

International Conference: Archaeology of the Southern Taklamakan: Hedin and Stein's Legacy and New Explorations, 8th-10th November 2012

Organised by the International Dunhuang Project (IDP) at the British Library, the School of Oriental and African Studies (University of London) and the Xinjiang Institute of Archaeology. Supported by Arts & Humanities Research Council; Chiang Ching-Kuo Foundation for International Scholarly Exchange; Sino-British Fellowship Trust.

More than a century has passed since the Swedish explorer Sven Hedin stumbled across the ancient remains of the "Southern Silk Road" in the Taklamakan Desert and the British archaeologist Aurel Stein began their serious excavation. The substantial results of the early excavations are still yielding new information, and the expeditions of recent years under the auspices of the Xinjiang Institute of Archaeology have greatly expanded our knowledge of previously studied sites and uncovered stunning new material. Thus it was unfortunate that the archaeologists from Xinjiang, who were to have presented on their recent finds at this conference, did not receive their travel documents. Nonetheless, the conference was very successful as a forum for reviewing the history of exploration in the Taklamakan and indicating the important ways in which new methodologies and recent multi-disciplinary analysis have been broadening our understanding about the early history of the Silk Road.

In his opening keynote lecture and in a second presentation, **Håkan Wahlquist**, the long-time curator of the Hedin collections at the Museum of Ethnography in Stockholm, drew upon the rich manuscript and photographic legacy of Hedin. Wahlquist explained how the Swedish

explorer went from being an "accidental" archaeologist during his early single-handed travels to organizing the complex Sino-Swedish expedition of 1927-1934. The assistance of Johan Gunnar Andersson, a geologist living in China who had developed a serious interest in palaeontology and palaeobotany, was crucial in gaining for Hedin the necessary permits from the Chinese authorities. Hedin's selection of Fölke Bergman as the team archaeologist may seem surprising, given the fact Bergman had yet even to complete his B.A.

Another puzzle is that the Chinese archaeologist who accompanied the expedition, Huang Wendi, barely appears in the published reports: the results of his rather substantial survey and excavation work have been published only in Chinese. His involvement in



Håkan Wahlquist

the last phase of the expedition in 1934 in the Lop Nor area came as something of a surprise to Hedin; there is reason to think Huang had been sent to keep an eye on the Europeans and report whether they were violating the newly imposed rule that they were not at this point to undertake any excavation. Huang's accusations that they had been secretly uncovering buried treasure led to serious friction between Hedin and the Chinese authorities.

Bergman's preliminary report on the expedition's archaeological results appeared in 1939, but unfortunately he never lived to write a final report. In his second talk, Wahlquist summarized from Bergman the history of how the expedition discovered the Xiaohe ("Little River") necropolis, whose full excavation, undertaken more than half a century later, has yielded such spectacular finds (see below). Ördek, the Turki hunter who had worked on Hedin's staff in the 1890s and had been the first to report the discovery of the site we know as Lou-Lan, reported finding the necropolis. But it took some effort to re-locate it. The expedition did a preliminary survey of the site and examined a couple of the burials containing mummified remains.

The first full session of the conference, under the rubric of the geography of the Tarim Basin, opened with **Tim Williams'** discussion of the studies undertaken for advising UNESCO whether the Silk Road should be selected as a transnational World Heritage site. An archaeologist at the University of London, Williams has been director of the Ancient Merv project. One of the challenges in the study for UNESCO has been the uneven nature of efforts to systematize archaeological data, to arrive at a standard listing of sites and site names, and to correlate the

often conflicting information about their exact location. To help in such systematization, the study has grouped sites under the topical headings of infrastructure, production and outcomes. The first group contains both manmade (caravansarais, garrisons, irrigation systems...) and natural features which facilitate trade and transportation; the second focuses on the production of goods to be traded and ideally would include extraction sites, though few of them so far have been identified. Outcomes are the results of contact and exchange, where sites might include shrines or pilgrimage destinations and be important for their representation of ideas. Archaeological survey and excavation has been quite uneven, with few results for some important regions, and sites may vary substantially in scale, from large cities to temporary halting places. Routes may change according to season. Since to a considerable degree the database relies on what the partners in individual countries provide, and there has been no uniformity in what they have chosen to emphasize, there are substantial difficulties in creating an integrated picture.

By first identifying key nodes, then route segments, it may be possible to define important corridors of exchange which can be the focus of the the UNESCO nomination. The results of this study, including a long bibliography



Tim Williams

of publications in Chinese, Russian and English, will be posted on the ICOMOS (International Council on Monuments and Sites) website, and may facilitate future projects to reconceptualize how best to analyze Eurasian exchange for the period from the 2nd century BCE to the end of the 15th century. Working toward meaningful international cooperation for preservation of Silk Road sites linked across borders will be a major challenge.



Philippe Forêt

Philippe Forêt's (University of St. Gallen) paper previewed his soon-to-be-published book concerning how important evidence gathered by Hedin, Stein and Ellsworth Huntington contributed to a broadly based scientific discussion a century ago regarding historic climate change. There was substantial evidence, some of it dramatically reported from the explorations in Central Asia, about the drying up of lakes, the death of cities, change in means of subsistence, and so on. However, the implications of what all this meant for human history were contested and often contradicted for ideological reasons by some establishment "colonialist" geographers (especially at the Royal Geographical Society), with serious implications for the continuing study of climate change. While the paper did not draw this explicit parallel, its conclusions resonate with the debates even in our own time pitting "climate sceptics" against the serious scientists.

the most important routes of communication and exchange dating at least as far back as the late Bronze Age. "Silk Roads," "steppe roads," and "ocean routes," all of which clearly became important in the centuries when we begin to have written documentation, were by no means the first to witness significant interactions which spread technologies of production and products. Sites in ecological zones thought to have been occupied at best seasonally and with temporary settlements have now been shown to have occupation layers extending over several millennia. As early as the third millennium BCE, some of them (key examples here are from southeastern Kazakhstan – Begash in the Koxsu Valley and Dali/Tasbas) reveal that the "nomads" were acquiring grains such as wheat and broomcorn millet (and using them mainly for ritual purposes), and within a millennium

In a paper that connected in very interesting ways with Williams' presentation, **Michael Frchetti** (Washington University, St. Louis) argued on the basis of his ongoing excavations in the piedmonts of the Inner Asian mountains that what he calls an Inner Asian Mountain Corridor may have been one of



Michael Frchetti

the inhabitants of these same areas had begun to cultivate those crops. There are parallels in the evidence about the early use of agricultural products found at Xiaohe in the Taklamakan. Simultaneously, the pastoralists were weaving cloth, increasingly of very fine quality, and developing bronze metallurgy. There is good reason to hypothesize that the piedmont zone formed the corridor through Inner Asia which brought some of the new technologies and products to China. Obviously much more excavation will be needed across Inner Asia before we can confirm the way in which networks of exchange developed historically, movement and interaction occurring both horizontally from region to region and vertically (that is, from lowlands to highlands and back). Some of the most important results of the ongoing projects in Kazakhstan are from the work of Paula Doumani, a Ph.D. candidate at Washington University who is working under Frachetti's supervision.

Among the significant multi-year excavation projects in recent years in the Taklamakan has

been the further exploration of sites along the Keriya River. **Corinne Debaine-Francfort** has played a key role in the joint project with the Xinjiang Institute of Archaeology and recently defended her doctorate on the results, whose full publication is imminent. Since she was in Urumqi on business pertaining to the book's publication, she could not be present. Instead **Henri-Paul Francfort** (Le Centre national de la recherche scientifique, Paris) provided an overview of the Keriya results, focusing in particular on objects found at the mid-first millennium BCE site of Djoumboulaq-qoum which illustrate long-distance connections – some with South Asia, some with Achaemenid Persia, a good many with the nomadic cultures of the steppe region and northern Central Asia. But this is not simply a matter of borrowing and copying, as the material shows clearly the impact of local adaptation and has its own distinct features. Djoumboulaq-qoum has impressive fortifications, extensive remains of irrigated agriculture, well-preserved organic materials. There is evidence regarding early iron technology in Central Asia. As Prof. Francfort indicated, this intriguing evidence raises all sorts of questions about long-distance exchange and interactions, the answers to which will await much further study. He



Henri-Paul Francfort

spread his net widely to introduce analogies in the textiles found at Shanpula, objects found at Kampyr Tepe, paintings from Kalchayan, and much more.

Devising new approaches to interpret finds of prestige objects in excavated tombs was the subject of **Armin Schbitschka's** Munich dissertation and his talk, in which he also

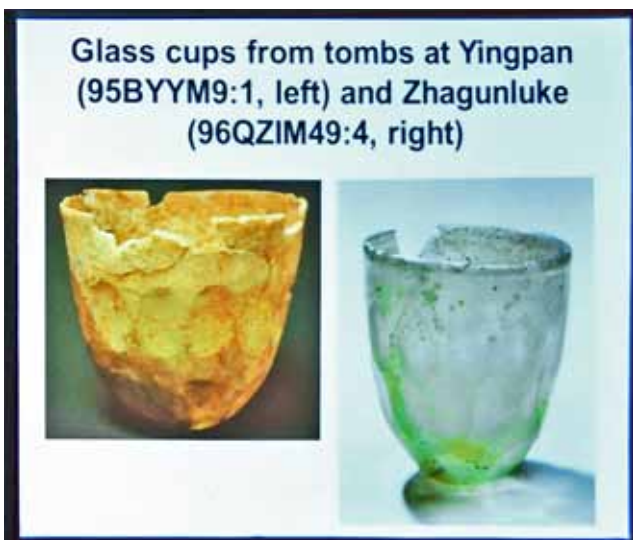
introduced material from his current research project on Chinese notions of the afterlife in the period from the 4th century BCE to the first century CE. A good portion of his presentation addressed the methodological problem of how such goods have been treated to date, with scholars often emphasizing their connection with religious belief and ritual. There is still much to be done in trying to figure out how their creators and owners understood them: were they valued as status symbols, because of their cost, because of their exoticism? What might they indicate about social distinctions? Among the examples explored in the talk were imported objects made of glass and polychrome silks. Whereas warp-faced textiles originated in China, weft-faced weaving techniques are “western” in their origin, and the weft-faced silks thus objects presumably of higher value because of their rarity.

Given the importance of the Xiaohe cemetery, whose artifacts have been widely publicized in various exhibitions of recent years, it was unfortunate that **Idris Abdurusul**, the Honorary Director of the Xinjiang Institute of Archaeology, was unable attend the conference. In his absence, Henri-Paul Francfort commented on the rich visual presentation which Idris had sent, with photographs and drawings of the various stages in the excavation and of the striking finds. Much of this visual documentation has not been seen widely. The presentation included at the end a couple of tantalizing images from the more recently discovered but as yet not fully excavated northern cemetery site in the Keriya delta, way out in the desert, whose remains seem to have a great deal in common with those found at Xiaohe. In Idris's absence, the conference was deprived of the opportunity to learn more about this new material, which is enriching our understanding of Bronze Age cultures in the Tarim Basin.

The summary of Idris's paper in the conference program includes information on



Armin Schbitschka





Aoi Hosaya

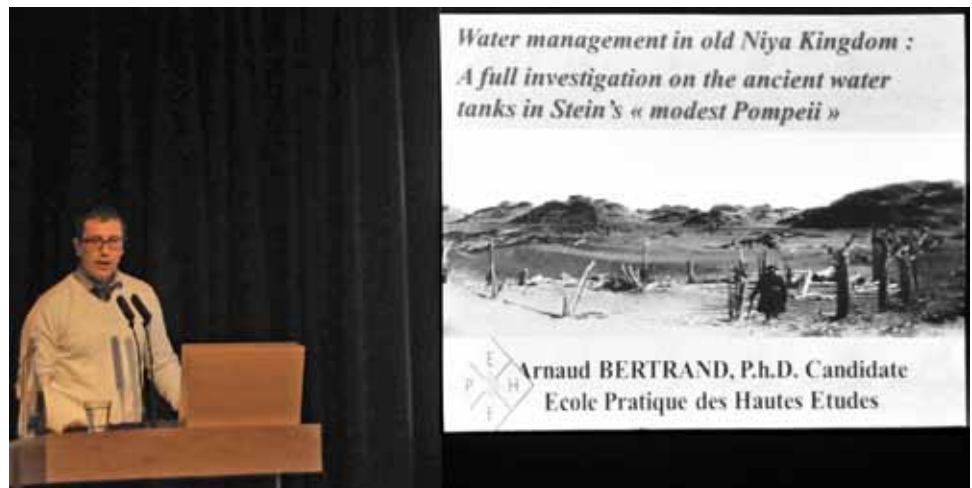
the DNA analysis and other studies of the floral and faunal remains from Xiaohe, showing that the wheat and cattle at the site undoubtedly were of west Asian origin. DNA analysis of the human remains reveals that the population was ethnically complex. Palaeoenvironmental analysis demonstrates that this now desert location was once abundantly watered.

Details concerning the analysis of botanical evidence from Xiaohe were presented by **Leo Aoi Hosaya**, an archaeobotanist at Kyoto University (her presentation prepared jointly with **Yo-Ichiro Sato**). As she explained, this work carried out between 2006 and 2011 was part of a collaborative project between the Xinjiang Uigur Autonomous Region Bureau of Cultural Heritage and the Research Institute for Humanity and Nature in Kyoto. The Kyoto Institute is also collaborating with the Sven Hedin Foundation

to digitize materials in the Hedin archive in Stockholm. The remains of wheat found at Xiaohe indicate that the common variety (*triticum aestivum*) was that being cultivated in the region. While very productive, this variety also requires substantial moisture to flourish. A time series comparing the weight and abundance of the wheat grains over the several centuries encompassed by the Xiaohe cemetery reveals an apparent improvement in wheat yields up until nearly the end, but then a sharp drop-off, suggesting some kind of crisis as far as local agriculture was concerned. Pollen analysis confirms a trend away from plants requiring abundant moisture and toward those which thrive in a drier climate. While many questions here remain to be answered by more broadly based data, the Xiaohe evidence suggests at least the possibility that the crisis which led to the end of the “Xiaohe culture” may have been man-made. Increasing use of irrigation to expand agricultural production had the drawback of increasing soil salinity and ultimately making it impossible to grow crops. Perhaps the same kind of scenario played out later at Lou-Lan and would explain its somewhat abrupt demise.

Given the emphasis of several of the papers on agricultural production and the development of irrigation systems to support it, **Arnaud Bertrand’s** Ph.D. dissertation work at the

Arnaud Bertrand



Sorbonne has particular relevance. His focus is on water management in Niya and other areas of the Tarim Basin; the paper he gave here discussed Stein's (and some more recent) evidence about water tanks and channels. The Kharoṣṭhi script documents found at Niya includesomeinformationonwatermanagement and its challenges. Correlating this evidence with that of archaeology suggests that, contrary to some earlier beliefs, the techniques of water management probably were not introduced to Niya by Chinese garrisons sent into the Tarim Basin. Theoretically the models might have come from west or south Asia, but Bertrand suggested that it may well be we should look in Xinjiang itself for the expertise which was reflected in the development of the local water management technologies and administration. Certainly there is a great deal yet to be done to provide a comprehensive view of water management in Inner Asia, without which the oasis cultures could not have flourished.

The abundance of written documentation from Niya is one of the reasons for the great

interest the site has attracted and was the focus of the presentation by **Stefan Baums** (University of Munich). Stein and later excavators found hundreds of documents, the great majority of which, written on wooden tablets, containing Prakrit-language texts written in Kharoṣṭhi script. If the earliest efforts of a century ago to decipher the Gandhari language relied on very few and fragmentary texts, there is now an abundance of material, including not only the administrative documents from Niya but a range of other inscriptional and manuscript sources. Important collections of Buddhist texts written on birchbark have surfaced in recent years and are the subject of the Early Buddhist Manuscript project at the University of Washington, in which Baums has been an active participant. After characterizing the range of textual material now available, he went on to describe the publication projects which are underway including careful editions of previously unknown material, revisions of the translations and transcriptions of the Niya documents, an annotated catalogue of the texts and compilation of a Gandhari dictionary. All of this material is being made available in an online database. The relevant websites include; <<http://gandhari.org>>; <<http://ebmp.org>>



Stefan Baums



Valerie Hansen

and <http://www.gandhara.indologie.lmu.de>.

Well known for her work on the history of the Turfan area and now her long-awaited revisionist history of the Silk Roads, **Valerie Hansen** of Yale provided an overview of what a combination of the written and archaeological evidence tells us about Niya's history. In particular she emphasized the distinction that needs to be made between transmitted (intentional) and excavated (non-intentional) sources, the former including narrative texts such as dynastic histories and pilgrimage accounts, and the latter documents such as the Niya woodslips. The transmitted sources may provide data at odds with that in the archaeological record (for example, regarding the size of settlements) and may be silent about some of the more interesting material revealed only

by archaeology. An example of the latter is a Judaeo-Persian letter found at Dandan-Uiliq. Language distinctions (say, between the Prakrit evidenced in the Niya documents, which was the administrative language of the ShanShan Kingdom, and Khotanese, an Iranian language) are revealed in the excavated sources but not in the traditional ones. In general, if we are to learn about daily life, the excavated sources are critical; it is for this reason that Hansen chose to focus in her Silk Road book on locations for which they exist and, if anything, to de-emphasize the importance of the transmitted sources.

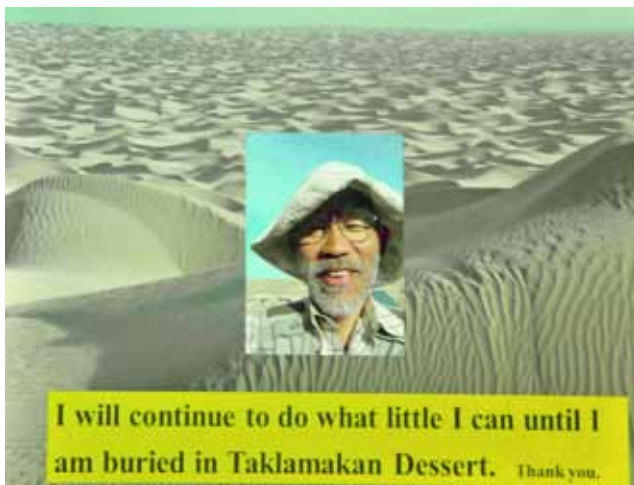
While artifacts and texts were the focus of several of the papers, **Puay-Peng Ho** (Chinese University, Hong Kong) looked at the evidence from architecture, his field of specialization. His paper drew on excavation material from various periods, including that from Niya, Dandan Uiliq and Rawak, and he introduced comparisons from Buddhist architectural traditions in India and cave architecture at some of the important sites in China. However, given the fact that so much excavation is still needed – for example, extending beyond the immediate area of the great stupa at Rawak – any kind of generalization about architectural models, influences and so on seems to be premature. His paper was more a projection of a research agenda than it was the presentation of results.

Puay-Peng Ho





Kojima Yasutaka



In recent decades, some of the most important new survey excavation in the Taklamakan has been carried out by joint Sino-Japanese teams: in 1988-1997 at Niya and in 2002-2006 at Dandan Uiliq. **Kojima Yasutaka**, Chair of the Academic Research Organization for Niya at Bukkyo University) reported on these projects, in which he was one of the prime movers (and funders). The work at both sites uncovered hundreds of new structures, extended substantially knowledge of the areas occupied by the sites (for example, at Niya, habitation 40 km. north of the areas excavated by Stein was identified), uncovered new sets of documents, Buddhist

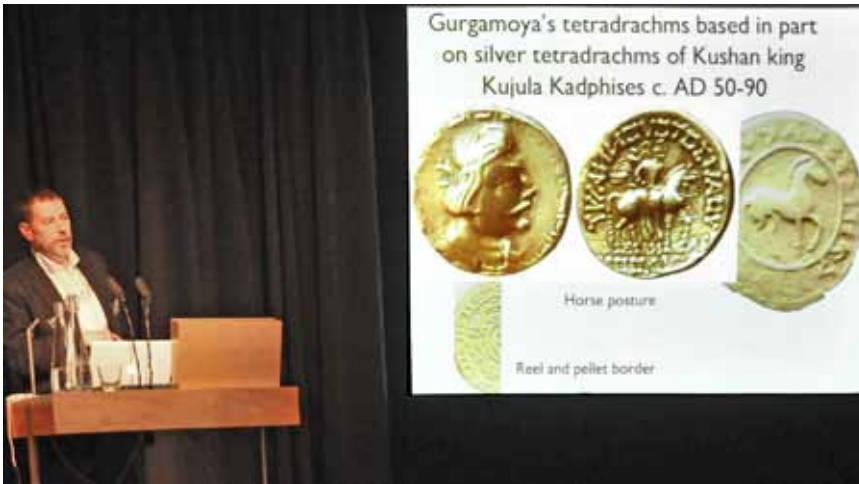
paintings and much more. Among the more striking discoveries were what have been identified as “royal burials” at Niya, the bodies covered in well-preserved silk textiles [for a nicely illustrated selection of this material with text in English, see *Legacy of the Desert King. Textiles and Treasures Excavated at Niya on the Silk Road*. Ed. Feng Zhao and Zhiyong Yu. Hangzhou: China National Silk Museum; Urumqi: Xinjiang Institute of Archaeology, 2000].

The projects are interdisciplinary and involve application of sophisticated conservation techniques. Apart from the scholarly work, Yasutaka has supported scholarship programs and the building of schools in Xinjiang, all evidence of his intense personal commitment to the region’s history and to its current population.

Whether or not they were actually used as money (commonly not, according to numismatic expert **Joe Cribb** of the British Museum),



Joe Cribb



coins are amongst the most important of our sources regarding the history of the Tarim Basin and often are misunderstood or ignored by non-specialists. Cribb has been studying the coins of the Silk Roads for decades and is currently revising earlier work to produce what we expect will be the definitive catalogue of Kushan coins and their close relatives. He summarized his work on Sino-Kharoṣṭhi coins, issued by the rulers of Khotan, showing details of the kinds of information contained in their inscriptions and iconography to illustrate the challenges of their study. Careful examination of all the known examples (some 470 of them, but unevenly distributed chronologically) is essential, since often inscriptions are only partially legible and need to be “filled in” from legible parts on other examples. Even though these coins of Khotan contain Chinese inscriptions, their basic form and models came not from China but from the Kushan/Yuezhi territories of the west and south. Not the least of their value is to enable us to flesh out the disputed chronology of Khotanese rulers, something which cannot be established simply on the basis of other extant written evidence. Yet there are challenges in this, since the names on the coins generally do not match the names

of the same rulers as attested in the Chinese sources.

The sparse written documentation for Khotan includes a recently discovered wooden administrative tablet, overlapping in content with one previously published. They record (with differing levels of detail) taxes in and distribution of grain in a village in the region of Khotan. **Wen Xin** of Harvard is working on these with his supervisor **Oktor Skjærvø** (who

could not attend the conference) and reported on the information the documents contain regarding Khotanese society and aspects of Khotanese administration. The small village involved in the transactions had a communal granary and a form of communal ownership of food resources; the document provides a picture of how the grain collected as a tax was then re-distributed to various social groups. This material reminds us of how important even a single wooden tablet can be for understanding the history of an really significant site such as Khotan, which has otherwise left us all too little in the written record.

Moving away from a focus specifically on Khotan, **Helen Wang** (Keeper of East Asian Money in the British Museum; author of a

Wen Xin





Helen Wang

monograph on money on the Silk Road and various other works relating to the legacy of Aurel Stein) provided an overview of some of the different types of coins found along the Silk Road and other types of money such as ingots. She presented a preview of the results of a collective project to explore the role of textiles as money, moving beyond the long-recognized fact that prices often were measured in bolts of silk. The use of textiles as money was only one

of various functions they may have had. One of the challenges is to determine the value of a particular textile, which sometimes can be done on the basis of inscriptions on it. Inscriptions might record the size of the textile and its value equivalent in coins. The results of this project are about to be published in a special number of the *Proceedings* of the British Academy. In a coda to her talk, Wang showed how careful Stein was in his accounting. He kept precise account books, including listing on a regular basis the expenditures on such things as fodder for his pack animals.

The concluding reports to the conference concerned various aspects of the work the IDP has helped facilitate in cataloguing and making available data from the Stein and other related collections. While the catalogue of the Stein textiles from Dunhuang now kept in the Victoria and Albert Museum was completed in conjunction with conservation efforts by the time of the IDP conference back in 2007, as V & A curator **Helen Persson** reported, work has been ongoing regarding the online interface for accessing the material (the main search page for the collections is <http://collections.vam.ac.uk/>). As she indicated, the museum has also created informative web pages on Stein and his work. The Stein pages and related links can be accessed at <http://www.vam.ac.uk/page/s/stein-collection/>. The pages on different sites he visited are illustrated with a good selection of his and more recent photos and pictures of some of the artifacts (textiles, some ceramics) now on deposit in the V & A.

Another recent IDP initiative was to re-visit some of the sites where Stein worked and re-photograph them, attempting to replicate the exact angles and positions of Stein's photos



Helen Persson

to facilitate comparison. **John Falconer**, the curator of photographic collections at the British Library, illustrated some of these striking comparisons, which also were available for the conferees to view in an adjoining room throughout the event. A report on this project is in IDP News, No. 39, which may be downloaded at <<http://idp.bl.uk/downloads/newsletters/IDPNews39.pdf>>. The recent expedition also brought back a lot of video, which is being added to the IDP collections.

Susan Whitfield, the IDP director, assisted by the project's web designer **Victoria Swift**, provided some summary remarks in conclusion, emphasizing the complexities of analyzing the history of the Silk Roads but also the richness (if unevenness) of the evidential data and the need for continuing collaborative projects. While she did not comment specifically on this, one can

appreciate the challenge that confronted the IDP staff in having to re-write a significant part of the program at the last minute once it became clear that the archaeologists from China would not be able to attend.

Additional concluding remarks were made by **Lucas Nickel** of SOAS, who likewise emphasized the unevenness of the available evidence – for some questions there is abundant material, some of it very precise; for others, a total void. The legacy of the pioneers in the exploration of the Silk Roads continues to be appreciated, but of course it is important to build on the insights of a conference such as this one, one possible step being to publish its proceedings.

--Daniel C. Waugh
University of Washington (Seattle)



Susan Whitfield and Vic Swift

