The Silk-Roads as a model for exploring Eurasian transmissions of medical knowledge: 
Views from the Tibetan medical manuscripts of Dunhuang

Ronit Yoeli-Tlalim 
Goldsmiths, University of London

At the beginning of the twentieth century, Wang Yuanlu, a Daoist monk in the western frontiers of China accidentally discovered a cave full of manuscripts near the Chinese town of Dunhuang, in Gansu province. The cave, which had been sealed for nearly a thousand years, contained several tonnes of manuscripts. This cave, now known as Cave 17, or the ‘library cave’ was sealed in the early 11th century for reasons which are still being debated by scholars. Following this discovery, a race between the great nations of the time began, to acquire as many manuscripts as possible. Today these manuscripts are dispersed between libraries in Paris, London, St Petersburg, Tokyo, Beijing and elsewhere and are currently being united on the internet as part of the International Dunhuang Project, based at the British Library.

The Dunhuang manuscripts are of enormous significance for Buddhist, Central Asian and Chinese history. Their significance for history of science and history of medicine has only recently begun to be explored in European scholarship by Vivienne Lo, Chris Cullen, Catherine Despeux, Chen Ming and others. Observed in their overall context - the Dunhuang manuscripts are a bit like a time capsule, providing traces of what medicine was like ‘on the ground’, away from the main cultural centres, at this particular geographical location. Being in manuscript form they preserve the benefits of unedited texts, revealing more diverse forms of healing, telling different stories than medical canons preserved in print.
Analysing the medical material from Dunhuang allows us to observe several continuities. The first is that between ‘elite’ and ‘popular’ culture as well as the fuzzy borders between what we might term ‘medicine’, ‘ritual’, ‘religion’, ‘divination’, and ‘magic’. The Dunhuang medical material also provides interesting data with which to analyse continuities between centre and periphery: though the Tibetan medical manuscripts from Dunhuang are singular manuscripts found on the outskirts of both the Tibetan and Chinese empires, we do find continuities with later printed texts.

Finally - the continuity which my on-going research focuses on - is the Eurasian one. Two main methodologies are at hand when analysing Eurasian continuities: one is looking at European and Asian material in a comparative way. Another is trying to uncover specific interactions. Although studying interactions is a complex and difficult matter, particularly due to the nascent state of research into so many of relevant areas of exploration, I believe this endeavour is a worthwhile one. This overview, presents some of the directions which my research is taking in exploring the Tibetan medicine from Dunhuang as a case-study of interactions of medical knowledge along the Silk Roads.

‘SILK ROAD/S’ – The term/the metaphor

The term ‘Silk Road’ both in the singular and plural was coined by the German geographer and traveller Ferdinand von Richthofen at the end of the nineteenth century. The term, in von Richthofen’s usage, referred to the routes along which Chinese silk moved from the Han Empire to Central Asia. Richthofen himself was not only interested in geography, but also in the greater historical and cultural importance of these trade routes. Since Richthofen’s days the term has evolved to refer to the many ways and exchanges which connect China and Europe, along which people,
stuff and ideas were moved and exchanged. The people were traders, missionaries, soldiers, brides, artists, diplomats as well as various combinations of these. The stuff they carried was much more varied than just silk and included things like horses, paper, musk, musical instruments and dumplings – among many more. Genes, germs and immunities were also carried on the way. The ideas included the many religions which travelled across Asia – Buddhism, Islam, Eastern Christianity, Manicheism, and also some Judaism; medicine and other fields of knowledge which we might term as scientific; stories; arts and technology- including papermaking and printing.

When thinking, researching and writing about the Silk Roads, scholars were initially focused primarily on its two extremes: China and Europe. This focus on terminus points is quite understandable considering the sources at hand. That is – the sources which were on hand from earliest time to the twentieth century. All this changed when at the beginning of the twentieth century the great finds along the Silk Roads were excavated. Particularly thanks to the great archaeological discoveries along the Silk Roads of the twentieth century, scholarship gradually shifted to the great expanse in between, slowly uncovering traces of cultural exchanges. These traces, which were buried for over a thousand years, are now slowly being studied. Archaeology of the Silk Road has also been relatively slow due to a combination of political and environmental reasons. But as archaeological research on the Silk Roads progressed, it has become clear that the exchanges mediated by the Silk Roads are much older and more extensive than has been thought in the past.

While I take Khodadad Rezakhani’s point on the overuse, misuse and abuse of the term, I would argue that by dismissing the entire historiography of the Silk Road and the term itself, we end up throwing the baby out with the bath water. Indeed, within the huge bulk of literature dealing with the Silk Road, one can find problems of
various sorts, as Rezakhani ably demonstrates, but there have been of late some game
changers in this respect, most notably Valerie Hansen’s *Silk Road: A New History*
(2012) which came out after Rezakhani’s article and addresses most, if not all, of the
problems which Rezakhani has raised with regards to the problems of dealing with the
“Silk Road”. The particular case discussed here, that of Tibetan medicine, serves
precisely to amend the over-emphasis on China and Europe which Rezakhani is
criticising.

Valerie Hansen in her illuminating account of the history of the Silk Road has
demonstrated how trade on the Silk Roads was not on a grand scale either
geographically or economically. Unlike popular perceptions of vast amounts of silk
and other precious items going from China to Rome, sufficient to bring down the
Roman Empire, the nature of trade as it emerges from the documents unearthed in the
oases around the Taklamakan Desert is much smaller and more local. The interactions
of trade, as of knowledge, happened at the in-between: between Gandhara and Kucha;
between Kucha and Turfan; between Turfan and Dunhuang; between Dunhuang and
Chang’an. And of course: among the vast variety of peoples who dwelled and moved
among these sites.

We now know that mediating cultures whose languages were once *lingue
franche* of multicultural empires or spoken by long distance travellers are as important
for our understanding of history as the more well-known cultures of the termini
points. *Lingue franche* in this context refers to languages that are “contact languages”
which “facilitate communication among people who do not share the same mother
tongue”. Another significant point regarding *lingue franche* is that they are
transitory and unstable, intertwined with transitory and unstable power and prestige.
*Lingue franche* are useful as *foci* since they are, as Jocelyne Dakhlia has pointed out, languages for *communication* rather than languages of *identification*.¹²

And so, when we attempt to study the history of Eurasia, sources in less known languages such as Tibetan, Sogdian, Uighur, Tocharian (A & B), Bactrian, Khotanese, and Syriac – as well as certainly- those in Persian and Arabic- can help us fill the huge gaps in the puzzle that is Eurasian history. In some of these cases - entire languages and cultures were buried in the Taklamakan Desert for over a thousand years, with no followers or scholars to speak their word. Our knowledge of them now relies on a small and precarious group of scholars who are scattered around the world.

**TOWARDS A EURASIAN APPROACH IN THE HISTORY OF SCIENCE AND HISTORY OF MEDICINE**

In 2006, in the International Conference of Tibetan Studies, I presented a paper discussing close similarities between Ibn Sīnā’s *Canon of Medicine* and an early text of Tibetan medicine, the *Lunar King* (*Zla ba’i rgyal po*). Many people (including myself...) were astonished to discover that there were such close similarities.¹³ Today, after much collaborative work,¹⁴ I am more astonished that we were astonished. In Central Asia during the second half of the first millennium cross-cultural transmissions and melanges were happening everywhere and were more of the norm than the exception. So, alongside our delving into the multiple ways of cross-cultural transmissions, we ought to also reflect on why we were astonished. I shall return to this question later.

The notion of ‘globalised medicine’ is usually associated with modernity. The study of ancient medicine teaches us, however, that medicine needs to be treated in a much more ‘globalised,’ or, perhaps, inter-connected way than was previously
assumed. Treating ancient medicine globally, however, is still a rarity in medical history. Just as the treatment of 5000 years of world systems presented in recent collaborative global history projects such as *The World System: Five Hundred Years or Five Thousand Years?* has been, as its authors call it, an ‘enlargement of scale’\(^\text{15}\) of the now more common treatments of 500 years of world systems, it is also high time for an equivalent ‘enlargement of scale’ in the history of medicine. At the core of these endeavours is the idea that methods and perspectives of ‘global history’, which have been very fruitful in historical research dealing with the last 500 years, can also be just as fruitful when dealing with the medieval and ancient world.

As in the context of the 5000 years of world systems, the term ‘global’ or ‘world’ needs to be aptly qualified: we are obviously not speaking of the ‘globe’ or even the ‘world’ as we know it today, but of the ‘known world’, perhaps even: the ‘significant known world’ as it is relevant within the specific contexts in question. One of the important contributions of this perspective, as discussed in the work of Gunder Frank, Gills and others, has been showing the limitations of the focus on ‘civilizations’, and bringing to the fore a more united ‘Eurasian’ history and an inquiry into historical *connections* between peoples, places and ideas. Rethinking dichotomies of ‘eastern’ and ‘western’ is key for the way we approach the history of ancient medicine. We have been gaining more and more evidence which allows us to question the constructed dichotomy between ‘eastern medicine’ and ‘western medicine’, or: ‘Asian Medicine’ and ‘European Medicine’. It is high time for cross-cultural approaches to ancient medicine, in line with current approaches in global history, in the history of science and the history of ideas.

Intensified communications between certain cultures tend to come and go. Some of the material ‘fossilised’ in the manuscripts found on the Silk Road provide a
fresh view into some of the interactions, exchanges and influences which were in one way or another later written out of printed sources. The emerging new focus on ‘exchanges’ rather than ‘cultures’ necessarily brings to the fore knowledge stemming beyond cultural elites, with a greater focus on locations where knowledge is more easily subject to change. For this purpose it is particularly useful to study manuscripts such as those of Dunhuang.

How can we begin to untangle any history of transmissions of medical knowledge along the silk roads? I would like to suggest several starting points: first, we can follow specific texts; second, we can locate key people, and third, we can analyse the specific collections in which medical manuscripts were found. Taken all together, we can begin to delineate a picture of the transmission of medical knowledge, a picture that although is no doubt partial and lacking, is important. What I provide here are a few indications in this direction.

First, tracing the movements of key texts as they move and get translated into different languages and cultures. One illuminating case in this respect is that of the Siddhasāra, a comprehensive medical manual that includes the main theories and practices of Ayurveda, written, or more likely, edited by Ravigupta of the mid-7th century. It originated from India, possibly Kashmir, and had widespread influence in various parts of Asia, both in Central Asia and west Asia. Primarily thanks to the work of Emmerick, we can trace this text’s movement across languages, as it travelled both northeast, and west. In the 9th century it was translated from Sanskrit into Tibetan on the one hand and into Arabic on the other. Around the 10th century it was translated from Tibetan into Khotanese and into Uighur sometime before the 13th century.
A Khotanese translation of the *Siddhasāra* was found in Dunhuang. Khotanese manuscripts were found by Stein in Dunhuang and in the Khotan area. The language, an Iranian language contemporary with Middle-Persian and Sogdian, written in Indian Brāhmī script, with an extensive vocabulary borrowed from Sanskrit, was unknown at the time. Following Stein’s discoveries, Khotanese was deciphered primarily by Hoernle.  

Khotan was ruled by Tibet from late 8th century till the mid-9th century, but it appears that the Tibetan language remained in use in Khotan even after the direct Tibetan rule of Khotan ended. During the tenth century the contacts between the Chinese, Khotanese, and Uighurs intensified as a result of marriage alliances. As a result, more members from these ethnic groups settled in Dunhuang, as is attested by the high number of Khotanese texts from this period found in the Dunhuang library cave.

The introduction to the Khotanese translation of the *Siddhasāra*, not found in any other version, gives us an inkling of the process of translations from language-to-language at the time. The Khotanese introduction states that the text was translated from Tibetan, but as the translator found the Tibetan version problematic, he also consulted the Sanskrit original. The introduction also tells us why it was translated, suggesting that before this medical knowledge arrived, there were many people dying due to lack of medical knowledge.

The material history of this manuscript provides further dimensions of this text’s transmission. The recto of the Khotanese *Siddhasāra* from Dunhuang is a Chinese text (Pelliot chinois 2893). This manuscript was brought to Dunhuang from Khotan by Daoyuan, a Chinese Buddhist monk who travelled to India and on his way back stayed in Khotan for ten years before returning to China in the year 965. Interestingly, we also have evidence of the owner of the manuscript: his name is
written in Sogdian script on folio 156 of the manuscript. He has been identified as Zhang Jinshan, an ambassador from the Kingdom of Khotan to Dunhuang.\textsuperscript{26} Analysis of Khotanese manuscripts from Dunhuang has shown that the King of Khotan maintained a kind of ‘embassy’ in Dunhuang, where Khotanese princes lived, sometimes with their Chinese wives. It appears their library of Khotanese manuscripts was given to the monks who collected the manuscripts found in Cave 17.\textsuperscript{27} So here is a Sanskrit medical text translated into Tibetan, then to Khotanese, carried from Khotan to Dunhuang by a Chinese monk on his way back from India and, finally, in the possession of a Khotanese ambassador in Dunhuang who signed his name in Sogdian.

The \textit{Siddhasāra} was also held in high esteem by Persian and Arabic scholars. Al-Rāzī (b. 864 or 865, d.ca. 925, from Rayy near modern day Tehran) incorporated many passages of the \textit{Siddhasāra} into his \textit{Kitāb al-Ḥāwī fī ṭibb} (\textit{Comprehensive Book on Medicine}).\textsuperscript{28} The \textit{Kitāb al-Ḥāwī fī ṭibb} was translated into Latin in the 13\textsuperscript{th} century and one can also find many remnants of the \textit{Siddhasāra} in its many Latin versions.\textsuperscript{29}

That al-Rāzī should incorporate Indian medical knowledge into his writings should not really surprise us. Alī b. Sahl Raban al-Ṭabarī (fl. Ca. 820-860),\textsuperscript{30} a Christian physician who later converted to Islam and is considered to be al-Rāzī’s teacher, whether directly, as tradition has it, or indirectly, via his writings, was a native of Marw (Merv) in Central Asia.\textsuperscript{31} Merv was one of the world’s most cosmopolitan centres of learning at the time and its libraries so famous that we are told that the Middle-Eastern scholar Yāqūt al-Hamawi travelled halfway through Eurasia to access them and spend three years working in its libraries.\textsuperscript{32}

Alī b. Sahl Raban al-Ṭabarī wrote an encyclopaedic work on medicine, the \textit{Firdaus al-ḥikma} (\textit{The Paradise of Wisdom}). The \textit{Firdaus} includes a long section
dealing with Indian medicine. On the whole, this work is considered a compilation of Greek and Indian medicine showing an influx of Persian drugs. His discourse on Indian medicine reflects knowledge of the main Ayurvedic classics, the Caraka, Sūrūta, and the Aṣṭaṅgahṛdaya samhitā of Vāghbhaṭa. According to Siddiqi, these were translated from Sanskrit either directly to Arabic or via Persian during the early ‘Abbāsid period.

In addition to the traces left by specific texts such as the Siddhasāra, we can also trace conditions and figures which facilitated such translations and transmissions. Such, for example, is the case of the Barmaks, as analysed by Kevin van Bladel. Barmak, the father of the Barmakid family, was an educated Buddhist official from the city of Balkh in Tokharistan, in the valley around the upper Oxus. Thanks to Bactrian documents deciphered in the last two decades, we know this was an area where Buddhism and its related Sanskrit sciences flourished at the time the Arabs arrived there in the late seventh and early eighth centuries. The Barmak family then became highly influential in the ‘Abbāsid court in Baghdad and the Barmak’s grandson, Yaḥyā, became the tutor and then the powerful minister of the caliph, Hārūn al-Rashîd (reg. 786-809). Van Bladel has demonstrated how, as a result of Yaḥyā’s Buddhist roots and his family ties with Tokharistan and Kashmir, Yaḥyā facilitated a substantial translation enterprise from Sanskrit to Arabic in the Caliph’s court. A major outcome of this enterprise was the monumental translation of the Indian medical classics into Arabic: the Sūrūta, the Aṣṭaṅgahṛdaya samhitā of Vāghbhaṭa and the Siddhasāra of Rāvīgupta, mentioned above. These same texts were also translated into Tibetan a short while later and thereafter became core texts in the Tibetan medical tradition too. Recent analysis has shown that Muslim
physicians’ and natural philosophers’ interest in Asian works of natural knowledge at this time was not a passing episode, but resulted in long term influence.\textsuperscript{36}

In addition to tracing transmissions of key texts and key figures, we can also gain insight by analysing the numbers and specific locations of medical manuscripts in entire collections, for example, in and around Dunhunag. Analysing which texts are found where and in which languages can help us reconstruct processes of transmission: based on an analysis of the locations and numbers of Sanskrit medical manuscripts excavated in Kashmir, Haḍḍa, Kucha, Kyzil, Tuyuk and Dunhuang, Chen Ming has reached the conclusion that the route which Indian medicine followed was predominantly from Kashmir via the Turfan area to Dunhuang.\textsuperscript{37}

**MULTILINGUALISM AND THE MULTICULTURAL ASPECTS OF DUNHUANG**

The oasis of Dunhuang, where the northern and southern branches of the overland routes around the Taklamakan Desert met, was an important nexus of international trade routes in the ancient world. For most of its history, Dunhuang was a Chinese town. During the 8\textsuperscript{th} century it became part of the Tibetan Empire and remained under Tibetan rule for about 70 years (781-848). The changing ethnicity of the rulers of Dunhuang had linguistic and cultural implications.

Whilst the study of multiculturalism on the Silk Roads has not received the attention it deserves yet, the last few years have seen an immense growth. My discussion within the sphere of the history of medicine follows explorations of multiculturalism as they are studied in other Dunhuang and Silk Road areas of study, such as history of art, history of religions, literature, numismatics, economic history, history of ideas and genetics.\textsuperscript{38}
Although nowadays it is difficult for us to imagine, in the second half of the first millennium, the cities of the Taklamakan oases were cosmopolitan seats of sophisticated cultures. Understanding the cosmopolitan nature of medieval central Asia, where east, south, central and western Asia interacted in multiple ways, is important not only for understanding the history of Asian medicine, but for the history of medicine and science at large due primarily to the input of west Asian medicine – exemplified in the works of Ibn-Sīnā (Avicenna) and al-Rāzī (Rhazes) – into Europe.

The fascinating letter exchange between al-Bīrūnī (973-1048, born near the Aral Sea) and the slightly younger Ibn-Sīnā (980-1037, from Bukhara) reflects the existence of a large, competent and interconnected community of scientists and thinkers. Bukhara at this time was an important centre of learning and culture. Central Asia at this time was home not only to an assemblage of scientists and thinkers, but also religious scholars, poets, artists and musicians. This was a truly ‘Age of Enlightenment’ which lasted several centuries, when Central Asia was the intellectual hub of the world.

The search for Eurasian cultural interactions was one of the initial main driving forces for Aurel Stein’s expeditions. In the application for financial support from the British Government in India he made in 1897, Stein promised to supply tangible evidence of cultural exchange in ancient times. The ‘library cave’ which he discovered as a result, and its ‘polyglot’ nature, as Stein put it, indeed supplied some of the evidence he was seeking. Stein himself realised the importance of the ‘polyglot’ nature of the Dunhuang collection. Although Chinese is the most important language of the Dunhuang collection, there are also many documents in multiple languages (including some which were unknown at the time of their discovery): Tibetan, Sogdian, Khotanese, Sanskrit, Uighur and Judaeo-Persian. Other languages from
nearby sites include Syriac, Turkish, Arabic and others. These languages – and the cultures that they represent – reflect both peoples who resided in Dunhuang and peoples who passed through Dunhuang, such as traders, diplomats and missionaries. But, does multiplicity also mean interaction? With the advance of research in the various languages of the manuscripts of Dunhuang, we are able to ascertain that the different cultures represented in the manuscripts found in the caves of Dunhuang and of other Silk Roads sites are not only present in the same locations, but have also interacted in multiple ways. The Dunhuang collection, more than being simply a ‘polyglot’ library, mirrors some of this multiculturalism. It includes translations, transliterations, bilingual texts, glossaries, as well as ‘Berlitz style’ phrasebooks for travellers – all pointing to active cross-cultural exchanges. Further evidence for cross-cultural interactions can be derived from evidence of diplomatic embassies, documentation of travelling monks and of itinerant merchants.

TIBETAN AS A MEDIATING LANGUAGE AND CULTURE
Tibet was an important point on the trade route between India and China, not only for Buddhist missionaries, but also for Arab and Jewish traders. The main attraction of Tibet was its commercial goods – many of them lucrative to the point of being legendary, such as gold and musk. The case of Tibet as a cultural mediator stems from its key position and size during the time of the Tibetan Empire (7th-9th centuries), bordering with Tang China in the east and the ‘Abbāsid Caliphate in the west, as well as from the role of Tibetan as a lingua franca in and around Dunhuang. As a result of the Tibetan domination, the use of Tibetan prevailed among Tibetans and non-Tibetans and many of them became bi- or multilingual. Tibetan apparently remained the most widely used second language amongst various local ethnic groups.
MULTICULTURAL ASPECTS OF TIBETAN MEDICINE IN DUNHUANG

Tibetan medicine developed as a synthesis of Indian, Chinese and Graeco-Arab medical systems. The multicultural character of Tibetan medicine is emphasised in Tibetan medical histories starting from the earliest extant exemplars of this genre, the Tibetan medical history by Che rje zhang ston zhig po, dated to the early thirteenth century. Che rje sets medical knowledge within what it terms ‘The Seven Schools’ (lugs bdun), referring to both divine and human realms. Within the human realm, the list refers to medical systems from: India, Kashmir, Urgyan (in present day Pakistan), Nepal (bal po), Arabo-Persian (stag gzig), Dol po, Uighur (hor), Tangut/ Xixia (me nyag), Khotanese (li), Byzantine (phrom), Chinese, and Tibetan. Variations of this list become practically standard in subsequent Tibetan medical histories. Medical histories portray the earliest stage of Tibetan medicine at its most multicultural. Is any of this reflected in our earliest extant Tibetan medical source: the Tibetan medical manuscripts from Dunhuang?

Mentions of Foreign Places in Tibetan Medical Manuscripts

There are two types of foreign locations mentioned in the Tibetan medical manuscripts from Dunhuang: locations associated with specific medical knowledge and places associated with specific materia medica or other imported goods. The foreign locations associated with imported goods mentioned in the Tibetan medical manuscripts from Dunhuang are Persia (ta zig), Khotan (li), and possibly Kashmir (kha che). The manuscript P. tib. 127 includes a mention of Persia (ta zig), as a source
of paper, saying: ‘If there is a bleeding from the nose, use paper from Persia.’ ITJ 756 includes a mention of ‘sugar from Khotan (li).’ The same manuscript also includes a mention of a particular kind of silk, *kha che dar*, possibly referring to Kashmiri silk, or perhaps Persian brocade, which is to be used in the medical case of having a foreign body stuck in one’s throat. The Tibetan medical manuscripts from Dunhuang also contain many foreign names of *materia medica*, derived from Chinese as well as Persian.

In the category of foreign locations as sources of knowledge we find India (*rgya gar*), the Turks (*dru gu*), and Zhang zhung. The colophon of P. tib. 1044 points to India as a source for medical knowledge, saying: ‘This type of method comes from the land of the king of India.’ Interestingly, however, the moxibustion methods which are described in P. tib. 1044 are not known to have been used in classical Indian medicine.

Another foreign mention is that of the Turks (*dru gu*). In the Tibetan Dunhuang manuscripts, the term *drug gu / dru gu* refers either to ‘Turks’ in general or more specifically, particularly from the 9th century onwards, to Uighurs. The mention of the *dru gu* in the medical manuscripts refers to cauterization and possibly to bloodletting too, saying: ‘The Turic (*dru gu*) method [using] iron for cautery (*sur phug*) is also suitable.’

The third mention of a foreign land as a source of knowledge is the reference to Zhang zhung. This appears in the colophon of P. tib. 127:

This text (*yig*) on medical practice (*dpyad*) is not even [to be found] at the archives (*phyag sbal*). It is a compilation of all traditions of medical practice (*dpyad yig thams cad*), in addition to being compiled according to the indigenous (*phugs pa*) medical practice (*dpyad phugs*) of Zhang Zhung.
Among all the mentions of foreign place in the Tibetan medical manuscripts from Dunhuang, there are no references to China. How can we explain this lack? One plausible explanation is the omission of the obvious. The medical culture of Dunhuang which transpires in these Tibetan texts can be best described as being of Sino-Tibetan nature. A comparison between the Tibetan and Chinese moxibustion texts from Dunhuang reveals striking similarities in form, content and context. Both the Tibetan and the Chinese texts are structured in very similar ways: a list of symptoms, the location on which to apply moxa-cauteries, and the number of moxas to be burnt. The descriptions of ailments which are to be treated by moxa-cautery are also very similar. Both the Chinese and Tibetan material deal primarily with wind (T: rlung, C: feng) related ailments; genito-urinary and reproductive disorders as well as digestive and abdominal illnesses. Some of the descriptions bear almost literal similarity. Such, for example, is the description found in the Chinese ms. S6168 dealing with ‘wind in the face as if there are insects on the face,’ which bears almost literal similarity to what we find in PT1044: ‘[If] due to wind (rlung) illness swellings are forming on the face, and there is itching like a walking insect….’ It is interesting to note here the Tibetan measurement word tshon, a loanword from the Chinese cun, which is mentioned quite frequently in the Tibetan moxa-cautery texts from Dunhuang.

Another key point of similarity between the Chinese and Tibetan moxa-cautery texts is their links with time reckoning and divination. The Tibetan moxibustion text on PT127, discussed above, includes not only a medical text on moxibustion (recto, lines 78–184), but also several divination and calendric texts.
These different texts appear to have been written by the same hand. We also find such juxtapositions of medical and divinatory texts among the Chinese texts.

The link with Chinese notions is reflected in Tibetan divination texts from Dunhuang which refer to Confucius, rendered as Kongtse, as their author.⁶² Among the Tibetan manuscripts from Dunhuang we also find Tibetan translations of Confucian maxims.⁶³ Indeed we know that Confucian doctrines were taught in the prefectural Dunhuang school, and that special rites for his worship were conducted twice a year at the time of the equinoxes, in which the physicians of Dunhuang participated.⁶⁴

One of the texts of PT 127 is what is believed to be the earliest Tibetan delineation of the sexagenary cycle. This type of calendric cycle is used in PT 127 (verso, lines 1–9) for divinatory/astrological purposes.⁶⁵ The text preceding the medical one on the recto is also a divination text (recto, lines 1–77). This divination text begins with the words:

Formerly, the gifted man of magical faculties (ʼphrul gyi myis) established this text of divination (astrology, sciences / gtsug lag) as a model (dpe) for future generations.

It deals with the positive and negative [aspects] of the level of prosperity (dbang btang che chung), years of life (lo srog) and power (mthun).⁶⁶

These categories, which are derived from Chinese divination, are very similar to the ones we know from later sources in Tibetan divination, such as vitality (srog), body (lus), destiny (dbang thang), and luck (rlung rta).⁶⁷ The mention of the ‘gifted man of magical faculties’ (ʼphrul gyi myis) probably refers to Kongtse.⁶⁸ This section of PT
127 is very similar to IOL Tib J 748, another Tibetan divination text from Dunhuang, ending with what appears to be either a very early Tibetan reference to the Yijing or to divination in general. The two texts are probably two copies of the same original.

This evidence from the Dunhuang manuscripts of an early point in time when Chinese divinatory ideas were brought into Tibetan culture is further corroborated by two other types of evidence. The first are Tibetan narratives ascribing the transmission to the Chinese princesses Wencheng and Jincheng, who married Tibetan kings. The second comes from linguistic data analyzed by Berthold Laufer. Based on the form of the names of the trigrams as they appear in Tibetan in comparison with the Chinese, Laufer has shown that the Tibetan transcriptions have partially preserved the ancient initial consonants and the ancient finals of the Chinese, hence concluding that the transmission occurred during the Tang period.

A key issue regarding the Tibetan texts, which is shared with the Chinese moxibustion charts is their relation to the notion of ‘channels’. Vivienne Lo has shown that the Chinese moxa-cautery charts from Dunhuang bear no explicit relationship to the concept of circulating qi through an integrated network of channels. This characteristic of the Dunhuang Chinese material is shared with the Tibetan moxa-cautery texts. In this sense the Dunhuang Sino-Tibetan texts appear to be more similar to what we find in Tibetan received texts (e.g., the Gyushi) than what we find in Chinese received texts.

With the increasing penetration of the Tibetan script and language in the Han-Chinese society of Dunhuang during the period of Tibetan rule, a practice gradually developed among some local Chinese inhabitants of using the Tibetan script rather than Chinese characters to write Chinese. The influence of the Tibetan rule
culminated in the creation of bilingual Tibeto-Chinese communities. Among the Han-Chinese of Dunhuang, there seem to have been some who were fluent not only in their native Chinese, but also in speaking, reading and writing Tibetan. There is also evidence that these ‘Tibetanized’ Chinese formed associations or communities and the practice of writing Chinese using Tibetan script, was carried out not only during the Tibetan rule but was being maintained in the tenth century under the Return-to-Allegiance Army.\(^7\) This has resulted in the survival of various kinds of Chinese texts transcribed in Tibetan. Broadly speaking, these consist of Buddhist scriptures, Buddhist eulogies, songs and poems, primers and a multiplication table.

Within the vast enterprise of sutra copying which took place in Dunhuang during the Tibetan rule, the majority of those responsible for copying the Tibetan texts were in fact Chinese. This would have required sufficient knowledge of Tibetan, or at least of the Tibetan script. The copyists were not simply copying Tibetan graphs mechanically, but had considerable knowledge of the Tibetan language as well. These Sino-Tibetan aspects bring us to reflect on the nature of these Tibetan medical texts. Rolf Stein, who studied the Tibetan texts of Confucian maxims from Dunhuang, has pointed out that they are not straightforward ‘translations’ but rather ‘variations’. It is impossible, Stein noted, to know whether the texts we have at hand were composed by Tibetans or whether they translated or paraphrased a Chinese text. We are faced with a similar problem regarding the Tibetan moxibustion texts from Dunhuang. But perhaps rather than trying to label them as ‘Tibetan medicine’ or ‘Chinese medicine in Tibetan’ we should regard them as ‘Sino-Tibetan medicine’ or ‘Dunhuang medicine’.
I would like to return to the question of why we were astonished to discover connections between Tibetan and Arabic/Persian medicine with which I began this chapter. Victor Mair, in his brilliant introduction to *Contact and Exchange in the Ancient World*, provides an illuminating discussion of what he terms the ‘academic pathology’ of ‘extreme indigenousness’: the profound academic bias to disregard the plethora of data indicating contact and exchange among early people. He regards this bias as a result of two factors, one political and the other disciplinary. The political, he points out, is particularly true of the second half of the 20th century, the outgrowth of a surge in nationalistic consciousness, when ‘it became impolitic to assert that any significant element of culture needed to be borrowed’.  

Although he locates this political factor within the 20th century nation state, we can also see it at work in accounts of the history of knowledge. Although many, perhaps the majority, or, even all cultures in different periods regularly adopted and adapted knowledge, these foreign influences were not acknowledged in most cases. In an attempt to provide a methodology for a more multicultural history of science, Arun Bala has argued that when well-developed cultures undergo intellectual change through knowledge transmission from outside, they often deny the significance of the external culture by ascribing the changes to their own traditions. What Bala’s analysis shows is that what matters more than the adoption of knowledge itself, is whether a culture – at a particular time and place – also cares to acknowledge it. Similarly, when we look at the early history of medicine and analyse the correspondence, if any, of being multicultural and of declaring yourself as such, we find that in some cultural contexts, foreign knowledge is absorbed into the main culture without any reference to its origins whilst in other cases we find elaborate descriptions of the sources of foreign medical knowledge.
The case of Tibetan medicine is clearly one that declares itself to be multicultural. As I noted above, the multicultural character of Tibetan medicine is emphasised in Tibetan medical histories starting from the earliest extant exemplars of this genre, the Tibetan medical history by Che rje zhang ston zhig po, and its numerous variations thereafter. The colophon of PT 127 quoted earlier, speaking about ‘a compilation of all traditions of medical practice (dpyad yig thams cad)’ in addition to being according the medical practice of Zhang Zhung – can be viewed as an early precursor of these accounts from Tibetan medical histories emphasizing the multicultural nature of early Tibetan medicine. Acquiring medical knowledge from different cultures appears to be celebrated in the PT127 colophon, and is regarded as superior to what might be found ‘at the archives’. This is quite different from what we can gather from the Chinese material. Illuminating in this respect is the preface to the Chinese Pelliot 2675. As analysed by Lo, Pelliot 2675 is a moxa-cautery canon which is an abridgment of moxa-cautery techniques of a number of teaching lineages.\(^77\) It was produced in the capital with the purpose of providing a practical text for those who live in the ‘outlying regions’ and cannot obtain sophisticated drugs. The text hence situates itself as disseminating a simplified, practice-oriented knowledge from the capital to the provinces. Here, the knowledge of the ‘outlying regions’ is viewed as inferior to that of the centre.

In the Tibetan PT127, on the other hand, the location of Dunhuang, and the availability of a variety of medical traditions there, appears to be regarded as advantageous for the author of this manuscript. In similar later accounts this attitude vis-à-vis foreign medical knowledge continues. The references to foreign knowledge in PT1044 and PT127 are indicative precursors of two distinct characteristics which
are key to Tibetan medical history: the *influence* of foreign knowledge and the *acknowledgement* of it.

The Tibetan accounts on the sources of its medical knowledge often contain mythical elements and so while we cannot read them as straightforward historical narratives, we can – and should – take some cues from such texts.\(^7\)\(^8\) These accounts often serve as pointers to strata otherwise forgotten or else rewritten by later historical accounts. Literary narratives of universal histories of knowledge such as we find in the Tibetan medical accounts, exemplify different ways of managing relationships between foreign and local knowledge; and of negotiating cultural differences. The organization of knowledge from and about different peoples has been a powerful tool for articulating claims of empire, uniting multiplicities of locales in harmonious singularity, and for making claims to comprehensiveness.\(^7\)\(^9\) Such accounts may be seen as a sub-category of “origin narratives” as discussed by Sonja Brentjes: they speak of the origin/s of a field of knowledge, the motivation for “inventing” or “establishing” that kind of knowledge, and the field’s subsequent development.\(^8\)\(^0\)

The Tibetan medical manuscripts from Dunhuang reveal the value of looking at sources in the ‘bridging’ languages of the Silk Roads, such as Tibetan, Sogdian, Uighur, Tocharian (A & B), Bactrian, Khotanese, Syriac and Persian. Through focusing on mediating cultures and languages, multicultural locations and collections as well as specific key texts and figures – such as the ones I have discussed above- we can begin to address the great puzzle of Eurasian history of science.
This paper is based on material from my forthcoming book, *ReOrienting Histories of Medicine: Encounters along the Silk Roads* (Bloomsbury). Research for this paper has been conducted as part of my Wellcome Trust project “Re-Orienting Early Medicine: Bridges of Knowledge between East and West” (grant no. 088251).

For an overview on these views see the posts on ‘Secrets of the Cave’ on Sam van Schaik’s early Tibet blog: [www.earlytibet.com](http://www.earlytibet.com).

For more details on the Dunhuang collections as well as digital images of some of the manuscripts see the website of the International Dunhuang Project, based at the British Library: idp.bl.uk

The only Tibetan medical texts from Dunhuang which have been studied till now in any western language are those dealing with horse veterinary, which have been studied by Anne-Marie Blondeau: A.-M.Blondeau, *Matériaux pour l’Étude de l’Hippologie et de l’Hippiatrie Tibétaines: à partir des manuscripts de Touen-houang*, (Genève: Librairie Droz, 1972).


8 “The spaces in between” was a phrase used by the British explorer and politician Rory Stewart. See Millward, *The Silk Road: A Very Short Introduction*, OUP.


11 On the concept and history of *lingua franca* in the singular and the plural see *Lingua Franca: Chimera or Reality?* (Studies on Translation and Multilingualism), European Commission, Directorate-General for Translation, 2011.


14 This collaborative work has been published in a special Silk-Roads issue of *Asian Medicine: Tradition and Modernity* 3:2 (2007), co-edited with Vivienne Lo; and two co-edited volumes with Anna Akasoy and Charles Burnett: *Islam and Tibet, Interactions along the Musk Routes* Farnham: Ashgate, 2011; and *Rashīd al-Dīn as an Agent and Mediator of Cultural Exchanges in Ilkhanid Iran*, London: Warburg Institute, 2013.


16 There is no conclusive dating of when Ravigupta lived. Emmerick has placed him ca. 650 CE. See: Emmerick, ‘Ravigupta’s place in Indian medical tradition’, *Indologica Taurinensia*, III-IV, 1977, 209-221. Wujastyk has placed him still


18 The Siddhasāra is one of two major Sanskrit medical compendia which were translated into Tibetan and incorporated into the Tanjur (the other one being Vāgbhaṭa’s Aṣṭāṅgahṛdayasamhitā). On the Arabic version of the Siddhasāra, see R.E. Emmerick, “Ravigupta’s Siddhasāra in Arabic”, Studien zur Geschichte und Kultur des vorderen Oriens, Festschrift für Bertold Spuler zum siebzigsten Geburtstag, ed. H.R. Roemer and A. Noth, Leiden, 1981, pp. 28-31. Emmerick mentions that al-Rāzī frequently quotes the Siddhasāra in its Arabic translation.


20 The Khotanese manuscripts and fragments date from the 5th to the 10th centuries. Most of the Khotanese texts are Buddhist. The Khotanese Buddhist texts include both translations from known texts (mostly from Sanskrit) as well as some local compositions. Magi, “Khotanese Literature”, in: Ronald E. Emmerick and Maria Macuch (eds), Persian Literature. Companion Vol. 1: The Literature of Pre-Islamic Iran, London 2009, pp. 330-417. On Hoernle as the primary decipherer of Khotanese
see, Ursula Sims-Williams, “Hoernle, Augustus Frederic Rudolf”, *Encyclopædia Iranica* (online).


See van Schaik and Galambos, p. 119 note 25.


30 Sometimes in short referred to as: Sahl Raban al-Ṭabarī, to be distinguished from Muhammad b. Jarīr al-Ṭabarī, the Arabo-Persian historiographer, who is said to have read the other Tabari’s medical compendium when he was sick.


33 Max Meyerhof, “‘Ali ibn Rabban at-Tabari’s “Paradise of Wisdom”, one of the oldest Arabic Compendiums of Medicine”, Isis 16, 1931, pp. 6-54 (reprinted in Islamic Medicine, vol. 30 1996, a collection of articles on al-Tabari, edited by Fuat Segzin).


38 The Third SEECHAC (Société Européenne pour l’Étude des Civilisations de l’Himalaya et de l’Asie Centrale) International Conference held in the Vienna
Academy of Sciences in 2013 was dedicated to “Interactions in the Himalayas and Central Asia”, dealing with processes of transfer, translation and transformation in art, archaeology, religion, polity and medicine.

Within Silk Road visual cultures it is worth mentioning here the Iranian and Sogdian influences on early Tibetan art, demonstrated by Amy Heller and Melikian-Chirvani.


40 C.E. Bosworth, “Bukhara ii. From the Arab Invasions to the Mongols”, Encyclopaedia Iranica (online).


47 See T. Takeuchi, “Sociolinguistic Implications of the Use of Tibetan in East Turkestan from the End of Tibetan Domination through the Tangut Period (9th-12th c.)”, in Turfan Revisited: The First Century of Research into the Arts and Cultures of the Silk Road, eds D. Durkin-Meisterernst et al., Berlin, 2004, pp. 341–8; G. Uray, “L’emploi du Tibétain dans les Chancelleries des États du

48 The following section is based on my “Central Asian Mélange: Early Tibetan Medicine from Dunhunag.” In: Brandon Dotson, Kazushi Iwao and Tsuguhito Takeuchi (eds), *Scribes, Texts, and Rituals in Early Tibet and Dunhuang*, Wiesbaden: Reichert Verlag, 2013, pp. 53-60.


50 For a detailed analysis of the two western components of this and similar lists, i.e.: *stag gzig* and *phrom* see Dan Martin, “Greek and Islamic Medicines’ Historical Contact with Tibet: A Reassessment in View of Recently Available but Relatively Early Sources on Tibetan Medical Eclecticism”, in Anna Akasoy, Charles Burnett and Ronit Yoeli-Tlalim (eds), *Islam and Tibet: Interactions along the Musk Routes*, Farnham: Ashgate, 2011, pp. 117-143; See also my “On Urine Analysis and Tibetan Medicine’s Connections with the West,” In Sienna Craig, Mingji Cuomu, Frances Garrett and Mona Schrempf (eds.), *Studies of Medical Pluralism in Tibetan History and Society*, Halle: International Institute for Tibetan and Buddhist Studies GmbH, 2010, pp. 195-211 and my “Re-visiting ‘Galen in Tibet’”, *Medical History*, 56:3, July 2012, pp. 355-365.


A similar expression is found in the *Li yul lung bstan pa*, where it appears in the account dealing with a Chinese princess who married the Khotanese king and brought silk worms with her. As the Khotanese ministers get suspicious, the queen produces some Kashmiri silk in order to demonstrate to the king the secret of silk production. This type of silk appears as: *kha cher dar*. See Emmerick 1967: 33.

Indian cauterization practices are fundamentally different from the moxibustion practices found in the Tibetan and Chinese sources. These are delineated, for example, in the chapter devoted to cauterization in the *Aṣṭāṅgahrdaya saṃhitā*. How then to read the reference to “*rgya gar gi rgyal po'i yul*” remains an open question. It is to be noted, however, that the term *me bsta’* was used in the 11th century by the translators of the *Aṣṭāṅgahrdaya saṃhitā* into Tibetan to delineate cauterization (*agnikarman*). This point was made by Fernand Meyer (Meyer 2002). I would like to thank Fernand Meyer for sharing his paper with me.


The word *phug* can mean: pierce. Previous translations of this sentence have appeared in
Blondeau 1972: 7 and Uray 1979: 304. Both were unsure about the meaning of the term, but proposed iron cauterization.

One of the most interesting discoveries regarding Zhang zhung texts from Dunhuang has recently been made by Takeuchi and Nishida, who have pointed out that the Zhang zhung texts from Dunhuang are medical texts. See Tsuguhito Takeuchi and Ai Nishida 2009.

"dpyad yIg 'dI ni phyag sbar na yang myed de| dpyad yIg thams cad las kyang bdus pa'I steng du zhang zhung gyl dpyad phugs pa dang| sbyar te bgyis pa lags so|| PT 127, lines 183-184.

In the entry for the second image. Vivienne Lo’s translation.

PT1044, line 26-27.

For an overview of references to Confucius in the Tibetan Dunhuang manuscripts see Shen-Yu Lin, “The Tibetan Image of Confucius”, *Revue d'Etudes Tibétaines*, 12 (2007), 105–29. It should be noted here, however, that the Tibetan designation Kongtse does not always refer to Confucius.


66 This quote has been commented on by Macdonald, “Une lecture,” p. 284 and by Rolf Stein, “Tibetica Antiqua VI: Confucian Maxims in Two Dunhuang Manuscripts,” at p. 276, note 3, and Uray, “Earliest Evidence.”

67 Uray, ibid, at pp. 358-9.


69 Rolf Stein, “Saint et divin, un titre tibétain et chinois des rois tibétains,” Journal asiatique, 269, 1981, pp. 231-275, at p. 269; Rolf Stein, “Tibetica Antiqua I: The Two Vocabularies of Indo-Tibetan and Sino-Tibetan Translations in the Dunhuang Manuscripts,” in: A. Mckeown (ed. and trans.) 2010, pp. 1-96, at pp. 41-2. ITJ 748 ends with the words: cu yag gyi yi ge rdzogs sho [s+sho]. I would like to thank Brandon Dotson for sharing his transliteration of this text with me. The more well-known later term in Tibetan for the Yijing is spor thang (or: spor thang nag rtsis). For a list of Tibetan sources dealing with the Yijing see: Dorje, ca. 2001, p. 46.

70 Macdonald, “Une lecture,” p, 284.


72 Vivienne Lo in Despeaux.

73 Takata, Multilingualism.

Ibid, p. 3.


Lo in Despeux.


On origin narratives in Islamic sources see Keren Abbou Hershkovitz, *The Historiography of Science between the 10th and the 14th Centuries*, PhD Thesis, Ben-Gurion University, 2008 [in Hebrew] and Sonja Brentjes, “Narratives of
Knowledge in Islamic Societies: What do they tell us about scholars and their contexts?", *Almagest* 6:1, May 2013, pp. 75-94.