Book of abstracts

alphabetical order of participants

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Anatomical Paintings from Atsagat Medical School

In the valuable collection of the National Museum of Buryatia 65 plates on Tibetan medicine are kept, painted by the outstanding Emchi-lama D. Yendonov (1870-1937?), director of the *manba datsan* at Atsagat, and his disciples between 1929-1931. They represent rich illustrated material, subordinated mainly to the subject and structure of some chapters, and volumes of classical Tibetan medical treatise *Gyushi* and its comprehensive commentary *Lapis Lazuli (Vaidurya sngon po)*. D. Yendonov paid a special attention to anatomy and physiology, the key branches of practical Tibetan medicine. At the anatomical plates D. Yendonov and his students introduced the most detailed images of the human body: head, neck, shoulders, arms, chest, abdomen, spinal column, spinal cord, spinal nerves, bones of the lower limbs, heart and solid organs (heart, lungs, liver, spleen and kidneys) and hollow organs (stomach, gall-bladder, small intestine, urinary bladder and *samse'u*). At the centre of an anatomical plate there is the human body with images of each organ, in addition we are able to see the images of separated organs drawn on the right and left sides from the main figure (image). In the set there are anatomical illustrations containing topographical drawings of internal organs on modular grid where each square cell is a module of measurement. This is extremely important to apply treatment such as cauterization, bloodletting, pricking by needle etc. Mostly the images of man's figures are not proportional and have a contour character. The anatomical paintings give interesting and little known materials for profound research of one of the most important aspects of Tibetan medical culture namely anatomy.

Cha Wung Seok
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Exchanges of Medical Knowledge and the Status of Anatomy in the East Asian Culture

Cravings for superb medical technologies are bound to exist in any culture, since medicine is a part of basic human needs. In East Asia, China, Japan, Korean, and Vietnam have shared common medical technologies, which led to the formation of today's axis of East Asian Medicine. The history of East Asian Medicine and its exchanges can be defined as a history of absorption and localization of medical technologies from other countries. 17th and 18th centuries were a significant time in this sense. During this time period, the four East Asian countries saw enough improvement in medical technologies to stop going after the Chinese model, which led to the formation of unique medical cultures. Indifference toward anatomy found in East Asian Medicine in general is the result of the common medical culture they shared. Though not totally indifferent to the actual human organs, the people of East Asia were not as much interested in anatomical knowledge as to make changes in the trend of East Asian Medicine. That is, detailed description of the internal organs did not provide useful tool for actual application in treatment, and could only be a subject of interest. It was way after the 20th century that anatomy and East Asian Medicine had a point of contact. Focusing on several episodes, this article will present how thoughts on anatomy were formed in East Asian countries by sharing medical knowledge after 17th century, and how the thoughts have changed afterwards.

Janet Gyatso
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KEYNOTE LECTURE

How to Map the Body -- and How it Matters

This paper studies the conflict, in the intellectual history of Tibetan traditional medicine, between tantric Buddhist and empirically determined anatomies of the channels of the human body. It reflects on what was at stake in such a discrepancy and how to make sense of the issue in light of the history of science in the West, as well as in Indo-Tibetan and pan-Asian histories of culture and medicine.

Janet Gyatso is Hershey Professor of Buddhist Studies at Harvard University, where she serves on the faculties of the Divinity School, the Study of Religion, East Asian Languages and Civilizations, and Inner Asian and Altaic Studies. Her writing and teaching have centered on Tibetan Buddhism and its cultural and intellectual history from the perspective of large issues in the humanities about human experience and its literary presentation. She is the author of *Apparitions of the Self: The Secret Autobiographies of a Tibetan Visionary*, as well as several edited volumes. Her forthcoming book on Tibetan medicine, coming out this year with Columbia University Press, is *Being Human in a Buddhist World: An Intellectual History of Medicine in Early Modern Tibet.*

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The Anatomy of Heart and Liver in Tibetan and Chinese Pulse Diagnostics

This paper will expand on the observation that the *cun guan chi* pulse diagnostic method in Chinese medicine (sometimes called *sanbu* method) has a double in Tibetan medicine: both take the pulses at the wrist at three different positions, with the index, middle finger and ring finger In Chinese medicine the pulses for the heart liver and kidneys are taken on the left hand side (and the lungs, spleen and kidneys on the right), while in Tibetan medicine the pulses for the lungs liver and kidneys are taken on the right side (and the heart, spleen, kidneys on the left).

The Tibetan medical observation is according to Western anatomy correct, the liver is on the right. Why did the Tibetan doctors get it 'right'? With the materials at hand, I cannot tell. However, I will provide some suggestions why the Chinese got it 'wrong'. The heart is the only viscus that is widely referred to in pre-dynastic China. It is located in the epigastrium or in the chest. This is the upper yang sphere in a body that has an upper and a lower part. The liver is the second most important viscus, located in the abdomen, the yin sphere of the body. Heart and liver formed a yin yang unity in early dynastic China. When in medieval China the cosmos-ordering numerology changed from a dual to a triadic one, I argue, it was difficult to abort well-estblished knowledge and dissolve the heart-liver dyad.

Furthermore, like Galenic and contemporary Western medical doctors, Tibetan medical doctors had an interest in feeling the heart beat. This I derive indirectly from the body techniques they developed in pulse diagnostics. There is evidence to suggest that Chinese were interested in a variety of tactile qualities of the pulse but not actually in the heart beat (this is, if one hesitates to accept the general assumption that *qi dong* and *mai dong* refers to the

'heart beat' or 'pulse beat'). It is only in the medieval Dunhuang manuscripts that the Chinese doctors record frequencies of beats per time unit that are higher than the well-known numerological fifty.

In summary, with regard to the anatomical liver's position in the body and the physiological interest in the heart (and counting the frequency of its beats per time unit), it would appear that Tibetan medicine has more in common with Galenic traditions than with Chinese ones.

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Exploring Mind and Body Connections from the Perspectives of Tibetan Medical Anatomy

According to Tibetan medical embryology, mind and body takes place to connect at the moment, while the union of sperm, egg, and consciousness. And it stated that consciousness is one of the most essential elements that form our human beings. Afterwards, a subtle energy flows through white and black channels that bridge our mind and body, these anatomical channels play the most important role to carry on mental factors such as emotion, cognition, memory etc. However, descriptions of this energy or 'subtle' body differ depending on the medical model or various tantric systems involved. From point of Tibetan anatomical view, this sophisticated mind-body relationship considers three layers: the 'gross body', referring to the physical body or three *nyes pa*; the 'subtle body' or energetic body, which is composed of 'channels' *(rtsa)*, the white and black channels, 'energy centers' or 'wheels' *(rtsa 'khor)*, 'winds' *(rlung)*, and 'drops' or 'vital essences' *(thig le)*; and the 'extremely subtle body' or 'indestructible drop' referring to the extremely subtle mind of clear light. This extremely subtle body normally resides in the life vein that connects to the heart or in the heart center according to the respective yogic or tantric system. It is useful to note that heart is

synonymous with mind in the Tibetan medical system, and the mind-body distinction is abandoned at this extremely subtle level. In this paper, I will offer a very general overview of this subtle energetic system from perspective of Tibetan medical anatomy.

Key words: Channels, Anatomy, subtle body, energy

References

Adams, Vincanne, Renqing Dongzhu, Phuoc V. Le. 2010. Translating Science: The Arura Medical Group at the Frontiers of Medical Research. In: *Studies of Medical Pluralism in Tibetan History and Society;* PIATS 2006: Tibetan Studies: Proceedings of the Eleventh Seminar of the International Association for Tibetan Studies, Königswinter 2006. Edited by Sianna Craig, Mingji Cuomu, Frances Garrett and Mona Schrempf (Beiträge zur Zentralasienforschung, Band 18). Halle: IITBS GmbH, p. 111-136.

Clifford, T. .1984. *Tibetan Buddhist Medicine and Psychiatry: The Diamond Healing.* York Beach, ME: Samuel Weiser, Inc.

Garrett, F. V. Adams. 2008. The Three Channels in Tibetan Medicine: with a Translation of Tsultrim Galtzen's A Clear Explanation of the Principal Structure and Location of the Circulatory Channels as Illustrated in the Medical Paintings. *Traditional South Asian Medicine,* 8, 86-114.

Thinley Gyatso., & Hakim, C. 2010. *Essentials of Tibetan Traditional Medicine.* Berkeley, CA: North Atlantic Books.

Yuthog Yonten Gonpo. 2008. *The Basic Tantra and The Explanatory Tantra from the Secrete Quintessential Instructions on the Eight Branches of the Ambrosia Essence Tantra.* Dharamsala, INDIA:Men-Tse-Khang Pubcations.

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Philology of the Visual Elements of the Body Maps in: *'The Song of the Bodily Husk'* and Their Transmission Through Time, Media and Places

The *Song of the Bodily Husk* (*Tǐ ké gē* 體殼歌) is a composite text, attributed to a spurious 10th c. CE figure, Master Yan Luo 煙蘿子 *(Daoist Canon*, *fasc*. 125, no. 263, *juàn* 18: 1a-10b). It unites 25 sections: a preamble, two poems, six body maps, a treatise with critical comments on the body maps, a meditation manual and instruction, as well as several short elucidations, all in relation to the inside of the male human torso, and physiological alchemy *(nèi dān* 內丹).

Four body maps depict the inside of the male human torso; but while two related maps look like drawings of a *situs inversus*, the other two show the inside from the perspective of physiological alchemy; for example, we find in the abdominal region the inner child. Two maps depict the head of a mustachioed man, surrounded by allegorical beings. These six illustrations are called 'maps of the inner realms' *(nèi jìng tú* 內境圖). The labels name all kinds of terms, which are derived from meditative, medical, and alchemical contexts, and refer precisely to locations around, on or within the male body.

The quite exceptional critical comments made in the *Treatise on the Inner Realm by [Daoist Temple] Superintendent Zhu (Zhu tí-diǎn nèi jìng lùn* 朱提點內境論) are relevant to the history of science, as they refer directly to features of the body maps *Zhu* finds fault with, e.g. that the liver is placed on the left side of the body.

The present study will treat the diagrams as changing individuals, and not as types that remain static during transmission in Chinese printed sources and beyond. By this veritable 'philology of visual elements' we trace the variants, special markings, omissions, additions, or corruptions of visual content, etc. Previous studies did not analyse such differences, but they tell their own story. This is of

wider interest, because some maps traveled from the Chinese world to Japan and to Persia. They have thus made a long way through different texts, media, times and cultures.

What can we learn about the body image or body fantasies represented in the body maps, and the accompanying texts? How were details of the diagrams changed and re-interpreted as they were used at one time to illustrate a medical classic, or were later combined into a single allegorical picture introducing the medical chapter of an encyclopedia in mass circulation? What happens when illustrations loose some labels, change media several times, or are redrawn for mass printing, only to reappear again as Japanese book or Persian paper manuscripts? How are early anatomical insights connected with the psychophysical techniques of physiological alchemy?

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Anatomical Terms of the 27 Chapters of the Subsequent Tantra *(Phyi ma'i rgyud)* from the Four Tantras of Tibetan Medicine *(Rgyud bzhi)*

The *Rgyud bzhi* consists of 156 chapters and 5,900 verses and is also known as the 'Four Tantras' because it is structured into four main books. Since the 12th century it has been the basic traditional text and even today is still learnt by heart by future Tibetan physicians. According to Tibetan tradition the current version of this text is attributed to G.yu-thog gsar-ma Yon-tan mgon-po (1126-1202 AD). The work is based on a copy of a wooden print block of the *Rgyud bzhi*, which originates from 1892 and is known under the name of *Lcags ri* (Iron Hill) wooden print.

During the presentation terms of the Tibetan anatomy are re-translated with the help of various commentaries and parts which are hard to understand are analysed, especially such terms which are included in the 27 chapters of the Subsequent Tantra. The anatomical

terms included in these chapters are differently described in some cases, which are also analysed. In addition to terms of important organs and locations less significant terms as *dreg bzhi* ('dirty four') and *rna drung* (near to the ear) will be discussed hereafter. It is the analyse of these seemingly less important terms, which provides a deeper understanding of the Tibetan culture as well as the possibility to gain a broader knowledge about translations of Tibetan medical texts.

The fourth chapter from the 'Explanatory Tantra' on the anatomy of the human body is only mentioned marginally, since these chapters have already been translated and discussed in several languages.

Commentaries used for analysis mainly are the following:
(1) the 'Blue Beryl' of the Regent of the 5th Dalai Lama, important politician, historian and medical writer Desi Sangye Gyatso (1653-1705) *(Gso ba rig pa'i bstan bcos sman bla'i dgongs rgyan rgyud bzhi'i gsal byed baidur sngon po'i malli ka),*
(2) the *Rgyud bzhi* commentaries of the Tibetan physician of the *Zur mkhar* Tradition, Kyempa Tsewang (15th cent.), written in 1479 *(Mkhas dbang skyem pa tshe dbang mchog gis mdzad pa'i rgyud bzhi'i 'grel pa)*, and
(3) the most important *Rgyud bzhi* commentary of the last century, the 'Oral Instructions of the Sages' by Khenpo Troru Tsenam (1928-2004) *(Gso rig rgyud bzhi'i 'grel chen drang srong zhal lung)*.

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Anatomical Findings and Terminology of Blo-bzang Chos-grags

The outstanding seventeenth-century physician Blo-bzang Chos-grags, also known as Dar-mo sman-rams-pa (the doctor from the Tibetan district of Darmo), contributed anatomical knowledge which he described in his work 'Unfolded Trees of the Explantory Tantra'

(*bshad rgyud kyi sdong vgrems legs bshad gser gyi thur ma*). He was a personal physician of the Fifth Dalai Lama and later became director of the newly established Medical College at the Iron Hill *(lcags po ri)* in Lhasa.

In my presentation I focus on two aspects connected with his anatomical findings. First, the historical circumstances are highlighted which allowed him to dissect human corpora in order to compare what he saw with the anatomical knowledge described in an older commentary written by another intellectual of the sixteenth century, Zur-mkhar Blos-gros Rgyal-po, known for short as *Mes povi zhal lung* or *'Transmission of the Elders'*. Some of Blo-bzang Chos-grags' findings, such as the seventy-seven 'black channels' for blood-letting can be regarded as a confirmation of the older commentary as they can be found there as well; the same holds true for the famous illustrations to a later commentary known as *Vaiḍūrya sngon po* or 'Blue Beryl'. In other cases, mainly with regard to his results of the examination of the skeletal and locomotor system but also to blood-vessels, Blo-bzang Chos-grags appears to have made new contributions or at least substantial emendations of older descriptions. To evaluate his findings, his work is compared with preceding and following commentaries.

The second aspect pertains to an examination of the anatomical terminology as found in Blo-bzang Chos-grags' text in particular and in Tibetan medicine in general. For this purpose a database has been set up recording and assessing terms found in classical texts and thangkas as well as modern Tibetan anatomical atlases or other recent publications on Tibetan medicine. The database allows an examination of the development of certain Tibetan medical terms and is designed as a digital encyclopaedia for Tibetan medical terminology. For the time being, it already identifies most of the Tibetan materia medica. The project is supported by the Austrian Science Fund (P 26129-G21).

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Concepts of the Female Body in Mesopotamian Gynaecological Texts

In contrast to the Greco-Roman medical literature on women's diseases, Mesopotamian gynaecological texts lack general theoretical statements about the anatomy and physiology as specific to the female body, i.e. the anatomical differences between men and women, the female reproductive system, and processes restricted to women such as menstruation, menopause, pregnancy, gestation and birth. Yet, the extant sources on women's healthcare from the 2nd and 1st millennium BCE Mesopotamia, notably diagnostic and therapeutic texts, contain a wealth of implicit and explicit information regarding the indigenous healers' knowledge and concepts of female anatomy and physiology. Our reconstruction of these concepts has to take into account that on the one hand, the information preserved in the medical texts stems from the necessities to diagnose and treat women's complaints, and as such focuses on morbid and abnormal processes (e.g. bleeding, not menstruation). On the other hand, concepts of physical processes are mainly expressed through metaphors and comparisons with phenomena in nature and everyday life, which are found especially in the incantations that accompanied medical treatments. This contribution will discuss the available information to assess the questions: What did the Mesopotamian healers know about the anatomy of the female body and the processes pertaining to it? Do these concepts share traits with comparable theories found in other medical traditions of the ancient world?

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The Circulation of Anatomical Knowledge Between Tibet and Ming-Qing China

In 1693 Desi Sanggyé Gyatso sent an embassy to the Kangxi emperor (r. 1661-1722), the fourth emperor of the Manchu Qing dynasty (1644-1911), to deliver collected medicinal herbs. This embassy also presented a copy of what a Chinese-language memorial describes as the regent's 'Medicinal Forest' *(yaolin)*. Since the full text of this memorial is not currently available, it is unclear whether the Desi sent one of his medical commentaries, copies of the accompanying paintings, or a combination thereof. What is clear is that Desi Sanggyé Gyatso was understandably quite proud of his medical accomplishments, and that the Qing court received evidence of them at an early date. Furthermore, by the mid-eighteenth century the regent's two major medical commentaries, the *Bai DUr+ya Sngon po* and *Man ngag lhan thabs*, had spread widely with new editions printed in Beijing, Urga and Dergé.

Since the Song dynasty (960-1279), a time of great Buddhist influence over Chinese medicine and also of the codification of Tibetan medicine, the anatomical knowledge and theory associated with these two systems have developed in tandem. While Desi Sanggyé Gyatso's anatomical illustrations are said to reference Chinese and particularly Daoist medical theory in various respects, Tibetans since at least the Yuan period (1271-1368) reciprocally served as an important conduit of Central Asian medical knowledge to China, including knowledge related to healing bones and wounds. At the turn of the seventeenth century, moreover, Chinese medicine evidently absorbed anatomical influences from the first Jesuit missionaries. This presentation will compare the state of anatomical knowledge among Tibetan and Chinese medical scholars leading up to and following Desi Sanggyé Gyatso, with an emphasis on the late Ming to late Qing period (ca. 1575-1850). The regent's twenty-one

illustrations related to anatomical structures represent an unprecedented systematization of anatomical knowledge in East Asia, bringing together – and attempting to reconcile – various Eurasian traditions. Late Ming scholars complained about a decline in anatomical knowledge within China, which may partly account for the particular Mongolian and Manchu interest in Desi Sanggyé Gyatso's project at the turn of the eighteenth century. These groups, the core of the new Qing imperial elite, patronized Tibetan medical printing projects and institutions throughout the eighteenth and nineteenth centuries, integrating Tibetan medical knowledge within multilingual "Chinese" imperial compendia. To more closely examine the relationship between the legacy of Desi Sanggyé Gyatso's medical paintings and the ongoing development of Chinese medicine within the Qing empire, I will review available sources and conduct a preliminary comparison of anatomical illustrations from the Ming and Qing periods. In particular I will consider the parallels between Chinese forensic medicine and Tibetan depictions of vulnerable channels *(rtsa gnad)*, vulnerable points of the muscles *(sha'i gnad)*, moxibustion points *(gtar bsreg gi gsang)*, surgical approaches *(dbye gsang)*, and minor surgery points *(thur gsang)*.

Preliminary selected sources:

Huihui yaofang (Muslim Medicinal Recipes), Ming edition.

Xun jing kao xue bian, 1575.

Leijing, 1624.

Sum pa Ye shes dpal 'byor, *Lag len nyung 'dus bdud rtsi zil dkar*, ca. 1740s

Yuzuan yizong jinjian (*Golden Mirror*), 1742.

Dzes mtshar mig rgyan, 'Jam dpal rdo rje, three editions: ca. 1817-20, ca. 1840-45, 1911.

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The anatomy of TTM corresponding to astrology and the universe.

An overview of anatomy according to TTM:
Anatomy in Tibetan medicine implies the condition of the the body and its meaning. In Tibetan this is called *lus kyi gnas lugs*. *Lus* means 'body' and *gnas lugs* means 'situation', to be roughly explained as the situation of the physical body. On a more subtle level it also includes the mind. Since Tibetan medicine is deeply connected with Buddhism, understanding of anatomy also helps to understand the nature of selflessness.

Why should we know about anatomy? As a physician, the main objective is to make a correction of the body through giving appropriate medicine depending on the disorder. No matter how many different kinds of medicines, medical instruments and skills of the doctors are applied, they are all performing their art on the "stage" of body; so the body is the object when treating the patients.
Anatomy also corresponds to astrology as traditional Tibetan medicine and astrology both explain all processes on the basis of the theory of the five elements. Both medicine and astrology make great contributions for the welfare of society through the knowledge of how to balance the energies of the elements. On the level of the five elements both of them are the same. 'Anatomy corresponding to the universe' may be looked at as follows: because of the mortal nature of the physical body it is subject to a constant process of change in every second. The universe has the nature of change as well: it is being formed at the beginning, persisting in the middle and disintegrating at the end. The physical body is in a similar condition: there is the beginning in terms of embryology, enjoyment of life in the middle and, sadly, we all have to die in the end.

On a more subtle level anatomy of TTM is also linked to the mind. Therefore, when discussing anatomy of TTM, it is not only necessary to explain the visible part of the physical elements of the

body, but to mention the subtle energies such as *rlung* and the mind through the chakras and channels as well. So we should be aware that, in a certain sense, anatomy of TTM means more than just the anatomy of the physical body: it also covers the anatomy of the mind which aspect should be included when discussing anatomy.

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What's Inside? The Ayurvedic Components of the Body

Awareness of the inner content of animal and human bodies first appears in the historical record of India in the context of ritual dismemberment. To some extent this ritual heritage colours subsequent body-narratives, such as the enumeration of organs and especially of bones. This presentation explores identifications and mis-identifications, organs of no function, functions with no organ, and the end of history in ayurvedic anatomical description.

MODERATOR OF THE FINAL ROUND TABLE DISCUSSION

Ronit Yoeli-Tlalim
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Counting Body Parts: Views from the Hebrew Book of Asaf

How many bones do we have? How many veins? Why these numbers and not others?
Different medical traditions have given different answers to these questions. This paper will focus on the Hebrew Book of Asaf also known as Sefer refu'ot ('Book of Remedies') and note some parallel concepts in other traditions. Sefer refu'ot is an extensive medical compendium, containing a kind of 'medical history', sections on anatomy, embryology, sections on pulse and urine diagnosis,

seasonal regiment, a medical oath and a long materia medica section. It has long been considered one of the greatest mysteries of Hebrew sciences with regards to fundamental questions such as the date and place of its composition and the identity of its author or authors. It has been dated anything between the seventh and the eleventh centuries, and its composition has been located anywhere between Persia to southern Italy. Its syncretic nature makes it a particularly interesting case for comparative analysis as in the case of its views on anatomy.