ICOMOS Thematic Study and the Eastern Silk Roads

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Introduction

This paper is in four parts. The first introduces the ICOMOS Thematic Study of the Silk Roads (Williams, 2014) and explains the background, scope and approach to the study, and the resultant UNESCO Silk Roads serial and transnational World Heritage nomination strategy. The second part explores issues with the dissemination of data from the thematic study and other research projects, and the problems relating to developing an international trans-boundary research community. The third part briefly explores the nature of the Silk Routes in East Asia and raises some issues regarding the relationship between the land and maritime routes.[1] The final part explores the implications for extending the Silk Roads nomination strategy into Eastern Asia, raises some heritage management issues and considers the question of whether to extend the thematic study.
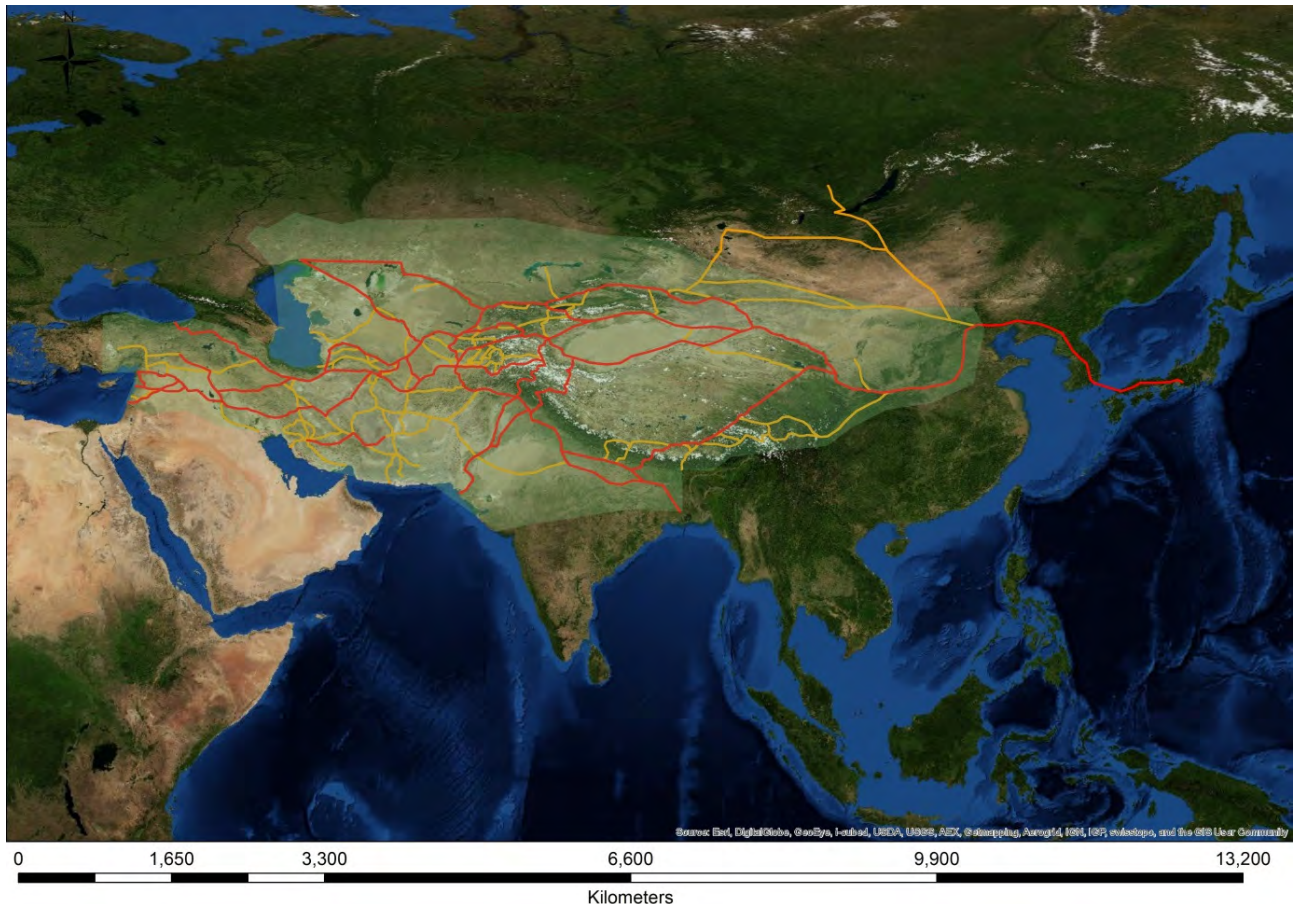

Figure 1. The vast extent of the ICOMOS Thematic Study of the Silk Roads (Williams, 2014), showing major routes (in red) and other significant routes (orange).

1. The ICOMOS Thematic Study

Scope and extent

The ICOMOS Thematic Study of the Silk Roads set out to develop a strategy for the serial and transnational World Heritage nomination of the Silk Roads. It was always intended to be a broad-brush study, and initially focused on the original partners in the UNESCO Silk Roads transnational project: China, the five Central Asian republics and Afghanistan. In practice, because interest in the Silk Roads nomination project developed rapidly, the thematic study considered the area from the eastern Mediterranean shoreline, through Western and Central Asia as far as Chang'an (Xi'an) and Luoyang in west central China (Figure 1). Along with the traditional exploration of East-West connections, the study also recognised the importance of north-south routes, encompassing routes such as those north of the Caspian Sea, and southwards across the Himalayas into Pakistan, Nepal and India.

The thematic study was necessarily a broad sweep across a massive area. It mapped some 60,000 kilometres (km) of routes, over an area of 18,000,000 km². Thousands of sites – including way stations, forts, watchtowers, bridges, small market towns, large cities and religious complexes – were plotted to obtain a basic comparative overview of the nature of the archaeological resources associated with the Silk Roads over this vast area.

The process of compiling a truly comprehensive inventory of Silk Roads sites lay well beyond the scope of such a rapid exercise, largely undertaken in 2012. Many more sites could be added to this inventory, and there are massive complexities with the naming, chronology and even basic geographic positioning of many sites (Williams, 2014, pp. 19-21). Nevertheless, the thematic study succeeded in providing a basis for informed collaboration between the States Parties and researchers along the Silk Roads, and formed the basis for comparative study, enabling researchers who are experts within specific fields or geographic regions to develop, refine and expand the information platform.

The data

To achieve the initial overview, the thematic study used, wherever possible, existing material that was already in a digital format, drawing data from maps, books, journals and a wide range of internet-based resources (Williams, 2014, pp. 22-27). The study also drew on individual country's monument inventories, where these were available, and World Heritage tentative lists (many of the latter had been compiled during the early stages of the UNESCO Silk Roads project and reflected individual countries' initial assessments of their own important sites).

Many maps of the Silk Roads have been published, but most of these necessarily attempt to cover large areas of the Silk Roads on a single page and thus at a very large-scale. Accordingly, in most books the maps are seldom as detailed as 1:10,000,000, and are often much larger. Even specialist maps, such as the Odyssey Ancient Silk Roads map (Odyssey, 2011), only examine parts of the Silk Roads, at a scale of 1:3,000,000 at best. Obviously, at such scales routes tend to lack detail and the locations of sites are not very specific.

More detailed maps of specific regions do exist, however, such as the excellent Historical Atlas of Central Asia (Bregel, 2003), and regional studies such as Siroux's (1949) amazing survey of caravanserai in Iran. Some countries are fortunate to have detailed gazetteers, for example the extensive work of Warwick Ball in Afghanistan (Ball, 1982), and some important digital synthetic works exist, such as Matthew Ciolek's brilliant Old World Trade Routes (OWTRAD).[2]

All of the data was compiled in a Geographic Information System (GIS), using ESRI ArcGIS. The data enabled the examination of a variety of routes, at varying scales of resolution and complexity. The

aim was to better understand the complex topographic, environmental and cultural landscapes that provide an essential context for understanding the changing nature of the Silk Roads over time and space. Environmental and hydrographical exploitation clearly had a major impact on the development of routes and the settlements along them, and the empire systems and societies that waxed and waned along its diverse landscapes (Williams, 2014, pp. 15-18). It was clearly vital to try to capture this complexity in any nomination strategy.

Nodes, routes and corridors

The approach adopted in the thematic study (Williams, 2014, pp. 27-30; Williams, 2015) to map this complexity was to:
- Identify major nodes (primarily 'important' towns).
- Identify segments of routes between these nodes.
- Broaden out these routes to reflect 'corridors of movement and impact' (not just simple lines on a map).

The identification of nodes was not an exact science: it primarily relied on the size of the urban area, but recognized that size does not always reflect the scale of importance of a town; so factors such as function (administrative, military, political), agricultural capacity of its hinterland (the ability to sustain an urban population), scale of production (including access to raw materials), strategic position (for example, control of specific routes) and ideological significance (religious connections, relationships to ruling elites, patronage, etc.) played a part in selecting the nodes.

The plotting of routes between the nodes was also complex. This revolved around the extent of knowledge of specific landscapes and sites. Obviously, better studied areas, with more known sites – way-stations, forts, minor settlements, etc. – provided more information about principal routes, connections and impacts. In many parts of the vast area covered in the study, information was relatively lacking for smaller sites.
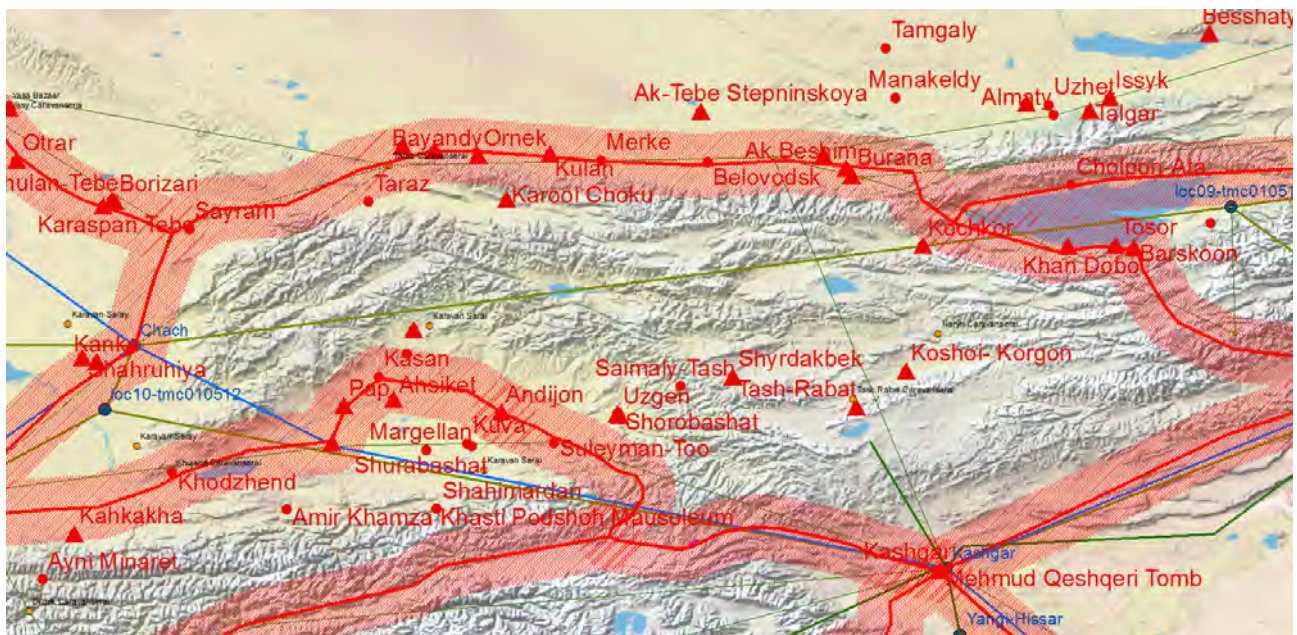

Figure 2. An early draft of nodes, routes and corridors in Central Asia. Here the simple joint-the-dots approach between major nodes (the green and blue lines) vastly over-simplifies the complexity of the routes and the scale of impact. The red lines are the digitised routes of the thematic study, using topography and smaller site locations to produce a somewhat more complex route. These are then 'buffered' (red hatching) 30 km either side to reflect the impact of the corridor of movement. Most of the significant sites in the database are captured within these, but the corridors in some areas, such as the Ferghana Valley, clearly need to be broadened out. Other routes, such as a mountain route through Tash Rabat, were missed in the first phase of digitisation, but were clearly recognisable and added later.

Topography was clearly important and the availability of satellite imagery (especially the material freely available through Google Earth©), enabled an overview of river systems, mountain passes, valleys, etc. However, many landscapes have been continuously occupied, and modern agriculture and urban expansion often make it difficult to 'read' the ancient landscape. Modern roads and bridges tended to draw attention to modern routes through these antique lands.

Given that the study ended up 'mapping' 60,000 km of routes (and later covered close to 100,000 km), the time to identify routes was limited. In most cases, the process started by joining-the-dots – major node to major node – then returning later to try to use sites and modern imagery to deepen the complexity of the route between the nodes (Figure 2). The plotting of the routes remains relatively crude in many places. This raises issues regarding the reuse and refinement of the data (see below).

Given this complexity in plotting routes, it was important to remain focused on what the thematic was trying to achieve: it was not purely an academic exercise in studying routes, but a platform to make decisions about the Silk Roads World Heritage nomination and the protection of internationally-significant archaeology. What was crucial was that the 'mapping' enabled discussion of the significance of different areas along the Silk Roads. This was achieved by identifying segments between the nodes as 'corridors', an approach which allowed a shift away from being concerned with the specifics of where the routes fell precisely. Instead, the aim was to understand a broad axis of movement and, most importantly, the consequences that this had for the development of the societies along those routes, both on the construction of buildings – such as forts, watchtowers and caravansaries – relating to the infrastructure of the Silk Roads and, more generally, the scale and nature of settlements, religious beliefs, architectural styles, etc.

To achieve this, we used the GIS system to 'buffer' the routes, creating a wider corridor on either side of a plotted line.[3] We experimented with various widths and found that extending 30 km either side of the mapped route would create a 'corridor' 60 km wide that, in most cases, captured the complexity of the impacts within the landscape. Obviously, in places this would need to be adapted to reflect local environmental and topographic considerations, such as narrow mountain passes or wide grass steppe lands. The aim was not to create a rigid or prescriptive system, but rather to create an adaptable system that could reflect the complexities of movement and impact.

The nomination strategy

The thematic study illustrated the well-known complexity of the Silk Roads, and the variety of adaptations, outcomes and civilizations along its many routes. This led to the development of a nomination strategy that proposed dividing the Silk Roads into a number of separate, more manageable, transnational World Heritage properties, based on the identified corridors, but linked by an overall concept that recognizes that to capture the outstanding universal value of the Silk Roads it is essential to encompass its diversity.

In addition, the strategy was designed to allow for a more realistic nomination process: instead of upwards of 26 countries needing to combine for a single massive nomination, partnerships between two or more neighbouring States Parties would be able take forward a specific corridor or group of corridors. This would enable these to progress at differing paces, depending upon local capacities, and still within the ethos of transnational cooperation that lay at the core of this endeavour. This approach has been productive, with China, Kazakhstan and Kyrgyzstan successfully nominating the 'Silk Roads: the Routes Network of Chang'an-Tianshan Corridor' in 2014,[4] and others also advancing well.

2. Data sharing and development

Since publishing the thematic study in 2014, work has continued on plotting routes, refining those already identified and adding more information to the supporting database of sites. In practice, this work should never end: new research, and more regional and local studies, will add complexity to our understanding. But it is vital that information be disseminated and updated, to enable collaboration and input.

Attempts to provide internet-based access to Silk Roads data include:

The online platform developed by the ICOMOS International Conservation Centre in Xi'an (IICC-X)[5]

The site holds important information, especially regarding the nomination work in China, and China's work with the Central Asian partners. Some of the material is in Chinese and the data can be accessed by arranging a password account.

The University of Leuven GIS-enabled database

The database was developed by the university with the support of the Belgium Federal Science Policy Office (BELSPO)[6] and the UNESCO World Heritage Centre, and aimed to provide an information system for the States Parties working on UNESCO Silk Roads nominations. The resultant Silk Roads Cultural Heritage Resource Information System (CHRIS) contains data from the thematic study, but in the main it provides a system to support the State Parties in developing nomination dossiers, particularly in regard to the complexities of sharing data on transnational nomination projects, and with the monitoring and management of nominated properties (Vileikis et al., 2013). The system was used by a number of the Central Asian partners and is now maintained by Kazakhstan, although the site is unfortunately often offline.[7] Again, full access is password-controlled, to enable transnational partners to work with confidence, but some of the data is freely accessible.

UNESCO's Silk Road Online Platform[8]

The platform aims to provide greater public access to information and research about the Silk Roads. It attempts to provide direct access to information, although it also has the potential to act as a portal, to draw attention to data existing elsewhere on the internet. At present, the site lacks depth, but it is a fairly recent initiative and may develop more content with time.

What all these sites lack is a clear strategy for disseminating 'reusable' data on the Silk Roads and, through this, enabling the interaction of researchers and the improvement of the research platform. 'Reusable' data is data which is not simply shared, but includes the mechanisms to enable users to explore its potential (McManamon, 2014). This requires an understanding of the relationship between data creator and data curator and necessitates that data be independently understandable. Coarse digitisation is useful, but the researcher needs to understand the choices and the limitations in the creation of the data. It is difficult to make use of data if the user does not understand how the data were created.[9] With the thematic study, for example, the scale and quality of digitisation of the routes (see above) makes a considerable difference as to their use in subsequent research. For instance, a detailed route showing on which side of a river valley a route is conjectured to run, or the same route drawn by simply joining two nodes with a straight line, with no attempt to digitise the route along the river valley. Both are actually valid approaches, and at the coarse resolution at which the Silk Roads are often viewed, will be virtually indistinguishable: both convey the concept of a corridor of movement between two nodes, but if a researcher is interested in exploring the complexity of a route travelled, such as the inclines encountered and the actual travelled distance, then understanding the methods used in digitising the route will be very important.
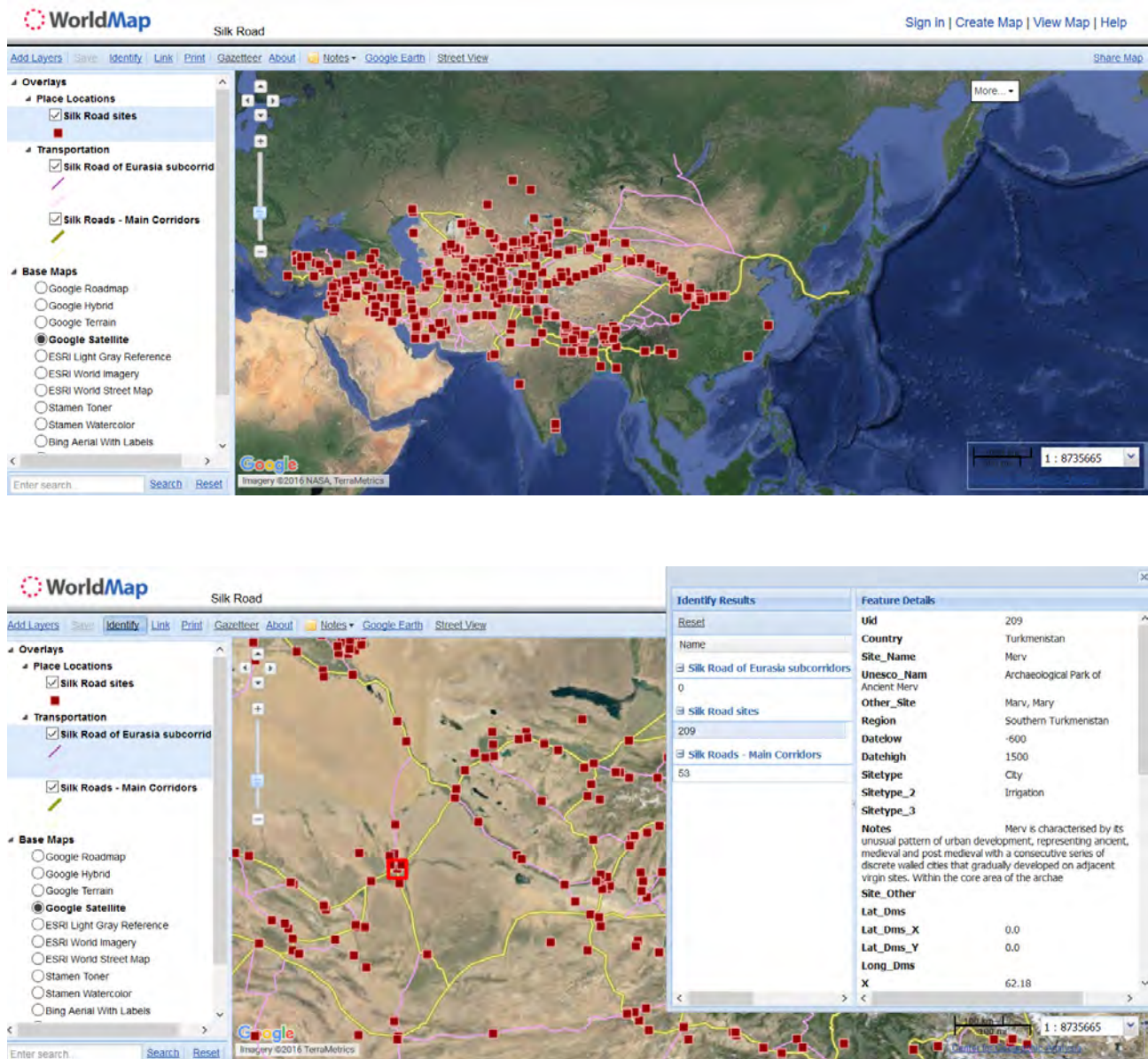
Figure 3. Data from the thematic study presented online in the Harvard WorldMap. It includes the site locations and routes from the study. Above, the whole study area. Below, a portion of Central Asia, with some of the data for the highlighted site (Merv) displayed to the right; the metadata on the fields is not easily accessible, but the data can be downloaded, in a variety of formats, for reuse.

Some of thematic study data has been integrated into the very useful online Harvard WorldMap Project (Figure 3).[10] A more detailed Gazetteer of Silk Roads Corridors is being compiled (Williams, forthcoming) to explain the scales of knowledge, but this does not resolve the issue of access to reusable data, or address the need to create a platform that enables collaboration and inputs by other researchers. It would be useful to disseminate the thematic study data in a GIS-enabled form, with the facility for others to add additional information, improve locations, add new references, etc. At present, many of the exciting research efforts on the Silk Roads are dissipated by a lack of circulation of reusable data.

Two excellent long-term initiatives that perhaps show the way forward are the Digital Silk Road project[11] at the National Institute of Informatics, Tokyo (See also Ono, 2002), and the International Dunhuang Project[12] at the British Library. These are extremely important projects for anyone studying the Silk Roads and provide high quality information, making available huge quantities of data,

including maps, rare books, early explorers' accounts, historic documents and excavation archives, supported with good metadata. What makes these projects particularly effective is that they function within institutional organizations, have dedicated staff, are responsive to change and update their technological platforms. They largely generate their own data, but have an institutional attitude to the relationships between data creators and themselves as providers.

Distributed and shared data, supported by metadata, ontologies and GIS platforms, to make full use of the power of the semantic web (for example, CIDOC CRM[13]), is surely what we need to push forward Silk Roads scholarship and, with it, protection, management and dissemination strategies. If any topic requires us to think outside of modern-day national borders to the wider significance of the archaeological resource, then it is surely the Silk Roads.
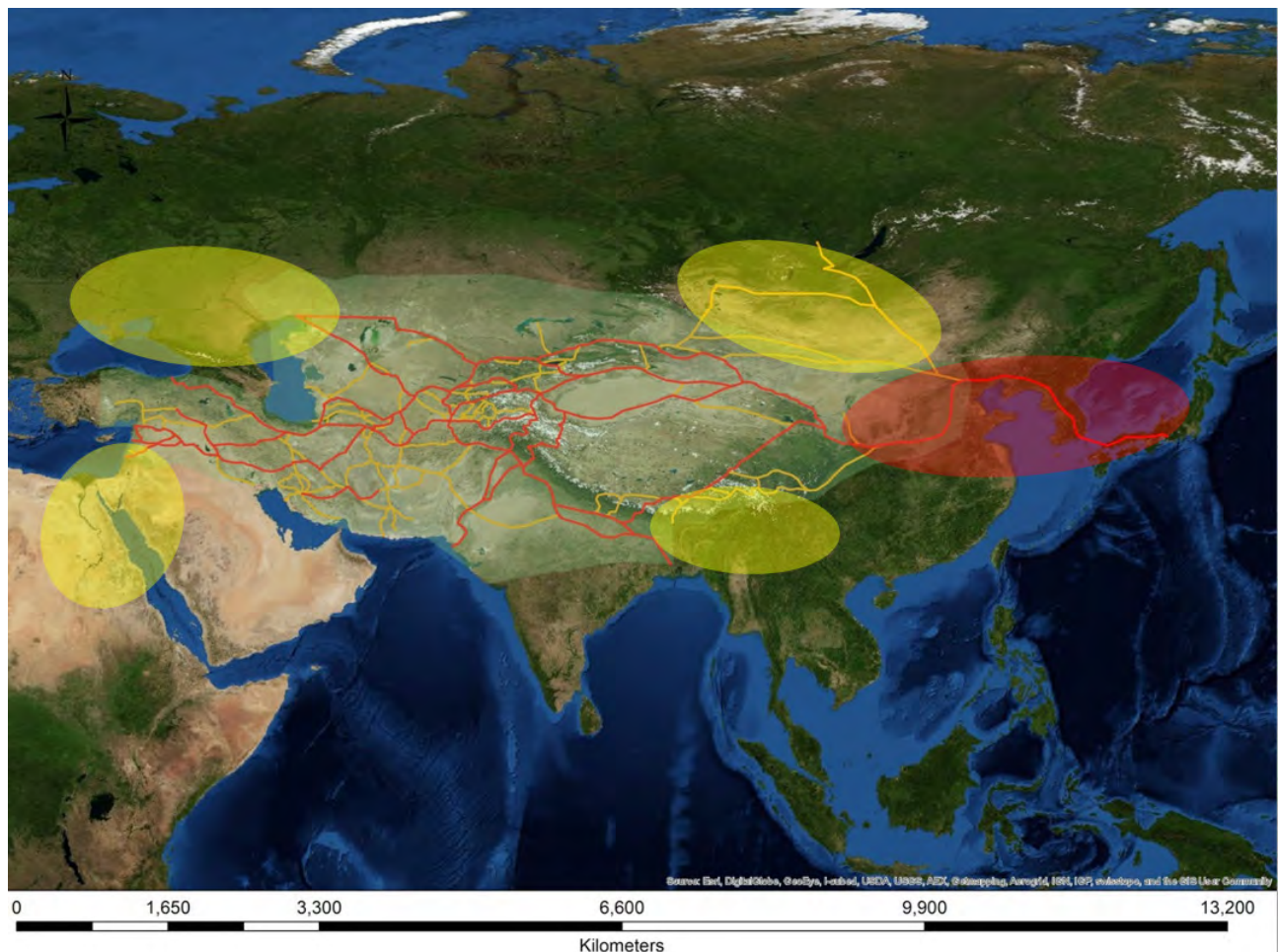

Figure 4. The original scope of the ICOMOS thematic study (light green), highlighting areas that need to be expanded (yellow), including the Eastern Asia region (red). Note the very simplified route in the original study: through eastern and northern China, the Korean peninsula, to Nara in Japan.

3. The Eastern Silk Routes

Limitations in the existing thematic study

The ICOMOS Thematic Study recognized that it by no means encompassed the full geographic complexity or multiplicity of routes for the land-based Silk Roads. In particular, it identified (Figure 4): the routes connecting modern-day Mongolia and the steppe; those extending through the Caucuses and Black Sea areas; the complexity of routes through Turkey to the Aegean; the routes from the eastern Mediterranean down to modern-day Egypt and North Africa; the complexities of the so-called Tea and Horse Routes (now often called the Southern Silk Roads) between Yunnan and Sichuan, Myanmar, Bhutan, India and Bangladesh; and, most relevant to this paper, the eastward routes from the Chang'an/Luoyang area through eastern and northern China and the Korean Peninsula to Japan. The latter was reflected in the thematic study as a simple route from Luoyang up to Beijing, through Liaoning Province to Pyongyang and Kaesong (Democratic People's Republic of Korea), and then through Seoul, Gyeongju and Busan (the Republic of Korea) and across the sea to Japan, ending at Nara, the oft-cited eastern termination of the later Silk Routes.

Even this highly-simplified route raises questions about the relationship of land-based and maritime routes. The thematic study specifically focused on the land-based Silk Roads and although it recognized river transportation and routes across larger bodies of water such as the Caspian Sea, it did not set out to encompass the 'Maritime Silk Routes'. Consideration of the Eastern Silk Routes brings this semantic separation into sharp focus, however. It is evident that any consideration of the nature and scale of interactions within East Asia – between China, the Korean peninsula and Japan – must encompass both land-based routes and the movement of shipping in the Asian seas.

The nature of interactions

As with other parts of the Silk Roads, the balance between trade and elite exchange, and the impacts of travel and contact will need to be explored within East Asia. These are often intermeshed. Aihwa Ong's work (1999) discussed how travellers can be crucial transnational actors in the making of new economies, and how individual agency is crucial in the large-scale flow of people, images and cultural forces across borders. Takeshi Hamashita likewise expressed the links, noting that between the fourteenth and seventeenth centuries tributary states would send regular tribute missions to the Chinese capital, under the tribute-envoy system, and new envoys were sent in return by the Chinese emperor each time the ruler of a tributary state changed. 'This tributary relationship was at the same time a political, economic, and trade relationship. … This tribute trade was not limited to Chinese merchants from East and Southeast Asia; Indian, Muslim, and European merchants also participated, confirming the link among coastal ports' (Hamashita, 2011, p. 125). As Appadurai (1986) argued, the 'total trajectory' of commodities – from production, through exchange and distribution, to eventual consumption – involves various stages, and is enmeshed in complex intersections of economic, political and cultural factors.

Trade was also important. The expansion of markets from the seventh century CE in Korea testifies to the increased importance and volume of long-distance trade at the time. In Gyeongju, for instance, the newly-constructed West and South Markets complimented the existing East Market (Woo, 2010, pp. 207-8). While there is evidence of a wide range of materials and products being moved within East Asia, much more research is needed: an analysis of commodities requires much more archaeological work (excavations that retrieve well-dated sequences, and not just from elite production and consumption sites), and technological/materials-based research. The volume edited by Tagliacozzo and Chang (2011) is an example of a commodity-based approach, and although it focuses on the post-colonial era in South-East Asia, it could serve as an interesting model for a regional study of the earlier Silk Routes in East Asia. A work of such synthesis could be very rewarding.

An understanding of the movement of ideas and beliefs via the Silk Routes is vital to understanding the impact of these routes on the people of the regions. This is nowhere as obvious as in East Asia, where the introduction of Buddhism had a significant impact. In Korea, for example, Buddhism was 'instrumental in both the consolidation of the royal authority and the centralization of government during the Three Kingdoms era' (Woo, 2010, p. 164).

In this context, patronage was a significant factor. For example, at Gyeongju (Republic of Korea) evidence suggests the extent of patronage: the quality of the gilt-bronze triad of the first half of the Unified Silla (seventh to early tenth century CE), found in Anapji (Korean Cultural and Historical Survey Society, 2007, p. 205); the scale of the sixth century CE Buddhist temple complex at Hwangnyongsa, believed to be one of the largest in Asia (Korean Cultural and Historical Survey Society 2007, p. 208); or the extensive Buddhist monuments surrounding the town, including the incomparable Soekguram Grotto.[14]

The chronology of the spread of Buddhism into East Asia is still a matter of some debate. Many suggest that Buddhism was introduced into northern Korea from China in the second half of the fourth century CE (the Former Qin period) (Woo, 2010, p. 164). From the sixth century onwards Buddhism penetrated further into the Korean peninsula and many Korean monks travelled to China, Central Asia and India. For example, Uisang travelled to Tang China in 661 CE and returned in 670 CE, then founded a school of Buddhism (Woo, 2010, p. 210). Although there are records of Buddhist monks from China going to Japan in the period between the third and fifth centuries CE, the 'official' introduction of Mahayana Buddhism to Japan occurred in the sixth century (traditionally thought to be in either 538 or 552 CE, as part of a diplomatic mission that included gifts such as an image of Shakyamuni Buddha and several volumes of Buddhist text) (Bowring, 2005, pp. 16-17).

Ports, hinterlands and connectivity

The interconnected land and sea routes in coastal zones encompassed crucial articulations in systems of production, supply and redistribution. The initial thematic study raised questions regarding the interrelationship between land routes and port cities, already very evident on the Indian subcontinent. The relationship between hinterlands, long-distance land routes and ports (the port-catchment nexus) are a vital part of the complex narrative of the Silk Roads.

The historic city of Seoul is a good example of a city that was impacted by the links that existed between terrestrial routes and river-based transportation, with the latter linking the city with seaborne traffic. Similarly, Hepu, a coastal port in southern China, was connected to a network of rivers that enabled ships to penetrate, via the Ling canal, directly to the Yangtze River and thus the Central Plains (Zhaoming, 2014, pp. 1231-2). Maritime exchange between East Asia, China and South-East/South Asia was conducted through a very large number of regional and local ports. The complexity of these networks should not be underrated.

Routes in East Asia

The UNESCO Silk Road project set a chronological framework from: the third century BCE to the sixteenth century CE (Cleere, 2006). Initially, most of the interaction in East Asia – between mainland China, the Korean Peninsula and Japan – would have been as a result of overland routes. Before the development of ships capable of travelling on long-distance open-sea routes, shipping, and the associated inter-cultural interaction, is likely to have been confined to coastal routes. For example, early shipping routes between the southern Korean Peninsula and mainland China are likely to have hugged the coastline around the Yellow Sea. Similarly, ships bound for China from Japan crossed to Korea first rather than braving long-distance routes direct to southern China. Indirect routes were also taken to South-East Asia. However, as ship technology advanced (e.g. Quipeng, 2003, p. 497), new

routes opened up, taking advantage of (and adapting to) the winds, currents and monsoon weather of the region. By the Tang Dynasty, for example, there is evidence of sea routes between Yeongam (South Jeolla Province, Republic of Korea) and the Shanghai region (China), but also continued use of the land routes between Namyang (Gyeonggi Province, South Korea) and the Shandong Peninsula (China) (Woo, 2010, p. 208).

Much can be learned about the sea routes from the study of wrecks and shipbuilding. Since 2008, the Maritime Archaeology Program at Flinders University has been collecting data on ship remains in East Asia in support of the Shipwreck ASIA project (Kimura, 2010). Ship remains identified in Korea, China and the broader region, coupled with underwater archaeology conducted in Korea in the past two decades, has shed new light on the historical interaction of shipbuilding technology in the region.[15] For later periods, historical records help to provide a more detailed picture of trading contacts (e.g. Hamashita, 2011), but much more work needs to be done to map the archaeological evidence for sea and overland routes, to understand their chronologies and scales.

Routes to South and South-East Asia

Any consideration of East Asia cannot exclude the multifaceted maritime and overland trade and exchange networks between East Asia and South-East/South Asia. The well-known overland routes between Yunnan and Myanmar (the 'Tea and Horse' or 'Southern' Silk Roads) provide evidence of complex exchanges. Evidence of sea routes exists from the Han Dynasty onwards: for example, materials found in the Hepu Tombs on the south coast of Guangxi Zhuang autonomous region, bordering the Gulf of Tonkin, China, demonstrate the range and geographic spread of material, including semi-precious beads from India and ceramics from the Parthian Empire (Zhaoming, 2014). Complex interactions across the region are well known in the later periods (for example, see Tagliacozzo and Chang, 2011; and Hamashita, 2011, for fourteenth to sixteenth century interactions), but further research is needed on the earlier development of these interactions.

4. Eastern Silk Routes nomination strategy

Approaches to nomination

The crucial issue in developing an effective strategy for research on the Eastern Silk Routes will be in developing an understanding of the range and variability of archaeological and historic sites in the region and their current condition. As with the rest of the Silk Roads, it is crucial not to just end up with the nomination of 'star' sites: those sites that could probably be nominated in their own right. It is essential to recognize the complexity and range of sites that enabled the Silk Roads to function. The value of the Silk Roads is not limited to their most impressive outcomes – great cities and splendid temples – but extends to the smaller settlements – market towns, river crossing points and way stations – and the administrative and military sites, such as forts. An example of the latter is the Dangsung Fortress (Republic of Korea), which had a crucial role in controlling access to the sea, as exemplified by its rebuilding and extensions.[16]

As with the rest of the Silk Roads, the identification of nodal points (major cities and ports) on the Eastern Silk Routes provides a useful starting point for understanding broader connections. Knowledge of these nodes can be used as a basis on which to build and critique a discussion of routes and chronologies, drawing in smaller sites to create an increasingly complex picture. Note, for example, that the sea routes in the region were clearly complex and probably partly seasonal.

An extension of the original thematic study of the region could be useful to pull this information together, but it would be best achieved by developing a collaborative project between appropriate agencies in China, the Democratic People's Republic of Korea, the Republic of Korea and Japan, which are best placed to understand the range of sites available, and certainly best placed to understand the chronological data, the quality of survival and the state of preservation.

The protection of historic harbour/port sites

Any approach to Silk Roads nomination in East Asia needs to address the interrelationship of the land and sea routes. Any maritime cultural landscape consists not simply of the remains of ships but also of land-based infrastructure. Primarily, this comprises harbours, ports and anchorages, with their component elements, such as shipyards, warehouses and forts. These are the core attributes that any World Heritage nomination strategy is likely to need to address.

Given that many of these harbours, ports and anchorages continue to function to this day, research into their surviving archaeological evidence is often complex and compromised, but it is urgently needed if such sites are to be protected as part of a Maritime Silk Routes project. Ongoing urbanization will increase pressure on governments, heritage agencies and users to formulate approaches to the management of the maritime cultural heritage of the region. Over a decade ago, Louis highlighted this issue, noting that 'it is essential that we define the settings of this cultural route; assess the threats and vulnerabilities from physical, historical and cultural settings of the heritage sites along the [maritime] Silk Route; and draw up an integral and long-term conservation policy while respecting the diverse cultural traditions and heritage conservation systems of the different regions through which the route meanders' (Louis, 2005, p. 1). Progress on this appears to have been limited, and it is vital that this challenge is addressed now.

The Eastern Silk Routes strategy will also need to address chronological issues. The States Parties involved in the land-based Silk Roads chose a cut-off point of the early sixteenth century CE, as at that point (the collapse of the Timurid Empire across large swathes of land) the routes, while still functioning as they do today, no longer exerted the scale of impact on the civilizations along their land-based course. The same is not true for the maritime routes, so this chronological cut-off is not appropriate.

Conclusion

The Eastern Silk Routes are a crucial element of the overall Silk Roads story. Active research is needed, along with the construction of collaborative networks, if any nomination project is to go forward. An extension to the thematic study would be useful, but it needs to be built on such collaboration. It also needs to address the challenge of integrating sea and land routes.

It is important to recognize that it was the oft-repeated journeys along the Silk Routes that etched out the historical landscape. The complexities of change and stasis in the Silk Roads' long history, the numerous interactions along the margins of empires, and the liminal space between ideologies, polities and people, make capturing this difficult in any nomination. But it is this complexity that heritage management, interpretation and cultural tourism need to grasp if we are to convey the relevance and importance of the Silk Roads to twenty-first century communities. And if we do not, we will end up just preserving a small and unrepresentative sample of elite monuments.

Endnotes

1. In this paper, the term 'Silk Roads' is used for the land-based routes, as it is the traditional term, but 'Silk Routes' is used for the Eastern Asian section, as this section encompasses both land and sea routes ('roads' seems inappropriate for the latter).

2. See http://www.ciolek.com/owtrad.html (Accessed January 2016.)

3. The term 'buffer' is a GIS term for creating buffers along either side of a line, not to be confused with World Heritage Site buffer zones.

4. See http://whc.unesco.org/en/list/1442 (Accessed January 2016.)

5. See http://www.iicc.org.cn - an English version is available at http://www.iicc.org.cn/Channel. aspx?ChId=2 (Accessed January 2016.)

6. See https://www.belspo.be/ (Accessed January 2016.)

7. See http://www.silkroad-infosystem.org/specto/bin/view/home (Accessed June 2015.)

8. See http://en.unesco.org/silkroad/unesco-silk-road-online-platform (Accessed January 2016.)

9. For advice on good practice see the guides from the Archaeological Data Service accessible at http:// guides.archaeologydataservice.ac.uk/ (Accessed January 2016.)

10. At present, a subset is available through the Harvard WorldMap project (http://worldmap.harvard. edu/maps/7547) (Accessed January 2016), while a more detailed version of the data will be available via the *Journal of Open Archaeology Data* (Williams, forthcoming).

11. See http://dsr.nii.ac.jp/ (Accessed January 2016.)

12. See http://idp.bl.uk/ (Accessed January 2016.)

13. See http://www.cidoc-crm.org/ (Accessed January 2016.)

14. See: http://whc.unesco.org/en/list/736 (Accessed January 2016.)

15. This topic was well covered by conference papers by Byeong-Geun Kim, Jun Kimura, and Kyeong-Jung Roh.

16. See the paper by Kidong Bae in this volume.

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