

1 The Nivkh and Nanai

Summary 1.1 The People, The Environment. – 1.2 Ethnographic Records. – 1.3 Regional Ecology. – 1.4 The Fish. – 1.5 Technology. – 1.6 Tanning. – 1.7 Natural Dyes. – 1.8 Sewing Implements. – 1.9 Clothing. – 1.10 Clothing details. – 1.11 The Power of Sewing. – 1.12 Decorations in the Back. – 1.13 Embellishment Motifs. – 1.14 Footwear. – 1.15 Leggings. – 1.16 Mittens. – 1.17 Hunting Belts. – 1.18 Bags. – 1.19 Tents. – 1.20 Siberian Shamanism. – 1.21 Gender and Transformation in Amur Shamanism. – 1.22 Fish Skin Tradition Today. – 1.23 Conclusions.

1.1 The People, The Environment

The lower Amur River [fig. 5] has historically served as a cultural and economic corridor in southeastern Russia, a region referred to as the Russian Far East. Forming the boundary between Russia and Manchuria, the Amur merges with the Ussuri River near Khabarovsk before ultimately flowing into the Sea of Okhotsk (Van Deusen 1997). Stretching over 2,700 miles, it is the largest river in Siberia and shares comparable dimensions and elevation with the Yukon River in Alaska, both regions having historical ties to fish skin art traditions. Since antiquity, the river, as cultural crossroad, supported early trade networks linking China, Mongolia and the Siberian interior and connected Native communities, facilitating exchanges of artistic and technological knowledge that shaped the cultural landscape of the region (Rajagopalan, Bujis 2003).



Figure 5 Map depicting all of Siberia and Central Asia. 1871. David Rumsey Map Collection, David Rumsey Map Center, Stanford Libraries, Stanford, California, USA

In prehistoric times, settlements developed along the Amur River valley, where salmon were abundant. Semisedentary fisher-gatherer communities occupied coastal areas and the mouths of rivers and deltas across the major Siberian river basins, including the Ob and Amur and their tributaries. These groups settled in regions rich in fish, terrestrial fauna and accessible plant resources (Graeber, Wengrow 2021). The subsistence pattern based on fishing within a semisedentary framework represents an ancient adaptation. In the Amur region, it is found from the Neolithic period and in the Ob River basin from at least the Bronze Age through to the second millennium BCE (Korotayev et al. 2024). Later migrations of Manchu from northern China introduced farming, animal husbandry and metalworking to Siberia, while the lower Amur's harsher climate helped preserve Indigenous fishing and hunting traditions (Krupnik 1995). The artistic and spiritual heritage of the region is preserved in the petroglyphs at Sikachi-Alyan,¹ dating back 5,000 years and in archaeological sites such as Kondon, referred to as the 'Pompei of the Amur', which reveal continuous human settlement over 25,000 to 30,000 years (Okladnikov 1981; Doury 1999). These stone carvings demonstrate that the ancestors of today's Indigenous populations have inhabited the vast territories of the Lower Amur since time immemorial. They also attest to the development of a rich and long-lasting culture, traces of which are still visible in nineteenth and twentieth centuries fish skin embroidery patterns by the Nanai, Ulchi and Nivkh featuring motifs that directly echo the ancient petroglyphs [fig. 38] (Rajagopalan, Bujis 2003).

1 The petroglyphs of Sikachi-Alyan, north of Khabarovsk by the Amur River, remain visibly until today. According to Ulchi oral tradition, the petroglyphs originated during an era when three suns overheated the Earth. As the rocks softened, people imprinted designs with their fingertips, until a mythical hero shot down two suns to restore balance. For the mythology see Van Deusen 1996. These rock carvings depict human faces, masks, spirals, elk, swans, ducks and mammoths. For the petroglyphs' motifs of Sikachi-Alyan See Okladnikov 1981. These motifs, excluding the mammoth, recur in the fish skin decorative elements of nineteenth century Amur Native robes. For the connection of the petroglyphs' motifs and fish skin garments see Van Deusen 1997.

The Amur basin has for centuries been home to a number of Indigenous nomadic and seminomadic groups, including the Nivkh (Gilyak), Nanai (Goldi) [fig. 6], Ulchi, Uilta, Udege [fig. 4], Orochi and Negidal in Russia. Other Nanai communities reside on the Chinese side of the Amur River, where they are known as Hezhe and they are examined in detail in the next chapter (Levin, Potapov 1964; Vanstone 1985, Black 1988). Negidal, meaning '(river) side people' in Evenk, refers to communities that left nomadic life for settlement along the Amgun River, one of the tributaries of the Amur River flowing into the left bank. Upper Amgun Negidals remained semisedentary and continued reindeer herding, while Lower Negidals adopted elements of Nivkh subsistence practices but maintained their own traditions. The Ulchi share subsistence and kinship patterns with the Nivkh, Nanai and Orochi, shaped in part by cultural connections with Manchu groups of the middle Amur during the fourth to seventh centuries CE. The Uilta are an Indigenous Tungusic-speaking people of Sakhalin Island whose livelihoods traditionally combined reindeer herding, hunting, fishing and trade. Their ethnonym derives from ula (reindeer), reflecting the importance of reindeer pastoralism in their economy. Linguistically, the Uilta language is more closely related to Nanai and Ulchi than to Orochi, whose language is associated with the Udehe branch of the Tungusic languages. The Orochi inhabit the southeastern Lower Amur region between the river and the coast, while the Udege occupy territories further south. These groups practised hunting and fishing (Korotayev et al. 2024) and share linguistic and cultural ties with the Nivkh and Ainu who migrated from Sakhalin and Hokkaido Islands. Their economies and material cultures developed in interaction with neighbouring Chinese, Manchu, Japanese, Korean and Russian populations, fostering exchange and resistance to external influence (VanStone 1985).

During the first and second centuries AD, the Amur region, Korea and Japan constituted a unified cultural entity. From the seventeenth century onward, Chinese influence dominated, until the arrival of the Russians in the 1800s (Stephan 1994). Historical ties between the Nivkh and the Mongols are documented from the twelfth century (Okladnikov 1968; Stephan 1971). In 1263, the Nivkh allied with the Mongols to repel an Ainu invasion from Hokkaido (Marks 2024). Under both the Ming (1368-1644) and Qing (1644-1911) dynasties, the Nivkh became Chinese tributaries. Marriages between Nivkh women and Chinese or Manchu officials facilitated cultural exchange,² including in clothing design³ (Marks 2024). During the eighteenth century, Chinese authorities appointed Nivkh headmen to mediate governance, introducing a centralised leadership model that conflicted with traditional Nivkh societal structures⁴ (Schrenck 1881; Shternberg 1893). The Amur Nivkh, traditionally autonomous, resisted such authority, yet engaged in

² Although Chinese and Manchurian records present the marriage policy as advantageous for tribute-paying groups, Indigenous accounts indicate that Manchurian authorities requested their daughters in marriage in order to increase gains from the fur trade through kinship ties. See Sasaki 2016.

³ See Kozakand 2011 for a discussion on the Nivkh women's festival robes (*hukht*), with tapered sleeves, curved hemlines and diagonal closures, resembling Manchu robes introduced to the Chinese Qing court when they conquered China in 1644.

⁴ Among the Nivkh, there was no word for 'leader', they were all equal and authority depended on skill, intelligence and spiritual connection, particularly in hunting expeditions. Leadership was situational and non-hereditary. Similar structures existed among Arctic Natives Peoples, including the Inuit. See Bujis 1984.



Figure 6 *Jesup North Pacific Expedition, A Nanai group, Amur River, Siberia. 1897-1902.*
Accession no. 41614. AMNH Special Collections, New York, USA

trade with the Chinese. Transporting goods via the Sungari River to Sanxing (三星) present-day Yilan (依兰), the nearest major Chinese city, the Nivkh exchanged furs for Chinese silk, brocade and cotton goods (Schrenck 1881; Smolyak 1960). These textiles were then re-traded to Japanese outposts in southern Sakhalin, placing the Nivkh in a strategic position within regional trade networks. Trade with Chinese and Manchu merchants positioned the Nivkh as intermediaries in the circulation of goods between the Amur region, Sakhalin, and northern Japan (Schrenck 1881; Bujis 1984; Sasaki 2023). This role generated wealth and contributed to social differentiation. Whereas status had previously been associated primarily with successful hunters, participation in trade also became a source of influence. Japanese contact with the Nivkh began in the eighteenth century, penetrating the southern part of Sakhalin and establishing a few outposts. Nivkh traders travelled by sea and land to the Japanese trading post of Shiranushi, located at the southern tip of Sakhalin. In Nivkh tradition, their long-lasting relationships with both Chinese and Japanese were framed in kinship terms (Shternberg 1893).

Russian contact with the Amur River Native Peoples began in the mid-seventeenth century through Cossack incursions, leading to fur tribute demands. Although initially repelled by Chinese (Manchurian) forces for over 200 years, Russian expansion into Siberia and the Amur region progressed, prompting waves of settlers, Orthodox missionaries and traders in search of pelts. In 1858 and 1860, Russia formally annexed the Lower basins of the Amur River and the Priamurye region. Railroads, towns and villages were built, while Indigenous communities were displaced, losing access to hunting and fishing grounds and becoming a minority amid Russian, Chinese and Korean newcomers (Krupnik 1995). With the establishment of the port of Vladivostok in 1858, the region grew as a multi-ethnic trade hub (Diatchkova 2001). Despite the central government's efforts to encourage agriculture, the harsh climate and terrain meant that many settlers had to rely solely on fishing. In addition, Russian settlers widely ignored the territorial rights of the Native population and burned part of the taiga to turn it into farmland. Colonial policies favoured the wealthy Indigenous elites, giving them money, land and rank, being the first to adopt the Russian way of life, marginalising the poorer Native communities that soon became totally isolated and fostered cultural resistance against Russian culture and in favour of their own traditions (Bujis 1984).

Amur River Natives were once more dispossessed of their ancestral lands when, in 1928, the Soviet Union established the 'First Israel' in the Birobidzhan District as the Jewish Autonomous Region (JAR), designated as an official territory for Jewish resettlement (Vitale 2014). The region, approximately the size of Belgium and situated 320 km west of Khabarovsk, was originally named by the Natives after the Bira and Bidzhan tributaries of the Amur River (Weinberg 1988). Conceived as a socialist alternative to Zionism, Birobidzhan was intended to cultivate a proletarian Jewish culture in Yiddish (Vitale 2014). Stalin's plan to relocate Jews to this border also responded to geostrategic concerns related to possible Chinese and Japanese expansion, but it seriously affected local Indigenous populations, subjecting them to border management regimes. The creation of the JAR exemplifies colonial notions of 'empty lands' awaiting settlement, legitimising the dispossession of Indigenous Peoples and erasing their historical presence. Native communities were marginalised, their cultures reduced to static representations in museums. They were portrayed as 'people of nature',

requiring no consent for the use of their land and expected to welcome development imposed by outsiders. Yet again, Amur River Natives were excluded from territorial rights (Peshkov 2021).

The Sovietisation of the Amur region in the 1920s formalised Russian control, initially creating 'Native districts' to promote Indigenous political participation. However, the region's economic value, particularly its fish and timber, led to the dissolution of these autonomous areas (Krupnik 1995). Soviet policies toward Indigenous Peoples shifted with each regime. Lenin denounced Tsarist oppression, while Stalin's purges targeted perceived enemies, including shamans and artists. Traditional spiritual practices were suppressed and Indigenous livelihoods shifted from fishing and hunting to wage labour under Soviet modernisation, now equipped with radios, televisions and sewing machines (Black 1988). Although the state supported Indigenous crafts and subsistence fishing activities for economic and cultural purposes, these efforts were marginal. Native arts were reframed as 'folk' traditions within a paternalistic nationalist discourse (Povoroznyuk 2021). During de-Stalinisation (after Stalin's death in 1953), state-sponsored cooperatives encouraged the commercialisation of local ethnic arts and the wearing of ethnic costumes during civic festivities (Rajagopalan, Bujis 2003), with festivals forced to coincide with the anniversary of the Bolshevik revolution in November (Black 1988). Under Gorbachev's Perestroika in the 1980s, non-Russian citizens were now free to resume a 'traditional life' (Rajagopalan, Bujis 2003). Ethnographers pointed to the need for teaching to revive traditional skills (Taksami 1970), which led to the creation of workshops throughout Siberia aimed at preserving regional Indigenous art (Smolyak 1988).

Although local cultures, languages and traditions were nominally permitted, they remained secondary to socialist integration. Environmental degradation from dam construction and salmon run collapse added to Indigenous pressures. The Amur River border, sealed since 1860, has long shaped regional anxieties, especially fears of Chinese 'invasion' despite growing trade.⁵ The impact of the border is clearly evident to this day among the local fishing communities, as Chinese and Hezhe fishermen are restricted to one side of the river, while Russian and Nanai fishermen can only fish on the other⁶ (Dalles Maréchal 2020).

In response to control and environmental degradation, Indigenous groups have grown increasingly assertive (Krupnik 1995). Following the Soviet Union's collapse in the 1990s, movements for Indigenous self-determination gained momentum. Inspired by Native Inuit and Sámi initiatives, local associations emerged to reclaim language, arts and fishing

5 Since the early twentieth century, the Amur River has functioned as a largely closed border between China and Russia despite its continued role as an important commercial corridor. See Arnaud 1925. Following the end of the Soviet period, cross-border economic exchanges increased, and relations became more open in commercial terms. See Humphrey 2012. Nevertheless, on the Russian side, concerns about a perceived Chinese 'invasion', associated with Chinese migrant workers, have remained part of public discourse. See Billé 2012; Ryzhova 2012.

6 The geopolitical division of the Amur River continues to shape the livelihoods of local fishing communities. Chinese and Hezhe fishers are confined to the southern bank of the Amur River and the western bank of the Ussuri River, while Russian and Nanai fishers are restricted to the northern and eastern bank of the Amur. This enforced separation limits access to traditional fishing grounds and demonstrates how national borders continue to disrupt Indigenous fishing practices and cross-border cultural relationships.

rights. The formation of the Association of Minority Peoples of the North marked a pivotal step in cultural and political resurgence (Doury 1999). This shift enabled new expressions of indigeneity, shaped through local cultural re-engagement, including resistance to infrastructure projects. Despite continued reliance on vague legal definitions, local articulations of indigenous identity persist and evolve to this day (Varfolomeeva 2019).

The Western colonial development paradigm is increasingly being revised to incorporate local histories and Indigenous life projects (Blaser et al. 2004). During the Soviet era, Indigenous Peoples of the North were subordinated within a paternalistic framework that cast Russia as the ‘elder brother’ in a national family, prioritising unity under one language and ideology (Bujis 1984), shaping discourses on Russian identity (Slezkine 1994). Representations of Natives ranged from victims of capitalist exploitation to endangered and dying cultures (Ssorin-Chaikov 2000). Unfair policies had positioned for decades Indigenous groups as subjects of state-led missions focused on literacy, cultural reform and collectivisation (Grant 1995), transforming traditional lifestyles and nomadism (Povoroznyuk 2021).

Today, the revival of Native art and the intergenerational transmission of knowledge, in school workshops offering fish skin tanning, birch bark art and Nanai embroidery, are calling for a return to cultural roots. Whether it is a unique genetic predisposition or an unbroken connection to ancestral knowledge that transcends ideology and forgetfulness, Indigenous Peoples with no previous experience begin to make extraordinary objects after just a few lessons (Glebova 2010b). This revival of traditional art is a return to cultural roots, and it reveals a resilient thread of ancestral knowledge that, once activated, empowers even first-time practitioners to create unique artworks, suggesting that tradition endures not only through learning, but through cultural memory.

1.2 Ethnographic Records

Ethnographic research about the Indigenous populations of the Russian Far East began with early colonial incursions beyond the Urals and was shaped by the consolidation of the Russian Empire’s eastern borders (Ivanov 1989; Glebova 2010b). The earliest documentary references to the Indigenous Peoples of the Amur River basin appear in Chinese historical records dating to the third century CE. More detailed descriptions of the ancestors of the Nivkh, Nanai, Udege and Ainu were recorded following the Mongol expansion into the region in the thirteenth century and were compiled in works such as the *Liao Dong Shi*, first edited in 1433 (Sasaki 2023).



Figure 7 Evert Ysbrandsz Ides and Nicolaas Witsen, An Ostyak family fishing sturgeon, *Three-Year Journey to China*. 1710. Engraving. Leiden University Libraries Special Collections, Leiden, Netherlands

Despite their value, these early Chinese accounts received little attention from European and Russian researchers. Seventeenth-century Russian documents provide some of the earliest ethnographic observations available in European sources. These, including I.G. Spafary's *Tale of the great river Amur* and the 1639 *Inventory of rivers and names of people on which river which people live*, offer brief references to local Native groups, Nivkh, Nanai (Goldis),⁷ and Negidals, whose subsistence was based on fishing and wore garments made of fish skin (Sem 1973). Further observations were recorded in the *Three-Year Journey to China* by Evert Ysbrandsz Ides, a Dutch envoy to the Kangxi Emperor, who travelled overland accompanied by nine Russians and twelve Germans. Drawing on a map provided by Nicolaas Witsen, he

7 Goldi, Golds, Goldes and Samagir are former terms for Nanai.

described regions along the Ob River inhabited by the Ostyaks, noting the abundance of furs and fish, including salmon and pike. He reported that their clothing was made from salmon and sturgeon skins [fig. 7] (Ides, Witsen 1710). Systematic ethnographic research only began in the mid nineteenth century. The 1849-55 expedition of G.I. Nevelskoj marked the first detailed documentation of the Gilyaks (Nivkh).⁸

Richard Maak (1859), a geographer and botanist who conducted fieldwork in the Amur basin, provided some of the earliest detailed ethnographic descriptions of Indigenous communities. He described the artistic practices of Amur River Peoples, noting the transformation of utilitarian objects through woodcarving and the use of decorated fish skin garments. With the approval of Nicholas I, Thomas Witlam Atkinson [fig. 8], an English mason, stone carver and traveller, journeyed through the Asiatic territories of the Russian Empire. On his return to England, he published *Travels in the Regions of the Upper and Lower Amoor* (1861), an account of journeys undertaken between 1848 and 1852 in the eastern regions of the empire, with observations on their natural history and ethnography. Atkinson acknowledged Richard Maak's research in the foreword to the volume.

Following Maak, Russian ethnographer Ivan Alekseyevich Lopatin on his monograph *The Golds of Amur, Ussuri and Sungaria* (1922) was the first to propose a study of the Nanai Peoples of the Amur and Ussuri rivers in 1922. He noted their use of fish skin in clothing – robes, mittens, hats and footwear (Glebova 2017). Lopatin's contributions, based on fieldwork from 1913 to 1919 and subsequent research as director of the Khabarovsk museum, form the basis for later studies of Nanai material culture.⁹

Key nineteenth century ethnographers – including Shrenk, Sternberg, Pilsudsky and Lopatin – advanced Far Eastern ethnography into a more scientifically grounded discipline (Glebova 2010b) with ethnographic material of the Nivkh by Schrenck, Shternberg, Kreinovich and Taksami (Black 1973). Academician Leopold Schrenck led a scientific expedition to the lower Amur River and Sakhalin Island (VanStone 1985) and published a richly illustrated collection of Nanai, Nivkh and Ulchi artefacts, placing them among the greatest artists known to world ethnography (Okladnikov 1981). Schrenck (1881) documented Nivkh summer tents constructed from salmon skins and offered comparative analyses of Nivkh and Ulita culture, though coverage of the latter was limited (Black 1973; VanStone 1985). Russian explorer V.K. Arsenyev further confirmed the essential role of fish skin in Indigenous winter gear, including clothing, footwear, tents, sled covers and tobacco pouches (Glebova 2017).

Sternberg's studied Nivkh social organisation, including kinship and marriage. He contributed to the *Jesup North Pacific Expedition Reports* and wrote *The Social Organization of the Gilyak*, although the manuscript was never published, it was deposited posthumously by Boas¹⁰ in the archives of the American Museum of Natural History (Black 1973). Franz Boas, a key figure in American anthropology, with positive views about

⁸ The historical term 'Gilyak', refers to the Nivkh, as recognised in current usage and official Soviet nomenclature.

⁹ Lopatin 1916; 1960; Ivanov 1954; 1963; 1988; Dalles Maréchal 2020.

¹⁰ The *Jesup North Pacific Expedition* (1897-1902), led by Franz Boas and sponsored by the American Museum of Natural History, investigated cultural links across the Bering Strait, documenting Indigenous cultural practices threatened by colonialism.



Figure 8 Thomas Witlam Atkinson, A Goldi (Nanai) man, *Travels in the Regions of the Upper and Lower Amoor*. 1860. Leiden University Libraries Special Collections, Leiden, Netherlands

Soviet indigenisation policies, worked closely with Russian and Soviet anthropologists, including Sternberg, Jochelson and Bogoras (Kan 2024). The most comprehensive visual and material records appear in the *Istoriko-etnograficheskiy atlas Sibiri* (Levin, Potapov 1961), with the illustrations of objects which accompany the sections written by Prytkova and Vasilevich and Levin (1961). Taksami Chuner Mikhailovich (1931-2014), a Nivkh scholar and the first Indigenous Doctor of Science in the Russian Academy of Sciences, made major contributions to the study of Nivkh traditional culture through extensive fieldwork in Sakhalin and the Amur region. He published studies on Nivkh clothing (Taksami 1964) and artefacts in the Museum of Anthropology and Ethnography in Leningrad (Taksami 1970) (VanStone 1985).

Berthold Laufer, a nineteenth century American ethnographer and sinologist, produced one of the earliest Western studies on the decorative art of the Lower Amur (Wierbowski 2015). His writings on Nivkh material culture¹¹ (1900; 1902) are now considered inadequate due to a strong diffusionist bias. Laufer viewed Amur art as derivative of Chinese and Japanese forms and characterised Nivkh artistic expression as lacking symbolic depth and representational ability,¹² positions later critiqued for underestimating the cultural depth of Indigenous visual traditions (Black 1973). The Soviet scholar S.V. Ivanov (1961) devoted two entire works to iconography in the Amur region (Ivanov 1954; 1963). Like Laufer, Ivanov also failed to examine Nivkh art itself as a whole and to interpret the symbolism of decorative elements (Black 1973). While offering technical analyses of Nivkh artefacts, he insisted on a cross-cultural comparative method and the importance of Chinese influences (VanStone 1985).

Despite the breadth of material, Amur River fish skin collections at Russian, European and American museums remain under published (Black 1973; VanStone 1985). William W. Fitzhugh's *Crossroads of Continents: Cultures of Siberia and Alaska* (Fitzhugh, Crowell 1988) celebrating the diversity and common ancestry of the Siberian and American peoples of the Bering Straits, is the most significant Circumpolar ethnological publication of the century, including one of the first single comprehensive studies of Nivkh material culture from Lydia Black (1973; 1988) a study of the Native Peoples of the lower Amur River and Sakhalin Island based on a wide variety of secondary documents in English and Russian languages. Another important study of Nivkh material culture is James VanStone's 1985 analysis of the Pogosky collection. VanStone (1925-2001), curator of North American collections at the Field Museum of Natural History, Chicago and a leading Arctic anthropologist, documented 59 objects from the Nivkh, Ulita and Evenki of northern Sakhalin, providing evidence of female material culture (VanStone 1985).

The work of Shiro Sasaki has been instrumental in advancing the study of Indigenous communities of the Russian Far East. His studies of Japanese ethnographic research in Siberia (Sasaki 2003), Indigenous transborder activities between the Russian and Chinese empires (Sasaki 2016) and the

¹¹ The material culture studies conducted by Berthold Laufer were collected under the auspices of the *Jesup North Pacific Expedition*. See Laufer 1900.

¹² Laufer's assessment in *The Decorative Art of the Amur Tribes* portrays the Native groups as artistically limited and undeveloped, dismissing their ornamentation as poor and praising only Chinese influence. See Laufer 1902.

history of Indigenous communities in the southern Russian Far East (Sasaki 2023) have highlighted the historical connections linking peoples across the Amur and Sakhalin regions. Igor Krupnik (2026) has subsequently documented Indigenous Siberian ethnographic collections in United States museums, providing an overview of their collecting histories and current locations.

Cunera Buijs, anthropologist and curator of Arctic collections at the Wereldmuseum in Leiden, has made a substantial contribution to research on Nivkh and Ulita clothing from the pre-Soviet to the post-Soviet periods. Her work on women's material culture established an important focus within a field largely dominated by male anthropologists. Extensive fieldwork on Sakhalin Island informed both her publications and her acquisition of historical Nivkh belongings. The museum houses a significant collection of fish skin garments, accessories, sails and tent coverings from the Amur region to Sakhalin (Buijs 1984; Rajagopalan, Buijs 2003). More recent contributions include the work of Olga Smoljak, who provided interdisciplinary perspectives on history, economy, religion and politics, documenting the shifts in vernacular use and ritual life under Soviet influence (Smoljak 1962-2006; Dalles Maréchal 2020). Evdokija Aleksandrovna Gaer, a Nanai ethnographer from the Khabarovsk area, combined ethnographic training with a political career dedicated to Indigenous rights. Her monograph on Nanai rites traced religious transformations and the decline of shamanic practice in the latter half of the twentieth century.¹³ Elena Viktorovna Glebova's extensive fieldwork, alongside her curatorial collaboration with Daria Cevoli on the exhibition *Esthétiques de l'Amour: Sibérie extrême-orientale* at the Musée du quai Branly in Paris, has advanced contemporary scholarship on fish skin art from the Amur River basin.¹⁴ Cevoli's work draws on the long-standing French tradition of Siberian anthropology, particularly research conducted at the Musée de l'Homme by Laurence Delaby on Tungus shamanism, which resulted, with Marie-Lise Beffa, in the 1999 publication of an analytical catalogue of Siberian shamanic objects held in the museum. Dalles Maréchal, also involved in the *Esthétiques de l'Amour* exhibition, has produced studies on Nanai funerary rites (2010), identity reconstruction through shamanism and embroidery (Dalles Maréchal 2020), nuptial clothing practices (Dalles Maréchal 2022) and a comparative analysis between Hezhe and Nanai embroidery within heritage-making processes (Dalles Maréchal 2023). Finally, Nanai artist Anatoly Donkan's lifetime research on tanning and the production of fish skin artefacts, originally supported by Nanai historian Nikolai Batunovich Kile, has recently been documented (Buijs 2021; Donkan, Bohert 2021; Kasten 2026).

¹³ A Nanai ethnographer from Khabarovsk Krai, Gaer combined academic research with political engagement on behalf of Indigenous communities. Drawing on fieldwork undertaken between the 1960s and the 1990s, she published a monograph on Nanai rites that documents religious change and the decline of shamanic practice in the second half of the twentieth century. See Gaer 1983; 1991a; 1991b. See also Dalles Maréchal 2020.

¹⁴ Glebova's research is based on extensive fieldwork in the Amur River basin and has been disseminated through a series of publications. Her collaboration with Daria Cevoli on the exhibition *Esthétiques de l'Amour: Sibérie extrême-orientale* at the Musée du quai Branly further contributed to the study of fish skin art from the region. See Glebova 2006; 2007; 2010a; 2010b; 2015; 2017; 2019.

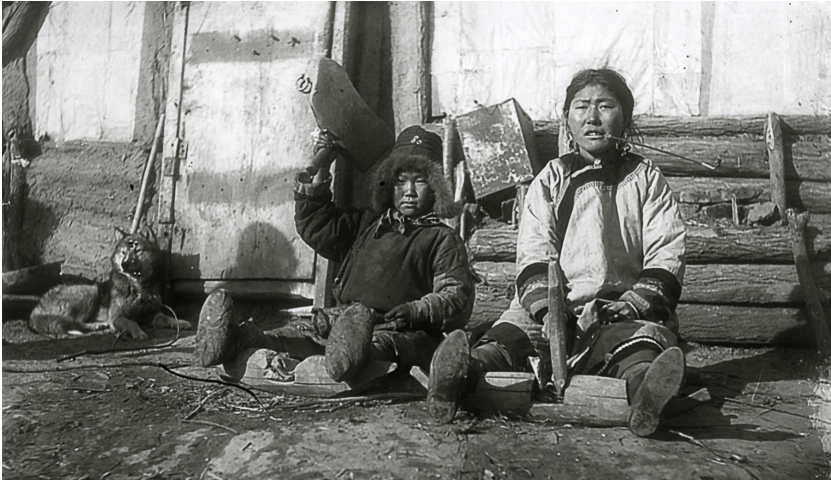


Figure 9 Pyotr P. Shimkevich, Woman and boy processing fish skin. 1896. Accession no. CC BY-NC-SA 4.0. Berlin State Museums, Ethnological Museum, Berlin, Germany

1.3 Regional Ecology

Amur Peoples [fig. 9] have long drawn their livelihoods and material culture from the natural environment (Cevoli, Dalles 2015). Fish, particularly salmon, sturgeon and carp have historically been the main source of food, clothing and other daily necessities. The veneration of these resources is reflected in rituals to worship the spirits of the water element, taboos governing fishing practices and seasonal rituals in spring and autumn. This occurred during the *keta poutine* festival, when the autumn river was filled with salmon and the Natives had to gather enough stocks to produce dried fish, their ‘daily bread’ and staple food in winter. Ceremonial offerings, including berries and fish jelly made from skins, were sent downriver in birch bark boats to the spiritual realm of *Temu*, the master of aquatic domains. Today, such traditions persist symbolically, with fishermen offering tobacco to the river before fishing (Glebova 2010b). In spring and autumn, major fishing events continue to bring people together during the spawning season from June to September, when fishing takes centre stage in these communities (Dalles Maréchal 2020). The Nivkh moved between riverbanks and coasts, with autumn marking the shift to land hunting (VanStone 1985).

The spirituality of Amur societies distinguished between humans and animals, although animals were considered to possess human qualities, entered into kinship relations with people, co-operating with one other. Animals responded to people’s needs by offering their bodies to feed them. In return, animals were given offerings (Okladnikov 1981). Though agriculture was introduced in the mid nineteenth century, dried and frozen fish remained vital for the Nivkh, who traded it with the Ainu and neighbouring groups along the lower Amur (VanStone 1985).

The environment of the Nivkh and the Ulita dominated by taiga, rivers and marshes areas along the Amur River and on Sakhalin Island, shaped both settlement and survival. Seasonal rhythms governed fishing. The rivers were frozen for much of the year and during the winter ice fishing took place,



Figure 10 Ulita house model with bark exterior and salmon skin door.
Accession no. 2003-43-122. Amur River, Siberia. Penn Museum, Philadelphia, USA

Figure 11 Leopold von Schrenck, Nanai summer tent (lower figure).
Reisen und Forschungen im Amur Lande. 1881. Leiden University Libraries
Special Collections, Leiden, Netherlands

with up to 300 fish being caught in a day. In summer, the rivers teemed with salmon, sturgeon and carp. Fish were netted, cooked, dried and stored as *yukola*, which also fed their dogs. Homes were adapted to the landscape, with winter log cabins located near forests and summer tents with fish skin coverings built near rivers. The hut's windows were also covered with fish skins over a lattice that let in the light (Lansdell 1882; Bujis 1984) a tradition shared with Sámi Natives (Palomino 2022).

Fishing was a family endeavour: men caught the fish, women and children processed it and women crafted garments from the skins (Dalles Maréchal 2020). When men were away hunting, fishing was carried out by women, children and Elders, providing sustenance and helping prevent food scarcity. They harvested only what was necessary, never stocked excessive amounts of fish and procured just enough to survive the winter. And nothing was wasted. Skins were preserved for future use, flesh sliced thin for drying, bones dried for dog food and fat extracted from heads and entrails for cooking. Even vertebrae and fish bones were transformed into toys and mobiles for children, combining practical use with recreational activities (Glebova 2010b; 2015).

1.4 The Fish

The Amur River is inhabited by over one hundred fish species, with Pacific salmon (*Oncorhynchus keta*) being the most prolific (Oakes, Riewe 1998). The Indigenous communities possessed detailed knowledge of the properties of each fish species, using this to select appropriate skins for different purposes. Most used species include chum salmon [fig. 12] (*Oncorhynchus keta*), humpback salmon (*Oncorhynchus gorbuscha*), huchen salmon (*Hucho Hucho*), Brown trout (*Salmo trutta*), Kumzha (*Salmo trutta*), Siberian giant trout (*Hucho taimen*), Amur carp (*Cyprinus rubrofasciatus*), kaluga (*Huso dauricus*), Sakhalin sturgeon [fig. 13] (*Acipenser mikadoi*), Atlantic wolffish (*Anarhichas lupus*) and Amur pike (*Esox Lucius*) (Elarbi et al. 2020; Marks 2024; Palomino et al. 2026). Depending on local availability, those skins were traditionally used in Western Siberia for summer clothing and footwear for their wind and water resistance properties and in the Russian Far East throughout the year (Georgi 1799; Hatt, Taylor 1969).

Up to the late nineteenth century, chum salmon and carp skins were sewn into large sheets to craft windowpanes, doors, tent¹⁵ coverings [figs 10-11] and boat sails (Glebova 2015). They were also used for pallets and blankets, both indoor and outside (Black 1973). Russian ethnographer Richard Maak (1859) described Indigenous dwellings along the Amur River as “stick and mud huts with wide windows” in which fish skin was sewn into a wooden lattice, the seam forming a line “similar to the edge of a saw”. In 1860, botanist K.I. Maksimovich observed only one glass window in a Nanai house near Khabarovsk; other dwellings still used fish skin parchment (Smolyak 1975). During sled travel, cargo was also wrapped in lightweight, water-tight fish

15 The Pogosky collection at the Chicago Field Museum includes a conical tent cover made from fish skin, constructed from four horizontal rows of whole salmon skins, with triangular gaps filled by additional skin inserts. Overcast and running stitches secure the seams and fish skin ties are affixed at the top. These tents, used by the Orochi throughout the year, were laboriously assembled and lacked bottom edging. As Nivkh preserved fish with the skin on, they relied on relatives, likely at the Amur's mouth or among the Ainu, for suitable skins. See VanStone 1985.

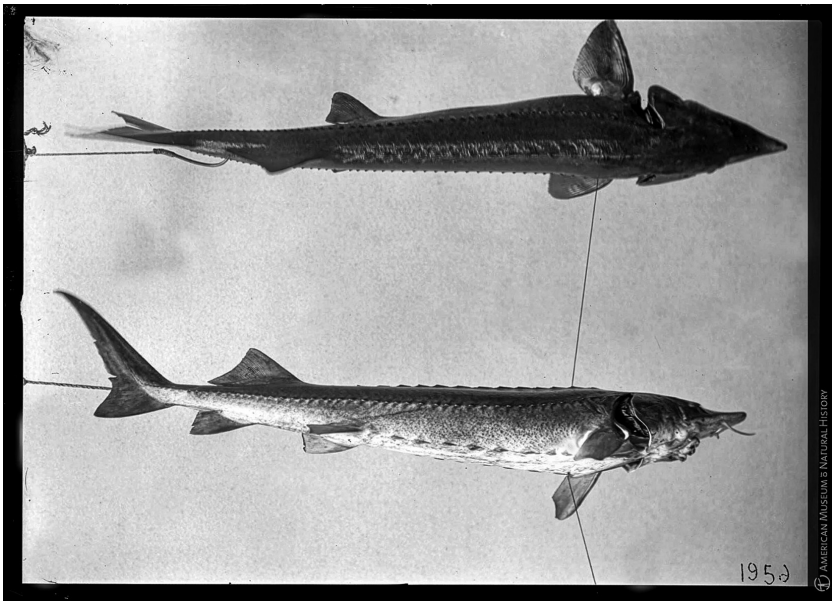


Figure 12 *Jesup North Pacific Expedition*, Nelma salmon of the Kolyma River, Siberia.
1897-1902. Accession no. 1986. AMNH, New York, USA

Figure 13 *Jesup North Pacific Expedition*, Sturgeon of the Kolyma River, Siberia.
1897-1902. Accession no. 1956. AMNH, New York, USA

skin blankets and supplemented with small fish skin bags used for storing food and securing various items transported on the sleds (Glebova 2015). Although forest-dwelling, the Udege carried fish skin tents while hunting due to their lightness and reliability (Glebova 2010b). The strongest skins from Manchurian trout, huchos, sturgeons and kaluga, were used for ski bindings, dog harnesses; knife sheaths and tinderboxes worn on hunting belts (Glebova 2010a). The exceptionally strong sturgeon skin was fashioned into *trutnitsa*, a bag used to carry fire implements or smouldering dry birch mushrooms. Storage containers for dried fish, meat and berries were also fashioned from fish skin (Glebova 2010b).

Chum salmon, wolffish and Amur carp skins, valued for their size and durability, were used for clothing. Among Amur communities, pike, with its strong skin, was used for hunters' footwear, mittens and leggings (Fontanès, Bazin 1978) and the strong skins of taimen and wolffish were used to make the lower part of shoes (Glebova 2010a). The mottled skins of different salmon species were favoured for outerwear (Cevoli et al. 2006). In bad weather, people wore wolffish skin garments, known as *kherte* in Nanai. The soft chum salmon skin was used for everyday clothes (Glebova 2010a). A particularly decorative variety of salmon, the *kumza* (*Salmo trutta*), was used for children's garments, mittens and decorative appliques (Fontanès, Bazin 1978). Nivkh women crafted sophisticated patterned ceremonial garments using the skins of chum salmon or Amur carp. Carp skin, which has a very beautiful texture with large cells from scales, bleached in the frost or with the help of a special type of clay, was used for the most important garments, including wedding robes. These skins, valued for their pale, soft and elastic texture, were also transformed into shamanic attire and amulets (Glebova 2010b).

1.5 Technology

The making of fish skin garments was a labour-intensive process grounded on the technological and artistic skills developed by Amur Native Peoples, involving fishing, tanning, dyeing, sewing and embroidery (Palomino 2025a). Each stage required practical knowledge passed down through generations. However, the industrial revolution, the introduction of synthetic fibres, chemical dyes, mass production and changes in cultural practices have contributed to the decline of this art. Today, as very few people still tan leather, dye clothes or sew garments by hand, we lack the practical knowledge to fully interpret these objects. Without this knowledge, it can be difficult to grasp the full cultural and technical importance of these garments (Palomino 2025b).

1.6 Tanning

Unlike steppe nomads and northern Siberian Peoples, who used felt, reindeer skins or the skins of marine mammals, the Amur Indigenous Peoples dressed mainly in fish skins (Glebova 2017). Fish skin tanning was predominantly carried out by women during the spring and summer seasons. The removal of fish skin required precision and care. After air-drying fresh or thawed fish for a few hours, an incision was made at the base of the head, followed by a cut along the belly from head to tail [fig. 14]. The fish was eviscerated and the



Figure 14 Elisa Palomino,
Salmon skin tanning process

skin around the head was carefully cut in a circular motion. Side and tail fins were removed [fig. 17]. Using bone or wooden knives to avoid tearing, the skin was gently separated with the aid of the fingers and peeled off. The dorsal fin was then carefully removed. The skin was turned over, and all traces of meat and fat were thoroughly scraped off, a crucial step to avoid bad smell and the skin turning yellow [figs 15-16]. The cleaned skin was rinsed under water and then in ash water to degrease and deodorise it. It was gently squeezed, laid flat on a surface and left to dry in a ventilated space, away from direct sunlight (Glebova 2010b). The skin was then carefully removed, stretched between stakes and dried in the sun or near the hearth. Skins were removed post-drying, stretched on barn walls and pressed under weights before final drying. Once fully dry, the skin resembled stiff cardboard and required kneading with a specialised wooden artefact or by hand. To absorb residual grease, rotten willow wood, dry ash (Glebova 2010b), rhododendron, or mugwort was sprinkled over skins during the softening process, serving as natural absorbents for fat and odour removal (Hatt, Taylor 1969).

To enhance skin softness, Nanai and Ulchi used a combination of part smoking and part fat tanning¹⁶ methods (Fontanès, Bazin 1978) rubbing into the skin substances like masticated fish roe, fish stomachs, fish broth or bird eggs, to lubricate and condition the skins (Hatt, Taylor 1969; VanStone 1985). Vasilevich (1969) describes a method involving the use of fish liver oil followed by folding, scraping and kneading. Continued kneading improved pliability and the underside was then scraped to remove subcutaneous fibres. For a suede-like texture, scales were removed diagonally along the natural scale line from belly to back, creating a specific surface pattern (Glebova 2010b). For further softness the skin was stretched manually and rubbed with volcanic pumice stone (Glebova 2010a). Smoking, when employed at the end of the process, served to obtain different brown shades, lend strength, watertightness and preserved the skin from decay (VanStone 1985; Saito 2015). Bleaching was achieved by exposing the skins to the cold tundra air, which also favoured the eventual absorption of dyes (Saito 2015).

Softening tools varied, in addition to hinged jaws, the Amur Peoples used wooden platforms with narrow slots where skins were repeatedly hammered [fig. 9]. Hammer designs included carved symbols representing animal and plant spirits, intended to boost hunting and fishing success by hammering fish skins with them (Hatt, Taylor 1969; Oakes, Riewe 1998). Wooden platforms, including the *uksu* (hoe) and *dele* (loom), were used with skins crumpled and struck repeatedly to achieve softness (Glebova 2010a; 2010b). Richard Maak described how pike skin was softened using a simple tool called a *khairga* – a wooden bar with a hollow centre. The fish skin was tightly rolled, placed in the hollow and pounded with a rounded wooden hammer (*kungku*) to remove scales and soften the skin (Glebova 2010b).

The skin of a caught fish is not removed immediately. Having disembowelled the fish, it is hung up on a drying rack, where it stays for a day or two and only then the skin is removed. The raw skin is pinned to dry on the wall of a barn, having previously stretched it as much as possible. After two or three days of such drying the skins are removed from the wall

¹⁶ Oil or fat tanning, one of the earliest traditional methods used by Indigenous groups, involves the penetration and oxidation of fatty substances such as brain, fish oil, roe, or seabird eggs into the dermal fibres, creating a durable, softened skin. See Mathur 1927.



Figure 15 *Jesup North Pacific Expedition, Processing fish, Siberia. 1901 .Accession no. 1654. AMNH Library, New York, USA*

Figure 16 *Jesup North Pacific Expedition, Woman drying fish, Siberia. 1901. Accession no. 1655. AMNH Library, New York, USA*

and, having put them all one over another and having pressed them with something heavy, left them to dry finally in the wind. After that the dry skins are crumpled on a special wooden artefact. The device consists of a hoe and a loom, which has a hollow in the middle part, where the skin is placed and at the ends - notches, where the tanner places her feet to press the artefact. Work consists of pounding the skin, crumpled into a lump, with a hammer and frequently turning it. When dressing fish skin, fish roe and animal brains are used. The skin is greased several times with these substances and then it is crumpled and finally kneaded by hand... (Lopatin 1922, 23)

Finished fish skins were stored at the top of barns until needed. Rooted in ancestral knowledge and ecological principles, fish skin tanning practices among the Lower Amur Indigenous Peoples showcase a philosophy of minimal waste and reverence for all living beings. From the use of animal substances such as fish roe and seabird eggs to increase suppleness, to the application of natural absorbents like rotten wood and ash for degreasing and deodorising, each stage reflects an integration of environmental knowledge and sustainable material use.

1.7 Natural Dyes

Among all the Indigenous Arctic and sub-Arctic groups known to have used fish skins in garment production, the Amur Peoples of the Russian Far East stand out as having developed the most sophisticated tradition of natural dyeing for the decorative fish skin patterns on their garments. Historically, the natural hues of animal skins provided early access to colour, inspiring Arctic Native artists to create elaborate designs by combining earth-toned shades from various fish species (Palomino et al. 2024; Palomino 2025b). The inherent patterns and colours of fish skins rendered additional dyeing unnecessary. The production of clothing and footwear involved careful selection and matching of skins by colour and texture, paying close attention to subtle chromatic variations, combining skins to create nuanced visual effects (Beffa, Delaby 1999; Cevoli et al. 2006). The skilful arrangement of fish skins, expertly using the natural fish colour palette with their brown gradients and pearlescent highlights, created depth effects resembling fur surfaces (Cevoli et al. 2015).

While Arctic Native groups such as the Alutiiq, Yup'ik, Athabaskan, Ainu and Hezhe, have retained the fish skin's natural earth tones - ranging from creamy whites to silvery greys and muted browns - the Amur River Peoples, including the Nivkh, Nanai, Ulchi, Udege, Orochi and Negidal, developed a vivid chromatic palette. This included hues of black, blue, green, yellow and red derived from local flora, minerals and traded materials (Palomino 2025b). The explorer R.K. Maak, in his account *Journey to the Amur*, remarked upon the artistic sensibility of local inhabitants, noting that "none of the other inhabitants of Eastern Siberia has such a well-developed artistic instinct" (Glebova 2017, 100). Atkinson (1860) in his *Travels in the Regions of the Upper and Lower Amoor* noted that the Nanai employed coordinated colour combinations and favoured vivid colour clothing and that communities along the Amur River applied similar principles to household furnishings and architectural decoration.

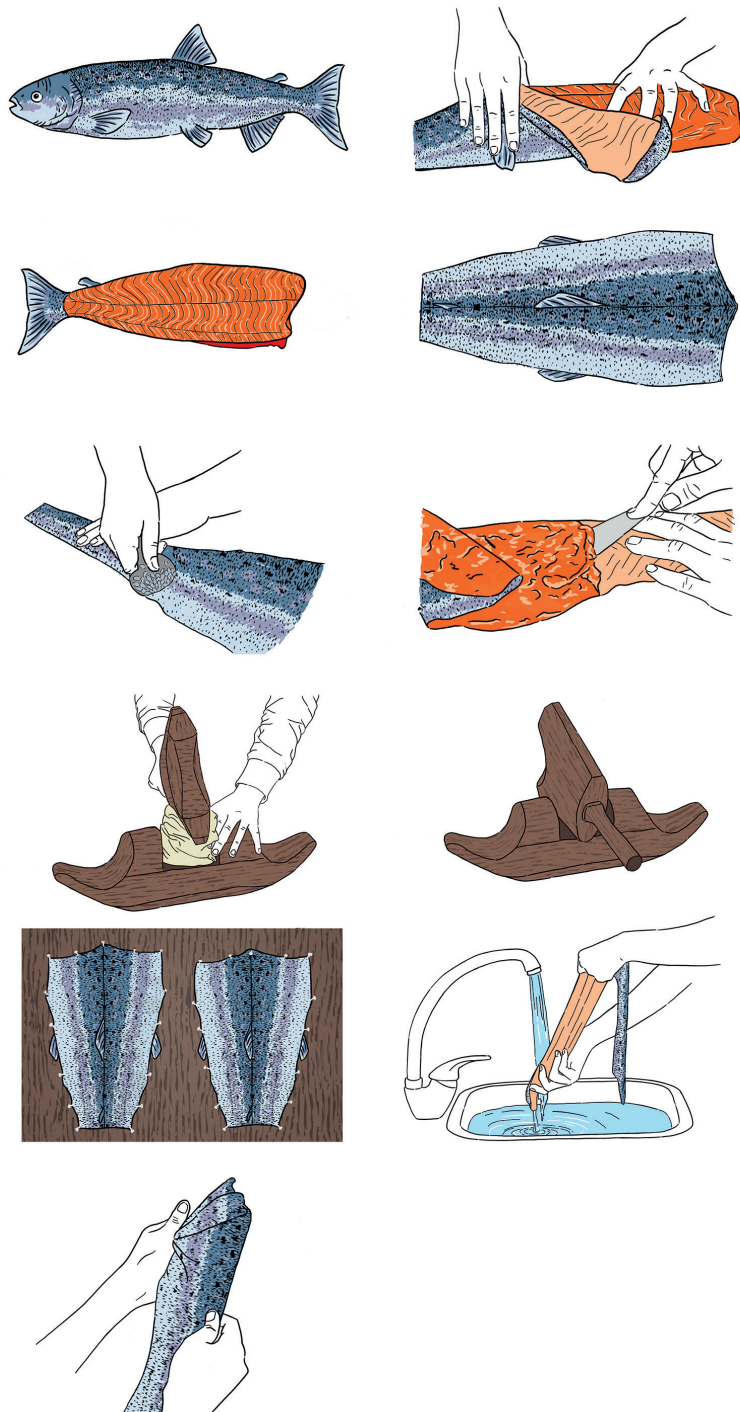


Figure 17 Mechanical processing of fish skins. Illustration: Laura Fernández. Ethnographer Ivan Lopatin, in his 1922 study, provided a comprehensive account of Nanai fish skin processing

The dyeing of fish skins connects creativity, spirituality and environmental stewardship. Over generations, these practices evolved in response to the availability of resources and the artistic, functional and ceremonial needs of daily life. As a result, the fish skin artefacts from the Amur region reveal advanced technical skills and a chromatic richness among other circumpolar fish skin traditions (Palomino 2025b). White served as a decorative background, black was used for borders and hems and blue or grey for undergarments (Oakes, Riewe 1998; Rajagopalan, Bujis 2003). Women's clothing employed bleached carp or salmon skins [fig. 19], as the perfect canvas to apply dyed decorations in blue, red and yellow. In contrast, men's garments retained the natural shades of fish skin (Cevoli, Dalles 2015). Everyday garments were usually undecorated, whereas ceremonial attire featured ornated elements crafted from dyed fish skin (Glebova 2010a).

As specific shades became desirable, Amur communities developed dyeing techniques based in local ecology. Natural resources such as mineral pigments, berries and bark were processed through maceration, fermentation, or boiling to produce dyes [fig. 18] (Black 1973; Hurcombe 2014; Palomino, Rahme 2021). Tannins extracted from bark were among the earliest dyeing agents in humankind, valued for their dual tanning and colouring properties. Mineral pigments, such as orange-red ochre [fig. 21], were mixed with fish blood or fish roe and heated to produce stable colourants, while black dyes were derived from soot¹⁷ (Fitzhugh 1997; Glebova 2015). Safflower (*Carthamus tinctorius*), introduced via the Silk Route by the third century CE, provided vivid reds, although its yellow components were discarded due to poor lightfastness (Han 2015; Kite 1999). Mordants such as alum, ash and earth were employed to fix dyes (Cardon 2007).

Natural dyes were key for artistic and for spiritual and medicinal reasons, as they gave clothes protective and healing properties linked to the plants they were derived from (Geminiani et al. 2024). The dyeing process involved immersing skins in solutions obtained from decocted or macerated plant parts, producing a wide spectrum of colours. Fish glue, prepared from skin, scales, swim bladders, or viscera, served as both adhesive and pigment binder (Georgi 1799; Black 1973).

Festive garments, particularly those worn for ceremonials and bridal attire, were traditionally crafted from light, nearly white fish skin. White carp skin, highly valued for its smooth, silky texture, was especially favoured. To achieve the desired pale tone, prepared skins were either exposed to freezing temperatures or treated with a fine white clay. The clay was applied to the surface of the dried skin and left for several days before being rubbed off, in conjunction with the application of animal brain, which further enhanced the bleaching effect (Saito 2015; Glebova 2015). Additionally, the degree of whiteness achieved was influenced by climatic conditions during the drying process, with exposure to cold air – such as in tundra environments – serving as a natural bleaching method (Rajagopalan, Bujis 2003). This whitening not only improved the appearance of the skins but also enhanced their capacity to absorb natural dyes more effectively (Saito 2015). The almost white tone obtained was then decorated by using the dyes directly through painting on the skins or with cut-out fish skin motifs [fig. 23], dyed in blue, red and yellow tones used in appliqué embroidery (Cevoli, Dalles 2015).

17 Fine carbon particles from burning bark.



Figure 18 Elisa Palomino, fish skins bark
tanned by Swedish fish skin artist Lotta Rehme

One of the earliest records of natural materials used for skin dyeing comes from Georg Steller, who accompanied Vitus Bering's expedition.¹⁸ Steller documented a stable black pigment [fig. 19] made from soot from burnt bark collected from the bottom of cooking cauldrons, mixed with chewed or dried and ground salmon roe (Glebova 2010a; 2015; 2017). This dye was applied both to fish skins and to birchbark ornaments (Glebova 2015). Additional black dyes were created using tannin-rich plant materials combined with iron mordants (Tamburini 2022). The Amur River region provided a wealth of botanical resources. Its forests yield berries, medicinal herbs and edible plants gathered primarily by women and children. These included cranberries, raspberries, huckleberries, elderberries, rowanberries, rose hips and bird cherries (Black 1973; Bujis 1984; Oakes, Riewe 1998). Berries were stored in birch bark containers and frozen for use in winter, serving both nourishing and ritualistic purposes, as well as being used as dyes.

Brown dyes were derived from rotten wood crumbled and diluted in water (Glebova 2015). Specific brown shades were obtained from alder and pine bark decoctions, with skins smoked in the last stages providing additional colouration, water tightness and preservation (Glebova 2015; 2017). Yellow dyes were produced using the Amur cork tree (*Phellodendron amurense*), native to the Amur River basin, yielded bright lemon-yellow tones due to its inner bark being rich in berberine. These colourants are highly water-soluble and require no mordant (Tamburini 2022). The bark's antimicrobial and spiritual properties, owing to its high content of plant alkaloids – including berberine, limonin and phellodendrine – make it one of the foundational herbs of Traditional Chinese Medicine, connecting within East Asian dye traditions (Luo et al. 2022; Han 2015). Safflower (*Carthamus tinctorius* L.) florets also produced yellow shades (Zanoni, Schofield 1983), though these were less resistant to fading (Han 2015).

Red dyes were obtained from a range of natural sources, valued for both their chromatic qualities and spiritual connection. Alder (*Alnus*) bark was used to produce red and brown hues, boiled with water or with the juice of cranberries, or blueberries (Glebova 2010a; 2015). In some traditions, alder bark was decocted in urine, enhancing dye extraction (Saito 2015). The tannin content of alder bark made it suitable for both dyeing and tanning, with red-dyed skins playing an important role in the spiritual world of the North (Chaussonnet, Driscoll 1994; Saito 1992; 2015). Throughout the region, red was symbolically linked to blood, life and death and was featured in shamanic attire as a medium connecting human and spiritual realms (Chaussonnet, Driscoll 1994).

18 Georg Wilhelm Steller was a German physician, botanist, zoologist and explorer who accompanied Vitus Bering, a Danish sea captain sailing for Russian Tsar Peter the Great, on the Second Kamchatka Expedition in 1740, with the goal of exploring and cataloguing the largely unknown territories between Siberia and North America. See Steller 1999.



Figure 19 Nivkh robe. Salmon skin with black pigment on hem, ca. 1900. Accession no. 626-1905. Lower Amur River near Vladivostok, Siberia. Victoria and Albert Museum, London

Red ochre¹⁹ (hematite) [fig. 21] was another key earth pigment. It was dug, burnt, or mixed with fish blood to intensify its hue, then applied to robes [fig. 20], boots and bags.²⁰ Ornamentation of arabesques and red surfaces were achieved with red ochre (Schrenck 1881). Archaeological evidence of red ochre-covered earthenware fragments from ancient settlements on the banks of the Amur suggests its early use in material decoration (Okladnikov 1981). Fish roe was used, mixed with ochre, as a decorative medium. When unsalted, it provided nourishment on long marches (Taksami 1967). This dual function demonstrates how animal-derived substances could act both as natural dyes for fish skin embellishment and as practical resources to quench thirst or sustain energy during travel.

Safflower (*Carthamus tinctorius* L.) produced vivid reds through carthamin and precarthamin compounds. Though initially bright, the dye fades over time with light exposure (Kite 1999). It was introduced to ancient China from the West in the Han Dynasty and became widely regarded as a quintessentially Chinese dye (Tamburini 2022). In Japan, fabrics dyed with safflower were worn next to the skin since the Heian period to promote healing (Shimoyama, Noda 1996; Taylor 1997; Kite 1999). Processing traditionally involved an ash lye bath or acid treatments to yield red or pink tones (Tamburini 2022; Hofmann-de Keijzer, de Keijzer 2023).

19 Red ochre play material, economic and spiritual roles across the Athapaskan region. Its excavation followed strict gendered rules; among the Ingalik, men alone collected it, as the presence of a woman could make the ochre sink into the earth. Among the Kutchin, collectors left offerings of sinew or valuable items at the site. Ochre also signified wealth and had commercial value comparable to trade beads and dentalia. See Chaussonnet, Driscoll 1994; Osgood 1936, 1940.

20 Osgood 1936; McKennan 1959; Snow 1981; Hadleigh West 1963.



Figure 20 Nanai Robe. Late nineteenth century. Salmon skin with brown carp neck appliqué.
Accession no. 71-12-4. Penn Museum, Philadelphia, USA

Figure 21 Elisa Palomino, Red Ochre (hematite)
an earth pigment used to dye fish skin



Figure 22 Elisa Palomino, Indigo dyed fish skins

Blue dyes [fig. 22] in the Amur River region were derived from both local flora and imported plants, offering hues that differed from the earth tones associated with Indigenous Arctic and sub-Arctic fish skin artefacts. One source was Asiatic dayflower (*Commelina communis*), whose light blue petals, rich in anthocyanins, produced a vivid ultramarine dye. According to Nanai Elder Anatoly Donkan,²¹ the petals were used to stain fish skins in blue shades (Glebova 2015). Historically, the dye was also used by eleventh century Japanese artists to stain kimono textiles with techniques later known as yūzen-dyeing and in woodblock printing (Ulyanova 1998). Another source of blue dye was indigo, a blue dye extracted from *Polygonum tinctorium* widely cultivated in China and Japan (Kite 1999) and introduced into the Russian Caucasus in 1835 (Fitzhugh 1997). Indigo was one of the earliest and most outstanding natural blue dyes, valued for its dark hue (Hurcombe 2014). Dyeing required the long process of fermentation of the leaves, allowing the enzymes to transform into blue indigotin and the use of ash lye and mild heat to provide the oxidation that causes the blue colour to

21 Anatoly Donkan is a Native Nanai artist whose work preserves traditional fish skin art. His practice rooted in local knowledge includes an ichthyological understanding of the specific fish species used in traditional tanning techniques, plant-based dyes and the construction and stitching methods unique to each fish skin item.



Figure 23
Stencilled and indigo-dyed Nanaï
fish skin robe. Late nineteenth century.
Accession no. 2003-439.
Amur River, Siberia.
Penn Museum, Philadelphia, USA

appear (Bechtold, Mussak 2009; Tamburini 2022). Indigo became especially valued for its colourfastness and intensity, used to decorate Nivkh and Nanai fish skin robes and boots. While synthetic indigo – chemically identical to natural indigotin – was developed in the late nineteenth century, its use on these fish skin garments is unlikely given their earlier dates (Kite 1999). Green was produced by over-dyeing yellow with indigo, as few natural green dyes are stable (Hofmann-de Keijzer, de Keijzer 2023). Double-dyeing and copper mordants were also employed to achieve desired green shades (Tamburini 2022).

Russian zoologist and ethnographer Leopold von Schrenck observed fish skin robes decorated with blue-black painted stripes around the neck, shoulders and sleeves. He mentioned that these long-lasting bands, which were unaffected by rain, may have been produced with Chinese ink mixed with fish or seal oil (Schrenck 1881).

The introduction of synthetic dyestuffs on the market in the mid nineteenth century (van Bommel et al. 2007) marked a shift in the material practices of Amur Peoples. Although natural dyes remained in use among Natives and ceremonial practitioners, synthetic aniline dyes – first synthesised in 1857²² – began replacing plant-based dyes in commercial settings from the mid nineteenth century onward (Zanoni, Schofield 1983; Tamburini 2022). The timeline of their diffusion into remote regions such as the Amur Basin remains unclear, but most historic fish skin garments held in museums nowadays were likely produced before the end of the nineteenth century, before synthetic dyestuffs became widespread. Ultimately, the shift to synthetic dyestuffs altered aesthetic choices and technical approaches. While traditional embroidery on appliqué fish skin once dominated, it gradually gave way to painted or drawn decorations (Cevoli, Dalles 2015). Despite this transformation in technique, garments continued to feature intricate motifs, with styles and methods varying by each Native group.

1.8 Sewing Implements

Once tanned and dyed, fish skins were sewn into garments using different specialised tools and techniques connected with cultural and spiritual traditions. Among the Nivkh and other communities along the Amur River, sewing tools, knives, scrapers, awls and needles, were very precious items in women's lives and were always carried on her belt (**fig. 24**) (Schrenck 1881). Men also wore hunting belts equipped with sewing implements, enabling them to mend clothing while away on hunting expeditions (**fig. 30**). Long narrow-bladed knives were used to skin fish, while shorter blades were employed to cut intricate curvilinear decorative patterns. Handles were carved with stylised animal and plant motifs to facilitate communication with protective spirits (Black 1973). Scrapers, both dull and sharp, were used to soften skins – dull scrapers broke bundles of connective tissue, while sharp scrapers removed a thin layer of fascia of fibrous connective tissue for

²² The discovery of the first synthetic dye, mauveine – also known as aniline purple – by William H. Perkin in 1856 marked the beginning of the synthetic dye industry. Commercial production of mauveine began in 1857 and by 1897, 404 new synthetic dyestuffs were introduced in the market. See van Bommel et al. 2007.

a finer finish (Oakes, Riewe 1998). These tools were multifunctional, their blades sharpened as needed.

Needles and awls were made from fish, bird and reindeer bones, ivory, or hand-forged iron. Needle sizes varied according to the thickness of the skin; smaller ones were used for fish skins, while larger ones were used on thicker hides such as walrus or moose (Hatt, Taylor 1969; Black 1973; Oakes, Riewe 1998). Modern steel needles came to replace these traditional tools (Rajagopalan, Bujis 2003). They were acquired from the Russians and from the Japanese via Sakhalin (Schrenck 1881). Women wore skin cylinders on their index fingers to protect them while sewing (Hatt, Taylor 1969). Needle cases, made from bone or ivory, held thread, thimbles and awls. These were stored in birch bark or reindeer skin sewing bags [fig. 49], which also carried bundles of sinew thread, beads, buttons, pieces of skin and fabric, decorative trims, small bells, amulets and other sewing essentials (Black 1973). Each cultural group had its own style of bag decoration, with brass bells included as spiritual protection from illness or harm. Following a death, bells were silenced for a period – four months for women and five for men – to honour the deceased (Popov 1966; Golovnev 1994).



Figure 24 Nivkh belt made of seal skin with fish knife, iron presser, sturgeon pouch and ivory needle case. Accession no. 71-12-1F. Amur River, Siberia. Penn Museum, Philadelphia, USA

Women worked on personal cutting boards or work planks, which were passed down through generations and were reserved exclusively for skin preparation and sewing (Rajagopalan, Bujis 2003). Such boards were used across the lap for cutting fine geometric motifs and trimming seam allowances. Pressers made of iron, wood, bone, or ivory helped to iron seams flat and to press sole seams to fit the shape of the foot. Tools such as cutting boards and scrapers were attributed spirits and considered protectors of the hearth. They enabled spiritual journeys, transporting people and shamans, to different worlds in the universe (Sem 1993). Due to their spiritual value, tools could be used to locate a missing hunter. By tossing a bone scraper and observing how it lands, a woman could determine the direction of her lost husband, guided by the tool's connection to the skins it had previously processed (Popov 1966; Oakes, Riewe 1998; Karapetova 1997). Sewing



Figure 25
Nivkh fish skin robe, hand painted and bearing several repaired patches. Late nineteenth century. Accession no. 2003-43-8. Amur River, Siberia. Penn Museum, Philadelphia, USA



Figure 26 Nanai Fish skin robe bearing heart inserts
used to conceal holes left by removed fins.
Late nineteenth century. Accession no. 71-12-4.
Amur River, Siberia. Penn Museum, Philadelphia, USA

tools were regarded as practical implements and sacred objects. Women, endowed with innate powers through their reproductive skills, avoided stepping on them in order to protect the spirits they housed. Upon their death, women were buried with their sewing utensils and sewing kits so that they could continue their important work in the afterlife (Balzer 1980; Murashko, Krenke 1996). In some traditions, mourners refrained from using sharp tools for several days after the death of a relative. This protected the departed soul of the deceased, which may still be clinging to the living, from being hurt (Golovnev 1994).

1.8.1 Threads

Before sewing, women prepared thread from either animal sinew, fish skin, or plant fibres such as nettle and hemp. Reindeer sinew, prized for its strength and moisture absorption properties to the same degree as skin clothing, was the most commonly used. Collected from along the spine or legs, leg sinew was preferred for summer skin boots since it lasts longer when wet. One reindeer could yield enough sinew to sew a full robe. In the absence of reindeer sinew, materials for thread were collected from moose, seals, walruses and whales (Hatt, Taylor 1969; Sem 1997). Thread made from braided bowhead whale sinew was used for sewing covers on walrus skin boats (Karapetova 1997b). The sinew was cleaned, dried, softened and divided into fine strands using a bone comb or the woman's own thigh, with hard-working women being recognised by the right leggings worn smooth from continually twisting the sinew (Hatt, Taylor 1969). When ready to sew, the sinew was twisted, moistened with the lips and threaded through a bone or iron needle; Women rubbed the end with wood pitch to ease threading (Sem 1997).

As riverine people, the Nivkh and Ulita used fish more optimally than other cultural groups (Rajagopalan, Bujis 2003). Fish skin thread was prepared by softening processed skins with fish broth, wrapping them in damp cloth, then cutting long, narrow strips with a specialised knife (*girsu*) and board (*hudèn*). The strips were twisted by hand and teeth into strong, circular threads, then dried and stored with sewing kits and sticks of fish glue, which was used to attach ornaments or reinforce seams (Glebova 2015). The stitching was done using bone needles and the seams were reinforced with fish glue, known for its excellent adhesive properties (Glebova 2017). Moisture was applied to the seam edges to tighten stitches, making them almost invisible (Glebova 2010b). Fish species used for thread included humpback salmon, Amur carp and wolffish (Glebova 2015).

Plant fibres were widely used in the Taiga, where nettle (*Urtica*) and hemp (*Urtica cannabina*) were abundant (Rajagopalan, Bujis 2003). After harvesting in late autumn, nettle stalks were peeled, carded with clamshells, buried in snow and soaked to soften fibres before spinning into thread used for sewing fish skin garments (Black 1973; VanStone 1985). Though less durable than sinew, nettle thread was more accessible and served in sewing and netting (Palomino 2025c).

Embroidery on festive fish skin garments was executed with silk and cotton threads acquired through trade with China, highly prized for decorating fish skin garments (Rajagopalan, Bujis 2003). Their use reflects the extent of trade networks that reached the remote Amur River basin (Marks 2024). Unlike their Chinese trading partners – who favoured darker,

more muted tones – the Nivkh preferred bright coordinated colour schemes, rejecting greys and deep blues in favour of lighter, more varied combinations (Schrenck 1881).

Likely considered heirlooms that required years to complete, these garments were passed down from mother to daughter over four or five generations (Palomino 2025a). To preserve their freshness, they were maintained through meticulous mending practices (Glebova 2017). Examination of international museum collections reveals that some richly ornamented fish skin robes include small, irregularly shaped patches [fig. 25] used to fill damaged areas (VanStone 1985). These patches differ slightly in texture and colour from the main garment. Their careful application suggests close attention to garment condition to maintain both their function and appearance (Palomino et al. 2026).

Such later additions should not be confused with the small, round inserts used to conceal holes left by removed fins (Beffa, Delaby 1999; Cevoli et al. 2006). During tanning, fins were evenly cut, and the resulting apertures were lined from the inside with tonal skin patches, producing a rhythmic surface decorated with round, oblong or even heart shaped [fig. 26] trompe l'oeil loops (Cevoli et al. 2015). However, fish skin garments could not be washed, as this would cause shrinkage and loss of form (Glebova 2017). If soaked, they had to be dried in warmth but away from fire. Despite its resilience, fish skin required attentive care. Festive robes were stored in birch bark trunks with dried wormwood or sprigs of marshmallow. Birch bark, acting as both absorbent and aromatic, protected against damp. Everyday clothing was likewise shielded with birch bark plates (Glebova 2010b). These conditions demanded preventative care and attentive handling, requiring a depth of material knowledge necessary for the preservation of such garments. The labour and skill involved in making and maintaining these garments demonstrate careful use of animal materials and the transmission of knowledge across generations. Each patch and repair extended the life of the garment and formed part of everyday practices of making, use and care.

1.8.2 Fish Glue

Fish glue [fig. 28] was a vital adhesive used by the Amur Peoples for attaching ornaments [fig. 27] to garments and footwear prior to stitching, ensuring precision during garment construction (Glebova 2010a). It was used as well for crafting household items, skis, boats and birch bark tarps (Black 1988). Glue was made from boiled fish skins, heads, scales (especially from crucian carp), or the swim bladders of kaluga, prized for their purity and transparency (Black 1973; Georgi 1799).

Best raw material was fresh and strong skins of chum salmon, Manchurian trout and pike. The fish glue from the skins of raw fish turns dark and could stain lighter materials, so great care was taken not to leave traces. Sometimes even fish skins scraps from sewing or cutting out ornaments were used to make glue, revealing an ethos of zero waste. To make a clearer adhesive, these dry trimmings left from sewing were boiled in the same way. Once thickened, the glue was cooled, cut into strips, dried and stored. Fish glue followed a meticulous process: skins were cleaned, boiled, filtered, reboiled to thicken and then cooled into a jelly. The jelly was poured into shallow containers, cut into thin ‘pancakes’ and dried out of direct sunlight.

Once sufficiently hardened, the glue was shaped into strips, threaded with a large needle and hung to cure before long-term storage. The highest quality glue came from swim bladders of sturgeon and catfish, producing a transparent slab melted at low heat and cut into fine sticks for detailed decorative work (Glebova 2015).

When ready, the glue is hard and amber in colour. The glue sticks were reactivated by wetting the tip with saliva; the bonding effect is achieved by combining the enzymes in the saliva and the fish glue. Women bit or trimmed the tip before use, applying it gradually to the reverse side of the ornament, which was then pressed down with the warmth of the hands to ensure a strong bond (Glebova 2010b). For precision, the stick was kept flat and sharp, especially helpful when gluing intricate patterns.

An improvised adhesive could be prepared directly in the field: fresh fish skin was wrapped scale-side out around a stick, held over a fire and rotated until the scales melted into a sticky resin. This glue was applied while still warm and pressed directly into place (Glebova 2010b). Such methods enabled hunters to repair garments on the spot, preventing exposure and reducing the risk of freezing. The ability to generate such solutions in the absence of tools or shelter is a reminder of a self-sufficiency few of us maintain today – being able to mend a garment while hiking in sub-zero temperatures, with nothing more than the materials at hand, is no longer a common skill.

1.9 Clothing

Fish skin garments from the Amur River region, housed in museum collections, date from the late nineteenth to early twentieth centuries (Marks 2024). Brought back by travellers, explorers and missionaries, these artefacts are unique for their rarity and for the sophisticated craftsmanship they exhibit (Cevoli et al. 2006). They incorporate materials sourced directly from the local environment, reflecting a pragmatic response to the region's cold, humid and rapidly shifting climate. Despite extensive contact with outsiders and access to imported goods, Amur women in the late nineteenth century remained accomplished artists, maintaining their traditional skills in fish skin preparation. Fish skin was highly prized by the Indigenous peoples of the Amur and Sakhalin regions for its exceptional properties: it is lightweight, durable, water-tight and capable of retaining heat – attributes essential in the harsh climatic conditions of the Russian Far East. Knowledge of the qualities of different fish species enabled women to select skins judiciously for specific uses (Glebova 2015).

Compared to reindeer hide, fish skin offered a lighter material option, particularly suitable for summer wear (Oakes, Riewe 1998). During the warmer months, fish skin robes were worn as outerwear for both men and women (Rajagopalan, Bujis 2003). While fish skin is flexible, water-tight and durable, its limited warmth meant that it was less effective for winter wear on its own. Women, whose domestic roles were largely indoors, found fish skin garments more suitable, while men reserved them for summer use, wearing shorter versions. In winter, fish skin garments were worn on top of other fur garments to protect against wind and damp (Bujis 1993; Rajagopalan, Bujis 2003; Cevoli, Dalles 2015).



Figure 27 Nivkh fish skin robe with ornaments attached using fish glue. Late nineteenth century. Accession no. 2003-43-9. Amur River, Siberia. Penn Museum, Philadelphia, USA

Figure 28 Glue made of fish bladder. Amur River, Siberia. Néprajzi Múzeum, Budapest, Hungary

Elaborated fish skin robes were worn as ceremonial garments (Dalles Maréchal 2020). Among the Nivkh, they were used during the bear festival²³ (Ivanov 1963; Krejnovich 1988; Melnikova 2005). During such events, women wore these garments while performing ritual dances and playing the musical beam, turning their backs to the bear (Geblova 2015).

1.9.1 Hunting Gear

As in other Arctic regions, decorative elements on hunters' garments had the power to appease the spirits of the animals, essential for successful hunting, since they surrendered only when properly honoured (Kuzmina 1988; Oakes, Riewe 1998). Both clothing and tools were displayed before and after the hunt, forming part of a ritualised cycle of preparation and gratitude (Black 1988). Both the skill of the hunter and the spiritual and artistic work of the women who crafted the hunting attire determined the success of the hunt (Bodenhorn 1990). Each woman strove to create unique hunting garments for her husband or son; no two garments in a village were alike and the individuality of each piece was a reflection to a woman's skill and creativity, so men cherished women's craftsmanship (Smolyak 1988). Among the Nanai and Udege, hunting departures were public rituals that showcased women's talents. Hunters, travelling in groups of five to seven, would leave the village at a predetermined time, accompanied by family members. Clad in elaborately embroidered fish skin robes, colourful hats with plumes, helmets, aprons, mittens and decorated footwear, the men paraded ceremoniously through the village. This procession was both a farewell and a celebration of women's artistry. However, once they reached the hunting grounds, the hunters would carefully remove these ornate garments before beginning the actual hunt. Upon their return, they would again don their ceremonial attire before entering the village, pulling sleds filled with game. The return was met with communal celebration, where the splendour of their clothing stood as a symbol of the women's vital contribution (Oakes, Riewe 1998).

1.9.2 The Wedding Robe

The Nanai worldview is based on a system of reciprocal exchange between humans and spirits. Marriage represents an important moment of transition, not only socially but also spiritually. Nanai weddings involved a series of meetings between the families to negotiate the bride's dowry, culminating in the wedding day, when the bride would leave her natal village to join that of her husband (Smoljak 1980b; Gaer 1991a). The making of the wedding robe formed part of the preparatory phase of the marriage rite; from an early age, the bride-to-be and her female relatives would assemble the trousseau, including this protective garment (Dalles Maréchal 2022). Young women prepared multiple fish skin robes in anticipation of their wedding.

²³ During bear festivals, where the bear was venerated as a powerful spirit master and provider of game, a bear captured as a cub and raised by the clan was ceremonially killed. In these ceremonies, women danced with their backs to the animal and the embroidery on the back of their robes served to protect them from the dangers associated with the bear.

The number and quality corresponded with the bride's social standing and the skill of the embroiderer. Unlike men, Nanai women wore special clothing for the wedding ritual, as they were the ones undergoing a clan transfer. The wedding robe played a critical role in protecting the bride during this transformation – from daughter to wife and from one clan to another (Schrenck 1881; Melnikova 2005). The transitional state of the bride rendered her particularly vulnerable. During her boat journey, lasting several days, from her father's home to that of her husband, she was no longer under the protection of her natal clan's guardian spirits and had yet to come under the guardianship of her husband's. This liminal period was particularly spiritually dangerous.²⁴

The bridal robe worn specifically on the day the bride departed her father's household, was a garment that would serve as a shroud. The embroidery on the robe was meant to protect the bride from malevolent spirits, particularly those that might attack from behind. The most potent motifs were scale-like patterns on the back of the robe, forming a symbolic armour [fig. 23]. These represented the scales of the dragon *mudur*, a spirit associated with lightning and revered across the Amur region by Nanai, Manchu and Chinese communities as a protective force. This is supported by the Nanai saying: 'when the dragon *mudur* appears in the sky, the demons hide wherever they can'. For physical ailments such as back pain, dragon motifs were even sewn onto patients' backs (Beffa, Delaby 1999). For the Nanai, the bridal attire could also showcase a tree of life motif embroidered or hand painted. These bridal garments, designed for a time of heightened ritual vulnerability, encapsulate the Nanai iconography of the female life cycle (Dalles Maréchal 2020). On the wedding day, the bride would wear several layers: a ritual undergarment, a fine woven dress, the richly embroidered ceremonial fish skin robe, along with a bib, ruffle, hat and earrings. As with other ritual garments among the Nanai, the embroidery carried protective functions alongside its decorative qualities. The technical execution of embroidery was thus part of its ritual efficacy (Ivanov 1954; Gaer 1991a; Smoljak 1991).

²⁴ Wedding journeys between the bride's natal village and her husband's could last several days by boat and formed part of the marriage ceremony. See Shirokogorov 1935; Smoljak 1980b; Gaer 1991a; Dalles Maréchal 2020.





Figure 29 Nivkh fish skin robe.
Late nineteenth century.
Accession no. 2003-43-9.
Amur River, Siberia. Penn Museum,
Philadelphia, USA



Figure 30 Leopold von Schrenck, Woman wearing a fish skin robe and man wearing a hunting belt.
Reisen und Forschungen im Amur Lande. 1881. Leiden University Libraries Special Collections,
Leiden, Netherlands

1.9.3 The Funeral Robe

Among the Nivkh there is no fear of death. When death approaches, the dying person is held upright by close relatives, and a continuous vigil is kept with two lamps lit at night. All members of the lineage are notified, and many family members attend the wake, crowding the dwelling (Taksami 1967). The body is not washed but dressed in specially prepared garments by members of the next of kin. Nivkh funeral garments are made of white cotton or silk cloth and are sewn with very large, loose stitches, as tight stitches are considered sinful. Animal skins, including fish and marine mammals, are forbidden to be worn on the corpse to prevent contamination of the funeral pyre. Elaborately decorated garments are also excluded, as they would confuse the soul on its way to the underworld. Prestigious skin garments are displayed outside the dwellings and when it is time for cremation, those are heaped on the deceased, in multiples of three for a male and two for a female (Black 1973).

In contrast to the Nivkh, among the Nanai, the wedding robe, that has been kept by the bride in the attic, serves, as on the wedding day, to mark a woman's transition, this time from the living to the dead (Sternberg 1933; Bulgakova 2013; Dalles Maréchal 2022). The body is dressed in fine clothes, with shoes, hat and gloves. The face is covered with a white cloth, formerly a fish skin, but the eyes are not closed (Lopatin 1960). Embroidered pieces of cloth or fish skin placed on the coffin function as symbolic maps to the world of the dead. Embroidered with the tree of life or her clan-associated animal at the foot of the tree, they guide the woman on her journey to the afterlife and narrate her identity by revealing her clan origins (Dalles Maréchal 2022). This piece of cloth fulfils a guiding role usually performed by shamans. Nanai women are responsible for sewing funeral garments both for others and for themselves. Sewing practices are governed by kinship: daughters or sisters may sew for fathers or brothers, but wives and mothers may not. These garments, which may take years to complete, incorporate traditional Nanai embroidery techniques (Dalles Maréchal 2022). Materials used vary by region, reindeer skin for hunters, fish skin for riverine communities (Dalles Maréchal 2020). Garments are closed on the left side, in contrast to garments for the living (Smoljak 1980a; 1988). For the Nanai, the soul of the deceased remains among the living until it reaches the world of the dead, *buni*, located to the west. Each clan has its own symbolic route to this realm, known only to the shaman, who learns it from spirits during funeral rites (Dalles Maréchal 2020). Life in *buni* mirrors that of the living but in reverse: it is night when it is day and the dead, like the living, gather in clans to hunt and fish as they did when they were alive. The inverted fastenings of the funerary garments reflect this reversal (Gaer 1991b).

Hunting implements for men and sewing utensils for women were placed in the coffin. Women were buried with their sewing tools (without the scissors) such as, needles, thread and cloth, to support the deceased in the afterlife (Lopatin 1960). Men were buried with an axe, a knife and a tinder box tied to his belt. Objects were broken and left on the grave, a practice which helped as early as the 1950's to distinguish Nanai graves from Russian ones (Gaer 1991b).

1.10 Clothing Details

Garments were custom-made for each wearer. While men's and women's fish skin robes were similar, women's were longer and more elaborately decorated (Margolina 1997; VanStone 1985). Men's robes ended just above the knee (Prytkova 1961b) and their only decoration consisted of contrasting fabric trim along the left lapel, hem and sleeve openings with a pocket sewn into the right lapel (Black 1973). All robes featured a diagonal closure with the wider left flap fastening over the right (Rajagopalan, Bujis 2003) with three buttons made of copper, brass or fish skin and fastened into fish skin loops [fig. 31] (Kite 1999) near the neckline, with some also featuring an additional knot and loop closure at the waist (Bearden 2016). The position of the opening on a robe could indicate its purpose: a right-sided opening suggested daily wear, while a central opening denoted ceremonial use (Chaussonet 1988). Women's robes had collarless necklines, although some incorporated a small stand-up collar (Black 1973). The dress of the Nivkh and the Orochi featuring an opening at the front and a flared silhouette with tapered sleeves, bears resemblance to nineteenth-century Mongolian and Manchurian garments (Bujis 1984). The Manchurian elements were probably absorbed into Nivkh garments after their women were obliged to marry Manchu officials (Beffa, Delaby 1999; Marks 2024).

1.10.1 Hems and Borders

Fish skin robes presented an austere front, interrupted only by decorative elements along the left and right sides. From the hem upward, broad black painted and applied borders [fig. 19] framed each side of the garment, terminating at the waist in scrolling motifs. Both men's and women's robes featured edging in a contrasting colour (Rajagopalan, Bujis 2003), particularly at the openings of garments – collar, hem, front overlap and wrists – areas regarded as points of vulnerability to malevolent forces. These borders helped define the silhouette and articulated the garment's structure. Black borders also outlined the neck, front overlap, hem and sleeve edges. While these painted elements may have served to reinforce areas prone to wear (Palomino 2021), they may also have held a protective, symbolic function acting as spiritual safeguards, warding off harm (Chaussonet 1988). These borders served to demarcate the thresholds of the garment. Contrasting edges with volute or stylised motifs were applied to seal these vulnerable openings. The framing defined both the outline of the robe and the spatial boundaries within which all decorative representations were placed (Cevoli, Dalles 2015). These motifs emphasised the lines of the arms and torso (Dalles Maréchal 2023). A plain cotton band, dyed with indigo and embroidered in chain stitch could also be used to frame and highlight the edges. In some instances, this indigo thread in visible contrast stitching, acted as protective boundary and was achieved through subtle interventions. These techniques transformed raw skins into protective robes, wrapping the human body in tones of light and shadow (Cevoli, Dalles 2015).



Figure 31 Leopold von Schrenck, Portrait of a Nivkh woman wearing a fish skin robe. *Reisen und Forschungen im Amur Lande*. 1881. Leiden University Libraries Special Collections, Leiden, Netherlands

1.10.2 Metallic Pendants

Women's fish skin wedding robes were trimmed with metallic pendants [figs 29-30] to repel evil forces through their movement, sound and reflected light. These metal discs or coins produced a sound as the wearer moved, audibly signalling her presence and serving an apotropaic purpose. As the bride walked, the small metal charms at the hem of her robe produced a soft tinkling sound to deter unseen malevolent spirits (Dalles Maréchal 2020). They formed a symbolic barrier along the base of the robe and were densely layered on aprons, enhancing both the garment's protective function and the wearer's prestige and status (Cevoli, Dalles 2015). The motifs they bore were highly stylised, incorporating abstract patterns such as comma-like shapes with shamanic associations and interlaced curves arranged within geometric frames. The metal discs – sometimes referred to in ethnographic literature as 'mirrors' – carried symbolic value. Some bore mask-like designs resembling those found in the motif panels of fish skin jackets. These discs functioned as shields and spiritual vessels, offering protection and serving as dwellings for divinatory spirits. Pendants could also represent celestial bodies such as the sun (a full disc) [fig. 32], or the moon (a crescent) (Beffa, Delaby 1999). Among the Nivkh and Orochi, they were regarded as protective amulets.

The lack of metal plates at the bottom of the hem of a fish skin robe betrays that belongs to a man, but metal objects were used by shamans. Mirrors and other charms were suspended from the front or back of a shaman's robe, signifying their role in spiritual mediation. Copper coins of Chinese origin were used, each pierced and tied to the garment to form dense, resonant rows. When in motion, the coins created a rhythmic, jingling sound. These garments, adorned with medals, discs and crosses, formed a protective armour, heavy and musical in nature (Beffa, Delaby 1999). Garments worn for visits or religious festivals – whether made of fish skin or cloth – were lavishly adorned, in contrast to the untrimmed workwear of daily life. Cotton robes were edged with wide contrasting borders and along the hem, women wore two rows of thin copper discs or Chinese coins attached with short leather thongs [fig. 30]. Borders could also feature shells (Rajagopalan, Bujis 2003) while collars were sometimes decorated with glass beads (Black 1973).



Figure 32 Nivkh fish skin robe with metallic pendants at hem. Late nineteenth century. Accession no. 2003-43-9 Amur River, Siberia. Penn Museum, Philadelphia, USA



Figure 33 Nivkh woman wearing a robe with metallic pendants at hem. Sakhalin. *Reisen und Forschungen im Amur Lande*. 1881. Leiden University Libraries Special Collections, Leiden, Netherlands

1.10.3 Linings

While fish skin remained a primary material for clothing, cotton was widely used for linings and lower garment borders (Black 1988). The high cost and scarcity of fabric made it particularly valuable among Amur women. Maak,²⁵ in his *Journey to the Amur*, like several of his contemporaries, expressed admiration for the material knowledge of Native communities. He was struck by what he perceived as a disparity between the skill evident in embroidered fish skin garments and the ease with which these garments were exchanged: “for a small piece of chintz they willingly gave their clothes carefully and very skilfully embroidered with dyed fish skin” (Maak 1859). Similarly, Maksimov noted that Amur communities eagerly accepted worn-out shirts and fabric scraps, repurposing them for clothing (Maksimov 1871). These commentaries on the apparent undervaluation of this work reflect a limited understanding of the Amur Native Peoples, for whom the creation of art was not a separate domain, but an integral part of everyday life. Their desire to decorate their garments and tools and their ‘artistic instinct’, served as a protective barrier against anything negative (Glebova 2010b).

The Penn collections provide tangible evidence of this practice. Fish skin robes, admired for their fine embroidery and vibrant colours, feature linings made from a patchwork of repurposed textiles [figs 34-35]. These fragments, possibly from shirts, or worn-out garments, were sewn together, forming the interior of festive garments, which took years to complete (Glebova 2010b).

25 Richard Karlovich Maak, geographer, botanist and traveller, described his 1855 expedition along the Amur River in *Journey to the Amur*, made by order of the Siberian Department of the Imperial Russian Geographical Society in 1855. Written in the form of travel notes, the text conveys a close observation of daily life along the river. See Glebova 2010b.



Figures 34-35 Nanai fish skin robe lined with indigo dyed cotton fabric. Late nineteenth century.
Accession no. 2003-43-7. Amur River, Siberia. Penn Museum, Philadelphia, USA



1.11 The Power of Sewing

Among Lower Amur Peoples, girls were taught sewing from a young age and continued to practise it throughout their lives (Glebova 2017). Technical skill in stitching and appliqué was highly recognised (Rajagopalan, Buijs 2003). The role of the embroiderer extended beyond craftsmanship and a highly skilled woman would become a figure of influence within the household and community. Mastery of embroidery reflected skill and experience, contributing to the household's material stability and confirming her recognised position within the family. Her ability to create garments that protected, healed and brought good fortune positioned her as a counterpart to the shaman. Embroidery was a domestic skill and a spiritual practice, ensuring balance between visible and invisible worlds. This tradition persists today, as embroidery continues to be used in rituals helping the souls of the deceased find their way to the afterlife²⁶ (Cevoli, Dalles 2015).

The making of animal skin into garments required secular and spiritual knowledge. Women acquired this expertise through intergenerational transmission (Glebova 2017). They learned to prepare soft materials for domestic furnishings and to sew clothing, as they would be responsible for producing the garments and household items of their future home. This role included relations with a spiritual dimension regarded as potentially dangerous. Protective motifs were placed on clothing and household containers to avert harm. The fiancée's dowry, composed of the finest objects and garments prepared since childhood, demonstrated her abilities as a future wife. The size and quality of the trousseau reflected family wealth and personal ability. The dowry shaped the marriage arrangements, which involved pelts, fur coats, garments, silk fabrics and silver. These possessions secured the young woman a degree of independence within her husband's family. She could also set aside part of her dowry for her funeral, providing for her well-being in the afterlife (Cevoli, Dalles 2015).

A delightful example in the Penn Museum is a mother [figs 34-35] and daughter [fig. 36] robe set adorned with hand-painted floral motifs framed by black borders extending from the hem to the collar. The rougher almond-shaped flower designs, symbolising fertility, suggest the hand of a young maker, perhaps the daughter practising the skills taught by her mother (Palomino 2025a).

Women transformed animal skins into garments imbued with symbolic power (Chaussonet 1988; Rajagopalan, Buijs 2003). In Nanai folklore, heroes must 'grow into' their clothes before embarking on their quests, symbolising their evolving strength and readiness (Van Deusen 1997). Just as masks facilitate spiritual metamorphosis, clothing would transform the wearer, granting them the attributes of the animals represented (Oakes, Riewe 1998). The act of embroidery, especially among the Nanai, functioned as material artistry and spiritual armour, conveying luck and warding off harm (Ivanov 1963; Okladnikov 1981; Gaer 1991b). In one account, three girls attempt to reach the summit of an icy mountain to confront the Wind Master. Two of them wear garments made from Chinese silk, while the third,

²⁶ The protective power attributed to her craft continues to function as a parallel to shamanic practice. This is reflected in the use of embroidery in funerary rituals, where embroidered motifs guide the deceased towards the world of the dead, particularly in situations where no shaman is present to perform the ritual passage. See Cevoli, Dalles 2015.

Belye, did not wear fine textiles, but her dress was covered in embroidered images of birds, plants, snakes, tigers and the river and she covered her dress with an old fish skin robe. When storms rise, sent by the Wind Master, the girls in silk are thrown from the mountain, but Belye reaches the top (Van Deusen 1997). In this account, the embroidered images on Belye's dress represent helpful spirits, capable of protecting her from harmful ones. These designs shield her from the storm and the intentions of the Wind Master who favour expensive imported fabrics. In this sense, clothing serves as a means of survival as well as fulfilling practical and decorative functions. Valerie Chaussonnet's work on the spiritual roles of clothing has been highly influential in Arctic fashion research. In *Needles and Animals: Women's Magic* (1988) and *The Bleeding Coat: The Art of North Pacific Ritual Clothing* (with Bernadette Driscoll 1994), she examines the role of skin and decoration in the making of protective clothing.

Sewing rituals were linked to childbirth and fertility. Embroidery and sewing were employed after repeated miscarriages or stillbirths as protective measures. Among the Nanai, the soul of an infant who died shortly after birth returned to the tree of life, where it awaited reincarnation before entering a new life. Through embroidery, a woman could assist in this transition. The mother would wrap the infant's dead body in cloth and sew duck feathers onto it to assist its flight to the sky (Cevoli, Dalles 2015). A dried segment of umbilical cord might be kept in a fish skin sewing kit as a protective item. Embroiderers also used thread or cloth tactically to deflect harm. A woman who had lost several children used a thread from her work bag to mislead the spirits. Clothing sewn by a woman with many children would also bring good fortune. A mother who had experienced multiple losses could request fabric scraps in sets of seven or nine from such a woman or ask her to sew the garment herself. Newborns were protected with fish skin amulets, including sun-shaped disks or dried fish heads (Beffa, Delaby 1998; Ivanov 1963) and elements such as predator hides or animal claws, were stitched to clothing or cradles to keep evil spirits at bay (Gaer 1991b). Other examples include hedgehog quills along the back, snakeskin at the collar and cloth from an elderly woman's dress at the hem (Cevoli, Dalles 2015). A newborn baby might be hidden in a bag made of fish skin and placed in a box or dragged gently across the floor in a sack before being covered with swept-up dust and stepped over. These actions were intended to distract the attention of spirits (Smoljak 1962). Fish skin was also used in traditional medicine; special fish skin headdresses were worn to alleviate headaches, while fish skin bands were wrapped around wrists to relieve muscle pain (Glebova 2015). These practices demonstrate the embroiderer's role as caregiver and ritual actor, capable of influencing wellbeing and misfortune through her work (Cevoli, Dalles 2015).

Sewing practices were governed by numerous taboos. Embroidered motifs offered protection, reinforced social bonds and mediated transitions such as birth, marriage and death (Glebova 2017; Dalles Maréchal 2020; Gaer 1991b). Prohibitions against sewing during pregnancy, funerals, or hunts highlighted the potency of these gestures (Šternberg 1933; Black 1973; Smoljak 1962). Pregnant women were not permitted to attend funerals, sew burial garments, or prepare food for the dead. If participation was unavoidable, a protective girdle could be worn to guard against miscarriage (Gaer 1991b). Pregnant women were considered particularly vulnerable to such contact, as the soul of the unborn was thought to be exposed to

interference. Precaution extended to the unborn child's belongings: clothing and cradles were not made until they were born to avoid attracting spirits. In the final weeks of pregnancy, women avoided sewing, tying, gluing, or mending, due to the risk that such actions could interfere with the birth (Gaer 1991b; Šternberg 1933). The gestures of sewing, piercing and closing, were thought to mirror bodily states and could affect the outcome of labour. While certain gestures were restricted, others were used to protect and restore fortune.

As the role of embroidery changed, so did the recognition given to its practitioners. Nanai embroiderers continue to work with inherited motifs, reshaping these forms in response to present conditions. Recognition of embroidery as a form of artistic practice developed during the expansion of museum activity in the 1920s, aligned with the goals of the socialist state (Teryukova 2014). During the Soviet period, as museum collections expanded, embroiderers began to be acknowledged more visibly as artists. Before the 1950s, individual makers were rarely mentioned in ethnographic records. From the 1930s, however, censuses led by state institutions and Indigenous researchers began to record embroiderers' names (Dalles Maréchal 2023). Today, those regarded as most skilled are formally recognised as master artists by the Professional Union of Artists of Russia.

1.12 Decorations in the Back

Fish skin garments consistently feature rich decorative elements on the back. These motifs were created through multilayered positive-negative fish skin appliqué in varying shades. On garments from the Siberian Amur, the most symbolically charged embroidered elements were placed on the back and along the spine (Cevoli, Dalles 2015).

Among the Nanai, these rituals are preserved in oral traditions. The decorative motifs on the back of women's robes protected them from invisible dangers, as working next to the hearth with their backs to the door made them vulnerable. Traditionally, women did not look directly at guests, but instead displayed their elaborately decorated backs, communicating social meaning beyond facial expression (Jude 2016). This position required protection, which was provided by the decorative motifs on the robe (Van Deusen 1996). The applied motifs also communicated the social taboos that governed interactions between the genders. The act of an elderly Nanai woman turning her back on guests was respectful and served as a visual narrative. Her robe symbolised lineage, personal history and collective cultural memory, transforming the garment into an ancestral 'story dress' carrying overlapping meanings (Doury 1999).

The front of women's robes was restrained in design, while the intricate embroidery of the back featured spirals, birds, fish, the tree of life and other forms passed down through generations. Members of the wider community could distinguish one family from another through these designs (Buijs 1993), which functioned as a visual language encoding the wearer's lineage, territorial origin and clan identity. The motifs were placed along garment openings, as well as on hats, boots, trousers and mittens. Upper borders symbolise the upper world and offer protection from above; hems represent the underground or underwater world; and the midsection signifies the human realm (Van Deusen 1996).



Figure 36
Nanai fish skin robe. Hand painted.
Late nineteenth century.
Accession no. 2003-43-11. Amur River,
Siberia. Penn Museum, Philadelphia, USA

1.13 Embellishment Motifs

The designs on Amur fish skin garments [fig. 37], belong to an artistic tradition linked to the 5000-year-old petroglyphs of Sikachi-Alian [fig. 38], which depict human faces, spirals, elk, swans, ducks and fish motifs that remained present in nineteenth century robes. Early scholars, including Laufer (1900, 1902) and Ivanov (1961), wrongly attributed Amur decorative traditions to Chinese influence, overlooking their Indigenous origins. While Laufer's studies reinforced primitivist theories, they also documented the uniqueness of Nivkh designs. Later research by Okladnikov (1981) traced these motifs directly to Amur petroglyphs, demonstrating their evolution in embroidery, fish skin appliqué and painted birch bark. Despite historical ties to China, Amur material culture remains unmistakably Indigenous. Before the twelfth-century Mongol invasions, the region's cities and trade routes fostered craftsmanship. The motifs' connection to ancient petroglyphs, with spirals and curved patterns, symbolises the communion between Amur communities and their environment.

Rich embroidery or hand painting motifs serve as ethnic identifier of various Native groups in the Amur River region. The Negidal favour floral patterns; the Nivkh make greater use of fish skin decorated with blue stylised motifs; and the Nanai are known for the 'Nanai eyes', two symmetrical swirls facing one another (Dalles Maréchal 2023). Among the Nivkh, reptilian and aquatic designs such as turtles, toads, lizards, snakes and fish dominate, rendered in bold and stylised forms. Representations of birds and deer also vary in style from neighbouring groups (Black 1973). Designs are inherited matrilineally and retain unique cultural features. Nivkh spirals are stronger and more defined than those of the Nanai and their motifs more stylised and expressive than those of the Negidal (Black 1973). Embroidery functions as a means of cultural self-representation, allowing artists to define what it means to be Nanai or Nivkh on their own terms (Dalles Maréchal 2023).

Over time, such regional variations have diminished due to cultural proximity, the exchange of techniques and the adoption of new decorative methods, occasionally involving imported Chinese or Japanese materials. Economic connections through fishing and regional fairs, where women's embroidered items were traded, also contributed to a gradual homogenisation of visual elements across both continental and island Amur communities (Cevoli, Dalles 2015). Fish skin products were part of inter-ethnic exchange and regional economies (Glebova 2010b). The Nanai village of Torgon was renowned for skilled women artists whose embroidered fish skin garments were sought as far as Sakhalin. Evenks, although fishermen, purchased fish skin items, such as *pondo* shoes, from Nanai makers, adopting their terminology (Smolyak 1975). These transactions demonstrate the circulation of fish skin artefacts as a valued commodity, as well as the expertise involved (Dalles Maréchal 2020).

Embroidered designs traditionally served to invoke and appease the spirits of the natural world (Oakes, Riewe 1998). Common motifs include rivers, the tree of life, fish, plants, ducks, swans, eagles, tigers, bears and solar symbols, all part of shamanic mythology (Van Deusen 1996). Spiral patterns were interwoven with plant, animal, or mythical motifs (Rajagopalan, Buijs 2003). Scrollwork on Amur robes varies with occasion, from minimalist designs, such as a single wave along the spine to symbolically seal the access point of the

garment, to elaborate compositions structured across three planes, covering most of the garment's back (Cevoli, Dalles 2015). The stylised portrayal of birds, fish, snakes and water reflects the value attributed to nature and animals employed in garment design (Rajagopalan, Buijs 2003). Embroiderers interpret and narrate these motifs, using them as visual storytelling devices.

Salmon skin served as material for clothing, leggings and boots and also as a surface for ornamental appliqué. Decorative strips were coloured, stencilled and stuck with fish glue before being sewn using nearly invisible stitches (Glebova 2015). Ornamentation was achieved by cutting motifs from fish skin, generally dyed blue [fig. 29] and sewing them with fish skin thread onto backing pieces of similar material, carefully shaped to accommodate the motif. These components were arranged in symmetrical sequences across the garment's surface (Laufer 1902). Among the Nivkh, decoration took the form of layered appliqué using fish skin in alternating colours, creating a multicoloured visual effect.

1.13.1 The Tree of Life

The tree of life appears as a motif on the back of Nanai wedding robes, rendered in stylised, symmetrical embroidery. This vertical figure maps a tripartite conception of the universe onto the bride's body, a gateway to the worlds above and below passing through the terrestrial realm. Horizontal bands divide the garment into three tiers: roots symbolising the underground, the trunk representing the human realm and branches denoting the celestial sphere. Each layer features animals associated with its respective domain, fish, lizards and amphibians below; forest creatures such as reindeer in the middle; and birds above (Van Deusen 1997; Rajagopalan, Buijs 2003; Dalles Maréchal 2022). In the upper panels, birds represented unborn children and almond-shaped flowers symbolised fertility. Further down, animals interwoven into the tree of life referenced the husband's protective role. At the base, the roots signified the realm of ancestors, with animals such as the snake (order and harmony), the lizard (speed) and the deer (abundance and earthly wealth) standing out against a dark ground that evoked regeneration. All were embroidered with brightly coloured silk threads imported from China on carefully tanned Amur fish skins (Doury 1999). A Nivkh wedding robe from the Penn Museum displays a three-part structure arranged horizontally: a lower section that represents the underworld, a central band extending from the sides of the robe and an upper section. A metal-pendant border is attached to the hem, positioned beneath parallel red and blue lines [fig. 29] (Delaby 1997).

Across the Amur Basin, this motif is linked to a cycle of life that begins with a tree with branches laden with birds. This cycle involves the return and reuse of souls from a shared pool comprising the spirits of clan ancestors. For the Nanai, the concept of soul is expressed through three terms: *omi*, the soul yet to be born, also associated with infants under one year; *fanja*, the soul of the dead; and *uksuki*, the shadow of the living body. The *omi* waits on the clan tree for the start of a pregnancy; the *fanja* joins the collective realm of the clan's dead; and the *uksuki* stays near the person during life and disappears after death. During rites to address infertility, a Nanai shaman travels to the clan tree, passing through layers of cloud blue, white, red and storm-bearing, before retrieving an *omi*, described as a small bird and

returning it to earth. The mother's dream of a bird confirms the success of this journey (Cevoli, Dalles 2015). The tree of life may also incorporate clan animals and shamanic objects like mirrors and bells referencing the myth of the *Three Suns*, represented by small circles and commas attached to the tree branches²⁷ (Dalles Maréchal 2020; Shternberg 1933). The tree of life's trunk is embroidered in stem stitch, with a strip of birch bark placed beneath the cotton threads to give the trunk its structure. The use of bark makes the tree more realistic, with the trunk formed from the material it represents. Birch bark is used for the protective qualities associated with betulin and for its resistance to damage and decay. When birch bark is unavailable, cardstock may be substituted. This technique provides support and incorporates the healing properties associated with birch²⁸ (Dalles Maréchal 2022).

1.13.2 Snout Motifs

In several Nivkh and Nanai garments, snout shapes are cut, stitched, or outlined directly onto fish skin [fig. 37] across a number of garments and accessories. Composed of two opposing spirals with a more horizontal scroll beneath, the motif symbolises the snout of a wild animal and it is generously interpreted as a bear, tiger, or dragon (Ivanov 1963; Beffa, Delaby 1998; Melnikova 2005). The precise animal association is secondary to the broader evocation of a beast's mouth, associated with protection against harmful spirits (Cevoli, Dalles 2015; Dalles Maréchal 2020).

These motifs are found across various media and techniques, including painting, stencil work, appliqué and chain stitch. Traditionally rendered in black on white fabric for everyday garments, black being considered a protective colour, the snout motif is presented in indigo blue, red or black on fish skin robes. It appears at the base of the neckline, particularly in men's hunting attire, to shield the wearer from malevolent spirits of the taiga (Dalles Maréchal 2020). Snout motifs have a rich historical lineage, traceable to Neolithic petroglyphs and pottery from the Sikhote-Alin region [fig. 38]. These early mask-like images, featuring spiral 'eyes' and prominent noses, appear stylised on garments and metal discs sewn to the hems of women's clothing, continuing a long-standing decorative tradition (Okladnikov 1981; Rajagopalan, Bujis 2003; Laufer 1902). The bear plays an important role in these representations. Revered as a former human and master of the mountain world, it appears in embroidery associated with ancestral spirits who control the game given to hunters (Beffa, Delaby 1999; Van Deusen 1997). Bear festivals involving ritual and sacrifice were part of a cultural tradition extending across the Amur, Sakhalin, the Kuril Islands and Hokkaido. This tradition was grounded in dual-clan structures and symbolic social exchange (Okladnikov 1981).

²⁷ In this myth, life on Earth becomes unsustainable when three suns appear, prompting the spirits to appoint the first Nanai shaman to shoot down the excess suns. During his journey through the layers of the sky, he reaches the spirit world and encounters a great tree bearing birds and shamanic objects, including mirrors worn around the neck and bells attached to the belt to hold souls during healing rituals (Dalles Maréchal 2022).

²⁸ This embroidery technique produces a rigid surface, using birch bark for the stem. Birch is preferred for its durability and its chemical properties: it contains *betulin*, a natural fungicide with antibacterial and regenerative effects and methyl salicylate, a natural analgesic and anti-inflammatory that is the same compound found in aspirin. See Dalles Maréchal 2022.

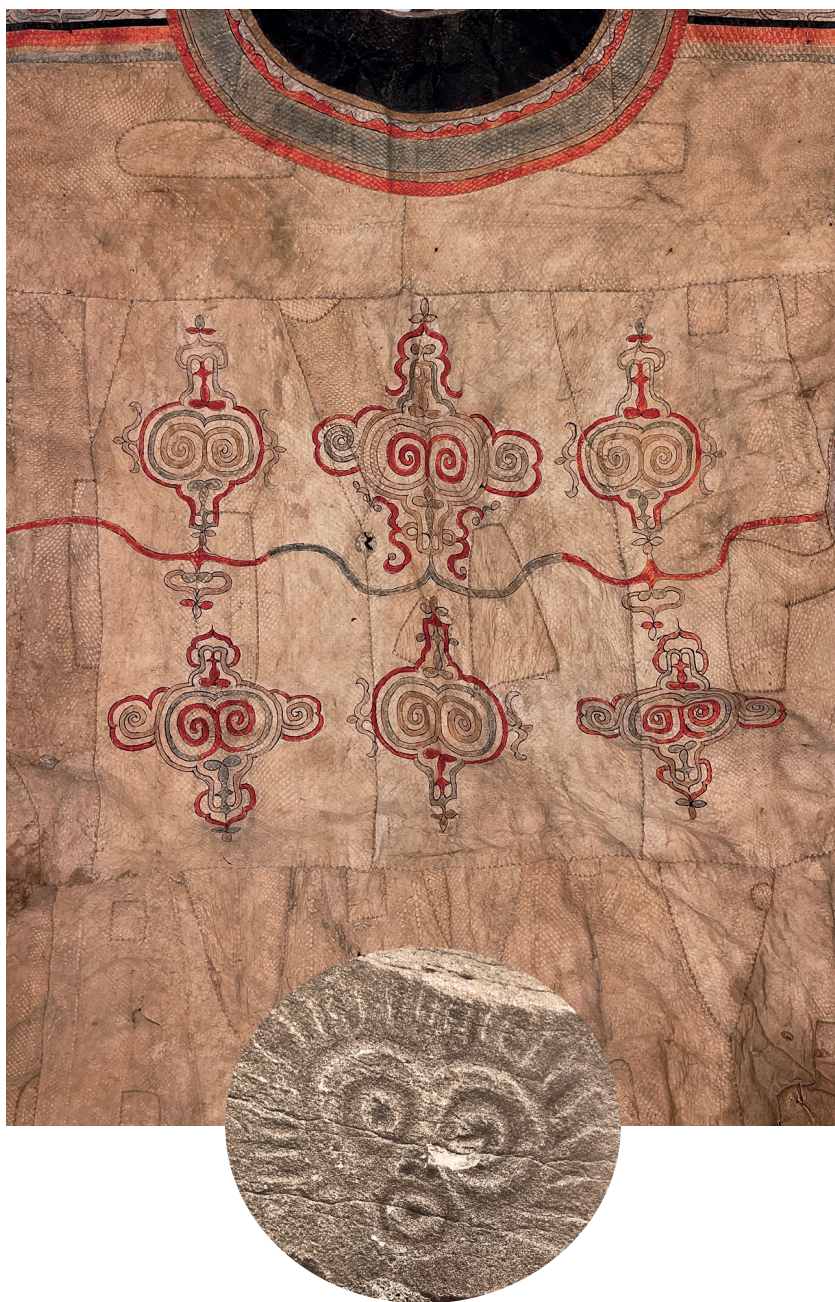


Figure 37 Nivkh Fish skin robe with snout motifs inspired by petroglyphs of the Ussuri area. Hand painted. Late nineteenth Century. Accession no. 2003-43-8. Amur River, Siberia. Penn Museum, Philadelphia, USA

Figure 38 Alexei Okladnikov, 1971. Aurockart.ru. Petroglyphs of the Ussuri area depicting an oval mask with 'radiance' and 'fish shape eyes'. Incised on a basalt cliff. Fourth-third millennium B.C. Sheremetyevo, Khabarovsk territory, Russia

1.13.3 Bird Motifs

Birds, ducks, swans and geese, are shown in stitched or appliquéd form, sometimes with wings spread in flight and are positioned in relation to other animals or plant forms (Rajagopalan, Bujis 2003). In accounts of creation from the Amur region, birds hold specific roles in the formation of the land. Diving birds are described as having created the earth by bringing up sand and soil from the sea floor. In a Nivkh account, a duck is said to have formed the land using its own feathers²⁹ (Sangi 1967; Rajagopalan, Bujis 2003).

Birds are connected to the soul. In the tree of life, those nesting in the upper branches are souls that have not yet been born. An unborn child is a returning soul. On wedding robes, bird motifs represent the future, unborn children of the bride, their number indicating the family's wishes for future children (van Deusen 1997). In oral traditions, eagles and swans are messengers from the upper world and female figures from that realm appear in the form of swans, such was the case with the wife of the Nivkh boy who emerged from a swelling on his mother's knee and grew into a great hero (Van Deusen 1997). These motifs follow the tripartite cosmology of the world tree, which connects the celestial, terrestrial and subterranean realms.

1.13.4 Water Symbolism

Water, both river and sea, is named in songs, carved in wood and evoked in embroideries as an active force. In local legend, crossing water marks a threshold between life phases, serving as a metaphor for transformation (Van Deusen 1997). Rivers are rarely named explicitly, but their presence is implicit, carrying characters to new lives, dreams, or states of being. In Nivkh and Udege creation myths, water is portrayed as the primordial element. In the Udege version, a brother and sister who survive the great flood go on to renew the human race (Van Deusen 1996).

Water is also linked to rebirth and healing. In Udege and Ulchi narratives, hunters marry sea creatures, follow them underwater and use red water or blood to restore them, guided by ancestral or spiritual figures. These stories associate water with lifeblood and continuity across realms. The Amur River itself plays a prominent role in Nanai stories, while the sea dominates in Nivkh and Udege traditions. Water deities are invoked at the start of the fishing season with ritual offerings. These deities represent aspects of a unified natural force that encompasses water, mountain, earth and fire (Van Deusen 1996).

The symbolism of water is also visible in embroidery. Spiral and curvilinear designs on garments mirror the flowing forms of rivers, resembling vines, veins and even the faces of animals such as bears or tigers (Rajagopalan, Bujis 2003). Some of the embroidered borders of fish skin robes are a representation of the river, filled with animals and spirits (Van Deusen 1997).

²⁹ In several oral traditions from the Amur River region, the duck is described as creating the first land by pulling out her own feathers to form a nest upon the surface of the water, from which the earth gradually emerged. See Sangi 1967.







Figures 39-40 Salmon skin robe featuring scale-patterned embroidery. Hand painted, ca. 1900. Accession no. 626-1905. Eastern Siberia. Victoria and Albert Museum, London, UK

1.13.5 Fish Motifs

Fish play a key role in the tree of life, alongside birds and fur-bearing animals. The branches may merge with flowing water patterns, waves, spray and wriggling fish, referring to the fertility of the river as a source of life. They appear in the roots or the lower panels of compositions and in some cases, follow the trunk into the world of the living, replacing humans and evoking the relationship between prey and fisherman. Fish are also shown in the beak or belly of seabirds or fused with them in the form of a fledgling bird with fins in place of a tail. These configurations, birds containing fish or hybrid fish-birds are symbols of newborn life (Cevoli, Dalles 2015).

Fish also possess a divine aspect in Amur River mythologies, assuming human form. In one Ulchi tale, a man marries a taimen, heals her and she transforms into a woman. The two of them settle together on land, eventually making their home along the Amur River (Van Deusen 1996). These narratives showcase fish as liminal beings, creatures that traverse and connect multiple realms, associated with transformation, healing and continuity between species and worlds.

1.13.6 The Fish Scale Wedding Robe

Some bridal robes in the Amur region feature scale-patterned embroidery [fig. 40], creating a protective layer for the bride as she moves from the spiritual care of her natal clan to that of her husband's family. These scale motifs, usually placed across the upper back of the garment [fig. 39], serve as a form of ritual armour (Cevoli, Dalles 2015).

The scale motif draws on multiple layers of symbolism. In its most literal form, it refers to fish scales, metonymically linking the bride to the salmon, a primarily subsistence species. In broader cosmological terms, it echoes protective motifs found throughout Amur iconography, including snake and dragon skin, figures associated with water, earth and sky. Stylised representations of these creatures are reflected in chequered or rhombic friezes (Cevoli, Dalles 2015).

Each scale is cut from fish skin and reinforced with a bias strip to preserve shape and prevent fraying. Motifs such as dragon mouths, shamanic birds and 'Nanai eyes', two spirals facing each other, are embroidered using stem stitch at the centre of each scale. Once embellished, the scales are arranged in an overlapping pattern that mimics the natural layering of salmon scales, creating a surface that moves fluidly over the bride's shoulders (Dalles Maréchal 2020; 2022; Palomino 2021).

The completed tiling of scales is then affixed as a single element to the back of the robe, forming a relief-like epidermis. This carefully structured arrangement transforms the robe into a materialised threshold space, designed to safeguard the bride on her passage through social and spiritual transformation. The motif also carries regional syncretic meanings: in Nanai, Manchu and Chinese traditions, dragon scales are linked to lightning and associated with protective spirits. Motifs of bear snouts may also appear at the cuffs or lower back, adding further layers of spiritual defence (Ivanov 1954; Beffa, Delaby 1999).

1.13.7 Serpent, Spiral and Dragon Motifs

Spirals and zigzags, found in Amur petroglyphs, pottery and embroidery, relate to serpent and dragon figures described in Amur oral traditions. Okladnikov (1981) reads the spiral as a Neolithic symbol of the sun and the celestial serpent, a form also echoed in Evenk dance rituals and associations with rebirth and transformation (Van Deusen 1997).

In Amur mythology, serpents are creators and protectors. According to Nanai legend, the earth was once smooth and submerged until a giant serpent carved valleys into it, allowing water to recede and land to appear (Oakes, Riewe 1998). Serpents are seen as guardians of mountain spirits (Nagishkin 1980) and benefactors who bring fertility, wisdom and healing. In shamanic traditions, snake forms appear in clothing and ritual belts, coiled or interlaced in dynamic patterns (Van Deusen 1996).

Dragons, legless and snake-like, are linked to serpent imagery. In Nanai iconography, they are rendered in symmetrical scrolls or snout motifs and associated with scales and protective power (Ivanov 1963; Dalles Maréchal 2020; 2022). Motifs on robes may include dragon mouths or interlocking triangles that reference dragon skin, which acts as shield (Cevoli, Dalles 2015). Dragons also connect with Chinese and Manchu traditions, particularly the water dragon or *mudur*, to safeguard rivers, fish and the souls of the drowned (Shirokogorov 1935; Laufer 1902; Ivanov 1954). The Amur River itself, *Heilongjiang*, ‘Black Dragon River’, refers to this connection.

1.13.8 Reindeer Motifs

Terrestrial animals also appear in Amur embroidery and ornamentation. On fish skin robes, these motifs are incorporated into the tree of life design, along the middle world (Rajagopalan, Bujis 2003). The reindeer is one of the animals most often depicted. Local communities value this species for its cultural and nutritional purposes. Its body provided meat, skins for clothing and bones for tools, while its image carried spiritual meaning and affirmed tribal identity. Among the Samar clan of the Nanai (Samagir), the reindeer retained an important role in funerary traditions. Karger and Koz’Minskii (1929) recorded that the dead travel to the next world on a reindeer sledge, although the Samagir were no longer engaged in reindeer breeding at the time they were documented by ethnographers.

Okladnikov identifies the elk, or moose, as a cosmic figure, an embodiment of the universe. In the mythology of the Siberian tribes, the elk is the zoomorphic representation of both earth and sky. In one narrative, the cosmic elk is pursued by hunters in bear form; its death marks the end of the world, signalling Earth’s rupture (Okladnikov 1981). The elk also appears in oral stories as a benevolent celestial being. In one tale, two baby moose are sent from the upper world to aid a heroine in defeating an evil dog-spirit (Van Deusen 1997).

1.14 Footwear

The act of sewing footwear has many symbolic meanings (Oakes, Riewe 1998). Making boots was associated with support, strength and the

conditions for a successful life. Among the Evenki, footwear was regarded as one of the foundations of life and was described in human terms, as a point of contact between sacred and everyday domains. Oral traditions link the act of sewing boots with shamanic power. In one story, a spirit enters the shaman's dwelling while his daughter sews a pair of boots; through the sound of her stitching, echoing the beat of the shaman's drum, she expels the spirit (Sem 1993; 1997). In Nivkh funerary practice, fish skin footwear assists the dead in their journey to cross into the other world (Black 1973; Oakes, Riewe 1998).

Skilled women drew patterns directly on skins by eye and hand, or reused patterns from dismantled boots on paper, or birch bark (Sartagov 1996). Hand measurements were widely employed: a handspan marked the height of a boot shaft, while a bent thumb or extended finger provided increments for width (Black 1973). Footwear decoration varied across the Amur. Nivkh artists used dyed fish skin cut into curvilinear forms, glued onto contrasting fish skin grounds [fig. 41]. Nivkh embroidery uses Chinese silk thread, cloth strips, dyed birch bark and hair from reindeer, moose, or dog (Black 1973). Women's footwear, made from fish skin, was supple and thin, therefore suitable for work in and around the house across seasons (VanStone 1985). They wore stockings, sometimes named 'inner boots', with fur turned inward against the skin. During winter, the Nivkh insulated their boots by placing dry grass insoles between the stocking sole and the boot for added warmth, a practice broadly used among other northern Indigenous groups (Schrenck 1881). Grass was carefully selected, combed and layered, essential to comfort and protection. The proverb, "A great beast pastures in a deep fold", warned against poorly laid grass that could injure the foot (Rajagopalan, Buijs 2003).

Among the Nivkh, women's boots followed the same design as those worn by men, though unlike men, who frequently went barefoot in warm months, women wore theirs year-round. Boots made from fish skin, especially from chum salmon (*Oncorhynchus keta*) and pink salmon (*Oncorhynchus gorbuscha*), were lighter and more breathable, qualities that made them better suited to women's domestic tasks and more practical during summer (Schrenck 1881). Men's winter footwear included fish skin boots.

Nivkh boots were cut to fit closely around the calf, fastened to keep out snow and water (Black 1973). Salmon and pike skins were favoured for being light and offering grip on ice (Smolyak 1988). Seal, fish, or moose soles were pleated to form a pointed, slightly upturned toe with a Y- or T-shaped heel seam, varying by region and period. Larger points were created by pleating seal or moose skin soles while wet, moulding them into position, then drying them hard; smaller points also relied on pleating. Soles were shaped wet, pleated and dried firm, while vamps could be triangular or tongue-shaped, with central seams. Vamp width varied by group; Nivkh preferred narrower vamps than Nanai. Some had a centre seam, and a skin flap was sewn around the ankle. Designs, curvilinear and sometimes zoomorphic, were applied to the vamp and ankle flap before assembly using applique, painting, embossing, or embroidery [fig. 41]. Nanai artists outlined their motifs with fine black lines. Undecorated boots were used for workwear. An extra row of stitching is placed on the sole about 2 cm below the vamp-sole seam on some boots from Sakhalin Island. Shin-high and knee-high leg sections were cut from haired seal skin, fish skin, dehaired moose hide, or assembled from fabric pieces. These were decorated with stained skins, trimmed with fur



Figure 41 Nivkh boot made of fish skin and reindeer hide. Hand dyed. Late nineteenth century. Accession no. 71-12-3B. Amur River, Siberia. Penn Museum, Philadelphia, USA

or fabric and sewn to the boot with a centre front opening. One side of the opening wrapped over the other and was secured with a boot tie threaded through holes at the ankle, then wrapped around the leg section (Hatt 1916).

Nivkh women on Sakhalin wore wraparound boots cut in one piece, with fish or seal soles and skin shafts tied at the ankle. This variation featured a vamp and sole cut from a single piece. The heel had a Y-shaped seam and the toe an elongated T-shaped seam arched toward the ankle. Pleats were formed around the toe. The shin-high leg section was made from linen, though fish and seal skin were also used. It had a short centre front seam that opened down the front and was folded around the ankle and fastened with ties or leggings (Hatt 1916; VanStone 1985). This sole design also appeared with leggings and knee-high sections (Oakes, Riewe 1998).

Across the Amur, footwear styles reflected exchange between groups. Tungus-speaking Ulita, Udege and Ulchi adopted features from Evenki hunters, while also borrowing elements from Nivkh and Yakut traditions. Nivkh styles, by contrast, showed fewer connections with Tungus neighbours, reflecting their riverine orientation (Oakes, Riewe 1998). Today, although most people use manufactured boots, traditional fish skin footwear remains valued for its durability and heritage (Smolyak 1988).

1.15 Leggings

Leggings [fig. 42] were worn throughout the year by both men and women beneath their robes (Taksami 1970). Fish skin leggings were worn by men during winter travel, particularly when riding sleds or moving on skis through the taiga. Fish skin leggings were made from salmon or carp skin and were softened through pounding. Each legging required three full fish skins, joined with two rectangular strips at the top and smaller infill pieces at the bottom, while a narrow strip of unpounded skin from another fish, likely salmon, was applied around the base. They were stitched with nettle fibre using overcast and running stitches. Women's leggings were more decorated than men's. The upper section was made from cotton, followed by a broad band of printed blue cotton bordered with narrower bands in red, brown, blue, or black. This band could carry curvilinear thread embroidery. Decorative cotton tapes fastened the leggings at the ankle and above the embroidered section and a pair of cloth ties at the top secured them to a belt. The interior was lined with white cotton, with seams sewn using standard thread (VanStone 1985).

Leggings provided insulation and protection from wind and insects, particularly in summer, when the lower edge was secured below the knee with leather ties to seal the leg pieces. At the upper edge, straps attached the leggings to a belt worn around the waist (Cevoli, Dalles 2015).

1.16 Mittens

To prevent snow from entering the sleeves, the Nivkh secured wide armbands made of cloth or fish skin tightly around the wrists. Gloves, usually mittens [fig. 43], were fastened directly to these bands. Each mitten featured a concealed slit near the wrist, covered by a flap, allowing the wearer to extend their hand outside the glove when needed (Schrenck 1881). Mittens were made from a variety of materials including dog, deer, fox,



Figure 42 Leopold von Schrenck, Fisherman wearing leggings. *Reisen und Forschungen im Amur Lande*. 1881.
Leiden University Libraries Special Collections, Leiden, Netherlands



Figure 43 Pyotr P. Shimkevich, Nanai wearing traditional robe, headpiece, shoes, mittens and fishing gear, ca. 1925.
Accession no. CC BY-NC-SA 4.0. Berlin State Museums, Ethnological Museum, Berlin, Germany

sable, reindeer and fish skin. A pair of mittens and a belt completed a regular outfit (Beffa, Delaby 1999). Some had a separate index finger and a combined ring and little finger, these sometimes were made of red fabric embroidered while working mittens were made for practical use with an opening below the thumb made of fish skin, which allowed the hand to be withdrawn without removing the mitten, useful when handling a fishline or trapline (Black 1973; VanStone 1985).

Women's mittens were made from fish skin or cotton lined with dog fur, with sealskin trims and layered appliquéd bands in various colours. Their patterns align with those documented by Taksami (1970), who noted that mittens without flared cuffs were more traditional. Some examples were sewn with coarse thread and adorned with embroidered curvilinear motifs in red and black (VanStone 1985). Among the Nivkh, the inside of the fingers could be tinted with alder bark for ritual purposes (Beffa, Delaby 1999). Decorative mittens were worn during ceremonies, while simpler, slit-cuffed mittens were reserved for daily use.

1.17 Hunting Belts

Among the Nivkh, the belt was considered the most important item of a man's clothing [fig. 47]. Made of seal skin, it carried the tools required for daily life and hunting. These included a knife or dagger, a fish knife, wood-carving knives, a piercing tool for untying knots, a skinning knife, a flint in a small tinder pouch, a tobacco pouch, a pipe cleaner, a needle case and amulets related to wellbeing and survival (Rajagopalan, Buijs 2003). Among the implements was a large knife, used interchangeably for eating and self-defence. It was made with a broad blade and a short wooden handle, occasionally inlaid with copper or silver arabesques and engraved motifs. The scabbard was fashioned from thick seal leather (*Phoca barbata*), decorated with embossed coloured patterns. A second knife was also worn. Smaller and pointed, it featured a sturdy wooden grip, finished with a knobbed end for stability. It was stored in a rigid alder wood scabbard tipped with wood or bone. This knife was used for woodworking and the production of both rough and fine tools (Schrenck 1881).

Fire-making tools were also secured to the belt: a flint and tinder container, along with a striker.³⁰ These pouches [fig. 44] were made from Amur sturgeon (*Acipenser schrenckii*), a species recognisable by its long snout and retained scale pattern after tanning. Histological studies identify the specific alignment of collagen fibres and dermal plates as the source of its durability and characteristic stellate texture. The black upper layer and rigid bony plates [fig. 45] made it ideal for crafting small hunters' fire-starting containers (Palomino, Cloud 2025). These pouches were composed of two overlapping pieces of sturgeon skin, that fit into each other and were wrapped with sinew, which prevented them from separating. The corners folded inward shaped into spiral ends. The construction helped protect the fire-making materials from damp conditions (Schrenck 1881). Worn on the belt alongside knives, pouches and personal items [fig. 23], they were both utilitarian and protective. In addition to their practical function, they connected with spirit forces. Depending on the purpose, they might house a

30 The tinder box contained tinder, flints and a fire striker. By striking the iron against the flint, sparks were produced to ignite the tinder, which was highly flammable and used to start fires.

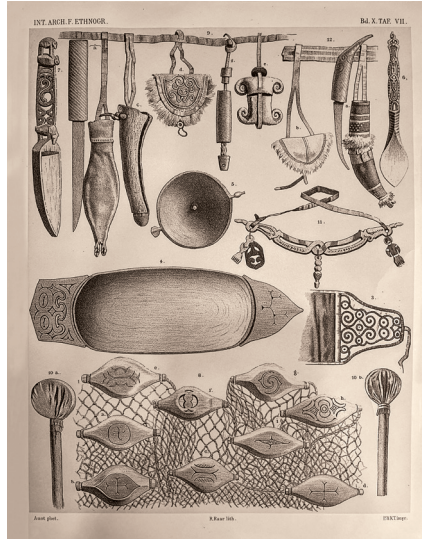


Figure 44 Leopold von Schrenck, drawing of a sturgeon skin pouch. *Reisen und Forschungen im Amur Lande*. 1881. Leiden University Libraries Special Collections, Leiden, Netherlands

Figure 45 Nivkh tobacco pouch. Sturgeon skin. Late nineteenth century. Accession no. 71-12-8B. Amur river, Siberia. Penn Museum, Philadelphia, USA

Figure 46 Henry Lansdell, illustration of Henry Lansdell wearing a Nanai fish skin robe. *Through Siberia*. 1882. Leiden University Libraries Special Collections, Leiden, Netherlands

Figure 47 Friedrich Grabowsky, a Nivkh hunting belt ensemble from Sakhalin Island, A collection of ethnographic artefacts from the Nivkh of Sakhalin Island. 1897. Leiden International Archive for Ethnography. Leiden University Libraries Special Collections, Leiden, Netherlands



Figure 48 Studio photograph of Henry Lansdell wearing a Nanai fish skin robe and a belt with a sturgeon tobacco spouch. Through Siberia. 1882. Leiden University Libraries Special Collections, Leiden, Netherlands

spirit or act as a medium for engagement with it, attracting warrior spirits capable of influencing fishing or hunting outcomes (Palomino, Cloud 2025). Suspended from the belt were additional items, including a length of tinder moss and a curved, pointed metal rod used for various tasks such as perforating leather, loosening knots, or cleaning arrow shafts. This tool, also made from horn or bone, was decorated with small, finely carved motifs. Other personal objects such as boar tusks, antelope horn, or pieces of deer antler, were also attached (Schrenck 1881).

The practice of smoking and snuff originated in seventeenth century China, spreading first among Mongol and Manchu populations before reaching Indigenous communities in northern Siberia via expanding Russian contact. Both men and women adopted the practice. By the twentieth century, tobacco use, alongside alcohol and narcotics, had become linked to broader patterns of disruption brought about by colonisation, economic dislocation and the erosion of established practices. These developments contributed to persistent addiction-related challenges, echoing patterns observed among Inuit communities in North America and Greenland (Wereldmuseum 2025a). In parallel, efforts to introduce Western medicine were largely unsuccessful. As Lansdell observed, vaccination campaigns in the Amur region suffered from poor-quality vaccine supplies and a shortage of trained personnel. In one settlement of 375 individuals vaccinated, 40 had died (Lansdell 1882).

Women's belts carried other items and were more beautifully decorated. Needle cases contained needles, thimbles and thread. They were made from metal, bone or ivory and were shaped and decorated. They were attached to belts or sewing bags to keep them secure while moving and setting up camp (Black 1973). Among the Nivkh, needle cases suspended from the belt consisted of a hollow bone tube threaded with a strap and fitted with two plugs. The lower plug remained fixed, while the upper could be slid to release the strap and push the needles out of the tube. The design allowed for secure storage and ease of access (Schrenk 1881).

The belt was also an indispensable part of funeral clothing (Black 1973). Hunting belts with tools such as axes, tobacco pouches and fire-starting implements were placed in men's coffins, while sewing belts and related materials were placed in women's. These tools, specific to the activities of the deceased, were ritually broken and arranged in the grave so that they could reach the person in their entirety in the afterlife (Dalles Maréchal 2020).

A drawing by Grabowsky, held at the International Ethnographic Archive in Leiden, depicts a complete Nivkh hunting belt ensemble from Sakhalin Island [fig. 47], illustrating practical everyday tools. British missionary and geographer Henry Lansdell also acquired and documented such items during his travels. While in Tyr, he purchased a Nivkh fish skin robe for eight shillings, noting its elaborate embroidery and painted decoration across the back. According to Lansdell, the robe, worn closed at the front and secured with a belt, supported various personal items, including a sturgeon skin pouch and a hunting knife [fig. 47]. A particularly refined example of such a pouch was later given to him in Nikolaevsk by the region's senior civil official (Lansdell 1882). In an existing studio photograph [fig. 48], Lansdell poses wearing the same fish skin robe and sturgeon pouch, a reminder of how Indigenous belongings were appropriated and displayed by missionaries and travellers as evidence of their journeys.

1.18 Bags

Nivkh women's handbags [fig. 49] for carrying needlework were made from birch bark or fish skin. They also carried needle cases and decorated panels for embroidery (Glebova 2017). Constructed from rectangular panels of contrasting fish skin, these bags were edged with leather strips and varied in form and function. Women's bags held sewing implements, while men's bags were used for hunting tools, tobacco supplies and possibly small game. Larger bags used for storing flint, tinder and knives were crafted from fish skin and reindeer skin (VanStone 1985). Sewing bags and baskets held needle cases, bundles of sinew thread, beads, buttons, pieces of skin and fabric, decorative trim, small bells, amulets and other materials. Women with large reindeer herds usually made reindeer skin sewing bags, while women in the south, with smaller herds, made bags from cedar roots and birch bark. Flat, purse-like birch bark containers were also used in the Amur region to store elaborately decorated panels (Black 1973). Decoration varied across groups, some examples feature decorative treatments, including painted symmetrical motifs in red and black and coloured edging. Brass bells were attached to sewing bags as protection from illness or harm. After a death, bells used on reindeer, clothing and sewing bags were muffled for four months in the case of a deceased woman and five months in the case of a man (Golovnev 1994; Oakes, Riewe 1990, 1996; Sartagov 1996).

Fish skin was also employed for food storage bags, which held grains, dried fish, meat and berries (Glebova 2010b). In Lower Amur fishing settlements, similar containers were used for storing millet, salt and tobacco (Glebova 2017). Travelling bags made of stitched fish skins arranged in geometric compositions, were used to carry provisions or to secure sled cargo. These were wrapped in lightweight fish skin sheets and fastened with a harness, preventing displacement when traversing uneven terrain. They had a secondary use as a tent panel.

1.19 Tents

Fish skin was also used for boat sails and tent coverings, where its lightweight and resilient properties were particularly valued. The summer tent, assembled from upright wooden poles arranged in a circular frame and secured at the top, was covered with fish skin panels [fig. 10]. Inside, a framework of slats supported basic domestic tools, including a hook for suspending cooking pots. During the summer months, the Ulita and Nivkh relocated from their primary dwellings to seasonal riverside settlements, comprising either stilted houses or these lightweight tents. Proximity to water facilitated fishing, which dominated the seasonal economy. While primarily used at summer fishing sites, these tents were also taken on hunting expeditions. Fish skin was favoured for the tent coverings due to its light weight and ease of transport (Wereldmuseum 2025b).

1.20 Siberian Shamanism

In the Lower Amur region, clothing functioned as protection from the weather and as a means of regulating relations between humans and animals.





Figure 49 Negidal fish skin, reindeer and birdskin bag. Late nineteenth century.
Accession no. 2003-43-34. Siberia. Penn Museum, Philadelphia, USA

Animal skins, particularly when left whole, would confer the abilities of the animal, vision, hearing, strength, onto the wearer (Chaussonnet 1988; Van Deusen 1997). Hunters, embroiderers and shamans alike relied on this transformative power, expressed through carefully crafted garments that carried spiritual symbols and magic (Beffa, Delaby 1999).

Human-animal relations were based on equality. Hunters honoured prey with rituals and women respected the spirit of the animal when preparing garments from animal remains (Rajagopalan, Bujis 2003; Oakes, Riewe 1998). Sewing, wearing and ornamenting clothing took place within a system where humans, animals and spirits interacted through reciprocal exchange with nature's master spirits (Black 1973; Kreinovich 1929; Glebova 2015).

Nanai and Ulchi shamanic traditions include processes of selection, initiation and the making and use of ritual garments (Van Deusen 1996). Some embroidery patterns were received in dreams and served as protective forms of communication (Cevoli, Dalles 2015). Shamans were spiritually elected, sometimes following childhood illness or trauma and mediated between worlds using spirit helpers capable of transformation (Shternberg 1904). Just as shamans were 'chosen' by spirits through illness and visions, many renowned embroiderers shared similar life stories, experiencing vision, childhood sickness, dream-inspired motifs and a compulsive need to create (Dalles Maréchal 2023). Stitching patterns received in dreams contribute to the protective and spiritual dimension of the garment (Dalles Maréchal 2020; 2023). Female shamans held heightened spiritual potency due to their inter-clan roles through marriage, their responsibility in domestic protection and their involvement in life-cycle rituals.³¹ The embroidered wedding robe, marked with the Tree of Life, is associated with a woman's cosmological role, while funeral garments serve as offerings for safe passage into the ancestral realm (Van Deusen 1996). Oral narratives describe heroines whose clothing and tools enable passage across thresholds. Sewing implements take on active roles, transforming into protective objects or spaces. Embroidered motifs guard the body and careful stitching produce safety and success, while careless work can result in harm (Van Deusen 1996; 1997). The contents of a woman's sewing kit, including scissors, needles and stencils, held talismanic value and could be used in rites to protect members of the clan (Gaer 1991b; Cevoli, Dalles 2015). In oral accounts, heroines used thimbles and needles to defeat harmful spirits, revealing the embroiderer as both protector and ritual agent³² (Van Deusen 1997). These narratives place shamans and women artists in related roles. Both manage the spaces between the human and spirit worlds through forms of making and care that involve technical knowledge, social responsibility and attention to materials (Chaussonnet 1988). Amur traditions portray heroines who defy adversity through skill, courage and magical garments. Women in tales live alone, are self-sufficient in hunting, fishing and sewing, before being thrust into transformative adventures. Some marry supernatural beings, while others are transformed from sea creatures into human beings. These stories reinforce the tradition that sewing carries protective and transformative qualities alongside its domestic functions (Van Deusen 1996).

³¹ Gaer 1991b; Bulgakova 1996; 2013; Van Deusen 1996; Delaby 1998.

³² A tale features a heroine escaping danger with a sewing bag whose contents, needles, thread, knife, thimble and comb, when thrown behind her, transform into obstacles like mountains or forests delaying her pursuers. See Van Deusen 1997.

Fish skin played an important role, used in shamanic costumes and amulets (Glebova 2010b). Decorative fish skin garments and ritual objects [fig. 50] would protect the wearer and repel spirits (Beffa, Delaby 1998; Ivanov 1963; Gaer 1991b). In trance, shamans wore clothing adorned with motifs representing celestial bodies or spirit animals that enabled transformation and facilitated movement across worlds, supported by the presence of their spirit allies (Chaussonnet, Driscoll 1994; Jochelson 1926). Shamanic practice included healing [fig. 51], exorcism and the recovery of lost souls (Black 1973). By the 1970s, the decline of these rites, alongside the passing of elder shamans, had produced a period of disruption. In recent decades, new forms of practice have emerged in response to ongoing social and economic change (Lopatin 1960; Smoljak 1991; Dalles Maréchal 2020).

1.21 Gender and Transformation in Amur Shamanism

Amur shamanic practice includes fluid boundaries across genders and spiritual realms. Accounts of intermediate types, among shamans, documented by Bogoras (1975) and Serov (1988), describe transformations within these roles. Maria Semionovna Pimgun of Nikolaevsk recounted a family story about her 'aunt', a powerful shaman who was born female, lived as a boy during youth, was recognised as a woman for most of her life and was found after her death in 1937 to have the body of a man (Van Deusen 1996). Such accounts are told quietly and with caution, as certain topics may disturb spirits. Some subjects, such as a shaman's ancestry, are avoided at night and shamanic songs are not sung in spring, when spirits are said to be in flight.

Many shamans have adopted feminine clothing and behaviour if male, or masculine clothing and behaviour if female. Fluid gender identities carry particular skin sewing knowledge. Sewing and clothing production are now associated with women, but Arctic shamans traditionally sewed their own attire, which they needed to survive in winter and to repair when damaged.

Ethnographic accounts describe the androgynous nature of shamanic life as expressed in ritual, trance, worship and healing. Shamans have been described as 'intermediate types', mediating between the material and spiritual worlds. In this role, the merging or transcendence of male and female qualities creates access to other states of being. This androgynous dimension in shamanic practice it is especially explicit. The ambisexual shaman, as healer, oracle and ritual leader, mirrored the presence of non-binary deities. The path to becoming a non-binary shaman could begin in childhood, recognised through visions or other signs. Initiation involved ordeals or vision-quests, followed by a public ceremony in which the community acknowledged the shaman's alternate gender and spiritual role (Merom 2006).

Non-binary deities are also present in Siberian oral traditions and appear in shamanic narratives, epics and folktales. They do not conform to fixed gender categories or locations. A deity may appear male in one tale and female in another and may move between the upper and earthly worlds. Some appear as siblings or couples. Storytellers also adjust details such as gender and geography according to audience and situation. Amur deities are not strongly defined by gender, as their identities are tied instead to natural forces and the spirits of land and animals. This perspective continues in the



Figure 50 Pyotr P. Shimkevich, A shaman's tools. 1896. Accession no. CC BY-NC-SA 4.0. Amur River, Siberia.
Berlin State Museums, Ethnological Museum, Berlin, Germany



Figure 51 Leopold von Schrenck, A shaman treating a sick woman. *Reisen und Forschungen im Amur Lande*. 1881.
Leiden University Libraries Special Collections, Leiden, Netherlands

names and roles of deities. Scholars have interpreted shifts from female to male deities as reflections of social hierarchies, but such readings do not account for the parity of gender roles within many Amur communities and are rather a Western view of Indigenous culture (Van Deusen 1996).

1.22 Fish Skin Tradition Today

With the arrival of Russian settlers in the nineteenth century, cotton and silk gradually replaced traditional fish skin garments due to their accessibility and reduced labour demands. Nonetheless, Native women, as custodians of fish skin processing, were slower to adopt Russian clothing (Smolyak 1975). Museum collections show that symbolic motifs adapted with this shift, such as the use of black fabric in place of blue pigments on fish skin (Dalles Maréchal 2023). Despite Soviet repression, women's artistic and ritual knowledge endured through domestic practices. Embroidery remains a key medium for preserving shamanic motifs, linking clothing with ancestral memory (Van Deusen 1996). While male traditions were more visibly disrupted during the 1930s, women maintained intergenerational continuity, now leading cultural revitalisation efforts (Van Deusen 1996).

Even as modern textiles replaced fish skin in everyday wear, ceremonial garments continued to hold symbolic importance. High-status individuals wore elaborately adorned fish skin robes during community rituals, reinforcing their connection to spiritual traditions (Glebova 2017). Today, the resurgence of Indigenous arts, storytelling and clothing design reflects an ongoing commitment to cultural preservation. Artist-storytellers remain at the forefront of this movement, ensuring that the knowledge of past generations is carried forward into the future (Van Deusen 1996).

1.23 Conclusions

The Amur region fish skin artefacts discussed in this chapter function as garments and as elements within rites that mark key stages in a woman's life, including marriage, childbirth and death. These robes serve as powerful agents in rites of passage, shaping a woman's transition. At a wedding, a woman moves from the status of daughter to that of wife and mother; in death, she enters the community of the dead. These garments are used in such events because of their active role in the ritual process. Fish skin robes act as protective and preventive garments, simultaneously serving as visual narratives, with their power grounded in the material qualities, the images they carry and the properties of the embroidery.

The efficacy of these robes lies both in their symbolic content and material form. Embroidery performs a decorative role and invokes protective entities such as dragons, fish and celestial motifs, encoded through colour, contrast and composition. These visual lexicons form a coherent system of signs, designed to shield the wearer against misfortune and spiritual harm. The robe, closely fitted to the body, functions like a breastplate: a protective epidermis that is both aesthetic and apotropaic. The selection and arrangement of these designs reflect the wearer's status, community and spiritual affiliations.

Techniques are used to make the garment last, whether through tanning processes or storage in birch bark trunks in domestic attic spaces. Motifs are made clear through visual contrast and the use of colour, contributing to a system of visual coding. Each robe is the result of extended learning, technical skill and ceremonial knowledge, work that spans the length of a person's life, whether bride or deceased.

The production of these robes requires technical mastery and ritual knowledge. Embroiderers, women with inherited expertise, spend years learning the processes that transform fish skin into supple, durable material. Their labour, combining skill and spiritual intent, is an investment in the transformation and well-being of the wearer. Shaped by tradition, resilience and time, the making of each robe parallels the life course of the women who wear them. Their durability, achieved through specific tanning techniques, allows them to be preserved for generations. This longevity ensures that they remain active as ritual objects throughout a woman's life and beyond, serving as a protective shroud in death, reinforcing the idea that the robe accompanies its wearer across both physical and metaphysical journeys. The time and labour invested in each robe, whether worn by a bride on her wedding day or placed with the deceased in burial, mirror the duration and gravity of the life cycle itself. Each robe is both a culmination of technical skill and a carrier of narrative memory, inscribed into the fibres of the fish skin itself.



Figure 52 Owen Lattimore, Hezhe in a canoe, along the edge of the Sungari River surrounded by tall grass.
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of Archaeology and Ethnology, Massachusetts, USA