the use of historically sustainable approaches will no longer be sufficient to meet changing demands.

Due to the COVID pandemic, our planned approach of involving local and regional stakeholders at different stages of the project became more restricted than we would have liked, but we did hold a meeting with a broader group at the British Institute at Ankara in August 2023. This was a very successful event, attended by over 30 participants from regional and national government, and water managers. It provided invaluable guidance about how we can develop further dialogue to use our research to support sustainability in the Konya Plain, and to make our results more widely relevant for people in other dryland environments.

More details about the project can be found on our website at <https://fragilelandscapes.net> or <http://kirilgancevreler.net>.



The closing dissemination meeting of the project *Fragile Landscapes: Past, Present, and Future of Sustainable Water Management on the Konya Plain* was hosted by the BIAA in Ankara. Delegates from national, regional and local authorities discussed policies for sustainable water use on the plain.

Insights from the Ottoman Empire's climate challenges of 1911

Gizem Pilavcı | British Institute at Ankara

My research project on the disruptive weather of 1911 and how Ottoman society and government coped with it aims to address the exigent climate crisis by extracting salient insights from this historical case study. I had the opportunity to present my initial findings in July, drawing on the theme of the BRISMES conference, 'Ecology, crisis, and power in the Middle East'. Like my other projects supported by BIAA grants over the past two years, the overarching motivation has been to leverage historical insights in addressing contemporary challenges and to connect my research with public discourse to underscore the significance and relevance of the humanities.

In 1911, the Ottoman capital and its provinces were confronted with significant climatic anomalies manifested as extreme cold, substantial snowfall, frosty periods in late winter and spring, and concurrent heatwaves in the summer. These unusual weather patterns had a far-reaching impact across a vast area extending from the Aegean coast to Mardin and from the Black Sea region to the Mutasarrifate of Jerusalem, as corroborated by numerous documents in the Ottoman Imperial Archive. These weather conditions precipitated floods, crop failures, famine and epidemic outbreaks that resulted in the devastation of lives, livelihoods, properties and infrastructure. To navigate this intricate web of factors and their far-reaching consequences, I embarked on an exploration of the confluence of environmental history, consumption and agricultural history, disease history, and governance through the nexus of weather within the context of the Ottoman Empire in the year 1911. Drawing on archival documents, Ottoman government records, diplomatic papers, historical newspapers, and other literature, I employed an event-based political ecology approach. While the breadth of the subject precluded an exhaustive account, I focused on curating a selection of microhistorical cases that offer valuable insights into the various ways in which extreme weather events and subsequent crises disrupted both society and governance, shedding light on the broader societal implications of these events. These cases included the flooding of the Melendiz River in Aksaray and Armenian spiritual leader Mesrob's intervention with the government for aid; the 1911 cholera epidemic's broad-reaching impact across Ottoman territories; the widespread drought affecting William Sligh's magnetic observations in Tripolitania, revealing the government's image management efforts; as well as potato cultivation in the drought-affected areas of the Empire.

Reeling from a succession of harsh weather conditions which had strained its infrastructure, financial resources and public health, in 1911, the Empire was also engaged in war efforts to quell an Albanian uprising from March, then was thrust into a further military conflict, this time with the

Kingdom of Italy over Tripolitania, on 29 September. Although the government attempted to standardise vaccinations as a preventative measure against epidemics, it was hampered by inadequate health infrastructure. Its response to the crisis involved tax reductions, agricultural incentives, financial aid and public health measures. One pivotal approach involved reducing taxes on essential heating materials, specifically firewood and coal. Concurrently, the government shifted its focus to agriculture, emphasising crops that could withstand harsh weather. Potatoes emerged as a focal point, and the government, historically using tax incentives to promote potato cultivation, specifically extended fiscal reprieves in 1911 to address drought challenges. In addition, free seeds were distributed to farmers to bolster agricultural output further. Alongside these measures, efforts were made to address the immediate needs of those most affected by the harsh weather through financial assistance.

Although the weather events experienced in the Ottoman Empire in 1911 may have been influenced by factors specific to the era, the lessons derived from them remain relevant today. They highlight the persistent challenges associated with sufficient resource allocation and adequate budgeting, which can significantly impede disaster preparedness and response efforts. The Empire's lack of appropriate infrastructure undermined its ability to promptly respond to the crisis and recover from it. Effective disaster management entails undertaking practical preparations that are frequently disregarded or undervalued. Proactive disaster preparedness strategies and comprehensive contingency planning, rather than reactive responses after a disaster occurs, are essential to avoid prolonged recovery periods and the exorbitant costs associated with post-disaster reconstruction. Acknowledging the role of climate change in amplifying the frequency and intensity of certain extreme weather events is crucial in formulating effective strategies for adaptation. Consequently, embracing sustainable practices, fostering resilient infrastructure, and implementing disaster risk reduction initiatives assumes even greater significance. The recent earthquakes in Turkey serve as a stark reminder of the repercussions of not implementing essential precautions and the considerably higher costs associated with mitigating the resulting damage.

These initial findings serve as the foundation for a broader project that I aim to expand into a transdisciplinary collaboration involving experts in environmental science, GIS, and public-health and military history. This collaborative approach offers the potential for a more comprehensive understanding of the short-term and long-term effects of weather anomalies, extending beyond the Ottoman Empire into a global context.

LEGACY DATA: USING THE PAST FOR THE FUTURE

Legacy data present an immensely rich and varied body of largely unstudied information that allows present-day scientists and researchers further understanding of Türkiye and the Black Sea region. The British Institute at Ankara's own historical collections, including paper and photographic archives as well as archaeological collections, offer insights into the evolution of the topic or material under study as well as information about assets now lost. The Institute owns collections of squeezes and ceramic sherds as well as large photographic collections and archives that offer excellent study material for scholars in many disciplines, including archaeologists, historians, anthropologists and specialists in epigraphy and ethnology. This strategic research initiative aims to promote interdisciplinary academic research that relates to legacy data concentrating on Türkiye and the Black Sea region. Work on the Institute's collections will be an important focus, as will research on other legacy data available in Türkiye and the Black Sea region.

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The British Institute at Ankara's collections and digital repository

Nurdan Atalan Çayırmez, Burçak Delikan, Gonca Özger, Burcu Akşahin & Nihal Uzun | British Institute at Ankara

The British Institute at Ankara (BIAA) continues to receive donations and to archive them, physically and digitally, with the help of interns and volunteers. The team has been working to reorganise and rearrange its physical archives as well as the digital collections to better align with the principles of FAIR (Findable, Accessible, Interoperable and Reusable). In addition, the work of conservation and restoration continues for organic and inorganic materials in our historical collections. Significantly, this analogue archiving represents the foundation of the digitisation process. Data verification from the physical collections is ongoing.



Intern Sena Ayar (left) and Digital Repository Assistant Gonca Özger (right) cataloguing part of the photographic collection (Photo © British Institute at Ankara-PH15399 (CC BY NC SA 4.0)).

We are pleased to report that the BIAA's Digital Repository (<https://digitalrepository.biaa.ac.uk>) was launched on 21 March 2023. We offer in this article a brief description of what the Digital Repository is and highlight a few of the collections that can now be accessed through it. The Digital Repository is an open access database which includes digitised records from the BIAA collections and archives, as well as born-digital data from BIAA projects.

The first collection we would like to highlight is the biological collection, which consists of the animal bone and botanical reference collections. The latter was first established by Gordon Charles Hillman and other scholars in the 1970s, and includes herbarium, seed, wood and charcoal specimens. Information about the Herbarium Digitisation Project (2021–2022) can be found in *Heritage Turkey* 2022. The Botanical Reference Collection is fully digitised and accessible online (<https://digitalrepository.biaa.ac.uk/botanical-reference-collection>). The Animal Bone Reference Collection was created by Sebastian Payne in the 1970s, with improvements undertaken by Evangelia Pişkin at the beginning of the 2000s. The collection mainly consists of domestic mammals, as well as a few birds and reptiles. The Digital Repository has undertaken and completed a process of re-assessment, updating of the database, metadata standardisation, and linking the specimens with the standard authority sources. The full metadata for the Animal Bone Reference Collection catalogue has been published and is accessible online (<https://digitalrepository.biaa.ac.uk/animal-bone-reference-collection>).

The Feriköy Protestant Cemetery Collection (<https://digitalrepository.biaa.ac.uk/ferikoy-protestant-cemetery-collection>) and the SARAT Online Certificate Program (<https://digitalrepository.biaa.ac.uk/sarat-arsiv-sarat-archive>) are now both available online. The Digital Repository Office is digitising and cataloguing materials upon request, alongside official documents and archaeological records.

Apart from the work of cataloguing and archiving new and legacy donations, the BIAA has been working on the Connecting Archives, Connecting People project, an AHRC/UKRI-funded Imagining Futures Phase II Commissioned Project, in collaboration with the British Institute of Libyan and North African Studies (BILNAS) and the Wikimedia Community User Group Turkey. This ongoing digital repository initiative aims to widen access to archives by focusing on the concept of ‘creators’: the people who collect, create and interpret archival material. Once completed, the project will provide guidance and recommendations on best practices in collecting and linking person data for GLAM (Galleries, Libraries, Archives, Museums) institutions using Wikidata. Moving forward, we aim to use the same methodology for linking the archives of all eight British International Research Institutes (BIRI). The BIRI Digitisation Initiative continues, and an in-person workshop about data curation was held at the BIAA on 20–21 March 2023. The aim of this workshop was to share know-how, discuss the various challenges and get some hands-on data curation practice.

The BIAA continues to prioritize collaboration with national and international partners for sharing know-how and improving knowledge. Collaborations with the Archaeology Data Service, SEADDA and the Imagining Futures (IF) Project have allowed us to bring partners and researchers together and to organise several workshops. These initiatives include Imagining Futures Gathering II:



Participants at the BIRI Digitisation Initiative Workshop, 20–21 March 2023, in Ankara (Photo ©British Institute at Ankara-PH15595 (CC BY NC SA 4.0)).

Strategic Use of Archives in Contexts of Displacement and Post-Conflict (21–23 February 2023, BIAA, Ankara), organised by the IF Team. More information about these activities can be found online:

<https://digitalrepository.biaa.ac.uk/resources>.

Looking ahead to 2024, the BIAA has been awarded a grant from the Modern Endangered Archives Program (MEAP) (<https://meap.library.ucla.edu/about/news/meap-awards-cohortfive/>). The grant will make it possible to undertake the Lost Villages of the Upper Euphrates: A Digital Archive project which will preserve some 2,400 photographic slides that comprise an ethnographic record of life in the Upper Euphrates region from 1970 to 1990. The project is one not only of preservation but also of recovery of ethnographic information that has since been ‘lost’ due to the construction of the Keban and Karakaya dams.

We would like to thank all the staff, consultants, scholars, interns and volunteers who have contributed to the work of archiving, cataloguing and digitising over the past 12 months. Through their work and the generous donations that have been provided to the BIAA, the Digital Repository can continue to update and refine its systems. The BIAA is also supporting several interns and volunteers from several different academic disciplines. They are Sena Zeynep Ayar, Buse Gürkan, Buse Kayar, Umut Özdemir, Utku Uğurlu, Zehra İlke Yıldız, Fatma Betül Göğüş, Pelin Su Uzuncagil and Christopher Jaques Dolphin (interns) and Natalie Stuart, Catherine Rashid, Doğa Aydın, Deniz Ballanlı, Putri Ayesha, Öykü Ortakçı, Sophie Young, Mehmet Eren Girgin and Emrah Dinç (volunteers). Many thanks to Chris Dolphin for editing this document.

Finally, we would like to acknowledge digital archivist Orhun Uğur, whose work on the Digital Repository from 1 October 2021 to 15 July 2023 was instrumental. He has now started in a new position at the University of Exeter.



Digital Repository Manager, Nurdan Atalan Çayırmez launches the BIAA's Digital Repository System.

HABITAT & SETTLEMENT IN PREHISTORIC, HISTORIC & CONTEMPORARY PERSPECTIVES

This strategic research initiative supports research focused on assessing long-term change from prehistory to the present day. Anatolia has one of the best-defined long-term records of settlement during the Holocene period, and its study is central to a range of questions in prehistory, including the changing relationships of humans with the environment, the formation of large-scale settlements and shifts in urban-rural relationships. Developments in the Black Sea coastal region sometimes ran parallel to changes in Türkiye, but followed a different course at other periods, creating interesting comparisons, parallels and alternatives. Of particular interest are mankind's attempts to live in as well as adapt to and change conditions set by the environment through time and also the effect of human beings on their natural environment and landscape.

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Agriculture in the highlands: Rabati, Georgia

Catherine Longford | University of Sheffield

Eastern Anatolia and the Caucasus share many archaeological traditions. In the Early Bronze Age, the Kura-Araxes cultural complex (ca 3500–2500 BCE) is characterised by its distinctive red-black burnished pottery. Kura-Araxes communities lived in stable, agro-pastoral villages composed of small, uniform domestic units which all share similarities in internal organisation (Batiuk et al. 2022). Around the mid-third millennium, Kura-Araxes traditions rapidly disappeared and were replaced by communities with new material culture and lifeways. In northeastern Anatolia and the Caucasus, Early Kurgan cultures (Martkopi, Bedeni, ca 2500–2000BC) are noted for their ostentatious barrow burials under large funerary mounds (Sagona 2018). Rich grave goods in some of these kurgans suggest the emergence of elites and hierarchical societies; however, as associated settlements are virtually unknown, these populations are interpreted as having embraced a mainly mobile lifestyle. The end of the Kura-Araxes phenomenon and the emergence of Early Kurgan Cultures, together with the relationship between these cultural horizons, is poorly understood archaeologically and requires further investigation. This archaeobotanical project, funded by a BIAA study grant, is focusing on Kura-Araxes and Bedeni food production at the site of Rabati, Georgia, to explore the relationship between these two horizons by investigating whether there were continuities or changes in agricultural practice and subsistence.

Ancient Rabati lies on the northern edge of the modern village Zveli in Samtskhe-Javakheti province, southwest Georgia. It is a multiperiod mound (Chalcolithic–Medieval) at an altitude of 1480m above sea level, overlooking the deep gorge of the Kura River. To the south of Rabati, the plateau leads to highland pastures and the Turkish border in the Erusheti Mountains. Since 2016, Rabati has been excavated by a collaborative team from the Georgian National Museum and the University of Melbourne led by Giorgi Bedianashvili, the late Antonio Sagona and Andrew Jamieson. These excavations have uncovered a large Kura-Araxes stone building and a deep deposit of plaster lenses and ashy layers from the Bedeni period with evidence of textile production (Bedianashvili et al. 2019; Bedianashvili et al. 2022). Kura-Araxes occupation of the site has been radiocarbon dated to 3119–2630 cal BC and Bedeni to 2466–2026 cal BC (Bedianashvili et al 2021).

This season, excavations continued around a massive Early Bronze Age stone structure to try to define the Kura-Araxes building. The building's walls extend for over 20m in length, which suggests a complex and substantial architectural feature, whose function is still uncertain. Further excavations on the centre of the mound into the deep Early Kurgan deposits revealed two distinct phases clearly visible in the stratigraphy. These deposits provide a rare chance to examine the development of cultural practices and settlement structures throughout the Bedeni and Trialeti phases of the Early Kurgan period.

Rabati offers a unique opportunity to investigate agriculture and subsistence in the Early Kurgan period through archaeobotanical analysis of a rare settlement site. Moreover, because Rabati was occupied throughout the third millennium BC, it enables a comparison of Kura-Araxes and Early Kurgan agriculture and crop choices at the same site. Soil samples for archaeobotanical analysis were collected from all trenches and periods excavated this season and were processed by flotation at the dig house in Zveli. This year we processed over 40 samples totalling close to 1,000 litres of soil. The charred plant remains are currently being studied by the author at the University of Sheffield.

Initial analysis of the archaeobotanical material reveals that in the Kura-Araxes period, bread wheat (*Triticum aestivum*) and hulled barley (*Hordeum cf. distichum*) were present at Rabati. This is consistent with crops found at other Kura-Araxes sites, where free threshing wheat and hulled barley dominate, with few if any pulses (Hovsepian 2015; Longford 2015). In the Early Kurgan deposits, there is a greater diversity of crops found at Rabati together with bread wheat and hulled barley including emmer (*T. dicoccum*), einkorn (*T. monococcum*), lentil (*Lens culinaris*), pea (*Pisum sativum*), and bitter vetch (*Vicia ervilia*). In both periods, the presence of both barley and free threshing wheat chaff suggests that crops were cultivated near to the site, as this chaff is easily separated from the grain and removed after harvest when threshed. The cultivation of crops throughout the Kura-Araxes and Early Kurgan periods at Rabati would imply that some elements of these communities were present year-round to manage the fields. Due to the rarity and ephemeral nature of Early Kurgan sites, it is often assumed that the Bedeni were mobile pastoralists whose sites were only temporarily occupied. These initial results from Rabati, suggesting a permanent Bedeni settlement, potentially alter our interpretation of Early Kurgan societies. Continued analysis of the Rabati archaeobotanical material, including carbon and nitrogen stable isotope analysis, will examine these preliminary findings further to deepen our understanding of agriculture in the Kura-Araxes and Bedeni periods at Rabati.

Excavations at Rabati were funded by a Rustaveli Grant awarded to G. Bedianashvili and a Sagona bequest. Archaeobotanical fieldwork was funded by a BIAA study grant.

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View from the dig house (Cameron House) looking north at sunset towards Rabati



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Early cultivation & palaeoenvironment on the western-central Anatolian farming frontier: archaeobotany at Neolithic Ekşi Höyük

Ceren Kabukcu | University of Algarve & University of Liverpool

Archaeological evidence to date suggests that the late eighth and the seventh millennia BCE were key periods for the transformation of early farming communities in southwest Asia (Marciniak 2019), with shifts in habitation practices, farming economies and material culture. This timeframe also provides evidence for the geographic expansion and dispersal of farming and ‘Neolithic’ lifeways from the semiarid foothills, river valleys and plateaus of northern Mesopotamia, Anatolia and the Levant westwards into new environments. Ekşi Höyük, a small Neolithic–Chalcolithic habitation site, located next to a tributary of the Büyük Menderes River in western-central Anatolia, provides evidence for continuous occupation during the early seventh and early sixth millennia (ca 6700–5900 cal BC) (Dedeoğlu et al. 2023). Due to its location and the timeframe of occupation, the site provides a prime opportunity to investigate the establishment and development of farming economies in this western frontier zone.

The site, excavated since 2015 by Fulya Dedeoğlu (Ege University, Izmir) displays clear affinities with both lowland sites, like Ulucak and Çukuriçi, and sites in the Lake District such as Hacilar (Dedeoğlu et al. 2023). Since the beginning of the excavations, the Ekşi Höyük project team has routinely collected bulk sediment samples for flotation from most excavated contexts and kept them in storage. In 2022, we carried out a pilot phase of archaeobotanical sample recovery at the site, processing 51 sediment samples (ca 850 litres), using a manually operated single flotation tank on loan from the Beycesultan excavation project. Initial assessment of these flotation samples confirmed excellent levels of preservation of charred plant remains and their high potential for more detailed analysis. Our primary objective during the 2023 field season, with the generous support of the British Institute at Ankara, was to build a bespoke, pump-operated, 3-tank flotation system to ensure systematic recovery of bioarchaeological as well as artefactual finds contained in the samples.

During our stay at Ekşi Höyük in July, working alongside the excavation team and local contractors, we were able to complete the preparation of an area for flotation sample processing, build a custom-designed 3-tank flotation system, and provide training to undergraduate and postgraduate students in flotation recovery techniques. Using this new system, a further 53 sediment samples were processed (ca 545 litres), chiefly by the students we had trained.

During this period, we also started the study and identification of the light fractions obtained through flotation processing. Among the studied samples, we recorded a diverse

range of cereals and legumes, as well as the remains of seeds, stems and tubers of wetland plants. Emmer and einkorn hulled wheat were the most dominant cereals, but we also found barley and free-threshing wheat in good quantities. Peas and lentils were commonly found, as well as a small number of other legumes that have not yet been positively identified due to the preservation conditions. The remains of terebinth and hackberry provide data, albeit still limited, on the use of wild fruits and berries. In addition to these finds, carbonised seeds belonging to small-seeded legumes, mallow, mustard, and seeds of the daisy family were found, likely representing weeds of cultivation, wild plants found on roadsides and areas used as pastures. Several samples were also rich in crop-cleaning waste containing remains of chaff, awns, and stalks, etc. Thus, we are confident that in the coming years our research will uncover detailed local signatures of farming and pastoral practices by the site’s inhabitants.

In sum, thus far, the range and diversity of crop remains at the site bear strong similarities to Neolithic phases of occupation at Çatalhöyük. On the other hand, charcoal analysed from the same samples reflects an entirely different vegetation composition when compared to the central Anatolian Neolithic–Chalcolithic habitations. These samples contained two species of pine (stone pine and red pine), which were likely used as building materials. In addition to this, small amounts of oak, terebinth, almond and poplar remains were also identified. An interesting aspect of the anthracological results is the very low abundance and ubiquity of riparian/wet woodland taxa, despite the frequent appearance of reeds and rushes in the non-wood charred plant remains.

The archaeobotanical record at Ekşi Höyük already suggests a distinct tradition in landscape and vegetation exploitation. Our future work in the coming years will focus on the processing and analysis of further samples from the site, seeking to understand in greater detail the establishment and evolution of farming regimes in this region.

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Past environments in the transition to agriculture: preliminary investigations in the Taş Tepeler landscape

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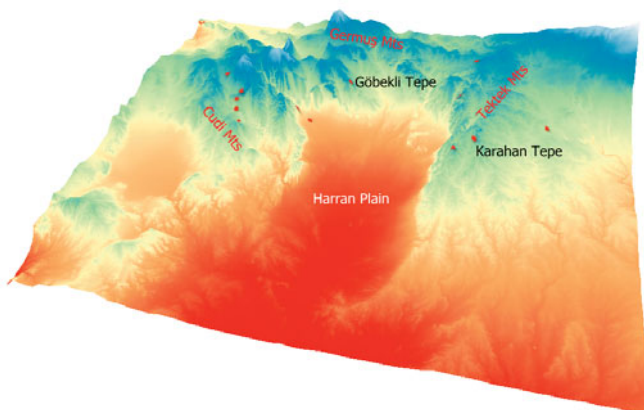
John Wainwright | Durham University

Shahina Farid | Historic England

Ceren Kabukcu | University of Algarve & University of Liverpool

Necmi Karul | Istanbul University

The region of the upper catchment (northernmost extent) of the Euphrates River is key to unlocking the narrative of one of the most important episodes of human development. Whilst the earliest examples of subsistent settlements, incipient domestication, and the development of agropastoral lifeways coincide with the changing climate of the early Holocene, further research is needed to disentangle a complicated set of interrelated causes and effects. Southeast Anatolia has one of the richest archaeological records for the Pre-Pottery Neolithic (PPN) period and is renowned for its large settlements with monumental stone architecture. Some research has detailed patterns of erosion and deposition through time around Gobekli Tepe (Nykamp et al. 2020a; 2020b), suggesting there is a strong potential for looking for patterns around other parts of this landscape to obtain a more holistic understanding of people and their environment in the area. Our aim is to document the relationship between past landscape and land-use change from the PPN to the modern day in this key region using a combination of field, laboratory and remote sensing approaches to understand social and landscape interconnections and their evolution. In doing so, the project will contextualise the Taş Tepeler excavation sites in their contemporary landscape with multi-disciplinary teams and methods working in collaboration. The outputs will be multi-authored, including visual reconstructions of the landscape and ecosystems to better understand the sites and their development in the contemporary landscape.



Topographic map of the study region. Red marks are the location of the Taş Tepeler sites.

Since 2019, new excavations have started at a group of PPN sites in the Urfa region, including Karahantepe, Sefertepe, Çakmaktepe and Sayburç, under the umbrella of the Taş Tepeler Project, supported by the Turkish Ministry of Culture and Tourism under the scientific and research leadership of Necmi Karul (Istanbul University). The project aims to establish and implement shared standards in archaeological excavation and sampling at each site. We have established the beginnings of an exciting collaborative research project studying the landscape, palaeoclimatic and palaeoecological context of PPN occupations in the Urfa region with N. Karul (director of excavations at Karahantepe), E. Özdoğan (director of excavations at Sayburç), F. Şahin (director of excavations at Çakmaktepe) and E. Güldoğan (director of excavations at Sefertepe). As the project develops, we hope to expand collaboration to more of the Taş Tepeler sites.

In July 2023 a field trip to the region was undertaken by Ayala, Kabukcu and Wainwright to assess the landscape and sediment archives in the vicinity of the Taş Tepeler sites, as well as to investigate sites on the Harran Plain surveyed by Yardımcı (2004). In order to understand the state of the landscape and resources available to the PPN occupants we will need unravel the effect of modern land-use practices on the uplands. Visits to the site locations were fundamental to understand the inherited geological history of the area and contextualise the contemporary land use practices which have seen intensive irrigation of the Harran Plain. The area is complex due to the intermittent and often interrupted hydrology, which has seen the creation of a dissected landscape. The trip allowed us to identify pockets of potentially intact sediments in the vicinity of archaeological sites and others within the larger landscape that we propose to revisit to sample. We also spent significant time locating the tell sites that had been surveyed on the Harran plain. The plain will be key to reconstructing past hillslope disturbance on the surrounding hills, where the Taş Tepeler sites are located. It was fascinating to see how the tells have changed in the years subsequent to the archaeological survey, and we attempted to identify key tells which potentially have the longest chronology to target for subsequent investigations.

In early September, Farid visited the sites during the excavation season. Grateful for the hospitality of the Karahantepe team, she used their dig house as her base,



A dry valley looking to the south from Göbekli Tepe, with the Harran Plain in the far distance.

base from where she divided her time between the excavation sites of Karahantepe, Sayburç and Çakmaktepe. Other sites further afield could not be visited in the timeframe this year. Farid was on site with directors and team members to discuss excavation strategy, methodology and recording required to understand site formation. Stratigraphy and deposition processes are key to identifying deposit types to be targeted for geoarchaeological sampling, including potential for scientific dating techniques, that will integrate with the landscape sampling regime. Discussions were also had about context type; that is, which would generate an assemblage that best informs the environmental conditions required for animal and plant habitation. True to being a collaborative project, site-specific questions and wishes were elicited from the site directors so they could be incorporated into the landscape project. Also considered was which methods and analysis types could be implemented to better interpret and contextualise each site's questions. The results will be multi-authored and in multi-media format so that the development of this regional PPN phenomenon might be better understood. Overall, there is much support and enthusiasm for the collaboration, with the expectation that other excavation directors will also join in.

The field trips undertaken this summer were fruitful for guiding the potential of future sampling from both onsite excavated contexts and off-site locations in this highly denuded landscape. It is hoped that future work on the Harran plain will be able to uncover a stratigraphic sequence that will stretch back into prehistory (Miller Rosen 1997). This will allow us to better understand how the upland and plain landscapes co-evolved as an integrated system that could reflect both past climatic fluctuations and periods of past land use change. The larger landscape project will be to chart this shifting use of the landscape through time to

assess human impact as we go towards increasing climatic and societal pressure on water and environmental resources which have been fundamental in the story of survival and flourishing in this landscape.

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Sediments identified for future investigations.

Recent news from the zooarchaeological analysis of the faunal remains from Canhasan III (1969)

Özlem Sarıtaş | British Institute at Ankara

Canhasan is 60 km southeast of Neolithic Boncuklu Höyük and Çatalhöyük on the Karaman alluvial fan (Fairbairn et al. 2020; French 1972; 1998). The site was excavated from 1969 to 1970 by David French, head of the British Institute at Ankara from 1968 to 1994. French collected detailed information by digging into the chronological middle of the höyüks Canhasan I–III to get an overview of transitional sequences from the region's Chalcolithic to Neolithic periods. The Canhasan III excavation trenches were located towards the centre of the site, covering approximately 6% of its total area. French subdivided the deep-sounding deposits into nine stratigraphic units: Layers 1–3 comprised deposits above the floors of structures uncovered across the excavated trench, and Layers 4–9 consisted of a series of floors, fills and middens (Fairbairn et al. 2020). Canhasan's architecture is more consistent with that of mid-eighth-millennium Aşıklı Höyük in Cappadocia than with the elaborate buildings of Çatalhöyük East (Fairbairn et al. 2020). Sebastian Payne did a first rapid zooarchaeological examination of selected specimens during the 1970s, but a detailed and final zooarchaeological analysis was never completed or published.

The development of caprine and cattle herding in central Anatolia was a long and potentially complex process, for which the settlement of Canhasan III appears to provide crucial evidence. Cattle and caprines (sheep and goats) were essential to central Anatolian Neolithic communities, and their earliest management is a matter for debate. The dietary isotope analysis of the caprine remains in Epipalaeolithic and tenth–ninth millennium cal BC Pınarbaşı indicate no such 'impact' on the status of caprines, and from standard zooarchaeological analyses based on morphometrics, they are believed to have been wild. At Boncuklu Höyük (8300–7800 cal BC), caprines comprise 4.9% of identified species and do not appear to have been of much economic importance. Samples are too small to determine wild or domestic status, but isotope results suggest that the diets of some Boncuklu caprines were affected by human intervention (Baird et al. 2018; Middleton 2018). Caroline Middleton (2018) thus suggests that the management of caprines may have occurred at Boncuklu, given the isotope results and small amounts of herbivore dung at the site. Furthermore, Aşıklı Höyük, a site contemporary with Boncuklu Höyük and located in the central Cappadocia area, indicates the presence of 'managed' caprines from level 4, also around 8300 cal BC, based on the demographics and the presence of perinatal animals (Stiner et al. 2014). By the time of Catalhöyük East, ca 7100 cal BC,

zooarchaeological analysis indicates the presence of morphologically domesticated caprines in high percentages (Russell, Martin 2005; Twiss et al. 2021; Wolfhagen et al. 2021).

The crucial period for the appearance of large-scale herding in central Anatolia appears to be the ca 400-year gap between the appearance of 'managed' caprines at Aşıklı Höyük and Boncuklu Höyük and of the morphological domesticates of Çatalhöyük East. My project aims to fill this gap by analysing the zooarchaeological remains from Canhasan III and to help establish central Anatolia's role in the adoption of herding in southwestern Asia. The Canhasan III sequence commences approximately 100–200 years after the end of the Boncuklu sequence, thus making it vital to understanding the development of caprine herding and possibly early cattle management.

The zooarchaeological analysis of Canhasan III is ongoing, but work has already finished on 30 boxes of animal bones. I plan to finalize all the analyses by the end of 2023. The analysis was done in the laboratory at the BIAA, using collections housed there. There are over 100 complete animal-skeleton reference collections, created by Sebastian Payne in the 1970s. Primarily domestic mammals, a few birds and reptiles are also represented.

The preliminary results of the number of identified specimens (NISP) list from Canhasan III are shown in the table below. The relative taxonomic data from eighth-millennium Canhasan III indicate that the assemblage is dominated by caprines, at around 28%, followed by cattle, at around 24%. There is a significant increase in caprine exploitation at Canhasan III compared to Boncuklu Höyük.

| Taxonomic Representation | | NISP | % |
|--------------------------|----------------------------|------|-------|
| Cattle | <i>Bos</i> sp. | 164 | 23.67 |
| Equid | <i>Equus</i> sp. | 117 | 16.88 |
| Red deer | <i>Cervus elaphus</i> | 73 | 10.53 |
| Fallow deer | <i>Dama dama</i> | 2 | 0.29 |
| Roe deer | <i>Capreolus capreolus</i> | 19 | 2.74 |
| Boar | <i>Sus scrofa</i> | 57 | 8.23 |
| Goat | <i>Capra</i> sp. | 28 | 4.04 |
| Sheep | <i>Ovis</i> sp. | 56 | 8.08 |
| Sheep-goat | <i>Ovis/Capra</i> | 105 | 15.15 |
| Canid | <i>Canis</i> sp. | 2 | 0.29 |
| Fox | <i>Vulpes vulpes</i> | 45 | 6.49 |
| Hare | <i>Lepus</i> sp. | 25 | 3.61 |
| Total | | 693 | 100 |

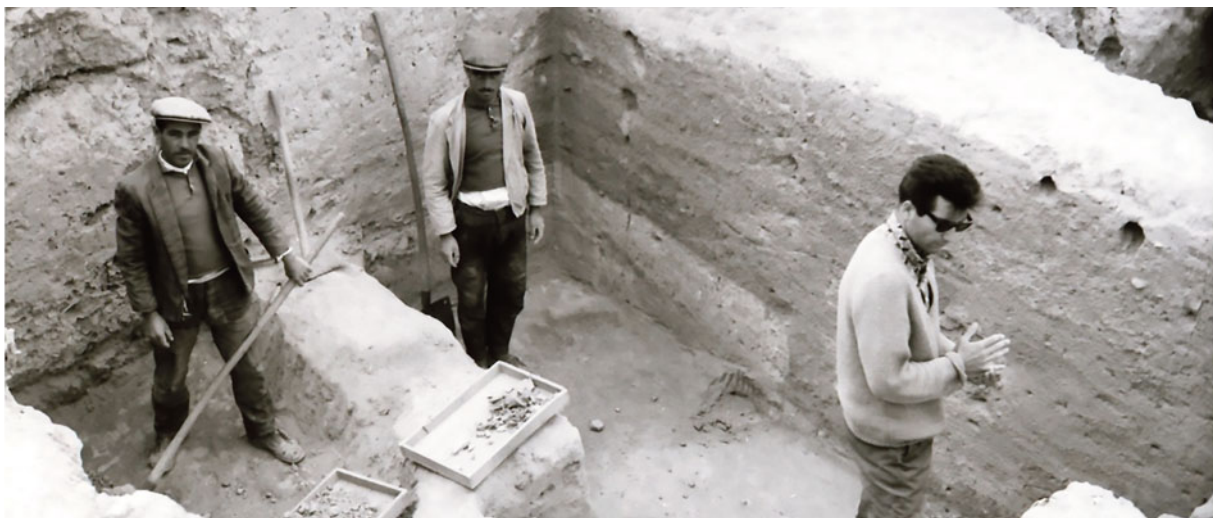
Number of identified specimens (NISPs) by taxonomic group at Canhasan III.

Ongoing analysis has already provided evidence of animal size differences among cattle at Canhasan III, which is an aspect of the domestication process. Detailed biometric and metric analysis on the caprines and cattle is still underway. The only evidence currently available for caprine management from the site is Middleton's isotope analysis (2018), which confirms the initial impression that both affected and unaffected caprines were part of the economy. Middleton's studies also suggest possible precocious cattle management in the central Anatolian context. However, there is still no clear evidence of whether the caprines or cattle are morphologically domesticated, nor of management strategies or the role of hunted species in the economy. The second most exploited species was cattle, which would have offered the most meat to the residents of Canhasan III. Equids appear to have been hunted and form around 16% of the NISP. They are followed by red deer, at around 10%. Fallow deer and roe deer are also present at the site in small numbers. The proportion of equids and cervids is higher than at the earlier sites of Pinarbasi and Boncuklu Hoyuk. At Canhasan III, there are also boar, large and medium size canids, foxes and hares. Overall, the NISP table shows the occupants of Boncuklu exploited a wide array of large and medium-sized mammals from different ecological areas.

When my research is complete, we will have a more robust pattern for human-animal interactions at Canhasan III in central Anatolia and the earliest example of morphologically domestic caprines. The analysis of the assemblage will also lead to future projects that further develop questions of human-animal relations, especially by using aDNA analysis to explore caprine and cattle domestication in Anatolia.

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Work on the excavation site of Canhasan (© British Institute at Ankara-PH14019).

Archaeological research at Aphrodisias in 2023

R.R.R. Smith | University of Oxford

Our team of students and experts from Oxford, New York and several Turkish universities made excellent progress at Aphrodisias in 2023 on major projects. Site conservation and anastylosis were our main focus in the Basilica, Urban Park and Sebasteion, while study and excavation in the Tetrapylon Street, House of Kybele and North Temenos House are part of a programme of geophysical and archaeological research into the long history of urban living, private residences and workshop structures in Aphrodisias.

Civil Basilica. The anastylosis of the four colossal double-columns of the Basilica's vestibule was completed, together with their Ionic capitals, 4-m architraves, and blocks of mask-and-garland frieze. The remaining parts of Diocletian's Edict of Maximum Prices, originally inscribed over the building's façade, were set up on 10 custom-designed metal mounts, in Latin, Turkish and English, on the line of the Basilica's west wall. They include the texts of Chapters 50 to 70 of the Edict, as well as information panels and reconstructions. A new edition of Diocletian's Edict, by Michael Crawford, studies the text as inscribed at Aphrodisias and will appear shortly as *Aphrodisias 13* in our monograph series.

Pool. In the Urban Park / Place of Palms, restoration work continued on the sensitive marble perimeter of its 170-m-long pool. The collaborative volume on the excavation and history of the whole complex is now at the publishers. It will be *Aphrodisias* volume 14.

Sebasteion. The temple at the east end of the Sebasteion stood on a tall podium and was dedicated to Livia and Tiberius. It was the culmination of the whole complex. A three-year anastylosis project was finished this year, with the re-erection of large parts of the temple's Corinthian



Head of Dionysos from Tetrapylon Street.

columnar façade. This has dramatically changed visitor experience of the complex. Strong progress was also made on a volume studying the architecture of the Sebasteion.

Tetrapylon Street. The excavation of this key urban artery was begun in 2008 and completed this year. We found a busy colonnaded street of the late fifth to sixth century, destroyed in the early seventh century, after which life resumed on top of its collapsed debris. In 2023, final excavation brought the last part of the baulk above the east colonnade down to the sixth-century floor, where an interesting inscribed weight standard of the late antique period was discovered. A small head of Dionysos, fallen from an apartment above the street colonnade, was found on the west side of the street. Intensive study and writing were carried out in situ for collaborative publication of the Street's excavation and history. The project has opened a whole new vision of changing city life from AD 400 to 1200.

Kybele House. The House of Kybele project, begun in 2022, is investigating a city neighbourhood at the northeast City Wall that includes a warehouse, workshops, a street, a city gate and the large Kybele House itself. This year we removed most of a long, deep, and unexcavated spit of earth lying over part of the warehouse and part of the east-west street. The excavation confirmed that this city quarter remained vibrant until the second decade of the seventh century, after which it fell victim to a sudden destruction event that created a debris layer more than 1.5 m thick.

A stand-out discovery here was a small street restaurant built over the street paving near the workshops in the sixth

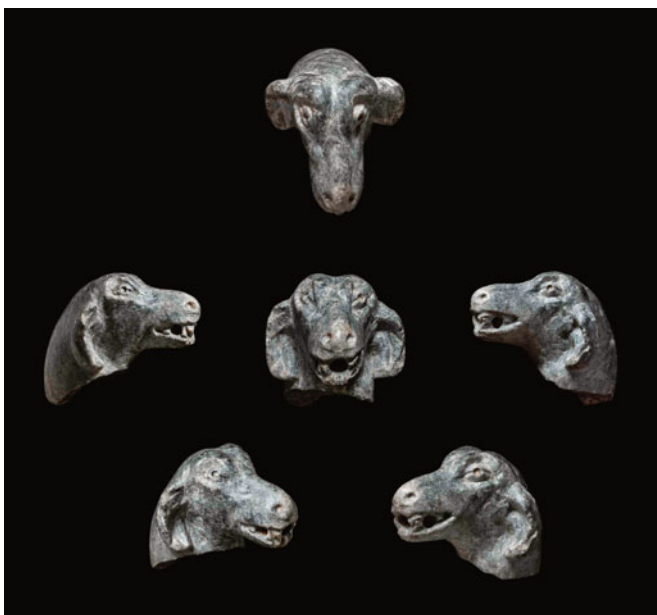


The Civil Basilica.

century, excavated with all its furnishing still inside – a cooking stand, a dozen cooking pots and their lids, several local storage amphorae, a ceramic strainer and some tableware plates, both local and imported. A (broken) cooking pot was found with bones (for a soup or stew) still inside. A marble pestle and mortarium fragment are also connected to food preparation. The room's assemblage was completed by more than six ceramic lamps and a miniature head of a dog in blue marble found lying on the floor of the room.

North Temenos House. After a successful campaign of geophysical prospection to the north of the city centre early in the 2023 season, a new project was begun in the North Temenos House, located immediately next to the Sanctuary of Aphrodite, to investigate its extent, chronology and function. The project is part of a new programme of research into housing and living in Aphrodisias from the later Roman into the Byzantine period. In 2023, two trenches were opened at the northern limits of the house and confirmed the geophysical results and that peristyles belonging to the house extended in this direction.

Museum courtyard. Conservation work continued on marble sculptures to be displayed in new covered halls in the existing museum courtyard. In 2023, work focused on three portrait statues and 10 portrait heads and busts, many of them recently discovered. The heads and busts range in date from the first to the sixth centuries AD. They were prepared for mounting on independent pillars after careful assessment of their original postures. Three imperial statues, each badly fragmented, were also restored, together with their heads. They came from the Propylon of the Sebasteion and represented the emperor Tiberius, his mother Livia and a young imperial princess called Aemilia Lepida.



From the street restaurant, a miniature head of a dog.



Conservation of the statue of the emperor Tiberius from the Propylon of the Sebasteion.

Publication. In addition to the volumes already mentioned, on Diocletian's Prices Edict, the Place of Palms and the architecture of the Sebasteion, strong progress was made during the season on collaborative publications of the Tetrapylon Street, the Stadium, the Bouleuterion, the City Walls and the reliefs from the Basilica. Publication remains a key priority of the Aphrodisias project.

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The Boncuklu project

Douglas Baird | University of Liverpool

Andrew Fairbairn | University of Queensland

Gökhan Mustafaoglu | Ankara Hacı Bayram Veli University

We conducted our last full season in the field at Boncuklu this summer, consisting of the study of various finds rather than excavation. In this light, it is a good time for a review of the achievements of the project, which ran from 2006 to 2023, with a field season every summer except 2020 due to the pandemic. The main aims when we started the project were to understand the timing and factors involved in the appearance of sedentism, cultivation and herding in central Anatolia. We wanted not only to focus on broader mechanisms and processes, but also to gain insights into what it meant for foragers to be caught up in these developments, especially in relation to their social practices, individual and household histories, and related ritual and symbolic practices. Boncuklu is only 9.5km north of World Heritage-listed Çatalhöyük and would seem to offer important information related to understanding the antecedents of that large community, with its notable evidence for elaborate ritual and symbolism. The prehistory of the Konya plain has been a feature of the BIAA's activities since the late 1950s, and Boncuklu promised to build on that focus. The project owes much to the long-term BIAA support that has underpinned its endeavours. Some key results are discussed below.

Time frames

We now have a clear understanding of the chronological framework for the developments that interest us. C14 dates relating to the main areas excavated between 2006 and 2016 indicate that those elements of the stratigraphy dated from ca 8300 to 7800 cal BC. One of the achievements of the final seasons has been to excavate a whole sequence, and this indicated that the occupation started at least 1,000 years earlier, by ca 9300 cal BC. We were also able to excavate some of the latest preserved Neolithic occupation, which dates to ca 7600 cal BC. There is evidence that even later deposits must have been present on the site, suggesting that the original occupation continued to at least 7500 cal BC, if not later. The occupation thus spanned a minimum of 1,700 years, making it an extremely long-lived site, exceeding, for example, the 1,100 years documented for Çatalhöyük East. It therefore provides an ideal chronological framework for a long-term perspective on the emergence of sedentism, cultivation and herding. Indeed, the very longevity of the community at Boncuklu must be one of the factors to consider as an attribute of the commitment to place involved in early sedentism. Our findings also confirm that the end of occupation at Boncuklu did not long predate the occupation of Çatalhöyük. Indeed, the possibility exists of chronological conjunction or overlap of the sites.

Appearance of cultivation

This chronological framework, when combined with the detailed stratigraphic sequence and archaeobotanical evidence, is providing important insights into the emergence of cultivation and domestication of plants which we can develop in continuing studies. Early in the project Fairbairn's work indicated that there were cultivated and domesticated cereals, and probably some legumes, at the site between 8300 and 7800 cal BC. But they were uncommon; this also matched the phytolith evidence studied by Jenkins and allowed us to say that Boncuklu during these phases was a community cultivating plants, but in a restricted way. Alongside this was plentiful evidence of wetland exploitation, including hunting wild cattle and boar, and intensive use of resources such as fish and aquatic birds. Discovery of human coprolites has also allowed us to appreciate a significant role for other aquatic small animals, suggesting broad-spectrum exploitation of animals and plants, with cultivation at a low level. We suggested that cultivated and domestic crops were introduced into the area as part of long-distance exchange arrangements that in the same period (Levantine Early PPNB) saw the proliferation of domesticates around the Fertile Crescent and the integration of central Anatolia into that phenomenon.

The dating of the earliest levels at Boncuklu now permits us to investigate questions related to the pre-8300 cal BC history of plant use by this community. Currently, it seems likely that cultivation did predate 8300 cal BC, but it does not seem to begin at the start of the sequence. This likely earlier introduction not only affects our understanding of the relationship between cultivation and sedentism but will also have broader implications for evidence of the development of cultivation both within and outside the Fertile Crescent, and for the potential spread of relevant species as cultivars preceding domestication. Detailed ongoing stratigraphic and archaeobotanical studies will provide conclusive answers.

The development of sedentism

Our approach to the question of the emergence of sedentism has not been just to consider the seasonality of plant and animal exploitation at the site, but also to question degrees of intensity and continuity in use and occupation. The plants, birds and large mammal ages of death all indicate the presence of species collected and hunted in all four seasons, well distributed through much of the sequence. Commitments to Boncuklu as residential space, and intensity and continuities in occupation are attested by the

regular, probably annual, plastering of buildings, the reconstruction of sequences of buildings in the same location, repetitive frequent symbolic elements, and reconstruction of hearths in houses and open areas one atop the other. The burials under floors in sequences of houses, of brother and sister, mother and son, point to direct temporal continuities in these repetitive practices and house rebuilding, in keeping with a sedentary occupation. Investment in these mudbrick structures and their intensive upkeep also point to commitment to specific places. Together, these practices make a convincing case for the emergence of sedentary behaviours by ca 8300 cal BC. We now know that the earliest phases of the site suggest less-intensive occupation. The structures dated ca 9300–9000 cal BC, whilst sharing some features with later occupation, did not use mudbrick or daub, but wood and reeds. Repeated floor surfaces are present but appear less durable than later plaster floors. Evidence exists for seasonal waterlogging. Artefacts and ecofacts occur in lower density than during later occupation. Overall, the suggestion is of less intensive and less continuous occupations and of seasonal absences in the earliest phase. This indicates the in situ transformation of the Boncuklu community into a sedentary one. More detailed study of this process is underway, especially regarding the relationship between the adoption of sedentism and cultivation, and the adoption of sedentism and intensification of ritual practice.

Appearance of animal herding

At Çatalhöyük East, sheep and goat herding seems well established by 7100 cal BC, with these animals the most common at the site. They are present in low proportions and overall numbers at Boncuklu, so it seems unlikely they were herded there. In terms of their morphological features, there appears to be no evidence for initial domestication. However, two elements strongly suggest they were managed/herded in low numbers: the presence of herbivore dung at the site, especially as used in external hearths, detected by Aroa Garcia Suarez in her micromorphological studies; and isotope evidence analysed by Caroline Middleton that points to changes in caprine diet at Boncuklu relative to caprines in the earlier Holocene and Epipalaeolithic. This diet indicates the animals were grazing in the plain and marshy areas, away from their natural hilly habitats, and/or that they were kept in more stressed conditions. Together, this evidence strongly suggests, as with contemporary Aşıklı, the appearance of caprine herding by 8300 cal BC. Whether management of the animals preceded this needs to be more fully documented. As with crop cultivation, the herding of animals is here introduced as a small-scale accompaniment to wetland-focused foraging, and may have been as much for dung as for food. We might also consider the possibility of small-scale milk use, although we have no evidence for this.



RTI image of decorated plaque.

Pottery

Excitingly, Boncuklu has also yielded evidence for the earliest pottery in central Anatolia, amongst the earliest in southwest Asia. The use of this pottery at Boncuklu is not common and seems restricted to a certain limited range of vessel types that may have been used in very particular settings of food and drink consumption or presentation, perhaps as well as for some limited specific utilitarian functions, including very restricted cooking and storage practices.

Life histories and house histories

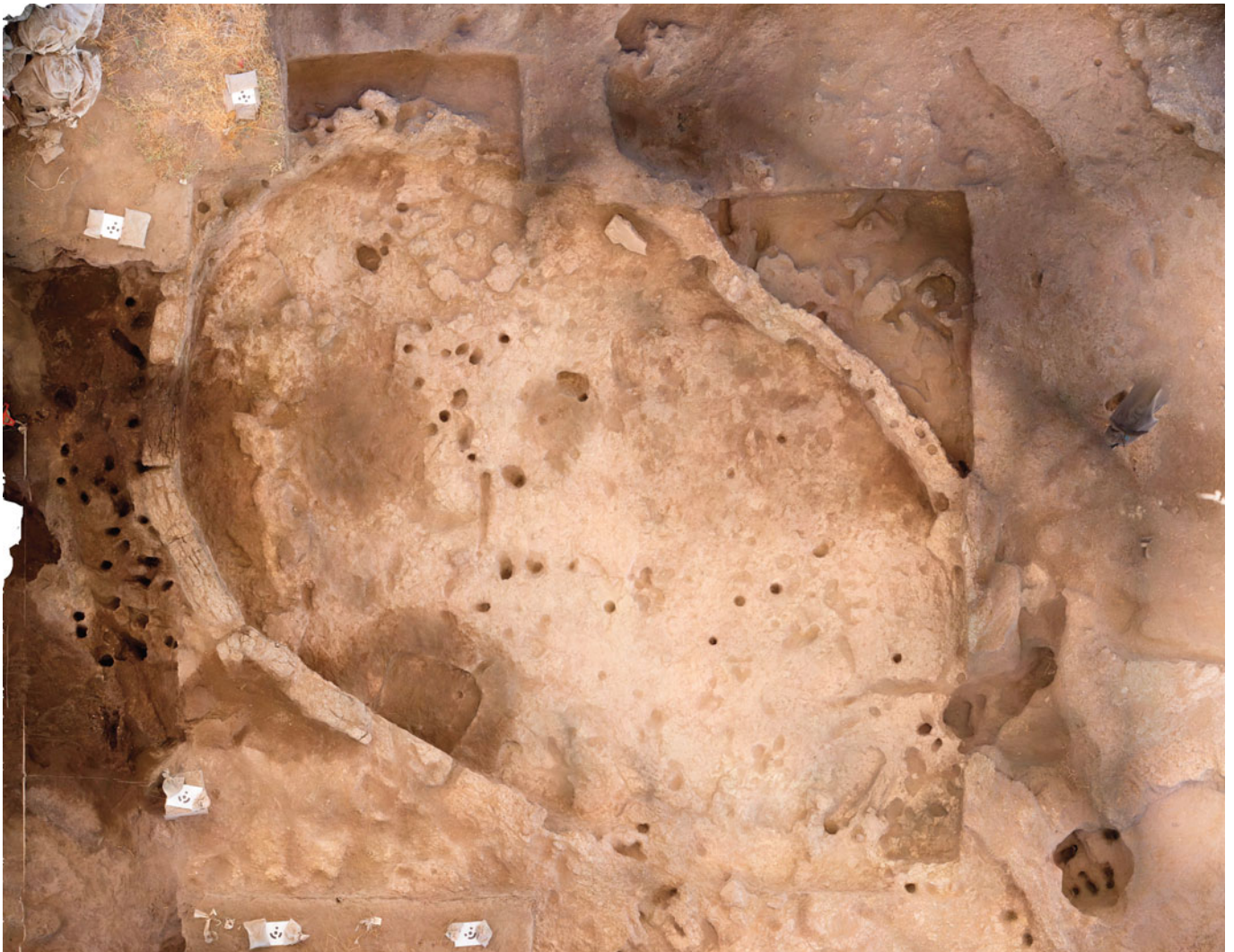
C14 dating has allowed us to suggest that the houses at Boncuklu were annually plastered. The floor sequences therefore provide floor ‘clocks’. By integrating isotopes and aDNA, we can also investigate the intertwined lives of houses and of individuals as they formed households with distinctive identities. To take the example of one sequence, in the 83rd century BC, a house known earlier as Building 12 (henceforth B12) was replaced by B14, which in turn was replaced by B.5. Two individuals were buried in B12, the first was a child and the second an adult male. The latter was the brother of the first person interred in the succeeding B14, in this case, an adult female. She was buried in an early floor of B14, and was more than 30 years old, meaning she had been alive during the whole of the life of B12, according to our ‘floor clock’. Like her brother, she remained closely associated with this sequence of houses. Intriguingly, this woman was buried with a perinatal child who was not genetically related to her or her brother. Late in the life of B14, another adult female was buried, before being followed a few floors/years later by her son. Neither was related to the earlier brother/sister or perinatal child, indicating some of the potential dynamics of these households. The way a perinatal child was buried with a biologically unrelated adult female shows how burial practice may express complex relationships across lineages, with the house providing a focus.

Isotope study shows that all of these individuals spent their childhoods in the Boncuklu area. Interestingly, though, isotopes also suggest that the diet of the adult son became distinct from others in the community, meaning he probably spent large parts of his adult years – in the decade before he died – at distant locations, either on an extended regular seasonal basis or for the best part of several years. Even so, he came back to be buried at Boncuklu, under the same house as his mother. Intriguingly, he is one of the earliest individuals known to have been infected with Hepatitis B, so his journeys give a hint of how such diseases may have spread. All of the adult individuals in this building sequence show the presence of osteoarthritis, so they shared a life of carrying heavy loads, causing significant wear and tear on their bodies. It is noticeable that the burials mostly lack grave goods, except for the adolescent buried first in B12. This is a low proportion relative to graves elsewhere but seems to be a pattern among these house burials, suggesting local household traditions.

In this vignette, we see how the Boncuklu community constructed tightly woven social networks that transcended individual lives through associations between related individuals, living and dead, and buildings. This was achieved in flexible ways, accommodating biologically unrelated children and seeing the coming and going of group members. These behaviours probably contributed to the longevity of these households. They were symbolically played out in house reconstructions and elaborate house rituals, marked by the deployment of very specific animal bones in walls and floors, including wild cattle bucrania, pigs' jaws and animal scapulae.

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Building 22.

Pınarbaşı

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Douglas Baird's excavations in 2003 and 2004 established the rock shelters at Pınarbaşı as the only excavated, and one of the very few known Epipalaeolithic sites on the Anatolian plateau. The occupation was dated to 14,000–11,000 cal BC, the late Epipalaeolithic. In addition, excavation on a small mounded open site projecting to the west of the cliff face identified tenth–ninth millennia occupation, which remains the earliest Holocene occupation documented in central Anatolia. These occupations are key to understanding the subsequent appearance of sedentism and agriculture in the area and are interesting in terms of relationships to Epipalaeolithic and earliest Neolithic of the 'fertile crescent'. Only a small area of Epipalaeolithic was excavated in 2004, but burials and a long occupation sequence were discovered. Given the small area sampled, questions remained about mobility/residential practices, the presence of structures and facilities on-site, the nature and degree of plant exploitation (it seemed very limited) and the extent of burials at the site. In addition, the latest dated occupation was just before the Younger Dryas, a 1,000-year cold phase just before the amelioration of the Holocene. It was important to know whether or not the high elevations of the Anatolian plateau in the Younger Dryas saw human occupation, not least in terms of understanding population expansion and the appearance of sedentism at the beginning of the subsequent Holocene. Further, we were not clear if we had reached the bottom of the Epipalaeolithic occupation in 2004, although deposits had changed in nature. Therefore, we wanted to investigate the possibility of earlier occupation.

The open site previously revealed wattle and daub structures, burials and middens, but more extensive excavation is required to understand the organisation of the settlement, degrees of sedentary behaviours and intensity of ritual and symbolic practice, especially compared to contemporary Boncuklu. In addition, the earliest phases were only exposed over small areas, and we need to learn more about these tenth-millennium occupations. The open mound has been subject to ongoing looting and therefore also requires rescue work. Overlying the tenth–ninth millennia occupation was a settlement of the Late Chalcolithic to Early Bronze Age, and renewed work offered the chance to understand this better. The latest activity on the site is a later medieval to early modern (Seljuk to Ottoman-period) cemetery, which we are also exploring.

The major project aims are:

- 1) to investigate mobility and seasonality of exploitation of the Konya plain by Epipalaeolithic groups
- 2) to document the earliest occupation of the Pınarbaşı rock shelter
- 3) to understand the role of Pınarbaşı in the symbolic worlds of Epipalaeolithic and early Neolithic communities
- 4) to understand transitions to sedentism in the tenth–ninth millennia cal BC
- 5) to document changing exchange patterns 16,000–6000 cal BC, and
- 6) to understand the nature of Late Chalcolithic–Early Bronze Age occupation ca 3500–2500 cal BC at the site.

The renewed excavation focused on reopening and slightly expanding Area B to assess the nature of surviving Epipalaeolithic and Late Neolithic remains in the light of damage from the looters' pit. In addition, a new trench was excavated to the northwest of Area A in the open site, designated Area F. The intention was to investigate the sequence of occupation on the open site and especially the nature of the tenth–ninth millennia cal BC occupation.

Epipalaeolithic

The looters' pit left ca 2m by 0.8 m of Epipalaeolithic deposit between its southern edge and the north side of the 2004 sounding through the Epipalaeolithic. We were able to excavate several lenses of accumulated Epipalaeolithic sediment in this strip, to a depth of 0.30m. These were overlapping lenses of silty sediment with high concentrations of rock face shatter and variable quantities of ashy and artefactual material. Lenses varied between 2cm and 10cm in depth. Ashier lenses were often preceded and followed by lenses of lighter and sandier character. Nevertheless, artefacts and ecofacts were found in all contexts. The earliest feature identified within these deposits seemed to represent in situ hearths. Notable in the earliest lenses reached were what appeared to be coprolites, probably human or carnivore.

In 2004, the southern half of Area B was excavated until two burials were revealed, cut into and underlain by a distinctive yellow and sandier sediment than had characterised the overlying Epipalaeolithic deposits. We were able to open this part of Area B and confirm that it had not been damaged by the looters' pit. We were then able to continue to excavate here to ascertain if the distinctive yellower sandy sediment also contained occupation. A number of features were cut into this deposit, of which one, a large oval pit,



Epipalaeolithic burial.

contained the lower part of an adult human burial. The burial was lined with ochre. Given the two previous burials from 2004, the one from 2022 and the burials disturbed by the looters' pit, we can have some confidence in suggesting that there is an extensive Epipalaeolithic cemetery at Pınarbaşı dated to 14,000 cal BC and earlier, much of which remains intact in the south part of Area B and underneath the surviving Late Neolithic in its western parts. Further, we have demonstrated that there remains a sequence of Epipalaeolithic activity extending earlier than that documented in 2004. This is very promising for further excavation. We also reached in situ Epipalaeolithic deposits at the top of this sequence, directly underlying the Late Neolithic. These will allow us to date and document the final Epipalaeolithic, which was not possible in 2004, and so to understand if occupation continued into the cold dry Younger Dryas period at the site and on the Anatolian plateau.

The occupation deposits in situ are unique on the Anatolian plateau, and the existence of a complete cemetery unassociated with habitation structures is unique in the whole of Anatolia. This key site requires further rescue work as looting was ongoing even during our excavation season, albeit on the tenth/ninth-millennium BC mound.

Late Neolithic

Late Neolithic deposits were preserved in the western part of Area B, as excavated in 2004. Included were an oven built of upright slabs and set into the wall of B4, the Late Neolithic building identified during the 1994/5 and 2003/4 excavations, the continuation of B4 wall to the north, a remnant of the earliest deposits sloping into B4 and some deposits preceding B4. We excavated some of the deposits which preceded B4, investigating early fills of the oven or preceding it. Some plastered bones of the type previously documented were recovered from the earlier Late Neolithic deposits predating the oven.

To the north of the B4 oven and probably post-dating B4, we excavated an area that seemed to have seen repeated butchery events. In an area where we excavated an extension



Late medieval graves.

of Area B to the south, we documented two large hearths, likely of Late Neolithic date, and a small fragment of probably Byzantine wall.

Area F

We opened this new area to the west of the rock shelter area and close to Area A. Early Neolithic structures and burials were well preserved in Area A in 2003–2004 and we hoped to find a continuation of such structures and features. This season, we focused on dealing with overlying activity from the Late Chalcolithic to Early Bronze Age (ca 3500–2500 cal BC) and the later medieval period (Seljuk to early Ottoman).

The Late Chalcolithic to Early Bronze Age on the Konya plain saw a proliferation of settlements including some large urban centres. This phenomenon in central Anatolia is barely understood, and our excavations will contribute insights. This season, we excavated part of a large building with a minimum of two rooms, with multiple plaster floors. This was cut into by a large storage pit and a smaller pit. Further excavation of these structures promises to cast light on the nature of settlement in this period of transition to urban communities.

In turn, these late fourth–early third-millennium structures were cut into by a series of graves dated to the Seljuk and early Ottoman periods. When coupled with data from 2003 and 2004, this is evidence of an extensive cemetery of this period. The three burials were distinctive in that the main burial chamber was cut into the side of the graves and covered with sloping slabs. The bodies were extended, with a raised left shoulder, and faced southeast towards Mecca. This suggests they were Muslim burials, probably belonging to some of the earliest Muslim inhabitants of the Karaman-Konya area. Intriguingly, no settlement of this period can be detected at the site.

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