PATHWAYS OF COMMUNICATION
Roads and Routes in Anatolia from Prehistory to Seljuk Times

Conference | Ankara, 20-22 March 2014

CONFERENCE PROGRAMME
& ABSTRACTS BOOK

Conference organised by
The British institute at Ankara

In collaboration with
Ankara University, Faculty of Letters, Department of Archaeology

Conference Venue:
Farabi Hall, Ankara University, Faculty of Letters
Atatürk Bulvarı No: 45, Sihhiye, Ankara
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THE CONCEPT

Interaction between individuals and human communities and societies has always entailed movement, an action that does not occur randomly in the landscape, but is instead focused on specific paths that allow faster and easier connections. Roads and routes are therefore essential in carrying vital materials and information from one location to another. Turkey offers amongst the richest remains of routes, roads and tracks worldwide. The aim of this conference is to discuss these networks and their impact on society from different angles from prehistory onwards.

Themes for contributions will include theoretical approaches to human geography and network structures as well as diachronic comparison of systems of roads and routes and GIS landscape analysis. Contributions on various methods for identifying roads and routes, including textual analysis, the study of artefact distribution or targeted epigraphical and archaeological surveys, as well as excavations, are equally welcomed. Papers focussing on the impact of roads, routes and networks on society will allow the study of communication from a social angle. The conference is not intended as a forum for the publication of finds of individual stretches of ancient roads; the intention is to incorporate such finds into their wider geographical and social context.

There is substantial evidence that exchange networks already existed in Anatolia before the Neolithic period, with goods – especially obsidian – travelling over long distances. By the mid-third millennium BC a long distance network of connections between the Anatolian plateau and Upper Mesopotamia had been established, which brought an intense exchange of goods, technologies and ideas. From the second millennium BC onwards, textual evidence has added major contributions to the understanding of travelling routes, the locations of centres and the details of journeys. The Roman road system has been a focus of research over decades and Byzantine roads have also received detailed attention, whereas the Seljuk road and routes system is less well known.

It is highly likely that more recent roads and routes are overlying older ones at least partially, but these palimpsests of older roads are less well researched. Although the Roman long-distance road network can probably be considered the best-known system, mainly thanks to epigraphical research, we have only a limited idea about local roads and pathways around individual sites or the density of these connections. When and how these systems developed, what degree of sophistication the infrastructure had, or even how the roads and
pathways were embedded in their respective landscapes is even less well known.

Still largely unexplored is the relationship between roads, human landscapes and natural environments, and how these different elements affected each other through time. Rarely, the role of natural routes through mountain passes or along the many rivers flowing through Anatolia has been taken into account. Natural routes complemented built roads and routes and both systems should be studied together to reach an understanding of the networks of connectivity and their development through time.

The above examples highlight how incomplete our knowledge of past roads and routes in Anatolia remains. In combining data from different disciplines, generated by a variety of methods, we aim to transcend the present fragmentation of knowledge and to create a new level of understanding of connecting road and route systems in Anatolia throughout time. Such an understanding would clarify the mechanisms of exchange and the spread of cultural traits, and contribute to developing a human geography of Anatolia. Better understanding of these matters would also enable ancient sites to be studied within the context of their wider network of relations, and as locations in a social and cultural landscape, rather than simple dots on an otherwise featureless map.

Lutgarde Vandeput
BIAA Director
CONFERENCE PROGRAMME

DAY 1 | Thursday 20 March 2014

8:45 Shuttle service from Aldino hotel  |  9:15 Registration & coffee

9:45 Opening remarks

10:30 PANEL 1 MAPS AND DIGITAL MAPPING

Chair | Lutgarde Vandeput, BIAA

Talbert, Richard University of North Carolina invited speaker
Digital Mapping of Classical Asia Minor and its Routes: Progress and Prospects

Bekker-Nielsen, Tønnes University of Southern Denmark
Ancient Roads in the Third Dimension

Slawisch, Anja Deutsches Archäologisches Institut—Istanbul
& Wilkinson, Toby Istanbul University
Processions and Pixels: Modelling the ‘Sacred Way’ from Miletos to Didyma

12:00 Coffee break (open to all registered participants and attendees)

12:20 PANEL 2 DIGITAL APPROACHES TO ROADS AND NETWORKS

Chair | Marie-Henriette Gates, Bilkent University

Popović, Mihailo Austrian Academy of Sciences invited speaker
Macro- and Microstructures of the Transportation Infrastructure in the Medieval Balkans and Asia Minor

Massa, Michele University College London
Of Mountains, Wheeled Carts and Network Hubs: Journeying across Anatolia in the Third Millennium BC

Polla, Silvia FU Berlin, Institute for Classical Archaeology
Long Distance Communication Routes and Regional Settlement Patterns. The Example of Roman and Byzantine Cappadocia

13:50 Lunch (for paper givers, poster presenters and chairs only)
Thursday 20 March 2014 | DAY 1

14:50  **PANEL 3**  AT SEA AND ON LAND

Chair | Michele Massa, UCL

**Şahoğlu, Vasif** Ankara University | **invited speaker**
Where the Land Routes End: Coastal Western Anatolia during the Third Millennium BC

**Crow, Jim** University Of Edinburgh
Defining Early-Medieval Sea Ways through the Study of Byzantine Coastal Monuments and Structure

**Harpster, Matthew** University Of Birmingham
Southwestern Anatolia as a Maritime Pivot between East and West

16:20  **Coffee Break**  (open to all registered participants and attendees)

16:40  **PANEL 4**  COMMUNICATION WITHOUT ROADS?

Chair | Harun Taşkıran, Ankara University

**Carter, Tristan** McMaster University | **invited speaker**
From Conservative to Cosmopolitan: A Longue Durée Perspective on Anatolian Obsidian Exchange ‘Routes’ from the Epi-Palaeolithic to Chalcolithic

**Baysal, Adnan** Bülent Ecevit University
Mountains on the Move. ‘Bring Me a Piece of the Mountain on your Way Back Home’

**Baysal, Emma** BIAA
Routes Without Roads: The Changing Dynamics of Marginality in Prehistoric Anatolia

18:10  **End of Day 1**  |  **18:30**  Shuttle service from conference to reception venue
19:00  Reception kindly offered by his Excellency the British Ambassador (for invited guests only)
DAY 2 | Friday 21 March 2014

8:30 | Shuttle service from Aldino hotel  9:00 | Coffee & tea

09:15 | PANEL 5 PATHWAYS OF COMMUNICATION IN THE BRONZE AGE

Chair | Elif Denel, ARIT

**Efe, Turan** Bilecik Şeyh Edebali University  *invited speaker*
Rethinking Trade and Trade Routes in the Early Bronze Age of Western Anatolia

**Vaessen, Rik** University Of Sheffield
Entangling Pathways and Ceramic Developments in Ionia at the End of the Second Millennium BCE

**Martino, Shannon** The Field Museum
Ikiztepe Once Again. A Balkan Network Revealed in Anatolia

10:45 | Coffee break  *(open to all registered participants and attendees)*

11:05 | PANEL 6 ROUTES AND ROADS OF THE HITTITES

Chair | Sevinç Günel, Hacettepe University

**Hawkins, David** BIAA  *invited speaker*
Routes in the Hittite Kingdom

**Di Filippo, Francesco** CNR - ISMA & **Mori, Lucia** University Of Rome

**Kryszeń, Adam** University Of Warsaw
Space and Travel in Hatti. Estimating Distances Between Hittite Cities

**Shelestin, Vladimir** Russian Academy Of Sciences
Hittite Road Names
Friday 21 March 2014 | DAY 2

13:00  | POSTERS SESSION PANEL   coffee & tea served

Çinici, Ahmet (METU), Chambrade, Marie-Laure & Alarashi, Hala (Archéorient – University Lyon 2), Koçak, Ibrahim Ethem (Ankara University), Wilson, Mark (Asia Minor Research Center) & Thompson, Glen L. (Wisconsin Lutheran College), Adali, Selim (Koç University).

13:45  | Lunch  (for paper givers, poster presenters and chairs only)

14:45  | PANEL7 FROM THE HITTITES TO THE HELLENISTIC/ROMAN PERIOD

Chair | Kutalmış Görkay, Ankara University

Barjamovic, Gojko Harvard University [invited speaker]
Travels in the Bronze Age: Communication and Exchange in a Decentralised World

Summers, Geoffrey University of Mauritius [invited speaker]
Humps along the Way: Routes, Roads and Transport on the Anatolian Plateau in the Iron Age

Durugönül, Serra & Kaplan, Deniz Mersin University [invited speaker]
Routes and Roads in Cilicia during the Hellenistic and Roman Periods: The City and the Social Life

16:45  | Coffee break  (open to all registered participants and attendees)

17:05  | PANEL 8 ROADS IN INSCRIPTIONS

Chair | Stephen Mitchell, BIAA

Adak, Mustafa University of Antalya [invited speaker]
Communication Systems in the Lycian Peninsula

Külzer, Andreas Austrian Academy of Sciences
Routes and Roads in Western Asia Minor: The Lydian Case

Iversen, Paul Case Western Reserve University & Hürmüzlü, Bilge Süleyman Demirel University
The Roman System of Roads in the Gönen Ovası

Sayar, Mustafa H. Istanbul University
From Mountains to the Plains: Intercultural Pathways of Cilicia

19:00  | End of Day 2   | 19:20  Shuttle service from conference to dinner venue
19:45  | Conference dinner (for invited guests only)
DAY 3 | Saturday 22 March 2014

9:20  Shuttle service from Aldino hotel  |  9:50  Coffee & tea

10:00  PANEL 9 ROUTES AND ROADS IN HELLENISTIC AND ROMAN TIMES

Chair | Musa Kadioğlu, Ankara University

Foss, Pedar  DePauw University  invited speaker
Changing the Channel: Metaphors and Methods for Studying Roads in Ancient Lycia

Dinç, Rafet  Adnan Menderes University
Three Milestones near Tralleis and Shortcut Routes from Karia to Lydia

Vandeput, Lutgarde & Robinson, Abby  BIAA
Roads and Routes through the Taurus Mountains. The Case Study of Pednelissos in Pisidia

11:30  Coffee break  (open to all registered participants and attendees)

11:50  PANEL 10 EXPERIENCING ROADS

Chair | Jim Coulton, University of Oxford

Mitchell, Stephen,  BIAA  invited speaker
The Development of the Roman Road System in Asia Minor - Imperial Strategy or Organic Growth?

Stoneman, Richard  University of Exeter
How Many Miles to Babylon? Maps, Guides and Interpreters in the Expeditions of Xenophon and Alexander

Dan, Anca  Centre national de la recherche scientifique, Paris AOROC, ENS
Shaping Cappadocia: The Five-Day Road Trip between the Two Seas

Talloen, Peter  University of Leuven
The Road to Salvation: Travel and the Sacred along the Imperial Highway in Pisidia

13:45  Lunch  (for paper givers, poster presenters and chairs only)
Saturday 22 March 2014 | DAY 3

14:50  **PANEL 11 ROAD IN BYZANTINE TIMES**

Chair | John Haldon, Princeton University

**Belke, Klaus** Austrian Academy of Sciences  
Byzantine Roads in Northern and Central Anatolia from Late Antiquity to the Early Ottomans

**Turchetto, Jacopo** University Of Padua  
From Loulon to the Fortress of the Black Camel. Territorial Markers for the Reconstruction of the Road Routes of the Arab Conquest of Cappadocia

**Comfort, Anthony** University Of Exeter  
Military Highways or Silk Routes? – Roads and Bridges on the Frontier between Rome and Persia in Late Antiquity

16:15  **Coffee break (open to all registered participants and attendees)**

16:35  **PANEL 12 SELJUK ROADS: TOWARDS A NEW COMMUNICATION SYSTEM?**

Chair | Oya Pancaroğlu, Boğaziçi University

**Redford, Scott** Koç University  
Towards a Social History of Seljuk Caravanserais and Routes

**Sinclair, Tom** University of Cyprus  
Roads of the Seljuk Period and of the Roman Period. Routing Problems in the Complex of Roads between Sivas and Erzincan

**Elton, Hugh** Trent University  
Changes in Routes in the Göksu Valley Between the Bronze Age and the Karamanids

18:05  **CLOSING REMARKS**

18:20  **End of conference** | 18:40 Shuttle service from conference to Aldino hotel
PANels, Papers, Abstracts & Biographical Info

PANEL 1

MAPS AND DIGITAL MAPPING

Chair | Lutgarde Vandeput, BIAA
Richard Talbert  University of North Carolina  INVITED SPEAKER

Digital Mapping of Classical Asia Minor and its Routes: Progress and Prospects

The scope of the address is twofold. First, it demonstrates the progress that continuing advances in digital technology have achieved for the mapping of classical Asia Minor and its routes since the publication of the *Barrington Atlas of the Greek and Roman World* (2000). In particular, there is now available free the Ancient World Mapping Center's (awmc.unc.edu) Antiquity-A-La-Carte tool. This web-based GIS interface and interactive digital atlas map – with physical landscape restored to its ancient aspect – enables users to frame, populate, and export maps according to their own design; it also provides access to an automated programming interface linked to the Pleiades dataset (pleiades.stoa.org). Two recent projects at the Center that have tapped these advances are illustrated. One is a seamless map of Asia Minor around 100 CE prepared for print publication at 1:750,000 scale, but also due for release as a digital product with ample zoom capacity. The other is a digital product (only) of the same type that maps all locatable toponyms and ethnonyms in Strabo’s *Geography*, with each linked to Pleiades and to Duane Roller’s new translation (Cambridge UP, forthcoming 2014). Second, the address outlines the potential offered by a Center initiative still in its formative stages (again, a digital product only). It creates a seamless map of all locatable milestones and their associated routes across the Roman empire. The considerations weighed in determining the optimum categorisation of dates and types are explained, as is the identification of Galatia as an instructive test region. While intended as a reinforcement of *Corpus Inscriptionum Latinarum* XVII, and undertaken in collaboration with it, this initiative raises the prospect of synthesising in the near term key features of data that *CIL* must take far longer to analyse and publish; moreover, a comprehensive digital map contributes an invaluable dimension beyond *CIL*’s focus.

Tønnes Bekker-Nielsen  University of Southern Denmark

Ancient Roads in the Third Dimension

Studies of the morphology of Roman highways have traditionally focused on their horizontal alignment, and in the literature one rarely finds any attempt at systematic description or analysis of a route in the vertical plane. The reasons are historical and practical – until the mid-1990s, drawing the vertical profile of a route was a laborious and often costly task requiring days or weeks. Today it can be achieved quickly and at next to no cost, using freely available satellite image data and GIS freeware (e.g., Route Converter). Systematic analysis of longitudinal profiles provides important insights into the mentality of the road surveyors, the nature of the vehicles for which the roadway was intended and the different priorities governing road design within different historical periods. Comparison of alternative routes through a landscape can help in dating and identifying highways of the Roman period and distinguishing them from earlier or later work. The Anatolian landscape with its marked physical relief offers considerable potential for the systematic study of ancient highways in the third dimension. This paper will offer a brief sketch of the methodology and some examples of its practical application in the field.
Anja Slawisch  Deutsche Archäologisches Institut—Istanbul
& Toby Wilkinson  Istanbul University

Processions and Pixels: Modelling the ‘Sacred Way’ from Miletos to Didyma

The existence of a ‘sacred way’ from the city of Miletos to the oracle sanctuary at Didyma-Branchidai is attested by a number of epigraphic and literary sources. This path, along which there seem to have been a number of ritual ‘stations’, was used during certain processional festivals at least from the Archaic era onwards. Historical geographers and archaeologists have, over the last century or so, tried to identify the actual route of this sacred way, topographically and archaeologically. Whilst a section of paved roadway (dating to the Roman era) has been identified and a few uncovered structures have been argued to represent ‘stations’, much of the route remains speculative. The relationship between this path and sea-based alternatives (for example via Didyma’s sea outlet at Panormos) also remains unclear. This paper will apply GIS modelling techniques to the question, to facilitate a discussion on possible and likely courses and as a vehicle to examine our assumptions about the nature of such an ancient ‘processional route’.

Panel 1 | Participants: biographical notes

Richard Talbert was trained in classics (PhD Cambridge 1972), and taught ancient history in Northern Ireland and Canada before becoming (1988) Kenan Professor of History at UNC Chapel Hill. Here he has established an Ancient World Mapping Center (awmc.unc.edu), and published a wide range of scholarship, including: the collaborative Barrington Atlas of the Greek and Roman World (2000, with Directory); Rome’s World: The Peutinger Map Reconsidered (2010, with www.cambridge.org/us/talbert/); (editor) Ancient Perspectives: Maps and Their Place in Mesopotamia, Egypt, Greece, and Rome (2012).

Tønnes Bekker-Nielsen received his MA degree (history and art history) from the University of Aarhus in 1981, his PhD in 1987 and the Dr.phil. degree in 2004. After graduation he served as co-editor of a popular archaeological magazine and held a research fellowship before joining Aarhus University Press as its founding director in 1985. He was appointed external associate professor at the University of Bergen in 1993 and left publishing in 2000 to become a full-time associate professor at the University of Southern Denmark. He has participated in several interdisciplinary research projects: the Danish Akamas project, the History of Marine Animal Populations program and currently the ‘Where East meets West’ project, of which he is director. He has published monographs (The Geography of Power, Oxford 1989; The Roads of Ancient Cyprus, Copenhagen 2004), edited volumes, articles and conference papers, as well as chapters in school textbooks and encyclopaedias.
Anja Slawisch is Academic Officer for Classical Archaeology and Manager of the Photographic Archives at the German Archaeological Institute in Istanbul. After a number of years working as a team member at Didyma, she is currently a director of Project Panormos (www.projectpanormos.com), which includes the excavations of an Archaic necropolis between Miletos and Didyma, in partnership with the Milet Museum (Balat/Aydın).

Toby C. Wilkinson is currently TÜBİTAK postdoctoral research fellow at the Department of Archaeology, Istanbul University. He recently completed his doctorate from the University of Sheffield on Near Eastern archaeology, specifically applying GIS mapping to questions of trade routes, cultural interaction and material flows in eastern Anatolia, Transcaucasia and Central Asia, during the period 3000-1500BCE.
DIGITAL APPROACHES TO ROADS AND NETWORKS

Chair | Marie-Henriette Gates, Bilkent University
Mihailo Popović

Macro- and Microstructures of the Transportation Infrastructure in the Medieval Balkans and Asia Minor

Scholarly research in the field of medieval transportation infrastructure, i.e., of routes and roads, shows the tendency to divide itself into two distinct aspects of research in contemporary worldwide academia. The first aspect comprises the analysis of macrostructures by reconstructing main overland routes in a broad context through the application of network analysis and similar features. This approach is without doubt useful to show the interaction between different cultures and empires linking East and West, in which the Byzantine Empire constitutes one of the central and most important nodes of medieval times. General overviews on the medieval transportation networks in the Balkans and Asia Minor are provided by each volume of the series *Tabula Imperii Byzantini (TIB)* of the Austrian Academy of Sciences by following a methodology defined at the beginning of this historical-geographic project in the 1970s. When it comes to the microstructures of local routes and roads, the limitations of the first approach quickly become obvious.

This leads us to the second of the abovementioned two aspects, which comprises research on the microstructures of the respective transportation infrastructure. It does not and cannot rely solely on web-based data and computer-based models. It demands a mixture of different data, which are gathered in a time-consuming endeavour and are then, amongst other exercises, evolved into computer-based models. The acquisition of the relevant data is achieved through surveys, GPS-points and tracks recorded on the ground, the analysis of old and modern maps, the tool of georeferencing, the collection of microtoponyms from written sources, and many other methods. The present paper will illustrate both abovementioned aspects by presenting different case studies on various regions of the Byzantine Empire.

Michele Massa

University College London

Of Mountains, Wheeled Carts and Network Hubs: Journeying across Anatolia in the Third Millennium BC

This paper focuses on land travel in west and central Anatolia during the Early Bronze Age (EBA), and its aim is to suggest possible scenarios on how human movement may have been embedded not only within the surrounding natural and cultural settings, but also within the socio-political and technological milieus of the EBA communities. In order to do so, I will analyse in detail the physical and cultural constraints that may have shaped movement in prehistoric times, the sort of human landscapes that travellers would have encountered along the way and the range of possible transport media available in the EBA. This will in turn make it possible to formulate some hypotheses on travel times between main centres, on the nature of the items that could have been carried along in the journey and on the (collective) identities of the travellers. The results of this analysis will hopefully provide a tighter conceptual framework on how journeys across Anatolia might have practically occurred, suggesting that they were dependent both on a number of time-specific factors like transport technology, road engineering technologies, and settlement organisation, and on timeless factors like the location of the main landscape barriers.
Silvia Polla

Long Distance Communication Routes and Regional Settlement Patterns. The Example of Roman and Byzantine Cappadocia.

This paper will introduce the use of GIS-based modelling techniques for the study of the Roman-Byzantine transport system, with the aim of exploring the relationship between the long-distance imperial communication routes and local paths and settlement patterns in Cappadocia. The documented road system of Cappadocia that was established in the Roman period follows the previous pattern of macro- (Persian Royal Road) and micro-regional (tribal villages) movement axes. Written sources and archaeological remains document this pattern of communication routes, consisting of strategic connections along a set of way stations, as can still be recognised in the pattern of Seljuk caravanserais from historical times. Adopting a GIS-based approach allows us to address in an innovative and more formal manner questions about articulation, function, and use of the road networks at different spatial scales. To what extent is the strategic network connecting central places and stations a product of the previous regional pattern of sites and infrastructures and/or related to regional land use and resource exploitation, such as mixed farming, agro-pastoralism and the mining economy?

Panel 2 | Participants: biographical notes

Mihailo Popović, born 1978, studied Byzantine and Modern Greek Studies, Medieval Studies, South East European Studies, and Ancient and Medieval Numismatics at the University of Vienna, where he also received his PhD in Byzantine Studies with the highest distinction in 2005. He spent a year as an Erasmus visiting scholar at King's College London and got his professorial qualification (Habilitation) in ‘History of South-East Europe and Byzantine Studies’ at the University of Vienna. He has been awarded many grants, awards and prizes, including a Research Fellowship at the Ohio State University (OSU; Columbus, OH, USA), the prize of the Gesellschaft für das Studium des christlichen Ostens (GSCO), awarded for the dissertation entitled ‘Mara Branković – Leben und Wirken einer Frau an der kulturellen Schnittstelle zwischen Serben, Byzantinern und Osmanen’ and a prize for outstanding academic accomplishments awarded by the Austrian Federal Ministry of Education, Science and Culture. His research and teaching interests include: Historical Geography of the Eastern Mediterranean and South-Eastern Europe, Gender Studies (examples of medieval and early modern princesses as intermediaries between the Christian and Muslim worlds), Migration Studies, Political, Economic and Cultural Bonds between the British Isles and South Eastern Europe (9th - 16th centuries), Travel Literature on South Eastern Europe and the Orient (14th -16th centuries), Historical Cartography of the Mediterranean and South-Eastern Europe, and Digital Humanities and Historical Geographic Information Systems (HGIS)
Michele Massa is finishing a PhD programme at University College London on exchange networks in Early Bronze Age Anatolia, looking at how finished objects, raw materials, technologies and cultural behaviours circulated within the area. He was living in Turkey over the last three years, with different grants from the BIAA, TÜB TAK and Koç Research Center.

Silvia Polla obtained a degree in Classical Archaeology from the University of Trento (Italy) and a PhD from the University of Siena (Italy) within the framework of the International Graduate School, ‘The cultures of the Roman Provinces’. Her doctoral thesis analyses the multi-period surface survey pottery record from a Mediterranean micro-region in the Roman Africa Proconsularis using an integrated typological and archaeometrical approach and GIS-based computational techniques. Her research focuses on the use of spatial technology for the study of ancient urban and rural socio-economic systems, settlement patterns and infrastructures as well as practices of movement of people and goods at various scales. She has published contributions on archaeometry and GIS technology in international and peer-reviewed journals and conference proceedings. She currently holds a position as junior professor of archaeoinformatics at the Institute of Classical Archaeology of the Free University Berlin and is a member of the Excellence Cluster Topoi.
PANEL 3

AT SEA AND ON LAND

Chair | Michele Massa, UCL
**Vasíf Şahoğlu** Ankara University  **INVITED SPEAKER**

**Where the Land Routes End: Coastal Western Anatolia during the Third Millennium BC**

Natural routes have been a defining element in the emergence of contacts and interaction networks since the dawn of humanity. Some of the earliest exchange / trade involving obsidian and possibly bitumen took place between the Anatolian plateau and Upper Mesopotamia during Neolithic times by means of following river valleys. Natural boundaries define limits of cultural zones and natural pathways open gateways to new ones.

The geography of Anatolia reflects a unique case which is vital in understanding the cultures that inhabit it. The northern and southern coastlines are largely isolated by mountain ranges that extend parallel to the coasts leaving only a few natural passages, which clearly must have served as the main pathways of communication from prehistory until modern times. Western Anatolia possesses a totally different geographical character. The mountain ranges extend towards the Aegean coast in an east-west orientation, with deep river valleys which must have served as highways of communication between Western and Central Anatolia throughout their history. These river valleys open to the Aegean Sea which delimits the end of a very long land route extending from Mesopotamia and crossing Anatolia during the third millennium BC.

As the land routes meet the sea, the natural pathways transform into a radically new shape and a completely different way of travel, which is dependent on different circumstances, knowledge and techniques. Important harbour settlements of the third millennium BC, like Liman Tepe and Troy, must have been places where both the land and sea trade routes met and cosmopolitan crowds sharing a vast knowledge of ideas and experiences lived.

Third-millennium BC sites of the Western Anatolian coastline acted as central points where raw materials and eastern goods from Central Anatolia and Mesopotamia and western goods from the Cyclades and the Greek mainland arrived and were exchanged. Rich archaeological contexts from these settlements create a unique environment for studying long-distance interregional relations, chronological correlations and ways of thinking.

**Jim Crow** University Of Edinburgh

**Defining Early-Medieval Sea Ways through the Study of Byzantine Coastal Monuments and Structure**

The traditional approach to defining patterns of sea communications in the classical and early-medieval periods is through written sources and the proxy evidence of transported artefacts discovered from both land-based and marine investigations. The best-known example is of course ceramics. Although both sources remain significant in the early-medieval period they become far fewer and are focused on specific centres. This paper aims to consider the evidence for new coastal initiatives known almost entirely from archaeological rather than textual sources. The main focus will be on the Black Sea at Sinope, Amastris and elsewhere where there is evidence for powerful new defensive structures dating from the eighth to ninth centuries, as well as
rare evidence for extensive harbour works. The Pontic evidence will be compared with sites from the Aegean and the south coast of Anatolia to help illuminate the differing responses to external pressures and also the extent to which communications were maintained throughout a period often stigmatised as a Dark Age.

Matthew Harpster University Of Birmingham

Southwestern Anatolia as a Maritime Pivot between East and West.

The Mediterranean Sea has always been perceived as a pathway for communications between regions, cultures, empires or people. Indeed, the overall geography of the Mediterranean – if not specific elements such as mountainous islands and peninsulas – often emphasises more efficient seaborne movement instead of travel over land. Now just over 50 years old in the Mediterranean, the academic practice of archaeology underwater has traditionally perpetuated this perspective by characterising shipwrecks with particular ethnicities such as ‘Punic’ or ‘Byzantine’, implying a particular origin for a ship, a particular destination, and an anonymous space crisscrossed by elements representative of terrestrial groups. New methodologies and ideas from landscape archaeology and social geography, however, promote a different perception. Rather than a maritime tabula rasa, these new approaches fashion the Mediterranean Sea into an inhabited and constructed space of movement and communication. By summarising these new approaches and their present results, this paper will use a new maritime landscape of the Mediterranean Sea to contextualise maritime movements and pathways along the southwestern coastline of Anatolia, a common pivot for further journeys farther east or west. The results prompt new theoretical and methodological approaches to past maritime activity and the maritime cultural resources of the region.

Panel 3 | Participants: biographical notes

Vasif Şahoğlu is an Associate Professor at the Department of Archaeology, Program for Protohistory and near Eastern Archaeology at Ankara University. He is also the current director of the Ankara University Research Center for Maritime Archaeology (ANKÜSAM). His research focuses on the prehistoric and protohistoric archaeology of Anatolia and the Aegean. He is conducting excavations at the Bronze Age site of Çeşme - Barlarası in İzmir and is also involved with the excavations at Liman Tepe and Bakla Tepe. He has been publishing on Bronze Age economies, long-distance travel, contacts and trade issues, burial habits and pottery studies around the Aegean, Anatolia and Mesopotamia. He very recently edited an exhibition catalogue Across: The Cyclades and Western Anatolia during the 3rd Millennium BC (İstanbul 2011) (with Dr Peggy Sotirakopoulou).

James Crow is Professor of Classical Archaeology at the University of Edinburgh, he has a background in both the Roman and Byzantine worlds and has excavated and researched in Britain (Hadrian’s Wall) and in Turkey and Greece. The focus of his research has been in the fields of frontiers and urbanism and for the past 20 years one of the key areas has been the survey and mapping of the major Byzantine monuments to the west of Istanbul, the Anastasian Wall and the Long Distance Water Supply of Constantinople. More recently he has been concerned with the landscape archaeology of the post-
classical period in the Aegean, focused on Naxos, where he is a member of a joint British and Norwegian research project.

Matthew Harpster is a Marie Curie Fellow in the Classics, Ancient History and Archaeology (CAHA) program at the University of Birmingham. His research focuses on a reinterpretation of maritime space and landscape in the Mediterranean Sea through a statistical analysis and spatial modelling of the corpus of shipwrecks investigated in the Mediterranean.
COMMUNICATION WITHOUT ROADS?

Chair | Harun Taşkıran, Ankara University
Carter, Tristan McMaster University  INVITED SPEAKER

From Conservative to Cosmopolitan: A Longue Durée Perspective on Anatolian Obsidian Exchange ‘Routes’ from the Epi-Palaeolithic to Chalcolithic

Background to obsidian sourcing in Anatolia and the Near East

Obsidian sourcing studies represent one of the success stories of archaeological science. The method’s basic premise is that the products of each obsidian source are chemically distinct from one another, whereby one can provenance an artefact’s raw material by matching its elemental fingerprint with that of a known geological outcrop. In Anatolia and the Near East we have 50 years of case studies, involving hundreds of artefacts from sites that span the Upper Palaeolithic to the Late Bronze Age. These data have been used to chart the exploitation histories of specific sources, and to reconstruct inter- and supra-regional interaction between prehistoric communities.

Critical reflections and interpretative potentialities

This talk critically reflects on the interpretative processes and assumptions that lay behind these studies, and attempts a longue durée review of shifting exchange networks and the socio-economic practices and desires that structured them. It will be argued that our use of characterisation studies has rarely lived up to its interpretative potential, the result of a reductionist attitude to the material we are analysing (thinking in terms of ‘samples’, rather than the typo-technologically detailed artefacts we usually write about), and a rather simplistic dots-and-arrows-on-a-map interrogation/presentation of our results. While not wishing to conceptualise the circulation of obsidian as epi-phenomenal, we consider how these exchange networks might ultimately provide us with an insight as to those networks of shared traditions (or ‘communities of practice’) that may ultimately have been the conduits through which new ideas flowed, be that subsistence strategies, or modes of social distinction.

The case study: A longue durée view of obsidian exchange in Anatolia and the Near East

In reconstructing the use of Anatolia’s obsidian sources it has long been appreciated that there were major differences over time. The first use-at-distance of obsidian can be dated to the later Palaeolithic. From here until the early Pre-Pottery Neolithic B we witness the almost exclusive use of four sources, despite the fact that there are numerous obsidian-bearing volcanoes in Anatolia. The ‘big four’ comprise Göllü Dağ and Nenezi Dağ in southern Cappadocia, plus Bingöl and Nemrut Dağ in eastern Anatolia. While Cappadocian products were consumed by central Anatolian, Cypriot and southern Levantine populations, Lake Van region obsidian was procured by communities in south-eastern Anatolia and the eastern wing of the Fertile Crescent; it is only amongst the people of northern Mesopotamia that we see raw materials from ‘both’ regions being used. These circulation patterns were reproduced over millennia, a remarkable longevity (or conservatism) of cultural traditions and regional connectivity. In the 1960s Renfrew commented on how Chalcolithic obsidian exchange was far more ‘cosmopolitan’, with an increased range of raw materials travelling over longer distances. We now appreciate that these changes occur during the Late Neolithic with the first appearance of northern Cappadocian obsidian in the Levant, together with the use of other Lake Van sources, and obsidian from north-eastern Anatolia and Armenia. Drawing on new analyses of assemblages spanning the Epi-Palaeolithic to Chalcolithic we discuss the major reconfiguration of cultural traditions and the fragmentation of deep-time exchange networks in the context of regional socio-political change more generally.
Mountains on the Move. ‘Bring Me a Piece of the Mountain on your Way Back Home’

The day when humans launched their journey from Africa might mark the last day of immobility in human history. The need to search for food, shelter or raw material sources appears to have created the dynamics that stimulated these movements from ancient times until today. It is quite striking that the passage from this life of continuous mobility to life in settlements begun approximately 14-15,000 years ago. However, even when human groups started living in settlements, this did not bring human mobility to a halt. Humans continued to be constantly on the move. The reason for this was that relations of supply and demand affected human life, defining its dynamics and lifestyles. In order for such a system to be sustainable, a network of relations had to be established. These networks could be formed through several types of ties, kinship being one of them. They had to be memorised by their actors and transformed into collective memory in order to be passed on to the next generations. In this paper the theme of ‘Roads and Routes’ will be explored by looking at material resources as the driving force behind the creation of communication, paths and roads. Focusing on the period after the transition to life in settlements and the emergence of agriculture and husbandry in Central Anatolia the paper will examine raw material-related relations. Its aim is to evaluate the argument that, despite the vague knowledge we have on the chain of relations established between humans during the period of the first settlements and the period that followed, stones appear as the most important raw material resource nurturing relations of supply and demand and leading to economic growth. Hitherto, research has proved that stones were used in the form of objects attributing social status (beads, pendants) or as objects for everyday use (grinding stones, axes or cutting tools). However, as argued by Mellaart, despite the fact that stone was absent as a raw material in the Konya Plane, stone as a commodity played a significant role in the immense development as well as the structuring of the symbolic world of settlements in the region like Çatalhöyük and Boncuklu Höyük. This paper will address the above paradox/question by presenting a number of scientific works which try to tackle it, while exploring the establishment of the relevant networks of relations.

Routes Without Roads: The Changing Dynamics of Marginality in Prehistoric Anatolia

The archaeological evidence of the prehistoric period presents a unique set of problems in understanding how interactions, and the routes that facilitated them, may have operated. Material culture, and particularly the portable elements, provides the starting point to understand the dynamic mechanisms by which change occurred, as an instigator and outcome of transregional interactions. In this paper I discuss how production and acquisition choices can be used to inform our understanding of transregional interactions and influences and their diachronic variation. I argue that between the time of the first permanently settled communities, heavily influenced by their transhumant past, and the advent of the first cities the horizons of the inhabitants
of Anatolia became gradually more restricted as the legacy of the long-distance interactions of the Epipalaeolithic faded. Geographic and social barriers became more effective through time. This change affected how far individuals moved within the landscape on a regular basis and also saw the gradual contraction of the spheres within which interactions took place. I ask why and how, within this context, some technologies, ideas and materials were adopted while others were either partially adopted or adapted or apparently ignored. I use examples from the Neolithic and the Chalcolithic to illustrate the complex diachronic interweaving of ideas, influences, materials, artefacts, and people in interregional contacts over several thousand years.

Panel 4 | Participants: biographical notes

Tristan Carter is an Associate Professor at McMaster University’s Department of Anthropology and an Eastern Mediterranean prehistorian who works primarily in Greece and Turkey on sites that span the Middle Palaeolithic to Late Bronze Age, including Mochlos, Çatalhöyük and Göbekli Tepe. He uses stone tool studies, not least obsidian characterisation, as a means of contributing to debates concerning early hominin dispersals and behavioural complexity, Neolithisation, and supra-regional connections within the Eastern Mediterranean from the Palaeolithic to Late Bronze Age.

Adnan Baysal currently works as a lecturer in the Archaeology Department of Bülent Ecevit University. He has contributed to numerous archaeological projects in Turkey and specialises in ground stone technology in prehistory. He currently leads a raw material sourcing project in Anatolia.

Emma Baysal completed her PhD in archaeology at the University of Liverpool. She is a prehistorian specialising in personal ornamentation and the exchange of ideas in Anatolia between the Neolithic and Early Bronze Ages. She currently works as a specialist with a number of excavation projects in Turkey as well as working on broader theoretical themes within Turkish prehistory.
PATHWAYS OF COMMUNICATION IN THE BRONZE AGE

Photo by erindipity

Chair | Elif Denel, ARIT
Turan Efe  Bilecik Şeyh Edebiyat University  [INVITED SPEAKER]

Rethinking Trade and Trade Routes in the Early Bronze Age of Western Anatolia

‘Trade and trade routes in the west Anatolian Early Bronze Age’ has always been one of the most challenging and controversial topics in Anatolian prehistory. The absence of written documents and the paucity of material evidence due to insufficient research have especially prevented us from reaching conclusive results. We have thus far been able to excavate very few of the large-size settlements which possibly functioned as trade centres; likewise, very few cemeteries and hoards rich in metal objects are known from the region. At the workshop, this topic will be re-assessed in light of the most recent investigations.

The speaker will focus on putative trade mechanisms during the Early Bronze Age in west Anatolia. In the early phases, the region appears to have been, to a great extent, self-sufficient in the provision of goods, specifically because it was rich in raw materials and its needs were not yet so varied. From the late EB II on, however, parallel to the gradual development of urbanism and the emergence of political powers, long-distance trade gained importance in meeting steadily increasing and diverse demands. Tin used for producing bronze and precious metals for the elite comprised the lion’s share of this trade. Consequently, this shift led to the emergence of new trade routes between distant regions, one of which appears to have been established between Syro-Cilica and Troy over the inland, crossing the peninsula diagonally. This route, which has recently been defined the ‘Great Caravan Route’ by T. Efe, will be given special attention.

Rik Vaessen  University Of Sheffield

Entangling Pathways and Ceramic Developments in Ionia at the End of the Second Millennium BCE

In discussing human movement, archaeologists often tend to make a distinction between land and sea. As a result of this dichotomy the west coast of Asia Minor is often regarded as a region ‘in-between’ the Aegean and the Anatolian mainland. Consequently, material developments tend to be seen as the outcome of the mixing of these two spheres of influence. However, when flying over the west Anatolian coastline it is amazing how inextricably tangled up sea, islands, peninsulas, river valleys and coasts all appear. This situation must have stimulated a specific regional dynamic to develop in which not only were various pathways of movement tied in together, allowing goods, people and ideas to move around, but also currents, ridges and land masses restricted and provided directionality to movements. Unfortunately, this regional dynamic is still little understood. To shed some light on this dynamic, and through that come to an understanding of coastal Anatolia on its own terms, I explore in this paper how a dynamic and shifting entanglement of pathways (maritime and overland) both united and divided communities and stimulated a certain level of regional variation in the composition of local ceramic assemblages in Ionia during the 13th through 11th centuries BCE.
Shannon Martino The Field Museum

Ikiztepe Once Again. A Balkan Network Revealed in Anatolia

Most scholars agree that the tradition of ceramic production in southeast Europe originated in Anatolia and, therefore, it comes as no surprise that the ceramic traditions of western Anatolia and southeast Europe continue along similar lines long afterwards. The route which this influence took, however, is often described as an east to west one, rather than one along which traditions travelled fluidly in both directions and it is rarely believed to have extended as far east as central Anatolia after the Early Chalcolithic. The material culture of Ikiztepe, which once lay along the Black Sea coast, calls into question the one-sidedness of the communication between southeast Europe and Anatolia during the Chalcolithic, showing a stronger connection to Europe than Anatolia. This paper examines the networks of communication implied by the material culture of Ikiztepe by developing the first comprehensive relative stratigraphy of Ikiztepe compared to both southeast Europe and Anatolia. Ikiztepe’s complicated stratigraphy and problematic chronology is reassessed in light of the networks identified through the relative dating and known radiocarbon dates, illuminating the interconnectedness of the western Black Sea before the Early Bronze Age.

Panel 5 | Participants: biographical notes

Turan Efe graduated from the Prehistory Dept. at Istanbul University and prepared his dissertation on the EB II pottery of Demircihüyük under the tutelage of G. Smolla at Johann Wolfgang Goethe-University in Frankfurt, Germany (1979-1984). Between the years of 1986 and 2009, he held a faculty position at Istanbul University, where he became a full professor in 2000. He took part in the following excavations, in chronological order: Tepecik (Keban), Çayönü, Demircihüyük, Be iktepe, and Troy. For his first independent project, he conducted surface surveys in the provinces of Kütahya, Bilecik and Eskişehir from 1988 to 1995, followed by salvage excavations at Eski ehir/Orman Fidanlı (1992-1994), Kdz Ere li/Yassıkaya (2001) and Eski ehir/Keçiçayırı (2006-2009). He has been carrying out excavations at Külüoba near Seyitgazi-Eski ehir since 1996. Turan Efe is currently head of the Archaeology Department of Bilecik eyh Edebalı University and his field of expertise is the Anatolian Early Bronze Age.

Rik Vaessen received a BA in Mediterranean Archaeology from the Free University Amsterdam (2006) and a MA Aegean Archaeology from the University of Sheffield (2008). Currently, he is finishing up his doctoral dissertation at the University of Sheffield. In this research he is attempting to provide a new interpretative framework for a number of ceramic developments in Western Anatolia at the end of the second millennium BCE, in particular the appearance of Protogeometric pottery along the coast. In addition, he is currently setting up a new research network (ARZAWA) in collaboration with Dr D. S. Votrubá that aims to provide a platform for communication and collaboration between scholars working on Late Bronze Age and Early Iron Age (ca. 1600–500 BCE) in Western Anatolia.
Shannon Martino graduated with her PhD from the University of Pennsylvania in 2012 and was a postdoctoral fellow at the Field Museum from September 2012 to September 2013. This past summer she was a member of the Provadia excavation team in the Varna province of Bulgaria. She is currently the English language editor for the Bulgarian journal *Archaeologia Bulgarica* and the treasurer for the Archaeological Institute of America's Chicago Society. Her work focuses on Chalcolithic connections between Southeast Europe and Anatolia, particularly in terms of the anthropomorphic figurines and pottery.
PANEL 6

ROUTES AND ROADS OF THE HITTITES

Chair | Sevinç Günel, Hacettepe University
David Hawkins, BIAA INVITED SPEAKER

Routes in the Hittite Kingdom

We meet to consider roads and routes in Anatolia from prehistory to Seljuk times. History in Anatolia begins with the advent of written documents: the Old Assyrian merchant archives principally from Kültepe – Kaneš, and the Hittite royal library and archives, principally from Boğazköy – Hattusa. These documents add a new dimension to our enquiry after the silent millennia of prehistory. The old Assyrian documents, being concerned with long-distance overland trade, give massive amounts of information on caravans and routes, difficult to place with certainty on the physical map. The more varied Hittite texts provide less focused information: Kings’ annals have campaign accounts sometimes with itineraries and topographical details, treaties have frontier descriptions, religious texts may narrate cultic journeys from place to place. An archive of provincial governor’s letters sheds light on its immediate surroundings.

The most inhibiting barrier to our understanding of the roads and routes of both the Old Assyrian and Hittite periods lies in the uncertain location of the toponyms, towns and villages, appearing in the texts, since relatively few are securely established, and until this is archived a reconstruction of the connecting road networks can hardly be realised. Current research is making steady progress and occasional breakthroughs with new archaeological and textual discoveries, and theoretical identification may be confirmed or simply advanced in probability. The survival of second millennium toponyms into the classical and even later periods may be of assistance but equally can prove treacherous. The quest is bedevilled by duplicate place names: a toponym appearing to be in two mutually exclusive locations may turn out to be two separate but homonymous places. Anatolia’s very pronounced topography helps here. Main routes follow the easiest courses, balancing distance with ease of passage, across rolling upland plains and along river valleys, avoiding the obstacles posed by mountains and river-crossings, except where negotiable passes and fords are available. Seasons affect routes: winter rains and snows, spring spates and floods, summer waterlessness. Has environmental change significantly impinged on ancient routes, e.g., by deforestation or decreased river-flow? Users of roads will have ranged from small to great: single wayfarers and individuals on donkeys from time immemorial; merchant caravans conveying goods; and armies with chariots, carts and baggage trains – these last two already well established at the beginning of history in 2000 BC.

What is a Hittite road? There are many references to the logogram KASKAL, Hittite palsa-, which may be described as ‘main’, ‘steep’, ‘narrow’, ‘overgrown’, etc., but apparently not to ‘making / building / constructing’ to compare with those great road builders, the Romans. Routes and goals out from Hattusa:

1. SE to Karkemis and Euphrates. 2. SSE to Alalah – Mukiš, Amuq 3. S to Tarhuntassa and Göksu valley. 4. W. To Arzawa and Aegean [4.a. To Mira and Apasa (Ephesus?) 4.b. To Seha river land (Hermos / Gediz?) 4.c. To Wilusa (Hisarlık – Troy?)]. 5. SW to Lukka (Lycia) via Millawanda (Miletus?). 6. NW to Pala-Tumanna and Dahara (Devreız) river. 7. N to Nerik, Kaska land and Black Sea (Oymaagaç?). 8. NE via Samuha and upper land to Azzi-Hayasa, Black Sea. 9. E to Euphrates and Išuwa (Elaziğ). [Note that the identifications of the Arzawa toponyms, though probable, must be considered still controversial].

Main question for consideration: To what extent/in what areas did the Romans open new routes outside the traditional system?
Francesco Di Filippo CNR - ISMA & Lucia Mori University of Rome


The site of Arslantepe, the ‘Lion Mound’, is located in the eco-niche of the Malatya plain: a geographic borderland, which has often been the crossroads for trade and routes connecting different cultural identities. Over time Arslantepe was one of the knots of the communication network linking the Anatolian Highlands to the Fertile Crescent, as well as one of the most external edges of the different imperial road systems which crossed its region, from the second half of the second to the first millennium BC. The subject of this paper is the diachronic study of the road system – and the different cultural pathways – related to ancient Melid, in the period from the Late Bronze to the Iron Age. In that span of time, textual data on the Malatya region from Hittite, neo-Hittite and Assyrian sources became available, following the territorial expansion of the imperial conquests. Despite the fact that relevant archaeological and textual records are sparse and discontinuous, recent advances in computational modelling provide the potential to fill in the gaps and to simulate the impact of social and political interaction over this road network.

Adam Kryszeń University Of Warsaw

Space and Travel in Hatti. Estimating Distances Between Hittite Cities

Hittite itineraries and travel accounts fail to mention any units of length whose precision could be compared to Babylonian bēru (two-hour walk) or Roman miles. What they offer instead is the unsatisfying one-day distance, which can be inferred from travel accounts and festival itineraries. It is then no surprise that the opinions on the location of numerous Hittite cities differ greatly. This paper examines textual evidence that could improve our judgement on the matter. It focuses on religious festival scenarios, which contain a variety of details concerning religious journeys of kings and queens, priests and priestesses, as well as deities. It carefully traces the subsequent steps of itineraries and demonstrates different variants of the road taken. It studies the use of various means of transport: a fast chariot, a slow two-wheeled ḫuluganni drawn by mules, and a heavy four-wheel cart drawn by oxen, used to carry statues of deities. Specifics of the texts allow also at times to reconstruct the temporal framework of journeys. In-depth analysis of data drawn from the sources will allow a better judgement when evaluating distances between Hittite cities, and will help locate them with more certainty.

Vladimir Shelestin Russian Academy Of Sciences

Hittite Road Names

The subject of Hittite geography is rather obscure due to the state of our indirect sources, mostly campaign and festival descriptions along with oracular itineraries. The abundance of movements between hundreds of cities mentioned in these sources implies the existence of a developed road system in the Hittite kingdom. This system is reconstructed in different ways by the investigators of Hittite geography, but one of its aspects is outside of their interest – road names. At the same time, the names of identified Hittite roads could shed light on the core principles of the Hittite geographical mind. Hittite documents such as land grants used these names for specifying addresses, but where did, e.g., Hatti road (KASKAL URUHATTI, KBo 32.185 Obv.17) go? On the other hand, the polysemy of Sumerogram KASKAL used for Hittite paša-’road; expedition; time’ complicates the comprehension of the contexts mentioning
KASKAL with place name. I examine these contexts in my paper and, singling out true road names, try to identify Hittite routes known from descriptions or itineraries containing them.

Panel 6 | Participants: biographical notes

J. David Hawkins (FBA), after reading Literae Humaniores ('Greats') at Oxford, 1958-62, went to the Institute of Archaeology of London to take a postgraduate Diploma in Mesopotamian Archaeology under Professor Seton Lloyd, 1962-64. In 1964 he was appointed Research Fellow at SOAS university of London and in 1967 Lecturer in Ancient Anatolian Languages, then professor in 1993 until his retirement in 2005. At SOAS he taught Hittite and Akkadian languages. In 1993 he was elected Fellow of the British Academy, in 1998 Foreign Member of the American Philosophical Society and in 2009 Hon. Fellow of University College, Oxford. He has been President of the BIAA since 2009. He first visited Turkey in 1965-6 to take part in the Kayalidere excavation with Seton Lloyd and Charles Burney. While travelling in Turkey and Syria he spent time studying Hittite Hieroglyphic inscriptions in local museums, research which led, after many preliminary publications in Anatolian Studies, to his publication of the corpus of Hieroglyphic Luwian Inscriptions of the Iron Age, volume I (2000), and in collaboration with Professor Halet Chambel on the publication of Karatepe Aslantaş as volume II (1999). Since his retirement he has continued to travel widely in Turkey, also Syria, and to lecture on Hittite subjects at many universities.

Francesco Di Filippo is a Researcher at the National Research Council's Institute for the Study of the Ancient Mediterranean (CNR-ISMA). His main research interest is the study of the Historical Geography of the Ancient Near East through theoretical methods and computational approaches from the fields of Spatial Humanities, Historical GIS and Text Mining. His main research project is ‘Sinleqiunnini’, an integrated text management system for logo-syllabic scripts, which has been developed in collaboration with the Istituto Universitario Orientale of Naples and the Università Ca’ Foscari of Venice.

Lucia Mori (PhD Istituto Universitario Orientale, Naples, 2003) is Assistant Professor in the History of the Ancient Near East at the Department of Antiquities, Sapienza University of Rome. She has directed archaeological fieldwork in the Libyan Sahara collaborating to a 10-year project devoted to the emergence of the Garamantian state. She has collaborated with the Leilan Project, Yale University, focused on Akkadian imperialisation in the Khabur Plains, NE Syria. Since 2011 she has been a member of the MAIAO (Italian Archaeological Mission in Eastern Anatolia) excavating at Arslantepe (Malatya), with a special interest in the historical phases.

Adam Kryszeń is a doctoral candidate and lecturer at the Faculty of Oriental Studies, University of Warsaw. His thesis focuses on the historical geography of central Anatolia in the second millennium BC. He studied at the University of Warsaw, including a one-year scholarship at Johannes Gutenberg Universität, Mainz. He currently collaborates with Akademie der Wissenschaften und der Literatur, Mainz. His research interests revolve around the perception of space as evidenced by the Hittite written sources, drawing upon such fields as historical geography, structural analyses of Hittite travel accounts, and Hittite historiography seen from a geographical standpoint.

Vladimir Shelestín is a doctoral candidate in the Institute of World History (Russian Academy of Sciences). He graduated from Lomonosov Moscow State University in 2009 and is preparing his dissertation for ancient history, entitled 'Foreign policy of the Hittite kingdom between Murşili I and Tudhalia I (XVI-XV c. B.C.)' at the State Academic University for the Humanities (Moscow). His PhD defence should take place in 2014. Despite his dissertation focusing mainly on the character of international relationships in this epoch, the necessity of understanding their spatial development leads to the investigation of Hittite geography. Using primarily a philological approach, he identifies not only individual cities and roads connecting them, but also some general principles of the Hittite world view.
Poster presentations by:

Ahmet Çinici Independent researcher
Urban Streets as a Medium of Communication: Street Experience of Sagalassos and Pednelissos (Pisidia, SW Asia Minor)

Marie-Laure Chambrade & Hala Alarashi Archéorient - University Lyon 2
Acquisition, Circulation and Pathways of Communication during the Neolithic. The Example of Mureybet Mineral Beads

Ibrahim Ethem Koçak Ankara University
Ancient Routes from Magnesia to Ephesus

Mark Wilson Asia Minor Research Center & Glen L. Thompson Wisconsin Lutheran College
Localizing the Projected Route of Paul’s Second Journey in Anatolia

Selim F. Adalı RCAC - Koç University
Anatolian Routes assumed in Neo-Assyrian Texts
Ahmet Çinici is an independent researcher. Having graduated from the Department of Architecture at the Middle East Technical University in 2002, he received his master's degree in 2006 and doctoral degree in 2013, both from the Department of Settlement Archaeology at the same university. His primary research interests include ancient architecture, settlement archaeology, urban imagery and landscape archaeology.

Marie-Laure Chambrade is a postdoctoral fellow affiliated to Archéorient. She completed a PhD about the environment of the PPN sites in Syria. She is interested in settlement patterns, subsistence strategies in arid areas and raw materials acquisition. She is currently involved in research projects about Desert kites, supply of minerals used for Neolithic beads in the Near East and Neolithic occupation in arid margins of Northern Syria.

Hala, Alarashi is a PhD candidate working on Neolithic beads (mineral and animal materials) of the Near East, at Archéorient - Univ. Lyon 2.

Mark Wilson serves as Visiting Professor of Early Christianity at Regent University, Associate Professor Extraordinary of New Testament at Stellenbosch University, and Research Fellow in Biblical Archaeology at the University of South Africa. He is the English editor of Adalya and Anmed, and blogs for the online Bible History Daily. He authored Biblical Turkey: A Guide to the Jewish and Christian Sites of Asia Minor. His research interests are Anatolia’s ancient Jewish communities, Roman roads, and biblical history.

Glen L. Thompson (Prof.) received his PhD in Graeco-Roman history from Columbia University, served for 10 years as professor of history at Wisconsin Lutheran College and is currently living in Hong Kong. While much of his research has focused on early Christianity (www.fourthcentury.com), he is currently working with Mark Wilson to create a database of information and pictures of the Roman road system in ancient Anatolia.

Selim F. Adali earned his PhD from the University of Sydney. His dissertation was published in 2011 with the series State Archives of Assyria Studies, providing a detailed analysis of the term Ummatanda, the Cuthaean Legend, and the reception of the Cimmerians and the Medes in cuneiform texts. His research interests include Sumerian and Assyrio-Babylonian literature, political history of Iron Age Anatolia and Iran, and the Assyrian Empire.
Panel 7

From the Hittites to the Hellenistic/Roman Period

Chair | Kutalmış Görkay, Ankara University
Gojko Barjamovic  Harvard University  **INVITED SPEAKER**

Travels in the Bronze Age: Communication and Exchange in a Decentralised World

The Old Assyrian caravan records from Kültepe near modern-day Kayseri in Central Turkey probably constitute the best single corpus of evidence for the organisation and management of overland travel and exchange in the ancient world. Written in a mundane and business-like style, they provide mostly unbiased and occasionally detailed information about transport and infrastructure, communication, and the physical realities of travel in Western Asia in the early Middle Bronze Age. This paper will address the questions of the political and physical organisation of Assyrian trade, and offers an estimate of the volume of goods transported by their caravans. The result is used to argue that the Assyrian trading network could not have functioned in isolation, but that close and relatively stable commercial links of a similar magnitude – or at least with a comparable transport capacity – must have existed as a series of interlocking networks that crossed Eurasia in the early second millennium BC. This raises the question of whether such interlocking units of exchange, each with their own complex transport infrastructure, came about as the result of a specific and short-lived historical reality, in which Western Asia was divided into a large number of small competitive and cooperating polities, or whether the Old Assyrian case can be used on a more general level to inform debates about how economy, trade and overland travel were managed in the ancient world.

Geoffrey Summers,  University of Mauritius  **INVITED SPEAKER**

Humps along the Way: Routes, Roads and Transport on the Anatolian Plateau in the Iron Age

On the elevated and mountainous Anatolian plateau wheeled vehicles moved along LBA roads. In the 12th century the Hittite Empire collapsed. When new city states emerged out of the ‘Dark Age’ the geography had changed, as had the scale of trade. Because libraries full of tablets are not found on the plateau we have only the evidence of archaeology in the Neo-Hittite and Phrygian kingdoms. Roads there must have been, for armies moved across the plateau while mountains and springs were venerated. Major routes were confined by geography; valleys, passes and river crossings. Physical evidence for these roads is, however, very sparse so that such evidence as there is for Neo-Hittite and Phrygian roads can be briefly summarised. Another approach considers what moved along roads and how it was transported. The larger part of this paper concentrates on a review of textual and pictorial evidence for transport in the Persian period, with a particular focus on the employment of camels for both war and trade. It is concluded that the Persian period ushered in radical differences in the method of large-scale transport of heavy or bulky loads across the plateau. This parallels the well-known introduction of organised post horses along the Royal Road.
Serra Durugönül & Deniz Kaplan Mersin University **INVITED SPEAKERS**

Routes and Roads in Cilicia during the Hellenistic and Roman Periods: The City and the Social Life

The twofold geological character of Cilicia – both mountainous and rich in plains – is the outcome of its positioning between two geographical regions. Mountainous Cilicia’s steep highlands have always been an impediment to transportation and communication even until today. The road cutting through mountainous Cilicia, referred to as Sertavul in contemporary times, is not a preferred route even today. On the contrary, the ‘gates of Cilicia’, the meeting point between Cilicia's plains and the eastern Taurus mountain range, is known today as the ‘Gülek passage (Gülek boğazi)’. It has been a crossing route repeatedly used, by Xenophon, Alexander the Great and the Roman armies alike. Its special character is the connectivity it offers between inner Anatolia, Syria and the East. Crossing this passage provided access to cities like Tarsus and Anazarbos as well as to the more distant Eastern lands. Therefore, far from being only a route for armies, it was undoubtedly used as a main route for commerce. This paper explores comparatively the character of roads in the mountains and plains of Cilicia, and the routes they unravel. It focuses on these roads as part of an inter-regional communication system and examines their effect on the region’s cities and city life. The paper investigates the way in which such a system affected those cities that were either not connected with the main routes or were situated on the mountainous Cilician roads and were therefore not part of a preferred route. In this work apart from land routes, relevant sea routes are also taken into consideration. The main aim of this paper is to consider the effect of routes and roads on the social life of the cities in Cilicia. The argument that the lifestyle and cultural development of a city is positively related to its proximity to a densely used road seems to be valid throughout the ages. Many of the roads flattened during the Hellenistic times, were then paved during the Roman period. In this respect, the direction of city development in the region was already evident from the Hellenistic period. However, during Roman times, there are new cities established, together with new roads, bridges, aqueducts, fountains and other infrastructure in these new cities. The paper explores these directions of research and examines the criteria used for the selection of routes to commute between cities in the Hellenistic and Roman periods. We conclude by investigating the factors behind the extraordinary rise in the establishment of new cities during the early Christian and Byzantine periods and reasons for the proliferation of routes that connect the mountain areas to the sea. The aim is to define the factors that are behind the different development in these periods compared to the Hellenistic and Roman times.
Panel 7 | Participants: biographical notes

**Gojko Barjamovic** is Lecturer on Assyriology at the Department of Near Eastern Languages and Civilizations at Harvard University. His research focuses on ancient economy and the interaction of state policy and trade. He also publishes works on the social and intellectual history of the ancient Near East. He is the author of *A Historical Geography of Anatolia in the Old Assyrian Colony Period* (Copenhagen 2011) and *Ups and Downs at Kanesh – Observations on Chronology, History and Society in the Old Assyrian period* (with Thomas Hertel and Mogens Trolle Larsen) (Leiden 2012), and has authored several articles on trade, transport and travel in the ancient world.

**Geoffrey Summers** received his PhD from the University of Manchester in 1982. He served as an Assistant Director at the BIAA and the field director of excavations at Tille Höyük from 1984 until the site was drowned. From 1993 to 2012 he was director of the Kerkenes Project, a period that coincided with his appointment as a lecturer at METU in Ankara. He is currently a Research Associate at Chicago University’s Oriental Institute and in 2012/13 was a Senior Fellow at Koç University’s RCAC. Ongoing projects include publication of his excavations at Kerkenes as well as of Charles Burney’s excavations at Yanik Tepe in Iran, together with study of colonial landscapes and defences in Mauritius.

**Serra Durugönül** (Prof. Dr) took her BA, MA and PhD in the Friedrich-Wilhelms-University in Germany. She completed her PhD thesis in 1989 on the ‘*Felsreliefs im Rauhen Kilikien*’ (‘Rock-Cut Reliefs in Rough Cilicia’). She was founder and chair of the Department of Classical Archaeology at the University of Mersin since 1993; and founder and director of the Research Institute for Cilician Archaeology at the University of Mersin since 1998. This Institute has published the indexed volume *OLBA* since 1998 and Durugönül has been on the editorial board since the first volume. In 2001 Durugönül was awarded the ‘TÜBA Teşvik Ödülü’ for her research in Cilicia. She has books and articles on the settlements, reliefs and towers of Cilicia, as well as on sculptural works of Cilicia and other geographies. She has led excavations and surveys in Rough Cilicia, Nagidos, Tarsus and in Northern Cyprus.

**Deniz Kaplan** (Assist. Prof. Dr) took his BA, MA and PhD in Mersin University. He completed his PhD in 2012 on ‘The Architectural Ornaments of the Cilician Region’. He has worked at the Department of Classical Archaeology at the University of Mersin since 2005; he has been the assistant director of the Research Institute for Cilician Archaeology at the University of Mersin since 2013. He has articles on the settlements, architectural ornaments, temple architecture and imperial cults of Cilicia. He has taken part in excavations and surveys in Epiktetos Phrygia (Daskyleion) and Rough Cilicia (Corcyrus and Tarsus).
PANEL 8

ROADS IN INSCRIPTIONS

Chair | Stephen Mitchell, BIAA

Photo by Lynder
Mustafa Adak University of Antalya [INVITED SPEAKER]

Communication Systems in the Lycian Peninsula

This presentation encapsulates the research results on the Roman roads of Lycia that we have presented during recent years at the Symposium. It will give a detailed account of technical aspects, location within the geography and typologies of these Roman roads. The majority of roads had an average width of 3m and were paved. Hard stone slabs were usually the preferred method for paving such routes. In a mostly mountainous region like Central Lycia, supportive walls were constructed to prevent sliding of the roads. Among a plethora of supportive walls discovered during fieldwork, some constructions reached a height of 10m. Especially in steep mountainous areas, stepped roads were constructed or curving routes were established to reduce the inclination. Despite their considerable width, these roads were not suitable for carriage traffic. The ridged type of roads found in Western Pamphylia and other regions did not exist in Central Lycia. Transfer of goods used to take place with the use of draught animals, while in the coastal areas sea transportation was preferred. The road discovered between the cities of Podalia and Chama appears to be unique from several perspectives. It is a 5m-wide road constructed with 10,000 large stone blocks in a swampy area. It seems that even for local transportation costs were not spared. Secondary roads connecting to the main roads described on the Stadiasmus monument have also been examined. Some of them appear to have been constructed with extra care and their technical characteristics are quite similar to those of the main routes. The road that illustrates best this phenomenon is the one that connects the village of Bayındır at the port of Antiphelos with the Coastal road of Claudius. The discovery of milestones dating to the Severan Dynasty or the Late Roman era show that these roads had been repaired in later periods. The general condition of these roads shows that they were also been in use during the Byzantine, Seljuk, Ottoman and Republican periods.

Andreas Külzer Austrian Academy of Sciences

Routes and Roads in Western Asia Minor: The Lydian Case

The network of communication routes and roads in Roman and Byzantine Lydia, a province of about 16,000 km² in Western Anatolia, is not very well investigated. Current manuals and atlases mention only a few roads in detail with numerous deviations. The famous road from Pergamum (Bergama) via Thyateira (Akhisar) and Sardis (Sart) to Philadelphia (Alaşehir) and Laodikeia (Eskihisar), already mentioned in the Itinerarium Antonini and in the Tabula Peutingeriana, is always depicted, and furthermore a road from Satala (Karataş) eastwards through the valley of the river Hermos to Phrygia, and a third road, leading eastwards shortly after Philadelphia. The last is always but inaccurately connected with the village of Blandos (north-east of Sülümenli). But many other routes in Lydia, documented by milestones, literary sources and accounts of European travellers from early modern times, are not depicted at all. This gives the wrong impression of an undeveloped and inaccessible landscape. It is the intention of the Vienna research project of Tabula Imperii Byzantini, which started its work in Western Asia Minor in 2009, to present a clearer picture of the communication network in Lydia. The paper will present first results.
The Roman System of Roads in the Gönen Ovası

From 2008 to the present, the Isparta Archaeological Survey has been conducting an intense landscape and epigraphical survey of the area around ancient Konane in NW Pisidia, which lies under the modern village of Gönen in the region of Isparta. In antiquity this location stood above a large, fertile plain, today known as the Gönen Ovası, at the intersection of a north-south road that connected Konane with Sagalassos to the south and with Apollonia to the north, and an east-west road that connected the town with the communities around Lake Anava (modern Lake Burdur) and the Via Sebaste to the west, and with the communities around Lake Limnae (modern Lake Eğirdir) to the east, including Seleukia Sidera and Pisidian Antiocheia. In the course of our survey we have discovered or rediscovered stretches of this network of ancient Roman roads as well as six unpublished Roman milestones, two of which were found in farmers’ fields undoubtedly close to their original provenance. In addition, we have studied four other milestones also recovered from the area (some now in the Isparta Museum), as well as a bilingual inscription in the Burdur Museum that mentions Konane in the context of explicating the rules governing Roman requisitioning of military transport (Burdur Museum 2670 = G. H. R. Horsley, R. A. Kearsley and N. Alp, The Greek and Latin Inscriptions in the Burdur Archaeological Museum, London 2007, p. 232, no. 335). Based on these finds, we will discuss the vital role this network of roads played in this peripheral region of Pisidia, and situate it in the context of the social, military, and economic development of the area.

From Mountains to the Plains: Intercultural Pathways of Cilicia

Through the ages and particularly in Antiquity, the region of Cilicia has not only provided a bridge, a transit line for human transportation between the northeastern littoral of the Mediterranean, Anatolia and Mesopotamia, but has also been a region transferring cultures in both directions while also building up its own authentic cultures. The resultant cultures, deriving from the multilingual and multicultural atmosphere surrounding ancient Cilicia, can be easily followed in the Cilician Plains from the third century BC to the third century AD thanks to written sources. The age-old road network of the region was further developed in the Seleucid period; however, it is noted that it was more comprehensively handled as the urbanisation process accelerated with the Roman provincial administration initiated under Pompey in 64/63 BC. The road network of Cilicia needed to expand beyond the traditional north-south routes using the natural passes and with the new provincial arrangement introduced by Vespasian in AD 72 a new east-west route extending parallel to the coastline was formed. Particularly the routes through the Cilician Plains came under extensive use in the second century AD during the Parthian wars and the civil war between Septimius Severus and Pescennius Niger; in the early third century they were widened, as learned from the extant milestones. Our paper will present new opinions regarding the impact of Roman armies passing by the Cilician cities, with respect to social and economic aspects, in the second and third centuries. It will also deal with how this process was reflected in the cities’ outlook, in light of evidence from old and new finds regarding the roads through the recently discovered milestones in Cilicia.
Panel 8 | Participants: biographical notes

**Mustafa Adak** (born 1968) is professor for Classics and head of the Department for Ancient Languages and Cultures at the University of Antalya. His research focuses on epigraphy and historical geography of Asia Minor with projects in Lycia, Pamphylia, Ionia and Bithynia. His publications include *Metöken als Wohltäter Athens. Untersuchungen zum sozialen Austausch zwischen ortsansässigen Fremden und der Bürgergemeinde in klassischer und hellenistischer Zeit* (2003) and, as co-author, *Stadismus Patarensis. Itinera Romana Provinciae Lyciae*(2007). He is co-editor of the journal *Gephyra*.

**Andreas Külzer** (Univ. Prof. Dr) is a member of the research group ‘Tabula Imperii Byzantini’. In 2008 he published a volume on Eastern Thrace (Ostthrakien (Eur p ), TIB 12. Österreichische Akademie der Wissenschaften, phil.–hist. Kl., Denkschriften 369. Wien 2008). Since 2009 he has been working on Western Anatolia.

**Bilge Hürmüzlü** is Associate Professor of Classics at Süleyman Demirel University, Isparta, Turkey. Her research interests and publications are in the areas of Ionian pottery, burial customs, and Pisidia. She is currently the Director of Isparta Archaeological Survey and is working on Konana publications and Klazomenian cemetery monograph. Her main research interests are Social Organization of Northwest Pisidia; City Planning and Structure; Local Cultures of Iron Age Period; Iron Age Pottery; Archaeology of Death.

**Paul Iversen** is Associate Professor and Department of Classics Director of Undergraduate Studies at the Case Western Reserve University. His research interests and publications are in the areas of Greek and Latin Epigraphy, Hellenistic Culture and Society, and Greco-Roman New Comedy, especially Menander. He is currently the Director of Epigraphical finds for the Isparta Archaeological Survey.

**Mustafa H. Sayar** studied Classical Philology, Classical Archaeology and Ancient History between 1974 and 1978 at the University of Istanbul. In 1983/84 he had a residence in Cologne/Germany as a research fellow of the Fritz-Thyssen-Foundation; after this he continued his studies at Vienna University (Austria) and obtained his doctorate in Ancient History in 1989 with a thesis about ‘The History, Monuments, Inscriptions, Ancient and Medieval Sources of Perinthos, Herakleia (= Marmara Ereğlisi, Tekirdağ) and Surrounding Area’. On 26 October 1993 he received the title University Lecturer (Assoc. Prof.), and since 26 May 2003 he has been Full Professor for Ancient Greek History at the Department of Ancient History at the University of Istanbul. From 1979 to 1986 he worked as research assistant at the Archaeological Museum Istanbul, and from 1989 to 1997 he was research assistant at the Institute of Ancient History at Vienna University. In 1998/99 he received an Alexander von Humboldt-Foundation research fellowship at the University of Cologne for one-and-a-half years to prepare the inscriptions of Anazarbos (Eastern Cilicia) for publication. From Nov. 1999 to Feb. 2002 he was part of a project at the Institute of Classical Archaeology of the University of Bonn about the Gods and Cults of Eastern Cilicia, concerning acculturation processes in this region. From 1990 until today he has been researching in Cilicia and Southeastern Thrace concerning Greek colonisation and the relationships between Greek city states and indigenous tribes, historical geography, and urbanisation processes during the Hellenistic and Roman Imperial periods.
PANEL 9

ROUTES AND ROADS IN HELLENISTIC AND ROMAN TIMES

Chair | Musa Kadioğlu, Ankara University
Changing the Channel: Metaphors and Methods for Studying Roads in Ancient Lycia

When talking about ancient roads, we use metaphors to conceptualise their layout and operational characteristics. Unfortunately such metaphors, when used uncritically, may misrepresent the very phenomenon we are attempting to understand. In recent literature, 'network' has become most popular because its original reticulate meaning (based on real-world examples such as webs and nets) has been generalised to mean any systematised group of interconnected entities – but is that too general? Biological metaphors such as 'artery'/‘capillary' and 'branch' may have dendritically morphological similarities, but their operational characteristics differ greatly from roads. Less common hydrological terms such as 'channel' founder on their unidirectional obligation. Given that we have no examples of ancient local/regional pathway systems perfectly complete at all levels of resolution, we must resort to models and metaphors to complete them and describe how they worked. This paper attempts a start from scratch, identifying features intrinsic and specific to ancient paths and roads, which may help us find semantics for better simulating the nature of routes as both units and objects of measurement. The paper then applies these terms to Lycia. Lycia is an ideal sandbox for studying the multivariate communicative and distributive relationships between ancient peoples and their landscapes through the medium of routes. The region contains diverse and often constraining topography: from coasts, deltas and plains, to river valleys, upland plains, steep mountains, and plateaus. Surrounded on three sides by the sea, with the fourth dominated by mountain passes, Lycia has a limited number of viable access points. Its internal configuration is highly corrugated. Accordingly, much of the inland landscape is relatively undeveloped, meaning that preservation is promising for the identification of medium- and short-distance road segments, either directly or through the proxies of bridges, cisterns, tombs, and inscriptions. Lycia also enjoys the special evidence of the Stadiasmus Patarensis.

Three Milestones near Tralleis and Shortcut Routes from Karia to Lydia

The ‘road of the King’ connecting the capital of Lydia (Sardeis) with Susa, and the ‘road of commerce’ in Karia connecting Apameia with the capital of the Rome’s East provinces (Ephesus), were the two main roads of Western Anatolia. There are numerous philological, epigraphical, and archaeological publications devoted to those two roads. Pathways of natural access between the Lydia and Karia regions have been identified, revealing a connection between Tmolos (Bozdağlar) with Mesogis (Aydın Kestane Dağları). However, there has been no work done so far on the shortcut routes connecting Lydia and Karia through the north-south axis. The aim of this paper is to explore the ways in which commuting was established between the east-west axis of the main routes (i.e., the ‘road of the King’ extending across Gediz/Hermos valley and the ‘road of commerce’ extending across the Büyük Menderes/Maiandros valley) and the north-south axis of the shortcut crossings.
Lutgarde Vandeput & Abby Robinson  BIAA

Roads and Routes through the Taurus Mountains. The Case Study of Pednelissos in Pisidia

The Pisidia Survey Project located and identified archaeological remains in Pednelissos and in the rural surrounds of the ancient city. The area is situated in the Taurus Mountains and in the range’s foothills, resulting in a challenging geography. Nevertheless, extremely dense remains of several types of habitation as well as traces of routes and roads were found. Although different levels of quality and finishing can clearly be discerned in the appearance of preserved stretches, the remains alone allow neither a comprehensive reconstruction of a network of local and regional connections nor chronological differentiation. GIS will be used to model the most likely courses of routes and roads based on the geography of the area. Superposition of known ancient habitation onto the map (settlements and standalone structures) will allow comparing the supposedly easiest routes with the ones reconstructed from the archaeological records. A further comparison with the present-day road system in the area will clarify how much of that still follows ancient routes. Apart from the roads themselves, roads stations and control posts were recorded, allowing a glimpse of security measures. Bridges and built substructures witness the efforts made to create this system of communication. In all, the information gathered in this area on the system of routes and roads is likely to serve as a model for large regions of mountainous land in Asia Minor from the Hellenistic to the post-antique period.

Panel 9 | Participants: biographical notes

Pedar W. Foss is Professor of Classical Studies at DePauw University in Greencastle, Indiana. He received his BA in Chemistry and Classics from Gustavus Adolphus, and his MA and PhD in Classical Art and Archaeology from the University of Michigan-Ann Arbor. He then taught at the University of Cincinnati and at Stanford. At DePauw he served from 2009-13 as Dean of Academic Life, overseeing student advising, academic support, off-campus and service learning, and career services. His research has concerned settlement history, landscape archaeology and Geographic Information Systems in the Bay of Naples, the Rieti Basin (Italy), Tunisia, and in Lycia, where he oversaw the regional survey for the Hacimusalar Project and now works with the Çaltılar Archaeological Project. He has edited for the Journal of Roman Archaeology and was co-editor of the book reviews for the American Journal of Archaeology from 2008-11. Since 1995 he has operated ROMARCH: http://quemdixerechaos.com/category/romarch/.

Rafet Dinç, (born 1955) received his BA and MA from Ankara University Faculty of Letters. Between 1979-1993 he worked as an Archaeologist and a Curator at the Manisa Museum. He has conducted numerous rescue excavations at Tumuli in Lydia. He obtained his PhD on ‘Lydian Tumuli’ from Ege University of the Aegean under the supervision of Prof. Dr Güven Bakır. From 1994 until today he has been a faculty member of the Adnan Menderes University in Aydin. Between 1994 and 2002 he did surveys and excavations under the supervision of the Aydin Museum Directorate. Between 2009 and 2010 he was the excavation leader of Tralles. He has published extensively on Lydian Tumuli and the Tralles excavations.
Lutgarde Vandeput is the current director of the BIAA. She studied archaeology and classical archaeology at the K.U.Leuven (Belgium), where she also completed her PhD thesis on Roman architectural decoration and its development throughout time, with Sagalassos as a case study. She worked as a post-doctoral Fellow of the Fund for Scientific Research – Flanders (Belgium) and was granted an Alexander von Humboldt Fellowship in 1998. From 2001 to 2006, she was Assistant Professor at the Archaeological Institute of the University of Cologne. Her research and publications focus on the architecture, urbanism and settlement development in Asia Minor and Pisidia. She succeeded S. Mitchell as director of the Pisidia Survey Project in 1998 and has since then led the project, in collaboration with V. Köse. She is currently actively involved in the survey of the Aspendos Archaeological Project (directed by V. Köse, Hacettepe University, Ankara).

Abby Robinson has been a regular visitor to the British Institute at Ankara since 2008 and a member of the Pisidia Survey Project, chiefly working on databases and GIS. She has also been developing an online publications initiative for the BIAA. In addition, she has been involved in the Aspendos Project with a team from Hacettepe University. In 2012 she completed an MA in Classics and Archaeology at the University of Melbourne, Australia. She will commence a PhD in 2014 based on an archaeological survey in the southwest of the Republic of Georgia.
PANEL 10

EXPERIENCING ROADS

Chair | Jim Coulton, University of Oxford
Stephen Mitchell, BIAA

The Development of the Roman Road System in Asia Minor – Imperial Strategy or Organic Growth?

The publication in the last two years of successive instalments of David French’s *Roman Roads and Milestones of Asia Minor* places a vast body of new data at the disposal of scholars studying the history of Asia Minor, relating not only to roads and routes but to prevailing methods of Roman administration and government. Historians have been accustomed to posing the question whether the Roman empire had a ‘grand strategy’ in matters of frontier control and foreign policy. The recording of over 1500 dated milestones in find spots across the whole of Asia Minor now makes it possible to pose a similar question about Rome’s entire approach to how its provinces were controlled. Was there a conception of a grand strategy for dealing with the Anatolian provinces? Can changes in such a strategy be identified over several centuries of Roman rule? Or are the various road systems to be seen as a product of organic growth, reacting to events and circumstances.

Richard Stoneman University of Exeter

How Many Miles to Babylon? Maps, Guides and Interpreters in the Expeditions of Xenophon and Alexander

How did the ancients find their way over long distances without accurate detailed maps? Local and regional maps have left evidence from Babylonia to Greece, but there were specific difficulties in planning longer distance expeditions, beginning with the time the Achaeans missed the route to Troy and ended up in Mysia. This paper examines the ways in which Xenophon dealt with the problem of having to find the way home through Anatolia, and the rather different approach of Alexander to the planning of his route through Asia Minor. I begin by considering the availability of maps and other information on routes. Herodotus’ account of the Persian Royal Road is among the most important sources, and was available to Alexander. But at every stage of both Xenophon’s and Alexander’s expeditions, local and native guides had to be acquired. This paper brings together the evidence from the sources (Xenophon’s *Anabasis* and the Alexander historians as well as the Alexander Romance) for the ways in which guides and interpreters were acquired and how they were treated: the examples range from native speakers in the expeditions, and family connections, to prisoners (in the case of Xenophon) who were often treated with brutality to secure their co-operation. The curious inadequacy of some of Xenophon’s topographical information on Anatolia is also reviewed.

Anca Dan Centre national de la recherche scientifique, Paris AOROC, ENS

Shaping Cappadocia: The Five-Day Road Trip between the Two Seas

Despite the rough nature of the Anatolian plateau, Asia Minor is usually represented as the main bridge between Europe and Asia. It is well known, however, that the most important routes – like the so-called Royal Road – were no real highways; they were road segments put together by the common geographical sense of the travellers and storytellers. In order to show how a trans-Anatolian road was invented, this paper analyses an extreme case: the five-day road trip between Sinope and Tarsus,
mentioned by Herodotus, Eratosthenes, Apollodorus and their followers. First, it describes the historical and archaeological evidence of contacts between the Pontic and the Cilician coasts. Nothing rational can justify such a short distance between the northern and the southern extremities of the peninsula. The reason lies in the Iranian myths of the foundation of Cappadocia. I will explain the reception of these myths in the Hellenic world and their impact on the representations of Asia Minor until modern times.

Peter Talloen University of Leuven

The Road to Salvation: Travel and the Sacred along the Imperial Highway in Pisidia

Connectivity was the essence of the Roman Empire. The Via Sebaste, a road built during the reign of the emperor Augustus in the ancient region of Pisidia (SW Anatolia) and designed to subdue its rebellious communities, was the embodiment of connectivity for its population. While the road has traditionally been approached for its technological achievement, military and strategic considerations, and economic and commercial benefits, this paper will look at its ideological implications for the communities of Pisidia, more precisely at the impact it had on the development of religious life in the ancient region from the early Roman Imperial period to early Byzantine times. Drawing on various categories of evidence (ranging from infrastructural remains, over epigraphic sources and ceramics, to textual material), two aspects of this impact in particular will be looked at, namely the religious infrastructure that developed along this highway and the cults that travelled on it.

Panel 10 | Participants: biographical notes

Stephen Mitchell (FBA) is honorary secretary of the BIAA and emeritus professor of hellenistic culture at the University of Exeter. He has been engaged in research on Turkey in antiquity for more than 40 years and is the author of Anatolia. Land, Men, and Gods in Asia Minor (OUP 1993 2 vols.) and many other books and articles on the history of Asia Minor from the classical to the byzantine period. From 1982 to 1996 he directed the Pisidian Survey, before passing direction of the project to Lutgarde Vandep, the current BIAA director.

Richard Stoneman was educated at Oxford from 1969 to 1977. For 25 years he was editor for classics at Croom Helm and then Routledge. In 1997 he was appointed an Honorary Fellow in the Department of Classics, University of Exeter, where he is now an Honorary Visiting Professor. After retiring from publishing in 2006 he has been pursuing his researches on the Alexander legends and teaching a course on the subject at Exeter. He has written extensively on Alexander, both legend and history. He is also an authority on early travellers in Greece and Turkey. He is Chairman of Westminster Classic Tours, a travel company specialising in Turkey and the Greek Islands. He is working on a biography of Xerxes and a book on Megasthenes.
Anca Dan works on the history of Greek and Roman representations of spaces and peoples. She studied Classics, Ancient History and Archaeology in Bucharest, Paris and Reims and held research positions in Athens, TOPOI Excellence Cluster Berlin and the Center of Hellenic Studies at Harvard. Her PhD dissertation on the ancient Greek geography of the Black Sea area will be published in Brepols (Orbis Terrarum). She is currently preparing the Belles Lettres edition of Pliny the Elder 6.1-45 and continues the work of Raoul Baladié (†) for Strabo 13-14.

Peter Talloen studied archaeology at the University of Leuven and joined the Sagalassos Project as a research assistant in 1998. His doctoral research focused on religious practices in the ancient region of Pisidia (SW Turkey) from the early Hellenistic to the early Byzantine period (PhD 2003). During his postdoctoral study at Leuven (2003-2006) he specialised in the Christianisation of Pisidia. This research was elaborated during fellowships of the British Institute of Archaeology in Ankara (2011-2012) and the Research Center for Anatolian Civilizations in Istanbul (2012-2013). Currently, he is a postdoctoral researcher of the IAP-Cores project at the University of Leuven. Within this framework, he intends to analyse the different stages of the urbanisation process as they occurred at the city of Sagalassos, and to establish the role of ideology and communal identity in this process.
ROADS IN BYZANTINE TIMES

Chair | John Haldon, Princeton University
Klaus Belke  Austrian Academy of Sciences  INVITED SPEAKER

Byzantine Roads in Northern and Central Anatolia from Late Antiquity to the Early Ottomans

The aim of this paper is the examination of the development of Byzantine roads in Asia Minor and especially in northern and central Asia Minor between Late Antiquity and the Turkish period. As will be shown, there was a remarkable continuity regarding the main routes of long distance traffic, but these routes could change in detail, and above all different ways in the use of roads can be observed. Special focus will be devoted to the following issues:

● Changes in road design and building techniques as well as simple neglect from Late Antiquity to the Byzantine period and their impact on means of traffic: interdependence among deterioration of roads and new elements like steps on the one hand and transition from partly wheeled traffic to the pack and ride animals on the other.

● Changes of the main routes running through Asia Minor: Due to the military situation (loss of the Oriental provinces and nearly annual invasions of the Arabs into Anatolia) and new administrative structures, the Byzantines chose routes that were partly different from the main routes of the Roman period and Late Antiquity; these new ‘Byzantine’ routes were in most cases also inherited from their predecessors.

● Questions of maintenance of roads and its implications for the usability for civilian and military purposes.

● Impact of the arrival of the Turks to Asia Minor after the battle of Mantzikert on the remaining Byzantine roads (no examination of the Seldjuk road system): increasing importance of tracks off the traditional main routes due to the presence of Turkish groups and/or troops in many parts of the country.

● Late Byzantine roads in northwestern Asia Minor; continuity and change in the Early Ottoman period: Byzantine roads were cut off or led into Turkish territory. The Ottomans took over many traditional roads for their trade and military campaigns, but in some cases they also deviated from them.

Jacopo Turchetto  University Of Padua

From Loulon to the Fortress of the Black Camel. Territorial Markers for the Reconstruction of the Road Routes of the Arab Conquest of Cappadocia

Within the context of the ancient road network of Anatolia, Cappadocia has, over the centuries, been a quasi-obligatory crossing point between the uplands and the Mediterranean coastal strip. It is because of its strategic position that Cappadocia became a fundamental place of contention between the Byzantine Empire and the Arab armies. In this framework, would it be possible to identify the roads followed by the Arabs when entering Cappadocia during their marches for the conquest of the Anatolian plateau? The aim of this paper is to try and determine the routes of those roads, analysing the localisation of a series of ‘territorial markers’ which dotted the territory: the Arab/Byzantine garrisons, fortresses and castles, built in strategic positions all over the landscape, overlooking ways of communication and passing places. Such archaeological and ‘distributive’ analysis will be also supported by some...
evidence of a more topographical sort, recoverable in the itineraries registered by the ninth-century Persian geographer Ibn Ḥurāḏbīh and in other Arab written sources. All this will lead to a better understanding of the Arab military strategies in central Anatolia, of the post-classical road network of Cappadocia and of its continuity/discontinuity with respect to the Greco-Roman system of communication.

Anthony Comfort University Of Exeter

Military Highways or Silk Routes? – Roads and Bridges on the Frontier between Rome and Persia in Late Antiquity

From the fourth to the seventh centuries AD relations between Constantinople and Ctesiphon were intense. There was also a network of routes joining the two empires, as shown in the Peutinger Table. But it remains unclear how important commercial relations were, whether as a source of state revenues or of economic prosperity, since on the political level these relations were interspersed with periods of armed conflict. Drawing on information collected during visits to SE Anatolia for preparation of a PhD thesis, as well as on archaeological survey work around Zeugma during the 1990s, this paper will examine the physical evidence for the roads and seek to draw conclusions in regard to the users and beneficiaries of the network. On the western side of the frontier, this helped to link a series of fortified cities and strongpoints, as well as ensuring long-distance communications. The paper will thus address issues including the purpose of road construction on the eastern frontier of the Roman Empire; the use made of the road network; and its importance for trade, as well as for military reasons and for the maintenance of political contact between Rome and Persia. The areas concerned include those around the main frontier cities of Edessa, Amida and Nisibis (Şanlıurfa, Diyarbakır and Nusaybin).

Panel 11 | Participants: biographical notes

Klaus Belke (born in Germany in 1947) studied Byzantine Studies, Classical Philology, and Arabic Studies at the universities of Vienna and Munich. After his PhD in Byzantine Studies, he was working at the Austrian Academy of Sciences for the Project Tabula Imperii Byzantini until his retirement in 2012. His publications comprise three volumes of the TIB, an annotated German translation of Constantine Porphyrogenitus' De imperio administrando (together with Peter Soustal) and articles on Historical Geography, Byzantine History and road problems. He is currently working on the TIB volume 'Bithynia and Hellespont'.

Jacopo Turchetto is a PhD graduate in archaeology. His research was carried out at the Universities of Padua (Italy) and Durham (UK), in the framework of the 'Doctor Europaeus' programme. His doctoral thesis (in press) dealt with the reconstruction of the ancient road network of central and southern Cappadocia (Turkey), combining literary sources, archaeological data, ground truthing and GIS-based analyses. During the course of his PhD, he spent a research period at the British Institute at Ankara. Since 2007 he has been member of the Italian Archaeological Mission at Tyana-Kemerhisar, conducted by the Chair of Ancient Topography of the University of Padua. His actual fields of interest are Landscape Archaeology, Roman Archaeology, History and Archaeology of Cappadocia, Remote Sensing analysis.
Anthony Comfort completed a first degree at Oxford in Classics, history and Italian, then studied international relations at the Fletcher School of Law and Diplomacy (MA, 1974) and entered the secretariat of the European Parliament in 1978. From 1995 to 2002 he assisted in the work of the French team at Zeugma where he was responsible for interpretation of satellite images and for the survey work associated with ground-truthing these images. He obtained an MSc in archaeology at Leicester in 1998. He left the EP in 2005 to complete a doctorate at Exeter University under the supervision of Stephen Mitchell. The thesis concerned roads and bridges on the frontier between Rome and Persia. He is currently retired and living in SW France. He has participated in various French expeditions to the Near East and is currently a member of the team conducting a survey of the Beth Garmai province of Iraqi Kurdistan as well as the leader of a team studying a Roman road near Bergerac.
SELJUK ROADS: TOWARDS A NEW COMMUNICATION SYSTEM?

Chair | Oya Pancaroğlu, Boğaziçi University
Towards a Social History of Seljuk Caravanserais and Routes

Seljuk caravanserais are one of the most conspicuous built features of the landscape of central Anatolia today. Up to 200 of them were constructed in the late 12th and first half of the 13th centuries on routes that linked the Seljuk capital of Konya in all directions: west to Laskarid realms, south to Antalya, east to Aksaray and Kayseri, and from there the Black Sea and points further east and south. Their size, and quality and solidity of construction make them the most impressive corpus of medieval Mediterranean commercial architecture. And yet little is known about their genesis, use, patronage, and connection with contemporaneous routes in neighbouring states, and preceding communication systems in Anatolia like those of the Romans and Byzantines. We do not even possess solid evidence concerning their siting criteria and spatial relationship to one another. This paper takes a social historical approach to the phenomenon of the Seljuk caravanserai, using contemporaneous information from inscriptions and vakfiyes (foundation documents) to situate the caravanserai within the economic and social landscapes and the physical geography of Seljuk Anatolia. This paper will also address the relationship of Seljuk routes as known through caravanserais to previous travel networks. Rather than a pre-conceived network, they can be seen as a series of responses to political, military, and economic challenges in a time of rapid change surrounding the Crusades and the weakening Byzantine Empire. While focusing on terrestrial issues, this paper will also discuss their relationship to burgeoning maritime trade and communication networks, mainly fostered by Italian trading republics like Genoa and Venice. Written sources, especially in these cities’ archives, lead to a privileging of their role in the commercial and technological boom of the 13th century. Despite a paucity of written sources, caravanserais can be used partially to correct this bias, and integrate Mediterranean networks with Asian ones.
Hugh Elton  Trent University

Changes in Routes in the Göksu Valley between the Bronze Age and the Karamanids

All travellers between central Anatolia and the Mediterranean needed to cross the Taurus Mountains. The Cilician Gates were the preferred crossing for most travellers, but there were numerous smaller passes and crossings, the most important of which were in the area between Karaman and Mut. These routes connected the coastal lowlands with the Konya Plain (with sites like Can Hasan, Çatal Höyük, Pınarbaşı, KOPAL) via the Göksu Valley (Alahan, KilisTepe, Göksu Archaeological Project, Bean and Mitford Epigraphic Survey). Much is known about these routes from fieldwork, but increasingly GIS-driven approaches, in particular least-cost route analysis and network analysis, are also being used to analyse travel. Integrating the two approaches can be very productive, but requires a clear understanding of the limits of each. Studying travel is not just about movement across the landscape, since different types of travel resulted in different styles of movement. Decisions made in the Early Bronze Age about where and how to travel for trade were often very different from the same decisions in the Roman period or in the Karamanid era, while the scale of military movement in these periods also differed. These varying styles of movements were always between networks of points, and both political centres and short and long-distance trade networks also changed over time.

Panel 12 | Participants: biographical notes

Scott Redford is Professor in the Department of Archaeology and History of Art and Director of the Research Center for Anatolian Civilizations at Koç University in İstanbul. He studies the history, archaeology, architecture, art history, and epigraphy of medieval Anatolia, the Caucasus, and the eastern Mediterranean. During the 2013-14 academic year, he is an Aga Khan fellow at Harvard University, where he is working on the publication of medieval levels from Bilkent University excavations at Kinet Höyük. His most recent book is Legends of Authority: The 1215 Seljuk Inscriptions of Sinop Citadel, Turkey published by Koç University Press.

Tom Sinclair is the author of Eastern Turkey: An Architectural and Archaeological Survey (1987-90). He received his PhD in Turkish History from the University of Birmingham in 1993. He was appointed Assistant Professor in Turkish History at the University of Cyprus in 1993 and Associate Professor in 2006. He has contributed to the Barrington Atlas of the Classical World (2000) and finished the From the Mediterranean to Iran in the Middle Ages: Pegolotti’s Ayas-Tabriz Itinerary in its Commercial Context.
Hugh Elton (BA 1986, DPhil Oxon 1990) has published monographs on Late Roman Warfare and Roman Imperial Frontiers, as well as editing essay collections on fifth-century AD Gaul and Regionalism in Hellenistic and Roman Asia Minor. His current research focuses on the archaeology and history of Roman Anatolia, including directing field surveys in Cilicia and Pontus. After teaching at several US universities, he was Director of the British Institute at Ankara 2001-2006. Since then, he has been working at Trent University in Canada in the Dept. of Ancient History and Classics.
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