

Landscape Archaeology in Southern Caucasia: An Introduction

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The State of Research

Landscape archaeology is a complex and mutable term that evades a straightforward definition. As a practice, it encompasses a number of different theoretical and methodological approaches. Most of these involve an attempt to understand the development of a place through time, investigating how it is shaped by natural events and cultural actions and, in turn, how these factors influence human activities.¹ It tends to imply a regional – as opposed to a site-based – approach, is holistic in outlook and accounts for relational aspects of time and space. Yet, the study of a specific site within the context of its local surroundings may also take the form of landscape archaeology. Therefore, it does not entail a determined or agreed set of procedures but is typified by a range of methods that are tailored to different environmental and archaeological conditions and research questions. These methods generate different forms and resolutions of information – from the fine grained, dealing with individual features, artefacts and ecofacts, to the general and large scale, incorporating whole regional systems.

There is a vast, and still growing, body of literature concerned with the archaeological landscapes of the Near East, particularly in Mesopotamia, Anatolia and the Levant.² This research has focused on understanding not just regional settlement patterns but the interaction between humans and their environments at multiple temporal and geographic scales. However, it is only in the last 20 or so years that we have seen increased interest in applying similar methodologies and approaches (including intensive and extensive surveys, satellite remote sensing and GIS based analyses) and particularly in adopting diachronic approaches to research projects in Southern Caucasia.³ This

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¹ Ashmore – Knapp 1999, 2; Anschuetz et al. 2001; Wilkinson 2003, 3–4.

² See Wilkinson 2003; McPhillips – Wordsworth 2016.

³ See Marro 2004; Alizadeh – Ur 2007; Badalyan et al. 2008; Smith et al. 2009; Badalyan et al. 2010; Ristvet et al. 2011; Rova et al. 2011; Birkett-Rees 2012; Castelluccia et al. 2012; Lyonnet et al. 2012; Ricci 2012; Lindsay – Greene 2013; Lindsay – Greene 2013; Ristvet et al. 2013; Anderson et al. 2014; Egeland et al. 2014; Hammer 2014a; Stöllner – Gambashidze 2014; Castelluccia 2015; Earley-Spadoni 2015; Hughes 2015; Petrosyan et al. 2015; Sauer et al. 2015; Batiuk et al. 2017; Erb-Satullo et al. 2017; Fabian 2017; Franklin et al. 2017; Intagliata – Naskidashvili 2017; Lawrence – Wilkinson 2017; Negus Cleary et al. 2018; Carminati 2018; Khaburzanian – Robinson 2018. Though this is not an exhaustive list, the publications cited here represent the output of a significant number of international collaborative projects that have involved regional survey or that have embraced landscape methodologies at multiple scales. It includes the output of many current projects in the region including the following: The Archaeological Exploration of Barda'a Project (AEB): Archaeological survey of the Late Antique and early Islamic city of Barda'a, Azerbaijan – Oxford University in association with the Nizami Ganjavi Programme for the study of languages and cultures of Azerbaijan and the Caucasus; Project ArAGATS – Cornell University, The Institute of Archaeology and Ethnography, NAS Republic of Armenia; Georgian-Australian Investigations in Archaeology (GAIA) – University of Melbourne and the Centre for Archaeological Research (Tbilisi) and associated projects including the Landscape Archaeology in Georgia (LAG) Project and the Archaeological Survey in Samtskhe-Javakheti (ASSJ) Project; the Georgian-Italian Shida Kartli Archaeological Project – Ca' Foscari University of Venice and the Georgian National Museum; Gadachrili Gora Regional Archaeological Project Expedition (GRAPE) Project – Georgian National Museum, University of Toronto; Lerik in Antiquity Archaeological Project – the University of Pennsylvania, Azerbaijan National Academy of Sciences; Mil Plain Survey – Deutsches Archäologisches Institut, Azerbaijan National Academy of Sciences, Institute of Archaeology and Ethnography; The Darial Pass Survey, part of the project Persia and its Neighbours: The Archaeology of Late Antique Imperial Power in Iran – University of Edinburgh, Durham University and Tbilisi State University; and the current survey projects by Kafkas and Ardahan Universities in the Ağrı and Iğdır and Ardahan regions of eastern Turkey.

volume offers a chance to present and reflect on some of these approaches as they are currently being practised in Southern Caucasia.

Southern Caucasia is defined for the purposes of this volume as the land between the Black and Caspian seas including and adjacent to the Greater and Lesser Caucasus ranges. This encompasses Armenia, Azerbaijan, Georgia, parts of eastern Turkey and north-west Iran (Fig. 1).⁴ The practice of archaeology in the Caucasus region (specifically in Armenia, Azerbaijan and Georgia) is reflective of political conditions that have prevailed there over the past two centuries. Having been an antiquarian pursuit in the nineteenth century, influenced by imperial nations, especially Tsarist Russia, under the Soviet Union, archaeology became a science of culture history at a pan-regional scale, with explicitly Communist and Marxist-inspired aims.⁵ Since the break-up of the Soviet Union, archaeology in the independent Caucasus states (Armenia, Azerbaijan and Georgia) has developed along different trajectories.⁶

Whilst the region's Soviet-era archaeology followed a more or less consistent set of methodological, theoretical and analytical tenets, archaeology in the independent Caucasus states from 1991 onwards, not to mention autonomous areas that have since emerged, is characterised by diversity. This divergence is not only manifested in differences between nation states but is also apparent within those states, reflected in the variable scales and research aims of projects being undertaken and the methods and approaches that they use.

The recent and growing interest in the archaeology of Southern Caucasia has been influenced not only by the opening up of the region following the break-up of the Soviet Union but more recently by the increasing difficulties encountered in working in other parts of the Near East, especially as the result of political unrest. Furthermore, where before 1991 nearly all archaeology was funded centrally and publicly, we now see an array of different funding sources that include not only governments but also overseas public institutions, universities from within and outside the region, multinational corporations and private sponsors. Some projects benefit from large-scale and multiple sources of funding, while others operate on very limited budgets. The internationalisation of research and the involvement of scholars trained in other fields – both geographical and disciplinary – have contributed to the diversity of archaeological approaches and methods currently practised in the region. This is a contributing factor in the direction towards a transnational archaeology, where international cooperation is becoming more the rule than the exception.

Finding Common Ground: Aims and Objectives

This volume is the result of a workshop that was held at the 10th ICAANE in Vienna on 28th April, 2016, aimed at bringing together scholars engaged in archaeological survey and landscape analysis in Southern Caucasia. It was intended to stimulate conversations on research aims, data analysis and management, methodological issues (survey methodologies, multi-scalar and multi-disciplinary data integration, GIS analyses), and long standing thematic and historical debates. Furthermore, it was designed to encourage discussions about how we could, as a community of scholars, promote communication and exchange of information between ourselves and with others working in different survey regions and across modern borders.

The physical geography – above all, the Greater and Lesser Caucasus mountain ranges and the Kura/Mtkvari and Aras/Araxes river systems – has been fundamental in shaping the forms of human occupation in the region. It has also greatly influenced both our methodologies and our interpretations of past landscapes. Its mountainous geography, and the strategic and defensive

⁴ The region is referred to by multiple names in the literature (e.g. the South Caucasus, Transcaucasia, Caucasia; see Kohl – Tsetskhladze 1995, n. 2; Rubinson – Smith 2003, 8, n. 1;). We have allowed authors to follow their preference. Likewise, terms denoting cultural, ethnic, historical groupings are at the discretion of the author(s). Attaining consistency is not possible or desirable. Which term is appropriate for the region depends on the subject and time period being studied (Rapp 2012).

⁵ Chernykh 1995; Shnirelman 1995; Sagona 2010; Lozny 2017; Sagona 2017.

⁶ Gamkrelidze 2004 for Georgia; Smith 2005; Lindsay – Smith 2006 for Armenia; Khatchadourian 2008; Sagona 2010; Sagona 2017.

advantages it often provided, have also contributed to the characterisation of South Caucasia as a periphery, particularly in the story of successive powerful empires originating to its east and west. However, this pejorative designation is debatable as it is only valid from the perspective of other, supposedly superior cultural areas.⁷ The region is perhaps better characterised as an important zone of cultural contact between the Near East, Anatolia and Central Asia that, in part, due to geography (especially the Caucasus mountain ranges) still maintained an important and local trajectory of development.

The presentations at the workshop detailed a wide range of approaches that are also reflected in the contributions to this volume. In terms of scale, they include regional surveys such as those undertaken by Yardimciel, Özdemir and Işıklı in the Middle Araxes basin, and Robinson and Khaburzania in Samtskhe-Javakheti province in south-west Georgia, to site-specific investigations, such as that led by Berikashvili at Samshvilde. Moreover, Wordsworth's chapter also demonstrates the usefulness of a multi-scalar approach. The contributions engage with multiple forms of evidence – architectural, artefactual, environmental and textual. Furthermore, the range of methodologies that is represented includes extensive and intensive ground survey, feature mapping and spatial analysis, remote sensing, and the study of artefacts and materials.

While the chronological focus of individual projects is sometimes specific, as a whole these contributions represent a broad time scale – from the Neolithic through to the medieval period. Periodisation is the source of much debate in the region. As an example, the term 'medieval' can be used to cover a period of more than a millennium, from the 4th to the 18th century AD. This includes centuries long before and after it would generally be used in other regions, including neighbouring Persia and Anatolia. As in our approach to regional names and cultural groupings, we have encouraged a spirit of plurality and not sought consistency for terms that are themselves debated and contested. However, as implied by the title of this volume, we are very much concerned with how we find common themes to research and debate. Therefore, it is important that we are explicit about our approaches and methods, our research questions and our terminology and consider what impact our choices have had upon our results and interpretations.

Themes of this Volume

The varied approaches represented here highlight the relationship between past and present landscapes. In many cases, the contributions provide a long-term perspective. The recognition of the palimpsest nature of the landscape is clear in the contribution by Anderson and Negus Cleary who explore the relationship between artefact distribution and historical and modern agricultural activities (e.g., manuring, terracing) in Samtskhe-Javakheti, and how that can contribute to our understanding of changing land-use patterns over the long term. Wordsworth also explores the relationship between recent, particularly Soviet-period, landscape transformations and archaeological landscapes around Bərdə in Azerbaijan. He investigates how we can use concepts such as Historical Landscape Characterisation, commonly applied in the UK and increasingly elsewhere,⁸ to identify pre-Soviet land-use patterns. Franklin and Babajanyan also pick up on the theme of Soviet-period landscape reorganisation along the Silk Road in the Vayots Dzor region of Armenia and consider how it can affect our understanding of the archaeological record. However, they also rightly point out how the significant transformations brought about in the Soviet period are only some of many anthropogenic changes to have occurred over millennia that shape our current perceptions of this landscape.

The rapidly changing landscape and the impact of Soviet and post-Soviet industrialisation have increased the demand for heritage management in Southern Caucasia. The impact of agricultural intensification (particularly deep ploughing, collectivised agriculture and earth moving in advance of irrigation schemes), heavy industry (particularly of extractive and resources industries), the construction of infrastructure such as roads, and the increasing importance of international tourism

⁷ Smith – Robinson 2003; Smith 2005; Kohl 1988; Khatchadourian 2013; Khatchadourian 2014.

⁸ E.g. Turner – Crow 2010.

have brought new challenges and also new opportunities. Landscape archaeology has an important contribution to make in the way that these challenges are approached, through informing public policy and balancing community and heritage sector interests that may include environmental conservation, the reconstruction and maintenance of sites, equitable and sustainable tourism, or local economic growth.

Construction and development works at a local, national and international scale, ranging from urban building to multi-national resources extraction and transportation, led to the emergence of cultural heritage management and 'rescue archaeology' in the region. Whilst archaeology and heritage are primarily managed by the state across Southern Caucasia through museums and heritage agencies, there has more recently been a growth in private sector heritage management that operates on the basis of developers funding research and salvage of archaeologically important sites that are threatened with destruction. In Southern Caucasia, by far the largest of these projects was triggered by the BP-funded construction of the Baku–Tbilisi–Ceyhan pipeline that crosses Azerbaijan, Georgia and eastern Turkey. The resulting archaeology generated significant new information on numerous sites, several of which were excavated and presented in publically accessible reports.⁹ Yet, while the damage caused by this development may have been offset by the often high-quality archaeological work completed, these salvage works raise the tension between site-based and landscape-based approaches. With the site as the focus, contextualising these results within a wider 'landscape' framework can be difficult. Whether this can ever be reconciled in the context of developer-funded rescue archaeology is a matter of debate, and one beyond the scope of this volume, but it does underline the vital importance of foregrounding landscape research at times of rapid social and economic change.

Another technological innovation that has influenced the practice and methods of archaeology in the region is the expanded use of remote sensing. Although aerial photography is by no means new to archaeology, the availability of free or low-cost satellite imagery on platforms such as Google Earth has provided archaeologists with an accessible and immensely useful tool for both site discovery and site monitoring, but one that brings a new set of methodological and ethical challenges.¹⁰ Satellite remote sensing is used by a number of the authors in this volume to inform survey methodologies, locate archaeological sites and investigate the relationship between settlements, activity areas and ancient features. Ground-truthing the results of remote sensing exercises through survey can help to create predictive models for site location (e.g., Erb-Satullo), while the use of multiple types of historical and modern satellite imagery, combined with historical maps and documents, can help us to track landscape changes over the course of the 20th century and show how this has influenced our reading of the archaeological record (see chapters by Wordsworth and Naskidashvili).

Many of the studies in this volume (Castelluccia, Erb-Satullo, Franklin and Babajanyan, Naskidashvili, Robinson and Khaburzanian, Wordsworth, and Yardimciel et al.) demonstrate the value of integrating historical texts and legacy data – from earlier surveys, excavations and maps – into new contexts. In addition to the fresh insights that are provided through the reanalysis of this material, research of this kind is also useful in introducing non-English language publications to a wider academic audience. Furthermore, these sources, in addition to local knowledge, can be crucial for identifying archaeological sites and features that have been affected by modern activities or are not visible on satellite imagery, such as the underground structures discussed by Robinson and Khaburzanian.

In terms of methodologies, a wide variety of approaches are represented here. However, methodologies that involve extensive and intensive pedestrian survey and consider sites and features within the wider context of the landscape are favoured over survey techniques that focus exclusively on 'sites' as units of investigation. There is also clear attention being paid to how topography and environment influence not only our methodologies but also the outcomes, and ultimately the comparability of our data. Erb-Satullo, for example, explores the relationship between metallurgical activities and settlement during the Late Bronze Age and Early Iron Age in Kvemo Kartli (Mashavera

⁹ Taylor et al. 2011.

¹⁰ Myers 2010.

and Debeda river valleys), arguing that, in part, hilltop sites of the LBA/EIA in this region were positioned in relation to ore deposits and the desire to exploit these resources or control access to them. Anderson and Negus Cleary discuss the usefulness of intensive survey in upland environments and clearly demonstrate how such techniques can be adapted to specific environmental zones to provide new information on historical settlement and land use. In his paper, Naskidashvili highlights challenges in employing intensive pedestrian survey in western Georgia (also noted by Erb-Satullo); due to marshy conditions, it was only possible in cultivated fields, but the distribution of artefacts was heavily influenced by flooding. The need to adapt survey methodologies to specific environmental zones while retaining transparency about methodologies to ensure comprehension and comparability of data is clearly demonstrated.

Finally, several of the papers consider what could be termed 'landscapes of movement'. It is hard to overstate the influence of the region's major mountain chains and rivers on social, political and economic developments. Fabian examines how the mountains acted as both a barrier to and a conduit of movement for ancient communities and how we can explore this concept through the use of GIS-based analyses. By taking into consideration both the results of least-cost path analysis and historically documented route systems, more nuanced models of movement can be developed which are capable of recognising change through time. Fabian also touches on the tension between imperial and local perceptions, in this case of space, a major theme in empire studies more generally. Continuing to address the idea of movement, Franklin and Babajanyan draw our attention to how we can use network or infrastructural analyses to widen our perspectives on the Silk Road in the Vayots Dzor region and shift our thinking away from linear models of connected nodes.

Future Directions

Considering the discussions that ensued from the workshop and the papers that comprise this volume, there are several key themes that we propose as avenues for further research. One of these is the relationship between agricultural and pastoral land use and, by extension, the relationship between upland and lowland environments and the communities who inhabit them. As Wordsworth touches on in the Bərdə example, we have an underdeveloped understanding of pasture lands and the role of pastoralism in many ancient economies.¹¹ Furthermore, particularly for highland environments, we need to understand better the changing relationship between pastoral and agricultural land use through time. Anderson and Negus Cleary demonstrate the importance of this in their observation of the changes in land use zoning between the prehistoric and medieval periods.

Focussing on methodology and techniques of recording and presenting data, we also need to consider both the comparability of our data and its preservation and dissemination. Indeed, the increasing use of GIS and remote sensing is producing easily sharable datasets. However, it is vital to continue to be explicit about our methodologies and their impact on the data generated. Also, with the increasing amount of data that is generated through survey and remote sensing, we must consider how 'big' (particularly virtual) datasets will be maintained and managed.

Further on the topic of data sharing, the use of open source repositories where spatial and other data related to a project can be accessed and augmented by other scholars (as discussed by Franklin and Babajanyan) is increasingly important. On this theme, it should be noted that a national cultural heritage database for Georgia, discussed during the workshop, has recently been launched in Tbilisi.¹² A public user interface such as this will enable local and international scholars to access the information already in the database and to share their own data. This and similar enterprises represent first steps along the way to ensuring that the interests of cultural heritage management and research projects dovetail in the design and implementation of our projects and our databases.

¹¹ Hammer 2014b.

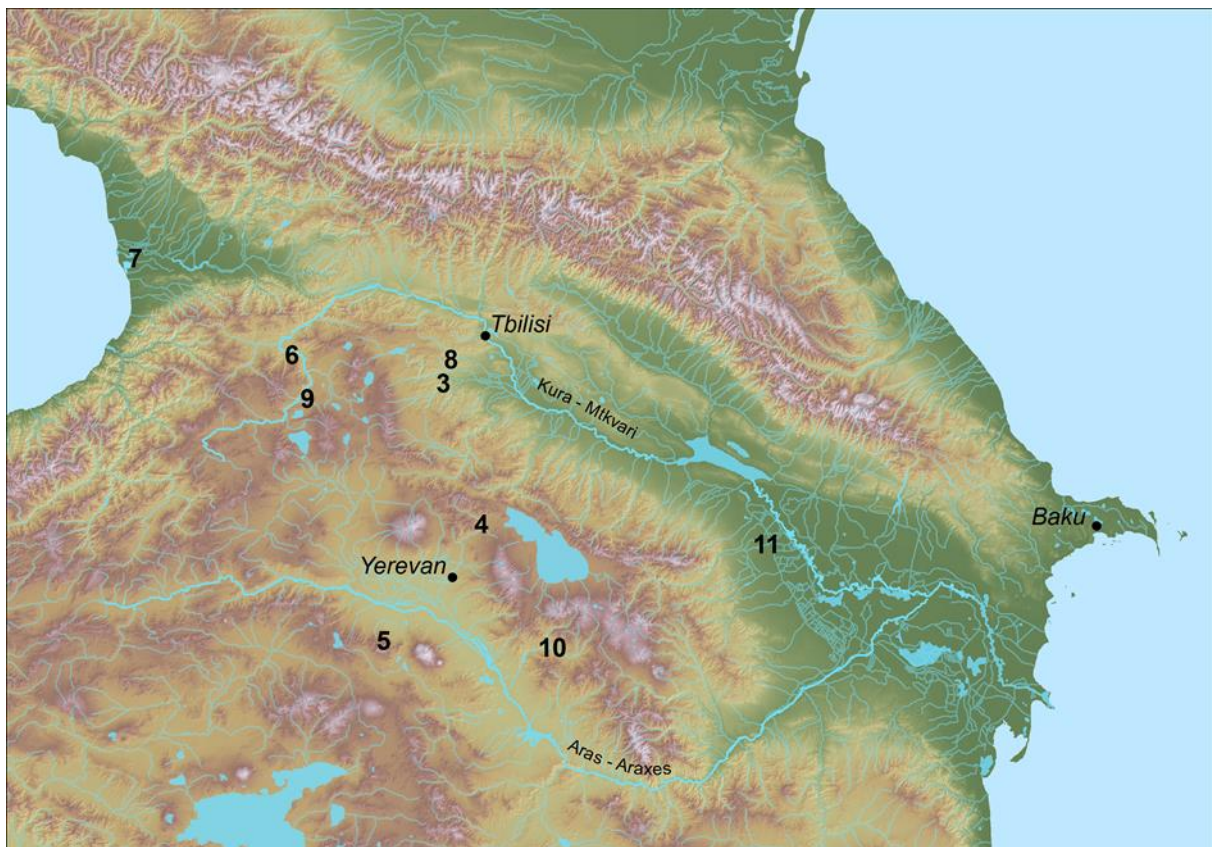
¹² <http://memkvidreoba.gov.ge/> (last accessed 29 Jan. 2018). This database is the product of a collaboration begun in 2013 between the National Agency for Cultural Heritage Preservation of Georgia and the Norwegian Cultural Heritage Directorate: it is intended as a resource for the heritage sector and other government agencies but also for research projects nationwide.

Continued engagement with legacy data is also crucial for both research and heritage management. Historical aerial photograph archives, such as those housed at the Centre for Archaeological Research in Tbilisi, provide a diminishing physical resource that requires attention in order to preserve the vast amount of information it represents. Increasingly, legacy data (especially historical aerial photographs) represent the only record of no longer extant archaeological features destroyed or irrevocably altered by modern land use practices.

Finally, we should emphasise that a spirit of engagement and collaboration between scholars within and outside the Caucasus region and the free exchange of ideas is central to furthering this agenda. This is the common ground that we seek when approaching South Caucasias diverse, complex and fascinating landscapes. In this spirit, we have chosen to dedicate this volume to the memory of Tony Sagona and Tony Wilkinson. These two archaeologists were important figures in our lives as intellectual guides and as friends, and they have enriched the lives of many others whom they met and worked alongside. One of the remarkable qualities that both demonstrated was their ability to forge connections across national, linguistic and social boundaries. Their contributions to the archaeology of the Near East are monumental and will be felt for many years to come.

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Fig. 1 Map of Southern Caucasia. The numbers correspond to the geographical areas discussed in the relevant chapters in this volume: 3. Mashavera-Debeda region; 4. Hrazdan River basin; 5. Middle Araxes basin; 6. Samstkhe-Javakheti Highlands; 7. Colchean Lowlands; 8. Samshvilde; 9. Aspindza-Akhalkalaki region; 10. Vayots Dzor region; 11. Bærdæ (Base map SRTM 30m DEM, available from the US Geological Survey).



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