

N°
65

ARCHAEOLOGICAL TEXTILES REVIEW



2023 issue

Archaeological Textiles Review

ATR is published by the Friends of ATN, and hosted by the Centre for Textile Research in Copenhagen.

Editors:

Karina Grömer
Mary Harlow
Jane Malcolm-Davies
Ulla Mannering
Kayleigh Saunderson
Elsa Yvanez

Scientific committee:

Eva Andersson Strand, Denmark
Johanna Banck-Burgess, Germany
Lise Bender Jørgensen, Norway
Christina Margariti, Greece
Claudia Merthen, Germany
Heidi Sherman, US
Tereza Štolcová, Slovakia
John Peter Wild, UK
Elisabeth Wincott Heckett, Ireland

Cover: Charlotte Rimstad
Glass beads from Turku Kirkkomäki
grave 35 (Image: Jenni Sahramaa)

Layout: Karina Grömer and
Kayleigh Saunderson,
Natural History Museum Vienna

Print: Campus Print,
University of Copenhagen

To purchase a printed copy of the latest
Archaeological Textiles Review, please visit:
<https://www.webshophum-en.ku.dk/shop/archaeological-textiles-664s1.html>
Information about institutional
subscriptions is also available here.

Visit www.atnfriends.com to learn more
about the organisation.

ISSN 2245-7135

Contents

Editorial 2

Articles

- Preserved in clay: Ornamentation of
Late Neolithic ceramic funerary vessels** 4
Monika Kaczmarek
- The materiality of textiles and textile tools in the
Late Bronze Age Eastern Mediterranean** 30
Caroline Sauvage
- Analysis and conservation of a Bronze Age
linen textile from Suffolk, UK** 49
Anna Harrison, Caroline Cartwright, Susanna Harris,
Fleur Shearman and Neil Wilkin
- Textiles attached to Roman coins:
Case studies and interpretations** 64
Leyre Morgado-Roncal and Karina Grömer
- Children's clothing and funeral attire in the
10th to 12th centuries in Finland** 78
Krista Wright, Jenni Sahramaa and Ina Vanden Berghe
- A shared textile heritage: The origin and use of
textile patterns in Himalaya and Tibet** 98
Ellen Bangsbo

Projects

- TEX-TEC – a record of textile tools at the
Natural History Museum Vienna** 107
Ingrid Schierer
- The fabric of kings (FAROS)** 114
Stella Spantidaki
- Ancient clay spools unearthed in the Central
Peloponnese and their role in textile production** 118
Alina Iancu



Projects

Metallic Idiophones 800 BCE to 800 CE in Central Europe: Archaeology of sound, textiles and costumes Beate Maria Pomberger, Kayleigh Saunderson and Karina Grömer	126
The textiles of a mining community in the French Alps during the Second Middle Ages (12th–14th century) Emeline Retournard	133
Hanging by a medieval thread? Textile curtains in manuscripts at St John’s College, Cambridge, UK Sommer Hallquist	136
Medieval and early modern vestments and other textiles at St John’s College, Oxford Hannah Skoda and Malcolm Vale	144
Save the Loom: Defining, documenting and preserving looms Susanne Lervad and Kathrine Vestergaard Brandstrup	147
On the origin of silk-<i>ma</i> combined textiles Zhang Xiyao	151

Conferences

Interweaving Bell Beaker decorative motifs and textile patterns	156
International study day on “New research on mineralised textiles”	157
The Entangled Making, Uses and Visualisations of Textiles in the Early Medieval Period, 450–1100	159
29th European Association of Archaeologists (EAA) Annual Meeting 2023 – Weaving Narratives	161
42nd Dyes in History and Archaeology Conference	166
The Textiles from the Nile Valley’s 13th Conference: Silk textiles from Egypt and neighbouring countries from Roman to Mamluk times	167

Obituaries

Karen-Hanne Stærmosse Nielsen 1933–2023	170
Penelope Walton Rogers 1950–2023	172
Jana Jones 2023	174

Resources: Recent publications and News	175
------------------------------------------------	------------



Dear Readers,

Another year has passed. We hope you have all been able to appreciate freedom to participate in conferences in person and to travel to sites and museums to enjoy first-hand experiences. In this issue, we offer reports from many interesting conferences, not least the impressive European Association of Archaeologists' conference which has a growing contingent of textile researchers, demonstrating the important integration of textile research with all other archaeological subjects and research themes.

The constant flow of new project reports demonstrates a flourishing field with researchers who attract impressive funding and resources for textile studies. We are proud to help share this knowledge between our different communities and we hope to see more of this in the future. Our aim is to generate many interesting future papers for the *Archaeological Textiles*

Review (ATR) and for other journals. Since 2021, all *Archaeological Textiles Newsletter* (ATN) and ATR issues have been available online at the ATN website, where we note a growing interest in our articles. If you publish with us, your work will reach researchers and other interested parties across the world – from east to west and from north to south. It is still possible to order a printed copy of ATR from the web shop at the University of Copenhagen in Denmark (www.webshophum-en.ku.dk/shop/archaeological-textiles-664s1.html), but authors will no longer receive a printed copy.

It is time-consuming to run a journal up to modern publication standards. Since 2021, when the current editors started working together, we have been developing a workflow that should be more efficient in the long term. However, the editorial process is

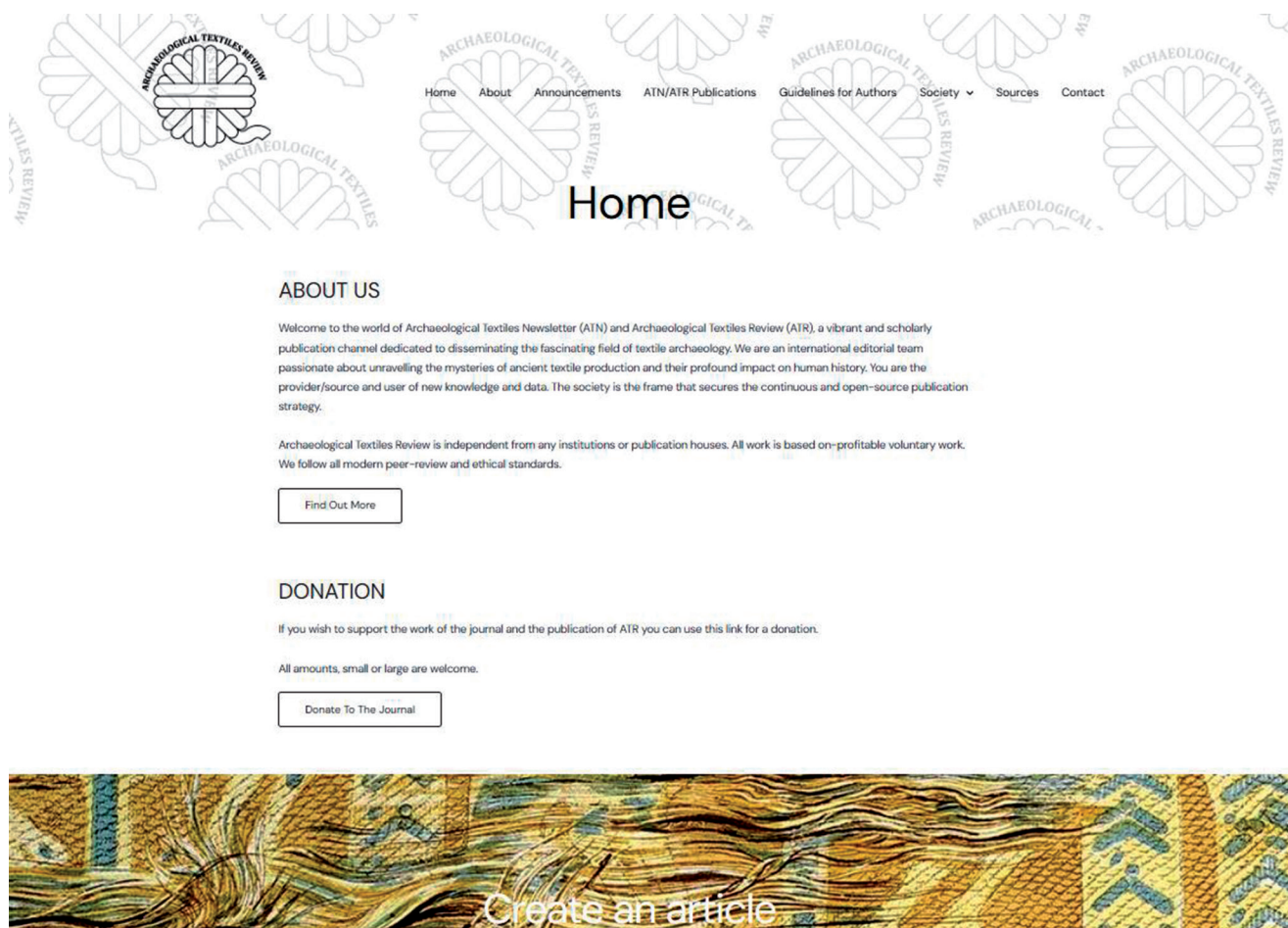


Fig. 1: Screenshot of the ATR webpage, <https://atnfriends.com/> (Image: Ulla Mannering)



still very time-consuming, and we face considerable hurdles each year. We ask that contributors please send articles in good time for the annual deadlines and conform to the editorial guidelines. The editors, who are all volunteers, spend a lot of time correcting typos, mistakes in the bibliographies and citations, and revising language. It is nice that we have English as our common language, but as this is not the first language of most authors, we work closely with the peer reviewers to improve the wording and the meaning of the texts. We hope the authors and the readers appreciate these hidden efforts, and we ask that all contributors consult a skilled native English speaker before submitting their work.

In the editorial group this year, we have renewed the website (atnfriends.com), and thanks to the keen, competent, and voluntary work of Jens Christian, Ulla Mannering's son, we now have a much better internet presence. It has the same features as the old website but presented in a more user-friendly format. We thank our previous website manager, Kenneth Jensen, who has kept the website running since its creation in 2007, for his constant and devoted efforts. We can see from the web statistics that the issues are widely read and downloaded.

A new feature on the website is the possibility to support the society running ATR, the Friends of ATN, through a donation. The GoFundMe solution has already been used by some of our supporters, but we would appreciate it if more readers would support the journal in this way. The editors have all their meetings online because they are located in different countries (Denmark, the UK and Austria). However, the other costs of maintaining the organisation in an up-to-date legal fashion are still considerable. If you have suggestions for, or problems with, the website, please do not hesitate to contact us.

In October 2023, the Friends of ATN, which is the legal institution behind the newsletter/review, held the annual general meetings for 2017 to 2022. Due to the simplicity of the society, and the European General Data Protection Regulations (GDPR), the society no longer has external members, and is run by the ATN board in collaboration with the journal's editorial board and its scientific committee. The minutes from the meeting and the changes to the statutes agreed at it are available on the website.

This year's issue contains a mix of articles that range from the Neolithic to the present day. Sadly, we also report the loss of three textile pioneers, Karen-Hanne Stærmosse Nielsen from Denmark, Penelope Walton Rogers from the UK, and Jana Jones from Australia. These women have each in their own way made an invaluable contribution to the development of textile research. Several of the editorial team have met these powerful women in person, as mentors, teachers or collaborators, and they will continue to be remembered for their scientific contributions, but also their strong personalities. We honour their memories.

The deadline for articles for every issue is 1 May each year. We appreciate receiving project reports before the summer and conference reports immediately after the event is over and no later than November, and likewise all other announcements (the award of doctorates, honours and information about new publications etc).

Enjoy reading this issue of ATR and please do spread the word about it. The editorial team wishes you a fruitful new academic year in 2024.

The Editors



Ellen Bangsbo

A shared textile heritage: The origin and use of textile patterns in Himalaya and Tibet

Abstract

The article addresses the origin, use and exchange of patterns in Himalayan textiles. Ancient designs and patterns travelled with merchants and pilgrims, covering large distances from Rajasthan and Gujarat in India and ancient Iran to be used, copied and exchanged in ancient Central Asia and Himalaya. While textiles decompose and we are left with few remains of ancient times, textile designs and patterns are fully present in paintings on ceilings, walls, beams and sculptures in 11th century CE temples in Northern India, places with predominantly Tibetan culture. These patterns and designs are still in use in present-day textile heritage and handicrafts in Himalaya and on the Tibetan plateau, ranging from Ladakh in the west to Bhutan in the east.

Key words: Contemporary textiles, Tibetan plateau and Himalaya, Alchi, Tabo, Tholing, Sassanian weave, draw loom, temple art

Introduction

The method of insulating the ceiling with dry grass and weeds has been used in houses and stables in Himalaya and on the Tibetan plateau for many centuries, and a piece of cloth was often attached to the ceiling to avoid the dripping of dust and particles. The technique is still used, although less frequently nowadays. This practice might indicate why ceilings in 11th century temples and monasteries in the Indian Himalaya and western Tibet are decorated with distinctive paintings, which appear to be replicas of textile designs (fig. 1). This assumption is supported by close examination of the drawings on beams and wall paintings, with a focus on motifs and patterns in the clothing of deities and lay patrons, in addition to dress patterns on sculptures of deities. The painted ceilings can also be interpreted as representing textile canopies or baldachins, which traditionally were placed above statues of deities as marks of honour and respect. At the Dambulla cave in Sri Lanka (third century BCE to first century CE) ceilings are painted with textile patterns, as are ceilings in the Ajanta caves (second to sixth century CE) in India. Textiles are perishable, and we are left with few remains of original ancient examples. It is, therefore, fortunate that we are able

to observe and study these painted replicas of textile patterns. It is not the object of this paper to provide a detailed description of these temple paintings, as they have been widely investigated elsewhere (Goepper 1996; Klimburg-Salter 1997; van Ham 2014; Jahoda and Kalantari 2021). This study aims to demonstrate how patterns and designs from old fabrics travelled from ancient Iran and Western India, and now, even many centuries later, are experienced as distinctive markers of ethnicity and culture, still in use in the Himalayan areas and on the Tibetan Plateau.

The setting

From a textile point of view this article will use several extraordinary venues, where textile patterns and designs are to be experienced as part of exclusive artistic adornments in the sacred rooms, as case studies. These include the Alchi temple in Ladakh, located in Jammu and Kashmir State; the Tabo monastery in Spiti, Himachal Pradesh, both at remote provincial locations in Northern India; and Tholing monastery located at Purang in Guge in present-day Western Tibet.

These sacred sites share a common past. Tibetan cultural influence has shaped the uniformity of the



Fig. 1: Painted canvas cloth with replica textile patterns attached to the ceiling in Tabo temple (Image: Peter van Ham; to be published in *Tabo – Gods of Light: The Indo-Tibetan Masterpiece (revisited) 2024*, Hirmer Publishers, Munich)

major population living in Himalaya and on the Tibetan plateau largely as a result of its determined adherence to the Buddhist religion. During the period 10th to 12th century CE, Spiti, Lahaul, as well as regions of Kinnaur, and Tholing at Purang were politically united and governed under Guge in Western Tibet. From the 10th century CE onwards Ladakh is regarded as part of the dominant rule of Western Tibet, and

although Alchi in Western Ladakh was not part of the political context itself, it nevertheless shared the same religious and cultural context. During 996 CE, the king and dynastic leader of Western Tibet, Lama Yeshe Od, is said to have initiated the foundation of several Buddhist religious buildings. This task was thought to have been given to the translator and builder of temples, Rinchen Zangpo (958–1055 CE). Through the 10th to the 11th century Kashmir was one of the most important centres of Tantric Buddhism, and the scholar Rinchen Zangpo went to Kashmir to study Buddhist scriptures. He returned to Guge in 1001–1005 CE bringing with him Buddhist scriptures, as well as 32 Kashmiri artists assigned to decorate the newly built temples (Goepfer 1996, 14; Klimburg-Salter 1997, 24). The period between 11th and 12th century could be called ‘the Golden Age’ of Western Tibet with an unsurpassed flourishing of culture, building of monasteries and translation of Buddhist scriptures. The intense cultural exchange was initiated by monks travelling from famous universities in India and invited to preach Buddhist philosophy in the newly established academy monasteries of Western Tibet.

In addition, Kashmir sat on an important trade route. It was a long-distance international trade route with multiple networks and strategic positions connecting the plains of India with the Silk Road in Central Asia and with China via Khotan, where both Chinese and Iranian cultures infiltrated (Klimburg-Salter 1997, 35). These trade routes provided conduits for a cultural exchange between ethnically divergent people. Trade and religion have always gone hand in hand, and the many monasteries provided safe sanctuary for rest while on a hazardous journey.

The production of woven fabrics in ancient Iran was particularly treasured. These fabrics were beautiful and delicate with a high aesthetic value, usually made in fine silk and were very time consuming and labour intensive in production. With a commodity value almost like cash, these textiles were important items of trade and exchange, and travelling pilgrims and merchants carried many luxury items for trade in the far East (Heller 2006, 179). Such costly textiles were naturally only affordable by few people. It was custom for wealthy people to offer textiles to the temples, and hence it is reasonable to assume that temple paintings included replicas of such fabrics.

Tracing the textile

Seen from the outside, the Alchi temple, Tabo and Tholing monasteries all have a barren and unimpressive outlook, adapted to the harsh climate of their respective regions. The sacred inside space,



however, reveals elaborate interior designs. Here the sublime beauty and the exceptional details of the paintings, done by the Kashmiri artists, are striking to the visitor. Connections between the Kashmiri sculptural style and the paintings seems likely. However, with Kashmir being Hindu-Buddhist at that time, and later under Muslim influence, we are left with no remains or survival of Kashmiri art in Kashmir itself, hence there is no historical evidence of the style (Snellgrove and Skorupski 1977, 8).

Ceiling paintings in temples and monasteries built after 12th to 13th century CE in Tibetan cultural areas are usually decorated with cosmic mandalas or other variations of Buddhist motifs. But earlier temples and monasteries such as Alchi, Tabo and Tholing, have painted ceilings showing designs of textiles with coloured stripes, geometric patterns, flower ornaments, animals and people (Goepper 1996, 225–264; Klimburg-Salter 1997, 184; van Ham 2014, 153). These patterns should not be understood to be an expression of the artists' imagination, but rather as replicas of textiles woven during the Sassanian period in and around Eastern-Iran (224–651 CE) and of printed and dyed textiles patterns originating from ancient Rajasthan and Gujarat in India.

There are various methods and tools to date and classify an ancient textile, both chronologically and geographically. Most methods of identification require an examination of the textile, such as an analysis of the weaving and spinning techniques, dye analysis, and observation of structure and material. Dating can be achieved using carbon-14 methods, and by decoding eventual inscriptions found on the textiles. Style and iconographic content, and information on the site of provenance from oral and written sources are also very important. However, not having the textile to hand, a reliable classification is limited and relies on a comparative analysis of style and context. This, of course, is less certain and might lead to risky speculations, but it is not entirely implausible.

The richness of Persian textiles has been attested in the writings of the Chinese pilgrim, Xuanzang (602–664 CE), who travelled to India and Iran during the seventh century (629–645 CE) (Pope and Ackerman 1981, 691). While the paintings of lay patrons seen on the walls in Alchi depict them wearing local dress, the clothing of the deities and divinities is clearly not (Alkazi 1983). The three four-meter-high statues of male divinities (Avalokiteśvara, Maitreya, Mañjuśrī) on the ground floor at the Sumtsek building in Alchi are dressed in *dhotis* (a loose cloth wrapped around the body from the waist down) covered with decorations and detailed narrative paintings. The style of such

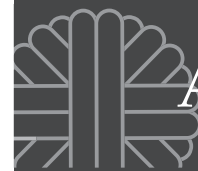


Fig. 2: Wall painting in Tabo temple showing a deity dressed in a dhoti dress. These textile designs are still in use today (Image: Peter van Ham; to be published in *Tabo – Gods of Light: The Indo-Tibetan Masterpiece* (revisited) 2024, Hirmer Publishers, Munich)

textile motifs on *dhotis* and baggy pants are also seen on the rock relief complex of Taq-i Bostan in present-day Kermanshah in Iran, carved during the Sassanid period around fourth century CE (Ettinghausen 1972, 694; Manson 1981, 120; Canepa 2014, 5).

Female deities on wall paintings are dressed in an Indian *choli* (upper breast garment) with large and partly visible breasts, wearing *dhoti* and long scarfs, a style reminiscent of Parthian and Sassanian times. (fig. 2). The swastika is a frequently used motif, also seen in early Parthian times (Pope and Ackerman 1981, 683–99). We see paintings of the characteristic Sassanian pearled roundels with mirror positioned birds or other animals, as well as hunting scenes.

Ceiling paintings of floral designs with the four-petal flower and red-headed geese (*hamsa*) appear as a clear copy of block printed resist and mordant dyed textiles from Gujarat as evident from the Gupta period (320–600 CE) (Shah 2005, 8). Other motifs resemble the ancient Patola cloth made in double-ikat technique known from Gujarat. Patola cloths have designs of parrots, flowers, elephants, and dancing figures, which are also seen in Ajanta cave paintings (Bühler and Fischer 1979). Many of the simpler patterns on the Alchi and Tabo ceilings shown a strong relation



to textiles in tie-dye (*bandhej*) technique, embellished for garments or as a drape, commonly known to be made in Rajasthan and Gujarat, and such *bandhej* patterns are also seen on wall paintings in cave no. 1. at Ajanta (460–478 CE) (Edwards 2011, 21). Another wall painting shows the presence of Sassanid culture, where a visiting foreigner, a Sassanid man, is drinking wine (Heller 2006, 179). A frieze of characteristic Sassanian style motifs with a lion in pearly roundels is seen in an Ajanta cave (second to sixth century CE) (Pope and Ackerman 1981, 703).

Sassanian weave

Several Sassanian textiles are preserved in European church treasuries and at archaeological sites in Egypt and Central Asia, and these provide an opportunity for

technical analyses (Ettinghausen 1972, 32–33; Becker and Wagner 2014, 85; Yamanaka Kondo et al. 2022). By closely examining an original piece of the textile, we can determine the technique and the tools required to create it, and the Danish hand weaver, John Becker, has successfully experimented and reconstructed ancient Asian weaving techniques (Becker and Wagner 2014). Often made in fine silks, Sassanian textiles are woven in an advanced technique known as samite or samitum (fig. 3). Samite weaving created in a ‘weft-faced compound twill weave’ technique with a predominantly visible weft thread. It was probably developed and already in use by the first century CE in ancient Iran (Becker 2014, 111) (fig 4). It is an advanced technique, and it stands in contrast to the ‘warp-faced compound plain weave’ where the weft thread is not

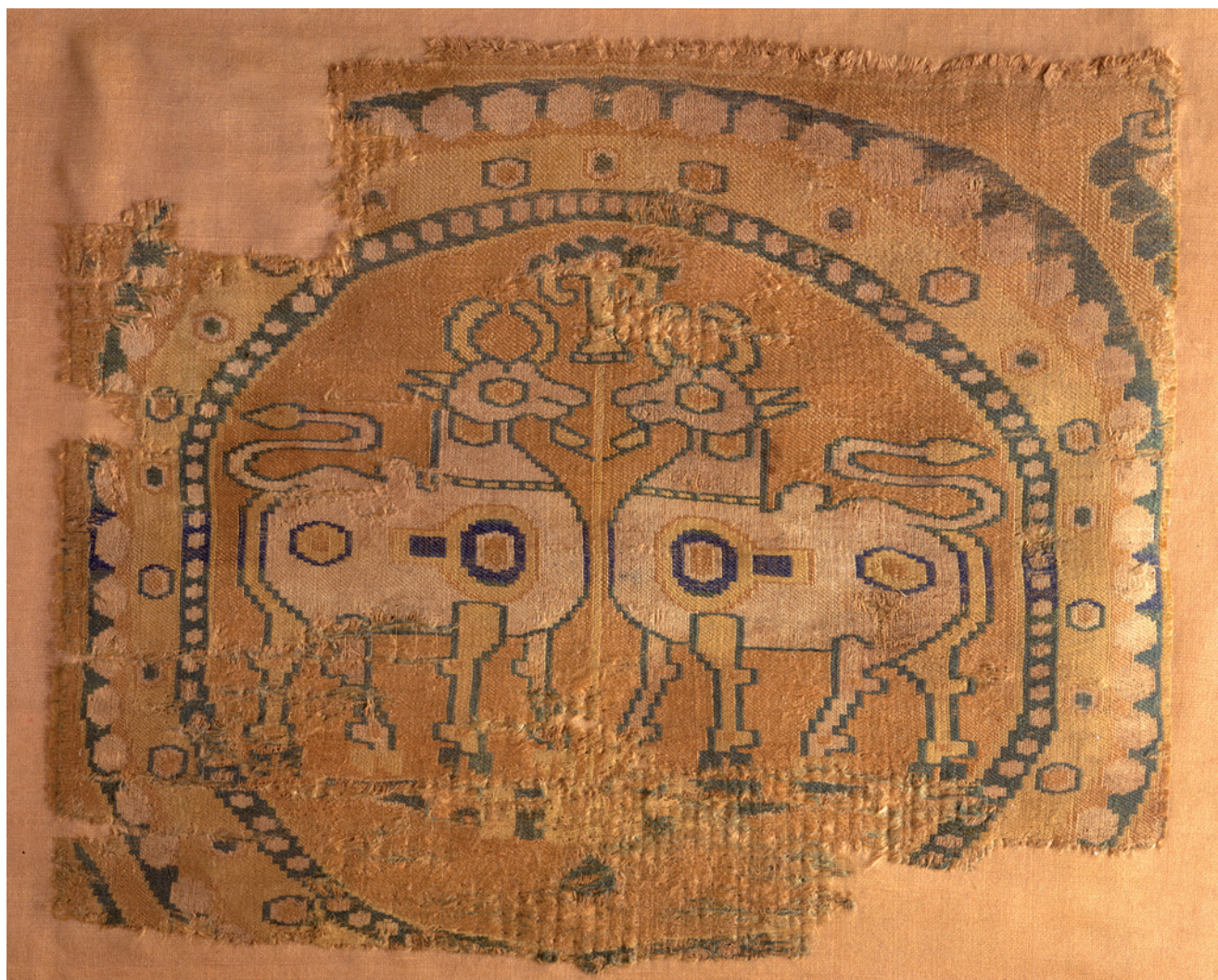


Fig. 3: Fragment of a samite woven textile. Silk. Size, height: 32,5 cm and width: 38, 5 cm. Central Asia, eight to ninth century. The David Collection, no. 10/1996 (Image: Pernille Klemp)

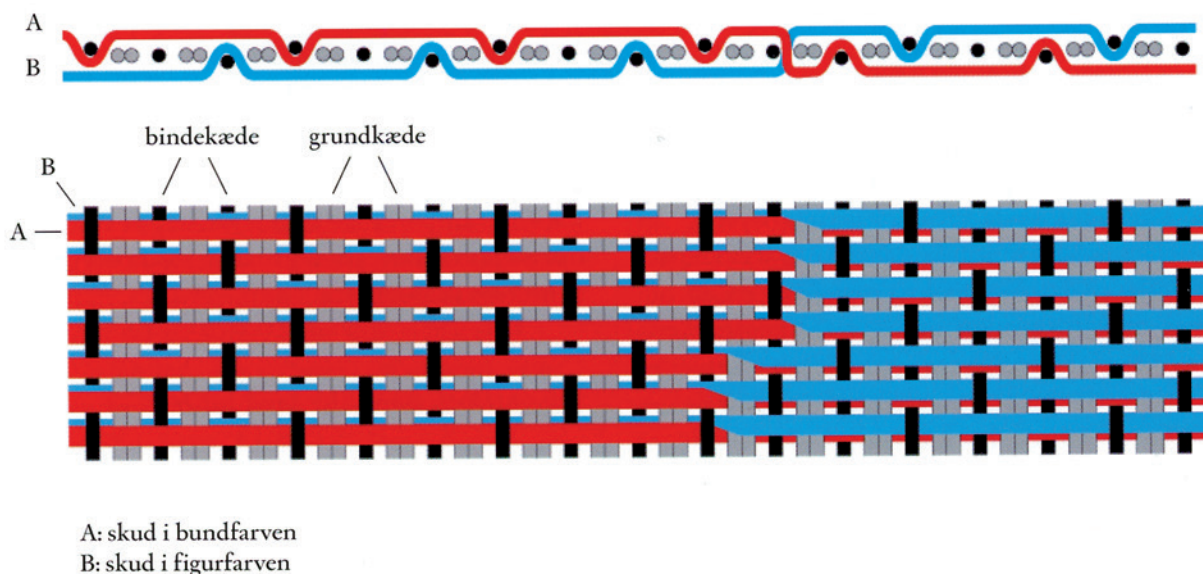


Fig. 4: Schematic illustration of a weft faced samite weave. More complicated patterns can be made by multiplying the main warp and using multiple weft inlay. Black: binding warp. Grey: main warp. A: weft main colour. B: weft pattern colour (Image: Joy Boutrup)

visible on the surface of the fabric (Geijer 1972, 73). The technique was used to make geometric patterns, figures of animals or persons. The Alchi and Tabo ceilings with painted replicas of Sassanian weavings have patterns in geometric forms of crosses, dots and flower petals, circles and lines in dominant colours of red, blue and white, with birds and other animals. The very characteristic Sassanian pearl roundels with composite motifs, often with symmetrically placed animals, flowers and hunting scenes, are all woven in this technique, using z-twisted yarn (Geijer 1963; Becker and Wagner 2014, 111; Zhao Feng 2014, 53).

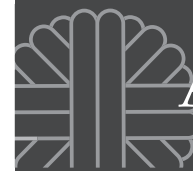
It is possible to weave complicated patterns, limited to geometric figures, on a treadle-shaft loom with minimum of 4 to 9 shafts, or preferably 12 shafts, but to make such a pattern, the weaver has to painstakingly pick up the warp threads with the fingers or a stick. A repeated pattern makes it easier for the weaver, and if the fabric has a consistent pattern, 'a comb pattern repeat', often shown in a mirror image pattern, symmetric in the direction of the warp, it is usually an indication that the fabric is woven on a draw loom (Geijer 1972, 126). In Persia a very distinctive 'cross-harness draw loom' was used. It is not possible to know the exact model of the original draw loom, and the loom may have undergone some development and adjustment over time (Buckley 2022, 104). The Persian cross-harness draw loom makes it possible to weave textiles with complex patterns that could not be created on the earlier looms. The technical difference between a draw loom and a simple treadle-shaft

loom is significant. A simple treadle-shaft loom has one warp. A draw loom has two warps, a binding warp and a main warp. The main warp is operated with the assistance of a 'draw-boy', who works with the harness picking the warp threads that have to be drawn to make the desired pattern (Bernsted 1993, 67; Becker and Wagner 2014, 315). The North Indian cross-harness draw loom can still be observed in contemporary weaving workshops in Varanasi, the old city of traditional brocade weaving in India.

Commodity trade

Artistic styles, patterns and motifs become cosmopolitan as people move. Merchants, pilgrims, and scholars travelled, covering large distances from India to the far East via the Silk Road, and textiles moved through commerce and cross-cultural interaction and exchange. This movement and interaction often make it impossible to identify the actual origin of a commodity, raising questions of how to identify an original, a copy, a strong influence or a fully adapted (foreign) textile design?

Chinese patterned *jin*-silk fabric, originating in the Shang and Zhou period (circa 1600–256 BCE), has changed in weaving technique and style over time. During this earlier period, a 'warp-faced compound tabby weave' technique was used, made of two warps, a binding warp and a main warp, usually in two separate colours, and woven with one weft, which is invisible on both sides of the fabric (Geijer 1972, 73). These early fabrics differ from more exquisite fabrics



made later in the Han (206 BCE–220 CE) and early Tang dynasty style (618–907 CE). By the sixth to eighth centuries CE, we see motifs of circular borders of white dots resembling pearls with various themes in the centre, such as animals, persons or plants, still done in a ‘warp-faced compound tabby weave’. A ‘weft-faced compound weave’ only appears in China by the eighth to ninth centuries CE (Kuhn 2012, 42).

It might be tempting to consider the ceiling paintings which replicate textile patterns in Alchi and Tabo monasteries to be a reflection of influence from Chinese Tang culture. However, as the more complex technique of ‘weft-faced compound weave’ originated in ancient Sassanian textiles (Becker and Wagner 2014, 83), the counter argument that influence from countries to the west, including the very popular Sassanian motifs and technique, became an inspiration to be copied during Tang period in China, has been made (Kuhn 2012, 33; Canepa 2014, 11; Zhao Feng 2014, 53).

With the decline of the Sassanian period, refugees including skilled weavers and artisans are said to have travelled to Gujarat and to the capital of the then Tang dynasty, the city of Chang’an (present day Xi’an) in China (Grigg 1979, 121). Weavers brought their skills with them and passed them on to other craftspeople in these places. The Tang dynasty rulers had strong connections to the Tibetans who, during that period, were in control of large areas on the Tibetan plateau, and evidently a large exchange took place on various levels.



Fig. 5: Wollen *Nambu* fabric with painted *tig-ma* crosses (Image: Ellen Bangsbo)

Pieces of textile travelled far and wide in both directions along the Silk Road, and Sassanian designs were adopted into Tibet and the far East (Heller 2006). Long after the decline of the Sassanian empire, the characteristic woven pearl roundels remained a primary source of inspiration and vogue for silk weavers as far as Spain and Denmark, Byzantium and China, and even as far as Japan (Grigg 1979, 124; Kuhn 2012, 30; Hedeager Krag 2018, 57). Pearl-bordered roundel motifs are also found on coins, and the pearl roundels even appear to have a royal divine association in both sacred and secular imagery (Ettinghausen 1972, 38–39). Textiles with pearled roundels assumed to be Tang dynasty have been excavated from the tomb of Astana, Turfan, Xinjiang. And while this seemed to be a ‘pure’ Tang (618–907 CE) design is it argued by some scholars that the patterns are a refined and inspired copy of Sassanian style textiles (Grigg 1979, 123; Kuhn 2012, 30). Chinese style brocades with motifs of floral medallions with a central flower of peony or lotus circled by rings of flowers were widely exported and spread throughout East Asia and the Tibetan plateau. These present-day brocades are recognised as a full adaptation of the distinctive Sassanian pearl roundels.

Contemporary use

Sassanid art can be credited with motifs that are still highly favoured and in use today. Certain motifs of flowers and circles may evidently appear common worldwide, but the distinctiveness of characteristic Sassanian motifs is unmistakable. As noticed by the author of this article on multiple trips to the Himalayan regions and the Tibetan Plateau between 1979 and 2019, there are numerous examples of such resemblance with contemporary art and cultural motifs to be seen, but some common examples deserve to be mentioned.

Samite fabric was often woven in silk and was a luxury item reserved for the elite. Such fabulous fabrics did not gain common ground in Himalaya and on the Tibetan plateau, and neither did advanced weaving techniques. The needs and necessities of daily life set the agenda. With a cold climate and sheep in the household, evidently wool was the preferred material. Here, a simple treadle loom was sufficient and easy to use. Whenever domestic tasks permitted it, a farmer, nomad or noble person, man or woman, would sit down and weave for shorter or longer periods of time. Tabby and 2/2 twill weavings became prevalent, while satin weave was not used. Tabby and twill weave is the simplest and oldest of all weaving techniques, and with these techniques a large variety of patterns can be made, such as herringbone and diamond.



Fig. 6: Woven *Kira* in cotton with pattern named *montha* from Paro in Western Bhutan (Image: Ellen Bangsbo)

Woven in a tight weft-faced tabby on a treadle loom, the local *sherma* fabric is 20–30 cm wide and the warp is set to be 10 to 15 metres long. The warp is cotton, and the wool weft is strongly beaten together even to some extent being water and wind proof. The weft is woven in various coloured stripes, where style and colour traditionally indicated regional belonging. Three to four pieces of *sherma* fabric sewn together in a non-symmetric style makes a Tibetan apron (*pangden*), which traditionally indicated the user to be a married woman. *Sherma* was previously always handwoven with organic dyed yarn, but today the wool might be mixed with synthetic yarn, and machine woven aprons in synthetic fibre are sold in many shops (Bangsbo 2023). The *pangden* style indicates a resemblance to the striped patterns in the ancient temple ceiling paintings. Similar styles of striped patterns can also be seen in flatwoven textiles ‘Gelims’ woven by Hezar-jerib weavers in Mazandaran in present-day Northern Iran, and here the fabric is used for carpets, blankets and clothing. In addition, these designs of striped patterns

simultaneously appear on the façades of the local houses (Tanavoli 2011).

Plain *nambu* fabric is identical to *sherma* fabric, but is woven with white wool and later dyed. When dyed in maroon colour, it is used for robes for the clergy. Often *nambu* is tie-dyed with dots and circles, as seen in the Gujarat *bandhej*, although this is not so common in Bhutan. Block print on top of or next to the tie-dye may be added with motifs of swastika (sun-wheel) (*zungdrung*), and crosses (*tig-ma*). Printed crosses on *nambu* fabric are used in all regions, and in Bhutan are called *hothra jalo* (fig. 5) (Myers et al. 1994, 140; Altman 2016, 79, 259). In Ladakh narrow strips printed with crosses are used for a sash. The use of dyed or printed *nambu* fabric is extensive: for horse saddle carpets, to strengthen and decorate the edges of a *chupa* (the national dress), for boots, and door curtains. A large number of patterns in Tibetan textiles featuring crosses, dots and flower petals, circles and lines in prevailing colours of red, blue and white point back to 10th to 11th century temples, where such patterns can be seen on a deity's *dhoti*, on banners, cushions, scarfs and other clothing on statues and wall paintings (Goepper 1996, 81, 88; van Ham 2014, 78, 170).

The national dress for women in Bhutan is called a *kira*, which is a rectangular piece of woven fabric (circa 240 cm x 110 cm). This *kira* pattern (fig. 6) is referred to as characteristic for the Paro area in Western Bhutan and is regarded as old and indigenous by Bhutanese people. It is named *montha*, a warp-striped ground with supplementary warp-pattern bands, which means that the pattern is a mirror image on the reverse side (Myers et al. 1994, 172–174; Altman 2016, 259).

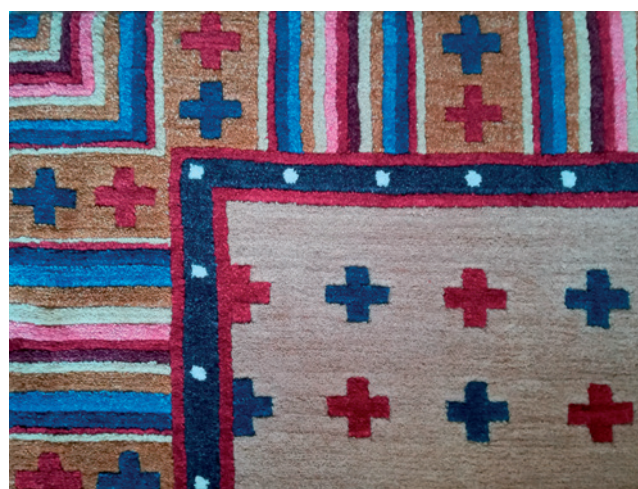


Fig. 7: Tibetan carpet in wool with a Tibetan secular design, which is a copy of tie-dye with crosses and white pearl border (year 2010, size 70 x 130 cm) (Image: Ellen Bangsbo)

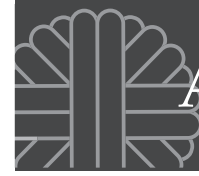


Fig. 8: Labrang monastery in Amdo, Gansu 2007. Pearl borders as part of the architecture is widely used on roofs of monasteries and temples (Image: Ellen Bangsbo)

The style of the *montha* cross-woven pattern is very common in Bhutan, and this characteristic pattern can also be seen on paintings in ancient temples in the dress patterns of the *dhoti* cloth on sculptures and female deities (van Ham 2014, 80) (see fig. 2). Many houses in Bhutan are decorated in a similar style on the façades and inside walls with flower petals and stylised crosses.

Conclusion

Byzantine art coincided with Sassanian art for nearly 300 years (328 to 651 CE) and gave room for inspiration, change and reinterpretation. Likewise, Sassanian art may well have included borrowings from the Syrian period. Sassanian motifs are known to have had a long-term influence on the art of neighbouring regions, and some of these popular patterns have shown a remarkable and persistent ability to remain in common use.

The weaving of luxury silk fabrics in the advanced samite technique was never established in the Tibetan cultural areas, but the motifs and patterns of samite were. It is evident that the importation of fine silk fabrics into Tibetan cultural areas has left a clearly visible footprint on Tibetan arts and handicrafts. This also applies to carpet designs. Sassanian pearl roundels may have provided an inspiration for the white pearl

border line 'a garland of shell' (*dung threng*), which is very common in Tibetan carpets and is used to separate the inner design and the outer borders (Kuløy 1982, 45, 74–84) (fig. 7). Although many carpet designs appear to have a Chinese influence, it should be remembered that Chinese design was likewise influenced by designs from other countries. The pearl border is commonly used as decoration on kitchen walls and is seen as a spectacular border on the main roof of Buddhist monasteries (fig. 8).

The examples of local textiles mentioned here can be seen and experienced in regions of Ladakh in the west to regions of Bhutan in the east, as well as on the vast Tibetan Plateau. Many motifs and patterns are clearly traceable and influenced from ancient temple paintings which have roots in arts and handicrafts deriving from ancient Persia and Eastern India. However, these designs and patterns are nevertheless widely perceived as being distinctive local cultural markers of people and regions. What is striking to the visitor, is that local people unanimously regard these motifs and designs to be 'theirs'. When asked, they claim: 'oh, this pattern is especially Ladakhi (or Bhutanese or Tibetan) and has been so for as long as any can remember.' Agents of trade and cultural transmission and interaction have played an important role in the movement of ancient motifs and designs, supported



by local preferences and daily use. To name actual ownership is problematic. A solid choice would rather be to rejoice in a common shared heritage.

Bibliography

- Alkazi, R. (1983) *Ancient Indian Costumes*. New Delhi: Art Heritage Books.
- Altman, K. (2016) *Fabric of Life. Textile Arts in Bhutan – Culture, Tradition and Transformation*. Berlin and Boston: De Gruyter.
- Bangsbo, E. (2023) Det tibetanske forklæde – til gifte kvinder. *Rapporter – fra tekstilernes verden* 2, 15–17.
- Becker, J. and Wagner, D. B. (2014 [1986]) *Pattern and Loom. A practical study of the development of weaving techniques in China, Western Asia and Europe*. Copenhagen: NIAS Press.
- Bernsted, A-M. (1993) A few characteristic weaving techniques used in Islamic textiles. In K. von Folsach and A-M. Bernsted (eds), *Woven Treasures – Textiles from the World of Islam*. Copenhagen: The David Collection, 65–93.
- Buckley, C. (2022) Drawlooms along the Silk Roads. In Feng Zhao and M-L. Nosch (eds), *Textiles and Clothing along the Silk Roads*. Paris, Zhejiang: Unesco and China National Silk Museum.
- Bühler, A. and Fischer, E. (1979) *The Patola of Gujarat. Double Ikat in India*. Volumes 1 and 2. Basel: Krebs AG.
- Canepa, M. P. (2014) Textiles and Elite Tastes between the Mediterranean, Iran and Asia at the End of Antiquity. In M-L. Nosch, M.-L., Feng Zhao and L. Varadarajan (eds), *Global Textile Encounters*. Oxford: Oxbow Books, 1–23.
- Edwards, E. (2011) *Textiles & Dress of Gujarat*. London: V&A Publishing with Mapin Publishing.
- Ettinghausen, R. (1972) *From Byzantium to Sasanian Iran and the Islamic World Vol. 2*. Leiden: Brill.
- Geijer, A. (1963) *A Silk from Antinoë and the Sassanian Textile Art*. *Orientalia Suecana* 12. Uppsala: Särtryck ur Orientalia.
- Geijer, A. (1972) *Ur Textil Konstens Historia*. Lund: CWK Gleerup Bokförlag.
- Goepper, R. (1996) *Alchi. Ladakh's Hidden Buddhist Sanctuary*. With photography by J. Poncar. London: Serindia Publications.
- Grigg, J. (1979) Sasanian influence in the Silks of T'ang China. *Hali* 2 (2), 121–124.
- Hedeager Krag, A. (2018). Byzantine and Oriental Silks in Denmark, 800–1200. In R. Netherton and G. R. Owen-Crocker (eds), *Medieval Clothing and Textiles vol. 14*. Suffolk: The Boydell Press, 37–60.
- Heller, A. (2006) Recent findings on Textiles from the Tibetan Empire. In R. Schorta (ed), *Central Asian Textiles and Their Contexts in the Early Middle Ages*. Riggisberger Berichte 9. Riggisberg: Abegg-Stiftung, 175–188.
- Jahoda, C. and Kalantari, C. (2021) *Early West Tibetan Buddhist Monuments: Architecture, Art, History and Texts*. Studies and Materials on Historical Western Tibet 3. Vienna: Austrian Academy of Sciences Press.
- Klimburg-Salter, D. E. (1997) *Tabo. A Lamp for the Kingdom. Early Indo-Tibetan Buddhist Art in the Western Himalayas*. Milan: Skira Editore.
- Kuhn, D. (2012) Reading the Magnificence of Ancient and Medieval Chinese Silks. In D. Kuhn (ed), *Chinese Silks*. New Haven & London: Yale University Press, 1–63.
- Kuløy, H. K. (1982) *Tibetan Rugs*. Bangkok: White Orchid Press.
- Manson, B. C. (1981) Textiles. In A. U. Pope and P. Ackerman (eds), *A Survey of Persian Art. From Prehistoric Times to the Present. Vol. 2: Text Sasanian Periods*. Ashiya: Sopa, 119–140.
- Myers, D. K., Aris, M., Pommaret, F. and Bean, S. S. (1994) *From the Land of the Thunder Dragon. Textile Arts of Bhutan*. London: Serindia Publication.
- Pope, A. Upham and Ackerman, P. (1981) *A Survey of Persian Art. From Prehistoric Times to the Present. Vol. 2: Text Sasanian Periods*. Ashiya: Sopa.
- Shah, D. (2005) *Masters of the Cloth. Indian Textiles Traded to Distant Shores*. TAPI Collection at the National Museum. New Delhi: Garden Silk Mills Ltd.
- Snellgrove, D. L. and Skorupski, T. (1977) *The Cultural Heritage of Ladakh vol. 1*. Warminster: Aris & Phillips Ltd.
- Tanavoli, P. (2011) *Undiscovered Minimalism. Gelims from Northern Iran*. With contributions by Heinz Meyer and Werner Weber. London: Hali Publications Limited.
- Van Ham, P. (2014) *Tabo – Gods of Light. The Indo-Tibetan Masterpiece*. Germany: Hirmer Verlag.
- Yamanaka Kondo R., Bénazeth, D., Hirayama, T., Ito, R., Hedeager Krag A., Monteil, E., Ota, E., van Puyvelde, A., Randall, K., Tanaka, Y. and Vroon, M. (2022) Collections of Museums, Cathedrals and Churches. In S. E. Braddock Clarke and R. Yamanaka Kondo (eds), *Byzantine Silk on the Silk Roads: journeys between East and West, past and present*. London: Bloomsbury Visual Arts, 132–255.
- Zhao Feng (2014) The Development of Pattern Weaving Technology through Textile Exchange along the Silk Road. In M-L. Nosch, Zhao Feng and L. Varadarajan (eds), *Global Textile Encounters*. Oxford: Oxbow Books, 49–64.

Author:
ebangsbo@gmail.com