Matthias Theodor Vogt

BRINGING THE SOCIO-ECONOMIC ENVIRONMENT OF THE MONGOLIAN STEPPE TO EUROPEAN MUSEUM VISITORS: CHALLENGES OF THE PLANNED MONGOLIAN-GERMAN EXPOSITION "STEPPENWÄCHTER" (GUARDS OF THE STEPPE, DRESDEN 2026) FROM A MUSEUM LEARNING PERSPECTIVE

Introduction

Ex-post evaluations are the normal case of scientific analysis. However, when academia is asked to think about expositions that in turn reflect society and the environment, it is natural to break new ground, especially in the context of a session: "Museum learning and the socio-economic environment" (Miskolc, 8. May 2023).

The ex-ante evaluation is an inventory and reflection on past experiences before embarking on new paths. It enables us, to reflect beforehand on some challenges of a planned exposition, in this case an exposition on the Mongolian steppe. At first hand, this seems to be a rather remote theme, so difficult to expose. Approaching us from a museum learning perspective, we will see, how close this topic can be to European youth.

The German-Mongolian exhibition "Steppenwächter" (Steppe Guardians) aims to renew the success of the German-Mongolian exhibition "Dschingis Khan [Genghis Khan]" at Bonn in 2006 on the occasion of the 800th anniversary of the largest empire in world history in terms of area (Frings, 2005). The Mongolian Foreign Minister asked the German Ambassador at Ulaanbaatar, Stefan Duppel, to propose a topic for a next exposition. Ambassador Duppel asked Professor Vogt to design a contemporary exhibition. The Senckenberg Museum Görlitz and the Saxonian Institute for Cultural Infrastructure proposed to illuminate the current socio-economic and ecological challenges of the Mongolian steppe from two perspectives: one from the natural sciences and one from the cultural sciences. As far as we know, such a large-scale dual-perspective exhibition will be the first of its kind in Germany.

The exposition will follow the Iceberg principle: on the visible surface, the 24 modules will be clearly laid out and easy to navigate even for young visitors. This is the "first visible seventh" part of the project. Further "six invisible sevenths" of the information can be experienced individually, interactively and in many languages via audio guide, monitors, printed catalogue, app, digital catalogue. Our ambition is to summarise in the digital catalogue the state of scientific knowledge for each of the 24 modules through broad-based scientific transnational networking.

Background

Sociopolitical Background

Mongol Uls (Republic of Mongolia) is a special focus of the Federal Republic of Germany and other EU member states as well as South Korea, Japan and the USA. (a) because of its mineral resources, (b) geostrategically in the context of China's "One Belt, One Road" initiative (New Silk Road) as the only real democracy between Poland and Japan, (c) its importance for the world's climate and ecology also in the context of the United Nations *Sustainable Development Goals* (United Nations, 2015) and the German government's *One World Charter for the Future* (BMZ, 2016).

Having 30,000 Mongolian speakers of German (Fluck, 1995), including numerous graduates and doctorates in the former GDR as well as 8,798 new learners in 2020 (Auswärtiges Amt, 2020), the conditions for cooperation are particularly favourable. Mongolia received the highest per capita share of German development cooperation funding (488.1 million euros in the years 1991-2021 (Auswärtiges Amt, 2021). It went to the three priority areas of (1) natural resource management, (2) energy efficiency and (3) biodiversity. Culture is not yet part of a priority co-operation. However, both the German Agency for Technical Cooperation (GIZ) and the Swiss Agency for Development and Cooperation (SDC) have announced their withdrawal from Mongolia.

Mongolia is predominantly part of the inner-Asian endorheic basin; only part of the north and the northeast drains to Lake Baikal respectively the Amur. In UNESCO's cultural and natural classification, Mongolia belongs to "Central Asia" (UNESCO, 2005);1 a translation as "Inner Asia" seems to make sense (in distinction to the CIA terminology of Central Asia, which is also common in today's Germany and which extends the Soviet nomenclature to include Kazakhstan). The inclusion of South Siberia, Xinjiang, Tibet, Northwest India and North Pakistan, Afghanistan and Northeast Iran in the term "Inner Asia" chosen by UNESCO is linked to the Mongol Empire of the 13th century (Weiers, 2004) and points to the special, at least traditional, significance of non-sedentariness for the people of this region. And thus to the field of tension with the sedentary cultures of China in the east, India in the south and the Near East as well as Europe in the southwest or west.

With 1,566,000 km² or almost five times the area of the Federal Republic of Germany, Mongolia is one of the largest countries in the world. After Kazakhstan, it is the largest landlocked country. It is one of the least populated and outside the capital, it is one of the least densely populated regions in the world.

This list alone makes it clear how strongly superlatives determine the political discourse of the country. The world's largest equestrian statue (30 m high, 200 t of stainless steel on a 10 m high base) 50 km east of Ulaanbaatar is a material outgrowth of this rhetoric; it is diametrically opposed to the holistic-animistic basic understanding of nomadic cultures, with their integration into natural conditions.

¹ Cf. on the discussion of "Asie interieure" etc. including Alexander von Humboldt 1843 (5° N. + 5° S. of 44.5° N. latitude) and the endorheic approach in Khanykoff 1862 (Miroshnikov, 2005)

The Mongolian language group is widely scattered between Siberia, Afghanistan and the North Caucasus. About twice as many Khalka speakers live in Inner or Southern Mongolia within the People's Republic of China as in Outer or Northern Mongolia (Binnick, 1987). In the context of its China-wide Hanisation policy, the Chinese government banned the use of the Mongolian language in schools in Inner Mongolia in 2022. Only in Outer Mongolia do Khalka speakers form the majority of the population (81.5 %) and are the only representatives of the Mongolian language group with a sovereign, internationally recognised state (Rybatzki, 2003).

In terms of state law, they were affiliated to the Soviet Union at the beginning of the 1930s, but they were sufficiently independent to be spared the Holodomor years of Stalin's policy of extermination. This was not least directed at the nomads, especially in Kazakhstan, where about a quarter of the population died; far more than in Ukraine. For their part, the Kazakhs in western Mongolia, who only immigrated in the 19th and 20th centuries, form the largest ethnic minority of non-Mongols in Mongolia, at 4.3 % (Barcus & Werner, 2010).

Mongolia is the only state in the world today that takes up nomadism as its core narrative. When Mongolia seceded from China after the collapse of the empire in 1911, there was virtually no urbanisation that the communist party could have built on; the urbanisation rate in the first census in 1918 was around 15 %, of which about half were Chinese and Russian merchants and Buddhist monks (Bolormaa, 2001). Both explain the high unbroken continuity of Mongolian nomadism even in the course of the 20th century, with population growth from 647,500 inhabitants (1918) to 1 million (1962), to 2.218 million at the end of socialism (1991) and to 3.4 million (2023) (UNFPA, n.d.). This in turn allowed both the then People's Republic (1924) and the current Mongol Uls (1992) to start from nomadism as their core narrative, despite all the industrialisation and urbanisation (57% in 1989, with 33.7 % in Ulaanbaatar, Darhan, Erdenet, 18.6 % % in the Aimag centres and 3.6 in other urban formations (National Statistiscs, 2023b).

Demography shows a strong positive tendency with 10% of the population between 0 and 4 years old. The median age in Mongolia has risen from 25.7 years in 2020 to 29,5 % in 2022 (National Statistics, 2023b).

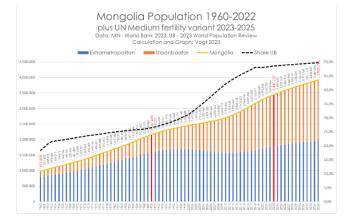


Figure 1: Mongolia and Ulaanbaatar population 1960-2022 plus UN Medium fertility variant prognosis 2023-2025

Source of data: World Bank, n.d.; Calculation and Graph: Vogt

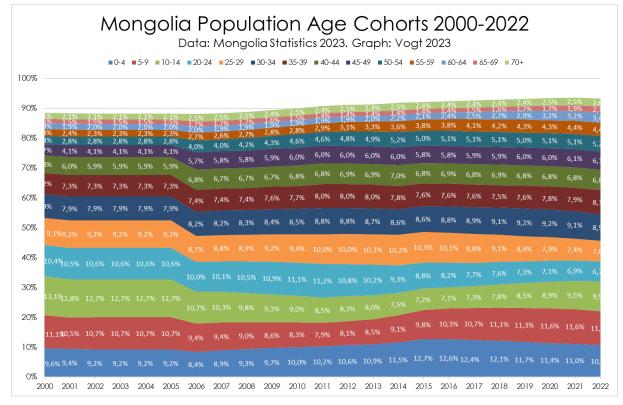


Figure 2: Mongolia Population Age Cohorts 2000-2022

Source of data: National Statistics Office Mongolia, 2023b; Graph: Vogt

The term 'nomad' is controversial among cultural geographers in that it sometimes has pejorative connotations among sedentary peoples. However, the occasionally used substitute terms 'pastoralists', 'pastoral nomads', 'mobile animal keepers' are hardly communicable outside the narrower academic field. In the last years, the term ,nomad' has grown positive attention within the urban elites of Mongolia.

The nomadic core narrative makes it understandable why Mongol Uls was one of the first states to ratify the UNESCO Convention on Intangible Heritage (29.06.2005 as the 16th country; Austria on 09.04.2009 as the 112th country, currently 4 entries; Germany only on 10.04.2013 as the 153rd country of currently 174; 2 entries ((UNESCO, n.d.). Mongolia now has no fewer than 13 entries (UNESCO, n.d.). In terms of population, this makes it one of the leading countries in the world in this respect.

Attending a school gala celebrating the twentieth anniversary of the Second School of Ulan Gom (at the minority theatre there on 27 May 2017) showed the crucial point. When practically all the children and all the teachers take it upon themselves to perform as singers, as dancers, as players; often in several performances and in different art forms; and when no single director or mayor or minister is allowed to speak, but it is all about the arts; and when the gala has to be played twice in a row because of the high attendance, then the arts, and indeed their active self-expression, are an integral part of Mongolian self-image. The combination of Khöömei overtone singing with techno showed that transformation into a world that is also globally networked *in artibus* can indeed succeed.

Rural-urban background: the three Mongolias

The nomadic core narrative is diametrically opposed to the growth in importance of the capital, called *Ulaan* (red) *Bataar* (hero) since 1924. Before that, it was little more than a temple yurt and caravanserai (tea and furs) with virtually no permanent buildings. The main university building of 1942 was the first public stone building.

Figure 3: The traditional Mongolian state narrative: The male force of Genghis Khan. View from the saddle button of the Genghis Khan statue.



Source: Institut für kulturelle Infrastruktur Sachsen. Photo: Matthias Theodor Vogt

The countryside itself is not the only one to suffer from internal migration, with its absorption of the young and entrepreneurially active in particular, but also the mediumsized and small towns.

Mongolia is administratively divided into 21 Aimags. On average, each Aimag is the size of the Free State of Bavaria in area, but with a population of only 70,000 (National Statistics Office Mongolia, 2023b). It is possibly the decisive Achilles' heel of Mongolian policy that it does not succeed in developing self-sustaining economic growth here in the "third Mongolia" of smaller and medium-sized cities and thus again in the country's surface area. Due to its east-west extension of 2,400 km, Mongolia lies in two time zones; the climatic conditions make pothole-free asphalt roads like those in Iran unthinkable. One third of the Aimag centres even show negative growth rates.

The "music plays" in the triangle of cities

- Ulaanbataar with the surrounding Töw Aimag (this has a population of around 100,000)
- Darkhan (more than doubled from 68,000 [2000] to 156,120 inhabitants [2022])
- Erdenet (almost doubled from 65,000 [2000] to 102,140 inhabitants [2021]) (National Statistics 2023).

A closer analysis of the current growth rates in 2021 compared to 2020 shows that only 5 of the 21 Aimags participated in the general population development of Mongolia; 16 of the Aimags even showed negative growth rates. Calculated over the entire period from 1992 to 2022, only Orkhon and Umnugovi are in the plus.

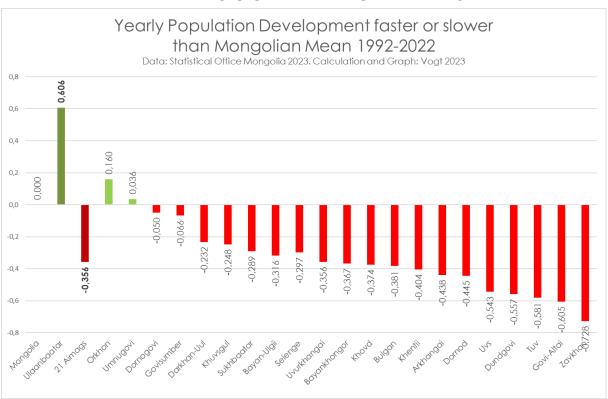


Figure 4: Annual population development of the Aimags in relation to the average population development of Mongolia 1992-2022

Source of data: National Statistics Office Mongolia, 2023b; Calculation and Graph: Vogt

There was till recently no independent municipal law in Mongol Uls. As in socialist times, the municipalities were part of the state administration; the mayors' business cards begin with "Mongol Uls". Accordingly, there is no second regional chamber of parliament that could work to put regional development on an equal footing with capital development. On the advice of Switzerland, a recent change in the law increased the financial power of local governments, with 40% of tax revenues now going into their budgets.

Administrative terminology plays a decisive role: in Mongolian, city means "khot". The special district of Ulaanbaatar, which is treated as a city district on a par with the Aimags (and only this district), was the only one to be called "Khot" in Mongolian administration (similar to the equation of ancient Rome with "urbs"), so that all thoughts of urbanity were drawn to the capital from the outset. Now Erdenet and Darkhan have passed the threshold of 100,000 inhabitants, and are called "khot", too. But for the time being, the other 19 Aimag centres have no chance whatsoever of becoming independent cities in the sense of the magical name "khot".



Figure 5: View of Ulaan Gom from the southwest

Source: Institut für kulturelle Infrastruktur Sachsen. Photo: Matthias Theodor Vogt

In Ulaan Gom, the centre of the Uvs Aimag in the northwest with almost 40,000 inhabitants (2023), the view of the Altai foothills 130 km away behind the Russian border is unobstructed, as I could see myself Due to Mongolia's leeward position behind the Altai, the Mongolian sky is largely free of clouds. In summer, only a few clouds move westwards and rain falls; the long winter is largely free of precipitation. The stable inversion (Ulan Gom has an average temperature of -35° C in January) is the reason why the nomads' winter pastures are higher than the summer pastures. With no less than 50° C difference between the January average and the July average, Ulan Gom has one of the highest temperature amplitudes in the world.

In Ulaanbaatar, on the other hand, possibly a third of the current population lives in yurts (gers) and contributes to the extreme air pollution with the unfiltered burning of wood and sometimes plastic. Whereas the WHO 2005 recommends an annual exposure limit of 10 PM10 μ g/m³ (UNPD, 2019), the ger districits of Ulaanbaatar have an average of 550 PM10 μ g/m³ pollution, compared with an average of 125 at Beijing, so five times higher. (World Bank, 2011). "Ambient annual average particulate matter (PM) concentrations in Ulaanbaatar and are among the highest recorded measurements in any world capital. [...] The highest PM concentrations are measured in the ger areas, the location of the homes of the poor and the most vulnerable of UB's population. PM2.5 concentrations in the ger areas are much higher than in the center, with an annual average concentration in the range of 200 to 350 μ g/m3. The main sources of the particles in the ger areas are coal burning for heating and cooking during the winter, and the suspension of dust by wind action throughout the year, but especially in the warm season." (World Bank, 2011).

For lack of an independent building culture (Mongolians were designed as a mobile society even in the sacred yurts until the founding of the People's Republic in 1924) and

for lack of a bourgeois-representative dining culture (keeping livestock means taking food and drink at non-scheduled times), modern Ulaanbaatar from 1942 onwards leaned on Soviet representative, residential and restaurant building. Since 1992, it has imitated the glass culture of East Asia, which is just as incompatible with the specific climatic conditions of the coldest capital in the world as the heating system, the traffic organisation or the futile attempts to plant urban greenery in the short vegetation period. Cotoneaster and similar Palaearctic rose plants (Rosacaeae) would be an alternative to the devotedly watered plantings of non-arctic trees, but are hardly to be found. In the public realm beyond private responsibility, sand and asphalt dominate. Considerations dedicated to combating smog, opening up the wind stream by removing an entire mountain in the westnorthwest or even roofing over the inner city are illusory in view of the economic situation.

The frequent lack of opportunities for integrating internal migrants into a skilled labour market was one of the causes of Mongolia's weak figure of 30,0 in the Gobal Hunger Index score in 2000. In turn, in 2022 Mongolia ranked first in the world in reducing hunger with 81 % (Welthungerhilfe, 2022).

At the same time, the economic weights are shifting more and more. Whereas in 2000 the capital and the regions were roughly equal, in 2021 they were two-thirds to only one-third. Taking into account the small contribution of the yurt slums to GDP, the GDP per capita of the active population and thus the political attention is four times higher or more (National Statistics Office Mongolia, 2023a).

Ecologically, socially, and economically, Mongol Uls has manoeuvred itself into an almost hopeless imbalance between the one big and the two small "khots" on the one side, and the countryside on the other. Not even the industrial centres Darchan and Erdenet can compete with the attractivity, the income possibilities and the future promises of Ulaanbaatar.

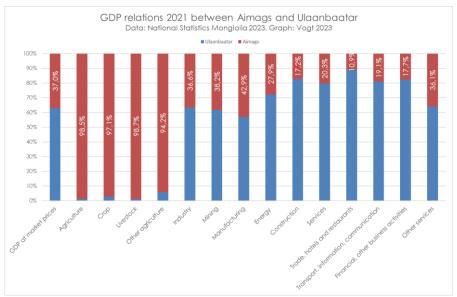


Figure 6: GDP relations 2021 between Aimags and Ulaanbaatar

Source of data: National Statistics Office Mongolia, 2023b; Graph: Vogt

Steppe and Man

The forest, long-grass, short-grass and desert steppes, which at first glance appear rather monotonous to the layman, are soils with a high exchange and water capacity and correspondingly high biomass production, usually 2 m thick. Classification follows degrees of aridity: In contrast to desert < 50 mm rainfall or to semi-desert < 100 mm rainfall, the steppe has \geq 100 mm rainfall during the growing season; 2-4 months humid with solar radiation comparable to that in tropical drylands).

By no means the whole of Mongolia consists of pasture crop, i.e. grassland. From (a) the coniferous and mixed forest on the border to Lake Baikal, the (b) treeless pasture steppe (apart from the water banks), (c) steppe and (d) dry steppe spread out as circular segments; a considerable proportion is (e) desert with less than 15 % ground vegetation or (f) high mountains.

The vegetation period (here a picture taken on 28 May 2017 from a northern valley in the semi-luv on the Russian border) is limited to a few summer months, with a spring lasting about five weeks in April-May and a similarly short autumn in September-October; winter lasts about seven months. The frost depth reaches about 4 metres or three times that of Upper Lusatia, which is itself already continental.



Figure 7: Mixed forest at the end of May 2017 on the northern side of Tsagaan Shuvuut Uul National Park near the Russian border

Source: Institut für kulturelle Infrastruktur Sachsen. Photo: Algirmaa Luvsan.

The ecology and economy of the steppe soil are as complex as they are fascinating. The shock frost of the steppe grasses at the beginning of winter allows grazing animals to find food all year round. Nomadic animal husbandry is based on (1) horse, the symbolic animal par excellence, (2) camel, traditionally indispensable for yurt transport with its 300 kg carrying capacity, (3) yak and cattle, which can be crossed within narrow limits, (4) sheep, (5) goat, which has become the problem animal par excellence of the Mongolian steppe.

Perhaps five thousand years ago, huge herds of antelope roamed the steppe, kept in balance by snow leopard, Altai bear, wolf and others. In the millennia since, the nomad has fulfilled the function of stabiliser; only in the strictly protected areas are yaks still found killed by the Irbis.

The first census in 1918 also included livestock, which numbered 9.8 million (Eldevochir, 2016). Under socialism, a cooperative system was created in several attempts, with the nomads being paid by the state as state employees, irrespective of the economic success of the individual. It (a) left the family structures intact; it (b) enabled literacy (at the beginning of the 20th century approx. 96 % illiterate (Marzluf, 2017) through a system of sending out teachers, ditto veterinary care: and it (c) set strict limits on the total herd with a cap of 100 animals per family. Accordingly, the total number remained at 20 million until the end of socialism (Eldevochir, 2016).

The cardinal decision that will almost completely call into question the future of the Mongolian biosystem within the next generation was made in the context of the new constitution in 1992. On the one hand, practically the entire land area was designated as state land, which allowed the state to negotiate with foreign direct investors for the numerous mineral resources (at the *United Nations Conference on Environment and Development* in Rio de Janeiro in 1992, the Mongolian government had still postulated to place the entire country under nature conservation, which would have been just as unconventional and beneficial for the land and the people as it would have been disastrous for the exploitation of the mineral resources and thus for the national economic resources needed for transformation).

On the other hand, the hitherto state-owned grazing animals were handed over to the cooperative members (even those without a nomadic background) with the stipulation that the survival of their families would be ensured through commercial management of the animals (Eldevochir, 2016). The double standard of privatisation of grazing revenues (with extensive elimination of the welfare state) without any pass-through liability for the overexploitation of grazing land (for example, through progressive taxes on animal numbers and other forms of state control) led to a tripling of grazing animals in a quarter of a century, with currently 71.1 millions (National Statistics, 2023a) notwithstanding numerous "dzud" events with millions of animals dying each time (white dzud = snow disaster, black dzud = drought disaster, ice dzud = rain freezing on the ground). In market economies, it is the rule that central resources belong to the general public, but are used privately with the proviso that they are used sustainably and sparingly (e.g. groundwater, air). In Mongolia, the non-socially structured market economy proved to be a disastrous 'driver' for the nomads and their steppe. From a legal-philosophical point of view, the steppe can only be managed sustainably in mobility, i.e. without land ownership, while the new state ideology is based on the principle of non-shared ownership.

Quite a few families have managed to increase the number of animals (previously capped at 100 per family) tenfold, in some cases more than twentyfold, in the last 25 years (Eldevochir, 2016). Absurdly, the state awards bonuses to the families with the most animals.

Within 36 months (2012 to 2015), the herds grew by 37 % or 12 % per year (Eldevochir, 2016). The families have to offer the milk and meat of horses, camels, yaks, cattle and sheep on the local markets, which causes the well-known transport difficulties. It is different with the goats; here the mostly Chinese buyers drive directly to the yurts and pay for the cashmere in cash; the only way for the nomads to get cash directly. For the latter, there is no other 'rational' option within a free market economy. Recently, an American company started to support the nomads by buying the cashmere directly, too.

Whether the particularly fine hooves of the goats tread the steppe soil into fine sand more intensively than other grazing animals and at the same time wash the plants particularly intensively has not been sufficiently investigated scientifically, but is strongly propagated in the media. The picture of the devastation left behind by herds is similar. Asigang (2017) suggests that about 90% of Mongolia's territory is vulnerable to desertification and nearly 80% of it has already been desertified. Other studies suggest that in individual Aimags (Central Aimag, Northern Central Gobi Aimag) such values are reached, but in the much larger other areas the condition of the pasture is determined more by the lack of rainfall than by the cattle (Faith et al., 2023).

In an interview given to Xinhua News Agency in May 2023, Altangerel Enkhbat, head of the public administration and management department at the Ministry of Environment and Tourism, estimated that around 77% of Mongolia's total territory has been affected by desertification and land degradation (Bangkok Post, 2023)

In any case, the state does not manage to stop the export of raw cashmere and to build up domestic capacities on a larger scale for the lucrative final production. Likewise, the slaughtered meat fetches only half the market price abroad, as the veterinary show is not assured (Jørgensen et al., 2020). Meliorisation of the veterinary system could thus significantly increase the yield from the steppe, even with a reduction in livestock. Moreover, the destruction of large parts of the steppe does not make economic sense even in the short term. The share of agriculture, including arable farming (the few arable areas account for about 3 % of the country's land area), forestry and fisheries is only 12,3 % of GDP (National Statistic Office, 2023b).



Figure 8: Probably overgrazed steppe in the northern Central Aimag with reduced vegetation cover and altered plant species composition

Source: Photo: Karsten Wesche. Courtesy Senckenberg Museum Görlitz

In fact, most of the nomads have broken their pact with nature; the chief biologist of the Uvs Aimag estimates that there are only a few and mostly older people among the 5,000 nomads in the region who are still committed to sustainable management (Vogt, 2017). Senckenberg is underdoing important research in this ara (Ahlborn et al., 2015; Wesche, 2007).



Figure 9: Ground vegetation during normal grazing in Kharkhiraa Turgen Uul National Park

Source: Institut für kulturelle Infrastruktur Sachsen. Photo: Matthias Theodor Vogt

Tibetan Buddhism

The soft power policy of China before 1911 included religion. The regime allowed the monasteries to bind a considerable proportion of Mongolian men to themselves and thus deprive them of social life. Isabelle Charleux (2003) dates the official re-introduction of Tibetan Buddhism at the end of the sixteenth century by Altan Qan (1507-1582), and estimates the number of 1,341 monasteries in 1911 at an average of 0,9 monasteries per 1,000 inhabitants, the majority of them counting 500 monks or less, but 3,3% between 500 and 1,000 monks, and 1,8% more than 1,000 monks; in the Josutu region 1 monastery was to be found all 3 km (9.40 per 100 km²).

Williams (1916) accounted for one Hutukhtu of Urga--elected Emperor of Outer Mongolia in 1911, ranking third in the Lamaist hierarchy, his superiors being the Dalai Lama and the Panshen Erdeni Lama--, 160 hutukhtus (similar to bishops), 25,000 lamas (monks) and 150.000 slaves caring for the Hutukhtu's estates and tending his vast herds. According to Williams (1916), Outer Mongolia--the today's Mongol Uls--at that time had a population of 200,000 Chinese, some 5,000 Russians, and 500,000 Mongols. Statistically, this would mean, that up to 60% of Mongolian men were in the service of religion. D. Chuluunjav (2017) confirms a high proportion and concludes: Since about 40 percent of men became monks, the number of households decreased, and the number of years without population growth continued, reaching less than 800 thousand by the beginning of the 20th century.

Whereas the 1911 revolution was partly planned and supported by monks (Batsaikhan, 2010), the late 30s saw a brutal ending of Buddhist hegemony. As Ulziibaatar (2004)

wrote: The number of monks arrested between 1937, the height of political repression, and the end of 1939 is very uncertain, and reports from various sources vary but are generally close. As far as I can see, the figure published in the work of Dr. D. Ölziibaatar seems quite likely. According to his writing, between 1937 and 1939, 17,454 monks were arrested for counterrevolutionary crimes, 14,201 or 82.4 percent were executed, 3,751 or 11.5 percent were sentenced to ten years imprisonment, and only 2 monks (0.1%) received a shorter sentence than 10 years. (Ulziibaatar, 2004, p. 274; cited by Soninbayar, 2017). The brutal state ordered killings murdered an important part of Mongolian intellectuals and vanished the material cultural heritage to almost zero (Bilegsaikhan et al. 2023). From an economic perspective, it ended Buddhist economic hegemony, opening the way for the communist herder cooperatives between 1938 and 1990.

Summary of background information

The privatisation of grazing revenues with the socialisation of the at least local considerable destruction effects makes the central Mongolian narrative of the nomad living in harmony with nature a historical memory.

It is hardly reflected any more in the reality of life of the nomads, who now transport yurts and animals mainly in Korean minibuses and have arrived in the technical modern age, whose yurts are often equipped with solar cells and satellite television. Some children play with smartphones; young people ride inefficient Chinese motorbikes after the animals or into the settlements. In the markets of the Aimag centres, they find little more than cheap Chinese products beyond all aesthetics or solidity; hardly different from the 18th century, when China encouraged its merchants to pursue a policy of pauperisation on a usury basis. Thousands of kilometres away from political attention, the Mongolian nomads brave the long winters. Due to the recent reorganisation of the education system along American lines, with school enrolment now starting at age six, mothers are following the school beginners into the cities. This breaks up the core of nomadism, the family.



Figure 10: Yurt migration with small trucks. Kharkhiraa Turgen Uul in the background

Source: Institut für kulturelle Infrastruktur Sachsen. Photo: Algirmaa Luvsan.

This, in turn, means that intangible cultural heritage lacks a link to the reality of life. The impressive inventory of individual elements by the National Centre for Intangible Cultural Heritage cannot hide the fact that it only accompanies a progressive musealisation of the nomadic canon.

Figure 11: UNESCO's Internet documentation of the inventory of individual elements

Mongolia: Elements on the Lists of Intangible Cultural Heritage			
13	2016	Falconry, a living human heritage	Representative List of the Intangible Cultural Heritage of Humanity
12	2015	Coaxing ritual for camels	List of Intangible Cultural Heritage in Need of Urgent Safeguarding
11	2014	Mongolian knuckle-bone shooting	Representative List of the Intangible Cultural Heritage of Humanity
10	2013	Mongolian calligraphy	List of Intangible Cultural Heritage in Need of Urgent Safeguarding
9	2013	Traditional craftsmanship of the Mongol Ger and	Representative List of the Intangible Cultural Heritage of Humanity
		its associated customs	
8	2011	Folk long song performance technique of Limbe	List of Intangible Cultural Heritage in Need of Urgent Safeguarding
		performances - circular breathing	
7	2010	Naadam, Mongolian traditional festival	Representative List of the Intangible Cultural Heritage of Humanity
6	2010	Mongolian traditional art of Khöömei	Representative List of the Intangible Cultural Heritage of Humanity
5	2009	Mongol Tuuli, Mongolian epic	List of Intangible Cultural Heritage in Need of Urgent Safeguarding
4	2009	Mongol Biyelgee, Mongolian traditional folk dance	List of Intangible Cultural Heritage in Need of Urgent Safeguarding
3	2009	Traditional music of the Tsuur	List of Intangible Cultural Heritage in Need of Urgent Safeguarding
2	2008	Traditional music of the Morin Khuur	Representative List of the Intangible Cultural Heritage of Humanity
1	2008	Urtiin Duu, traditional folk long song	Representative List of the Intangible Cultural Heritage of Humanity

UNESCO + Culture + Intangible Heritage + Lists + Untiln Dus, traditional folk long rong

UNESCO + Culture + Intangible Heritage + Lists + Traditional music of the Morin Khuur

Urtiin Duu, traditional folk long song

Mongolia and China

Inscribed in 2008 (3.COM) on the Representative List of the Intangible Cultural Heritage of Humanity (originally proclaimed in 2005)

The Urlian dua or 'long song' is one of the two major forms of Mongolan songs, the other being the short song' (bogino dua). As a ritual form of expression associated with important celebrations and festbutkes, Urlin dua plays a distinct and honoused rale in Mongolan society, It is performed at weddings, the imaguration of a new home, the birth of a child, the branding of foals and other social events celebrated by Mongola's nomadic communities. The Urlin dua can also be heard at the nasadam, a festively featuring weesting, archery and honseracing competibilisms. The Utilin dua is a lyricial chint, which is



Traditional music of the Morin Khuur

Mongolia

Inscribed in 2008 (3.COM) on the Representative List of the Intangible Cultural Heritage of Humanity (originally proclaimed in 2003)

The two-stringed fiddle morin khuur has figured prominently in Mongolia's normad cubure. String instruments adomed with horse heads are attested to by written sources daring from the Mongol empire of the thinteenth and fourteenth centuries. The fiddle's significance extends beyond its function as a musical instrument, for it was traditionally an integral part of ribusts and everyday activities of the Mongolian normads. The design of the morin inhuur is closely linked to the all-important cuit of the horse. The instrument's hollow trapezoid-shaped body is attached to a long fredless neck bearing a



Source: UNESCO, n.d.

While the horse-head fiddle Morin Khuur is still a matter of course in the yurt (or in this case the summer hut) of the nomad, who answers the question about its relevance with the unbeatable argument "That's the beauty of it", the music university in Ulaanbaatar is working on the professionalisation of fiddle playing. It can then be used to earn a living at tourist events. The number of people employed in the arts and culture industries more than doubled significantly from 2002-2021 (National Statistic Office 2023b, see figure 12).

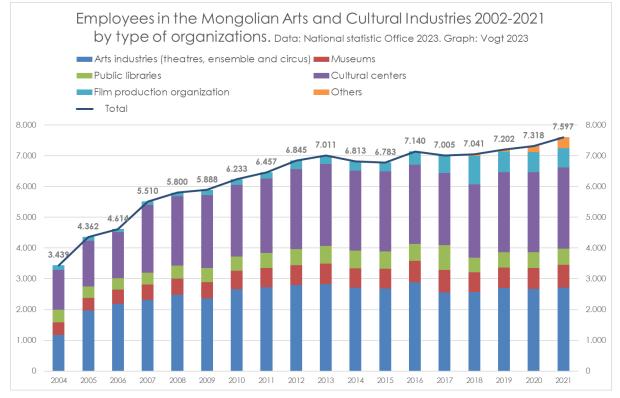


Figure 12: Employees in the arts and culture industries 2002-2021

Source of data: National Statistics Office Mongolia, 2023b; Graph: Vogt

Accordingly, the share of Arts, Entertainment and Recreation in GDP has increased fivefold from 0.1% (1990) to 0.5% (2016) (National Statistic Office, 2017; nota bene: The Statistic system has changed since; newer data are not available). Without taking into account the fuzzy definitions of the Mongolian Statistical Office (what is ,recreation'?), the comparison with Germany (0.84 % of the labour force; 40 billion euros corresponding to 0.83 % of GDP only for the arts and entertainment industry without other creative industries (BMWI, 2023) shows that Mongolia is in the process of catching up with the highly developed countries in this respect, albeit with a disproportionately lower absolute GDP per capita.

Consequently—in the sense of State Secretary Fuchtel's demand to consider the economic, social and ecological dimensions of sustainability in a triad (Deutsche Botschaft Ulaanbaatar, 2017)—it would be worth considering not placing more and more of the individual components of Mongolian nomadic culture under protection, but the nomads themselves, in their function as steppe guardians, which is crucial for Mongolia's economy, ecology and social cohesion. To bring in such a new narrative, could only be done by Mongolian civil society itself. This is the core of the exhibition concept.

How to conceive an Exposition from a Museum Learner Perspective Question #1: Which stereotypes unfold potential visitors towards the respective topic?

From a museum learning perspective, bringing whatever topic to whoever museum visitors, we firstly have to ask: What are the stereotypes, if any, that these potential visitors unfold towards the respective topic. In the case of Germans looking to Mongolia, I would like to name three such stereotypes:

- 1. It is the immensity of the country, 1.5 mio km² with 1.5 mio people living outside the capital Ulaanbaatar, which makes 1 person per km², an unimaginable sparsity of population from a Central European urbanity shaped world view.
- 2. It is the eternity of nature, beyond imagination of little human beings, symbolized (a) by a billion stars night sky, undisturbed by urban light pollution, (b) by the Gobi desert with its two humped Bactrian camels, its Dinosaurs, its wild donkeys.
- 3. It is the immensity of the Mongol Empire under Genghis Khan and his successors, strolling on their fast, small horses, the exact opposite to small scale, sedentary citizenbased city states like today's Bremen. It is the smell of freedom through male power.
- 4. In the case of Dresden as a former East German city, we might add for the elder generation the sentiment of vicinity as neighbours within the Soviet satellite system; though distant in kilometres the countries may have been at their time.

So, we see three times the sentiment of otherness, but a positive otherness. For to attract potential visitors to decide to come physically, first step is to play with these Mongolian miracle stereotypes in exposition title, poster topics and style, internet announcement, press releases, ex ante video clips ecc.

Question #2: Which contemporary general narratives can be used for arising interest among potential visitors, and which information is only available for elites?

Secondly, we must play with contemporary general narratives like a climatic change $+1.5^{\circ}$ (or even more) threatening all these Mongolian miracles.

Hereby, we can play with people's everyday routines like the use of smartphone. Most know people know that there is a high need of rare earthen. But it would probably a new and interesting information, that your smart phone in some parts comes from Mongolia. I would call this intertwining normal life and global chains economy.

What we ought not to do, is to play with empirical facts known only to a small elite, like the fact that Mongolia is the only real democracy east of Poland and west of Japan. From a democratic value point of view, the stability of Mongolia between the two autocratic empires (China and Russia) is invaluable. But this is not an a priori knowledge, which you could use for make people come.

Question #3: How to conceive a dramaturgical basic configuration of our exhibition?

So, let us assume that we have attracted many people to attend our exposition. Since we know, that positive gossip is the most important museum attractor (people tell to other people how great their personal experience was, arising curiosity among their families, friends, colleagues, classmates), we have to steer the visitor's walk through the exposition like a good dramaturg does when steering the audience's living through a highly dramatic opera:

(a) a Grand Opening overwhelming the senses;



Figure 13: The Blue Sky

Source: Institut für kulturelle Infrastruktur Sachsen. Photo: Algirmaa Luvsan, 2017

- (b) a clearly marked path which makes a control of our steering effects possible; oscillating between serious information and anecdotic ear markers in an easy to follow tension- release rhythm. Subtle lead-in to the complexity of the theme.
- Nature is 'first half', Mongolia from a natural sciences' perspective (to be elaborated by Karsten Wesche and his Senckenberg colleagues at the Senckenberg Museum für Naturkunde Görlitz).
- Culture is 'second half', Mongolia from a cultural sciences' perspective (to be elaborated by Matthias Theodor Vogt and his Görlitz colleagues at the Saxonian Institute for Cultural Infrastructure, IKS).
- A Black Room will be 'third half', Mongolia from an active civil society perspective (Senckenberg, IKS, civil society, politics).

Possibly different narrative levels (children, adults). [May be, we might use the turtle from Karakorum as a recurring element].

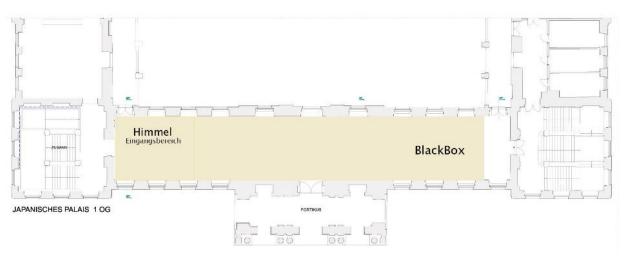


Figure 14: Japanese Palace Dresden, first floor north wing²

Source: Sinah Hoffmann, 2023. Courtesy Senckenberg Natural History Collections Dresden

(c) a catharsis with unclear options how to reach a good ending; Figure 15: Overgrazing the Mongolian Steppe



Source: Institut für kulturelle Infrastruktur Sachsen. Photo: M. Vogt

(d) Black Room with proactive participatory problem-solving. [As the "third half": Mongolia from the perspective of active civil society. Task: "Shape the future of the steppe in Mongolia - Become a steppe guardian"].

At the end there is an invitation: continue working on the problems you have discovered in the exhibition and take part in a competition for the best ideas. Your ideas could eventually be published on the exhibition's website, to be discussed and possibly worked on further by a Mongolian-German Youth Parliament (cf. EU, UN).

(e) a Grand Finale again overwhelming the senses and producing the last, hopefully everlasting impression.

² Exhibition area 372.6 m² of the Senckenberg Natural History Collections Dresden planned opening location of the exhibition "Steppe Guardians" 09/2026 - 01/2027.

Figure 16: Altai seen from far



Source: Institut für kulturelle Infrastruktur Sachsen. Photo: Matthias Theodor Vogt

Question #4: How to design the exhibition?

The Exhibition size might be approx. 200-300 m². It consists essentially of traditional-haptic elements without too precious originals (can then be supplemented accordingly in the permanent exhibition Ulaanbaatar).

- Panels are easy-to-read in German and English (later in the official language of the respective country plus English) with headings in traditional Mongolian script.
- Touch-screen monitors (cf. Samurai Museum Berlin) with in-depth explanations (a) for children, (b) for adults, (c) in several languages (depending on the cooperation partners, may be in Mongolian, Chinese, Russian, Japanese, Korean, French, Italian, and Hungarian languages.). The same for the audio guides (Dresden: connection of the exhibition to the existing guidance system for the blind in the Japanese Palais).
- Depending on funding, individual immersive and multimedia highlights, e.g. in the entrance area (see above); Virtual Reality Animations of the steppe floor and the city of Karakorum, possibly to be developed in cooperation with Sofia; 3D constructions, including a moving dinosaur's mouth as a gateway to an exhibition section, to be developed in cooperation with the German-Mongolian University of Natural Resources and Technology.
- Appealing modern design of exhibition, catalogue etc. (Possibly cooperation with Brno).

The whole exposition is based on the Iceberg principle: visible surface clearly laid out and easy to navigate even for young visitors; further "six sevenths" of the information can be experienced individually, interactively and in many languages via audio guide, monitors, printed catalogue, app, digital catalogue (state of the art for each of the modules)

Question #5: What are Potential Topics How in the Section #1 Nature, Section #2 Culture, Section #3 Black Room?

- 0. Entrance: the Blue Sky/Grand Opening possibly briefly alternating every five minutes with starry skies over the desert, acoustic background with throat singing, etc.
- 1. Nature
- 1.0. [possibly entrance as the mouth of a dinosaur?]
- 1.1. climatology / geology: the dry area in the endorheic basin of Central Asia and the Mongolian drainages of Amur and Baikal.
 - plus migratory bird paradise
 - [Task for pupils: find a resting place between Southeast Asia and Siberia].
- 1.2. main regions: the steppe types, high mountains, Gobi
 - Habitats under extreme conditions
 - [Task: Rising as a cloud in Kazakhstan, raining down at the Altai entrance to Mongolia].
- 1.3. the Miracle Steppe System
 - > The seasons, the freezing of the grasses in autumn,
 - model: the thawing in the stomach of the yak [~cool pizza].
- 1.4. the botanical wonders
- 1.5. soil animals, insects, amphibians, etc.
 - > steppe soil [2-metre model with extreme magnification].
- 1.6. mammals
 - Early antelopes and their predators [their function later with the herdsmen].
 - Camel, horse, yak, sheep, goat
 - Effects of overgrazing
- 1.7. mineral resources and their exploitation [TUB Freiberg].
 - Mobile phone model with regions of origin Rare earths, lithium, cobalt, etc.].
- 1.8. the water balance of Mongolia
 - [Water demand mining, electricity, industry, households vs. herds, other animals, plants; tipping points of water balance].
- 1.9. core message: living with / adapting to climate "change" as a continuum; the amazing adaptive skills of the people of Mongolia.
- 2. Culture
- 2.0. Transition space
 - Starry sky over the desert without "light pollution", possibly with 3D animations or projection on 3D surface. Objective: Learning respect [alternative to the interplay of blue sky / starry sky in the entrance area].
- 2.1. Respect for nature as the basis of herd management and living together with the seasons, plants, animals. [Replacement of sabre-toothed tigers etc. by the herders].
 - Example of this respect: ger, construction, transport, repositioning 2x a day?

- 2.2. Early forms of religion [question: to what extent does the New Age enthusiasm of some Mongolia enthusiasts fall short?]
- 2.3. Artistic emanations of early religion: the UNESCO list (long poems, short poems, throat singing, fiddle etc.) [With live performances and workshops].
- 2.4. Forms of arts education: traditional, socialist, today, collaborations. Festivals market
- 2.5. The traditional Mongolian script
 - Aramaic and other roots: a history of far-reaching cultural contacts
 - [Workshops: Write your own name]
- 2.6. The mythical birth of the Mongolian people according to the "Secret History": When deer and wolf fell in love with each other.
- 2.7. Genetic findings on early settlements (pre-imperial Mongolia: Khitans, Xiongnu [Хүннү улс],³ Göktürks etc.).
- 2.8. The pyramid scheme of Genghis Khan's power.
 - German archaeological findings
 - [DAI, Karakorum models; ev. virtual reality replica (Sofia)]
 - > Problematise 'Genghis Khanism' as a national reference.
- 2.9. Religious Tolerance through the Ages
 - Central Asia as a meeting place of religions in the 1st and 2nd millennia
 - > Nestorian Christianity in the majority of Mongolian tribes in the 13th century.
 - > 13th century. [And silence about it in Western sources, mostly until today].
 - Religious tolerance of Kublai, contemporary with Frederick II of Hohenstaufen.
 - Many "Christianities" until today.
 - Influences from the Middle East: Islam, [ev. Kazakhs]
 - Influences from Tibet and India: Buddhism
 - Buddhism as a framework for the weakening of the Mongolian state system
- 2.10. The Mongols and the West
 - The Silk Road of Ögedei Khan and Successors: Trade, Diplomacy and Cultural Exchange. The Polos as Ambassadors to the Papacy
 - Genghis Khan's heirs before Liegnitz, Budapest and Kiev.
 - Consequences in the Russian understanding of the state
 - Mongolia and Russia today
- 2.11. The Mongols and their East
 - > Han, Manchurian Qing Dynasty, "Inner Mongolia
 - Mongolia and China today

³ An example of problems in Mongolian-Chinese terminology: Xiongnu is the transcription of a Chinese term that is disputed in Mongolia. Хүннү улс, in turn, is close to the Huns. The concept of "steppe" is also complex (тал нутгийн хамгаалагч). Here, too, intensive cooperation with Mongolian colleagues is necessary.

- 2.12. Modernising the treatment of land and nature
 - Pastoralists under socialism: state social system, education, veterinary medicine, social insurance, [ev. syphilis treatment by bismuth].
 - > The establishment of cities (UB, Darkhan, Erdenet) and Aimag centres.
 - Ulaanbaatar's lack of references to Mongolian tradition in architecture and culture, air pollution, 2/3 of the population in Gers;
 economic and cultural situation in the Aimag centres
 - Cattle breeders in predatory capitalism: quadrupling of herds, family separation through education system, land destruction by motorbikes and jeeps
 - Ecological (!) agricultural projects in Mongolia today.
- 2.13. Philosophical moment within the exposition narrative:
 - Alienation: detachment from national identity references, illiteracy towards cultural history and respect for nature, the need for a renewed cultural policy [Khaliunaa].
- 2.14. Women and men in Mongolia between tradition and modernity:
 - Sufferings, hopes, educational deficits, gender issues, strengths.
- 2.15. Renewed statehood in the 20th century.
 - Key message: Mongolia as an example of integration of autochthonous and foreign practices due to its unique geography, environment and historical development. A country and a state that have always been inclusive and open (adaptable) to different influences.
 - Today, Mongolia is the only democracy between Poland and Japan: caught between the Russian Federation and the People's Republic of China. A rare and valuable partner for Europe!
- 3. Black Room. Your task: Become a steppe guardian! Shape the future of the steppe in Mongolia.

Examples of possible tasks; this area still needs to be developed. If applicable, cooperate with existing best practice examples from Mongolia.

- 3.0. Education: Use of satellite dish for distance learning in the ger, led by the mothers plus face-to-face teaching in the Aimag centre.
- 3.1. Dito for distance learning university in cooperation UB-University with international universities in English, Chinese, German, also in the Aimag centres plus 1x per semester two weeks in UB. Develop BAFöG system instead of tuition fees for the Aimag universities.
- 3.2. Develop soil-saving and indestructible pastoral vehicle for the older youth.
- 3.3. Make proposals for a sustainable economy in the Aimag centres outside Ulaanbaatar.
- 3.4. What networks would you establish?
- 3.5. Health system.
- 3.6. Sustainable architecture.
- 3.7. Tourism: Which target groups might be interested in travelling to Mongolia?

- 3.8. Which elements of the Steppe Guard exhibition would you like to put up in your school / in your town hall / in your company? What would you do differently?
- 3.9. Develop partnerships between your hometown, your school and an Aimag centre [list of 21 Aimag centres with information, WITHOUT addresses, only description]. Write a letter to the community, to your classmates, to your teachers. Why would you find a partnership exciting?
- 4. Side Formats
- 4.0. In Dresden: Live performances, workshops, concerts, readings by artists from Mongolia as well as artists showing their work after residency in Mongolia.
- 4.1. Construction / dismantling / handing over of a ger [yurt], in Dresden possibly in the courtyard of the Jap. palace.
- 4.2. Competition of ideas for "Black Room" with a jury as Mongolian-German youth parliament
- 4.3. Preparatory courses in Ulaanbaatar for (a) nature students, (b) culture students to strengthen the Senckenberg team, 3 weeks each in German language (B2 requirement).
- 5. Public Relations
- 5.0. Catalogue
- 5.1. German-Mongolian social media crew
- 5.2. Internet catalogue
- 5.3. Poster competition
- 6. Merchandising and Trade Fair:
- New Mongolian fashion, wool products, small items,
- Sale of Gers abroad (Undral)
- Artist agency (Algirmaa),
- Qualified trips for pupils, students (with credits through cooperation with Suis etc.), nature lovers, camel breeders etc.

Question #6: How to convince the audience to "Become a steppe guardian yourself!" after leaving the exposition?

Mongolian politics and Mongolian (male) society stick extremely to Dshingisism as national ideology. But it should be clear that this is not anymore a solution for nowadays immense Mongolian structural problems. Target point of the exposition is to convince the audience to "Become a steppe guardian yourself!" after leaving the exposition. So we invite her or him to shape the future of the steppe in Mongolia by continuing the experience of the Black Room and to enter proposals how to encounter nowadays Mongolian structural problems. These ideas might become part of a competition for the best ideas, and eventually enter into the exposition internet site, to be discussed by a Mongolian-German Youth parliament.

The parliament should be composed equally by non-capital youngsters and youngsters from Ulaanbaatar, and might be guided by non-capital parliamentarians. To understand

urban-rural differences is extremely difficult, because people arguing from a UB perspective, sometimes are too distant. Others, coming from the herders themselves, declare that there is no other option for herders than to follow the modernization process, and to forget about respect towards nature. How to find solutions within these multiple dilemmata? It only can be achieved by discussions within the civil society itself. Since Mongolia is a perfect example of a fluid society, open to influences from abroad and enriching the surrounding societies as well, this discussion might comprise young civil society from all the participating countries, bringing them in communication with their Mongolian mates.

Conclusion

The main challenge when implementing an interactive exhibition for visitors who have had no previous direct experience of Mongolia and its culture is the contradiction between the brevity of their visit to the exhibition and the complexity of the subject matter.

People are more likely to decide to visit the exhibition who already have the positive narrative of the "endless expanse of the Mongolian steppe with its eternally blue sky" - this image reappears in the exhibition poster as well as in the design of the entrance area.

Each of the 24 modules then needs a nucleus that can be experienced not primarily intellectually but sensually, through which the facts can then be brought across in a playful way. In the case of the module "Economic Hegemony of Tibetan Buddhism in the Manchu Period before 1911", for example, this can be a yak milk candle, as it is often donated to the monastery in the magic number 108 in memory of a deceased person. While visitors comfortably soak up the fragrance that frightens them, they can solve the quiz question: "How many litres of yak's milk does it take to light the candle for a single day?" Is it 3, 7 or 17 litres? Explanation: Yak milk has a higher fat value than cow milk, about six percent. So, you need 17 litres.⁴

What at first seems to the visitor like a gently fragrant greeting to the ancestors, was and is in economic reality a massive withdrawal from the economic cycle, in addition to the above-mentioned withdrawal of possibly 40% of men from social life as fathers, spouses, producers, civil society by the monasteries. The contrast between sensual experience and abstract facts stimulates the visitor's imagination, including questions about their own reality of life.

A key factor for "Steppe Guardians" is the pride and the resulting openness of Mongolians to also talk about their own problems. (Unlike Roma and Sinti (who strictly reject a scientific study of their history and language at German universities (according to Grellmann 1783) as well as the term "Tsiganology", so that an exhibition could rather be organised about them than with them). Many decades of joint Mongolian-German research in both the natural sciences and the humanities have laid the groundwork for the now planned inclusion of visitors in the discussion of the infinite constraints facing Mongolian society both internally and in the Sino-Russian double squeeze.

⁴ Next quiz question for those who want to delve deeper: How many grasses does the yak cow have to eat leaf by leaf for 108 candle days? Is it: 3,000, 13,000 or 30,000 kg of green mass? Explanation: 17 litres is the daily milk yield of eight cows. For 108 candle days, 900 milking days are needed. During these, the yak cow must have ingested around 30,000 kg of green mass leaf by leaf at 68 bites per minute (Tolobekova, 2019)

In the "Black Room", the concluding part of the exhibition, visitors will therefore be invited to independently consider and submit solutions to the challenges, using a wealth of pertinent information.

Like hardly any other country, Mongolia makes it clear that state borders are pure fictions in reality for plants, animals and cultural influences. Almost half of China's sandstorms come from the Mongolian desert and a gigantic reforestation programme by the Mongolian government is now needed; one billion trees are planned.

Due to the extraction of water for mining (as in Brandenburg and Berlin), rivers and lakes are drying up, which is an increasing problem for migratory birds between Siberia and Southeast Asia, and thus for the insect and plant life of a huge territory.

By setting up a binational youth parliament for the first time (a "Friday for the Mongolian Future", so to speak), we want to involve the youth of Germany and Mongolia in the problem discussion of a global co-responsibility.

For this, in turn, it is necessary that the exhibition does not become boring. Whether through a gigantic replica of a dinosaur's mouth with sharp teeth from the 3D printer; whether through insights into the ground animal world of the steppe; whether through live performances of throat singing; or through the possibility of writing and printing out one's own name in Mongolian script—it is always a matter of stimulating the visitors' interest in such a way that they engage with the complexity of the matter with imagination and fantasy.

Living more in harmony with nature in the future is a central connecting line between old Mongolian traditions on the one hand and the convictions and in the imaginations of many young Europeans on the other. It is the task of science to provide reliable data and at the same time to formulate them in a way that is suitable for visitors. The task of politics is to facilitate this cross-national dialogue in the "One World" and to make it clear that "development aid" is always also "self-help".

"Steppenwächter" wants to contribute to the understanding that human beings are by nature a part of nature and cannot be understood separately from it. Just as humans would not deliberately add harm to their own bodies, nature should also be understood as something of its own, whose complex systems should not be deliberately harmed. In our exhibition, this applies to the example of Mongolia, but more broadly it applies to the whole world today. That is why the exhibition will travel between Dresden and the terminus in Ulaanbaatar through major cities of the world, and narrate the active environmental awareness in Saxony as well as in Mongolia.

Literature

Ahlborn J., Lang B., Oyunbileg M., Batlai O., von Wehrden H., Römermann C., Wesche K. (2015): Impacts of grazing on Central Asian steppe ecosystems. Deutscher Kongress der Geographie, Berlin

Asigang (2017). *Nearly eighty per cent of Mongolian territory is subject to different levels of desertification*. 2017 Xinhua News.

Auswärtiges Amt (2020). *Deutsch als Fremdsprache weltweit. Datenerhebung 2020*. [Foreign Office, Ministry of Foreign Affairs].

Auswärtiges Amt (2021). *Die Entwicklungspolitische Zusammenarbeit zwischen der Mongolei und Deutschland hat eine fast hundertjährige Tradition*. [Foreign Office, Ministry of Foregin Affairs]. https://ulan-bator.diplo.de/mn-de/themen/weitere-themen/-/2450300

Bangkok Post (2023). https://www.bangkokpost.com/world/2567414/why-large-parts-of-mongolia-are-affected-by-desertification

Barcus, H. R.; & Werner, C. A. (2010). *The Kazakhs of Western Mongolia: Transnational Migration from 1990-2008*. In: *Asian Ethnicity*, *11*(2), 209.

Batsaikhan, O. (2010). *Rethinking of Mongolian History: Mongolian National Revolution of 1911 and The Last Emperor of Mongolia VIII Bogdo Jebtsundamba Khutukhtu*. Konrad Adenauer Stiftung, Sankt Augustin.

Bilegsaikhan M., Amarjargal S., Enkhtuya N., Lkhamtseden B. (2023). *An Establishment of Ulaanbaatar as a Buddhist Settlement*. Mong. Diaspora. asian-Mongolian Research Center, De Gruyter 2023. https://doi.org/10.1515/modi-2023-2004

Binnick, R. I. (1987). *On the Classification of the Mongolian Languages*. Central Asiatic Journal, 31 (3/4), 178-195.

BMWI (2023). [Bundesministerium für Wirtschaft und Klimaschutz]: *Monitoringbericht Kultur- und Kreativwirtschaft 2022*. https://www.kultur-kreativ-wirtschaft.de/KUK/Redaktion/DE/Bilder/Cover/monitoringbericht-kultur-und-kreativwirtschaft-2022.jpg?__blob=normal&v=1

BMZ (2016). [Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung]: *Zukunftscharta*. http://www.bmz.de/de/mitmachen/zukunftscharta/index.html; www.zukunftscharta.de

Bolormaa, T. S. (2001). *Patterns of migration in Mongolia during 1918-1990*. In: *Acta Universitatis Carolinae, Geographica, No. 1*, 141-145.

Charleux, I. (2003): *Buddhist Monasteries in Southern Mongolia*. In: François Lagirarde. *The Buddhist Monastery. A cross-cultural Survey* (pp.351-390.), Ecole Française d'Extrême-Orient.

Chuluunjav, D. (2017, April 21). Монголын уналт, доройтлын нэг гол шалтгаан нь ламын шашин, мухар сүсэг [One of the main reasons for the decline and decline of Mongolia is lamaism and superstition]. Sonin.mn agency. https://sonin.mn/news/politics-economy/77019

Deutsche Botschaft Ulan Bator (2017). 25 Jahre deutsch-mongolische Entwicklungszusammenarbeit.

Eldevochir, E. (2016). *Livestock Statistics In Mongolia*. Macroeconomic Statistics National Registration and Statistics Office. Asia And Pacific Commission On Agricultural Statistics, Twenty-Sixth Session, Thimphu, Bhutan, 15-19 February 2016. http://www.fao.org/fileadmin/templates/ess/documents/apcas26/presentations/APCAS-16-6.3.5_-_Mongolia_-_Livestock_Statistics_in_Mongolia.pdf

Faith K., Jiannan C., Pengfei L., Juanle W., Jiayu W., & Yafeng Z. (2023). The cross-boundary of land degradation in Mongolia and China and achieving its neutrality - challenges and opportunities. *Ecological Indicators*, *151*, 110311.

Fluck, H-R. (1995). Deutsche Sprache und Deutschunterricht in der Mongolei. *Muttersprache, 105* (3), S. 252-257.

Frings, J. (Ed.).(2005). *Dschingis Khan und Seine Erben: Das Weltreich Der Mongolen*, Kunst- und Ausstellungshalle der Bundesrepublik Deutschland (Bonn), München, Hirmer Verlag

Jørgensen, H., Hopp, P., Moldal, T., & das Neve, C. G. (2020). *Report on the Norwegian-Mongolian mission* NOR-MON-HEALTH. Norwegian Veterinary Institut.

Marzluf, P. P. (2017, February). Literacy under Authority: The Mongolian Cultural Campaigns. *The Journal of Asian Studies*, *76*(1), 135-157. Duke University Press

Miroshnikov, L.I. (2005). A note of the meaning of the term 'Central Asia' as used in this book. In A. H. Dani (Ed.), History of Civilizations of Central Asia: The Dawn of Civilization – Earliest Times to 700 B.C. (pp.477-480.). UNESCO.

National Statistics Office Mongolia (2017). *Population development 1979-1989-2000-2010-2015*.

National Statistics Office Mongolia (2023a). *Livestock reached* 71.1million heads, rose5.6% from the previous year. Published: 16 January 2023. https://www.1212.mn/en/dissemination/48963228

National Statistiscs Office Mongolia (2023b). *National Statistics*.

Rybatzki, V. (2003). *Intra-Mongolic Taxonomy*. In J. Janhunen (Ed.), *The Mongolic Languages* (pp.362-390). Routledge.

Soninbayar, G. S. (2017). Монголын төрөөс шашны талаар явуулсан бодлого: Баримт судалгаа [The Mongolian government's policy on religion: A case study]. https://www.zms.mn/a/44799

TOLOBEKOVA, A. (2019). TIER-UMWELT-INTERAKTIONEN bei YAKS (*Bos grunniens*) *im kirgisichen Hochgebirge*. Dissertation Humboldt-Universität zu Berlin.

UNESCO (2005). *History of civilizations of Central Asia, v. 6: Towards the contemporary period: from the midnineteenth to the end of the twentieth century.*

UNESCO (n.d.). *Mongolia. UNESCO Intangible Cultural Heritage*. Retrieved September 7 2023 from https://ich.unesco.org/en/state/mongolia-MN

United Nations (2015). UN Take Action for the Sustainable Development Goals. http://www.un.org/sustainabledevelopment/sustainable-development-goals/

UNPD (2019). *Air Pollution in Mongolia. Opportunites for Further Action*. United Nations Population Division. UNFPA (n.d.). *World Population Dashboard Mongolia.* United Nations Population Fund. Retrieved September 11, 2023 from https://www.unfpa.org/data/world-population/MN

Ulziibaatar, D. (2004). Яагаад 1937 он [Why 1937], 274), Мөнхийн үсэг [Munkhyn Useg].

Vogt, M. T. (2017). *Steppenwächter. Konzept einer mongolisch-deutschen Ausstellung "Steppenwächter". Bezug: Gespräch und Briefwechsel Botschafter Duppel, Prof. Vogt.* Görlitz und Ulaanbaatar, 18. Oktober 2017 Weiers, M. (2004). *History of the Mongols.* Kohlhammer.

Welthungerhilfe (2022). *Global Hunger Index*.

Wesche, K. (2007). *Plant survival in southern Mongolian desert steppes: ecology of communities, interactions and populations*. Halle, Univ., Nat. Fak. I, Habil.-Schr., 7200

Williams, E. T. (1916, October). The Relations Between China, Russia and Mongolia. *The American Journal of International Law, 10* (4), 798-808

World Bank (2011). *Air Quality Analysis of Ulaanbaatar Improving Air Quality to Reduce Health Impacts*. Discussion Paper 66082 v1. Washington DC.

World Bank (n.d.). *Data Mongolia*. Retrieved 7 September 2023 from https://data.worldbank.org/country/MN