

Baltic bronze coil decorations

Class by The Honourable Magnifica Baroness Ceara Shionnach, OP, OL (2023)
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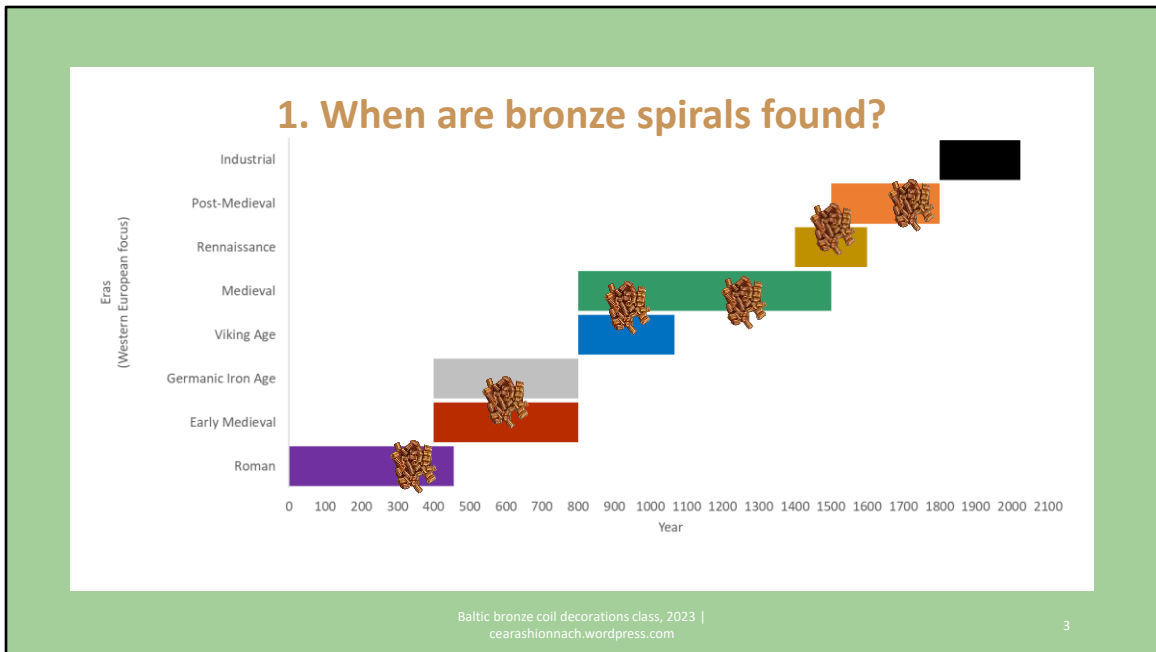
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Device/arms of Ceara Shionnach, images from the Lochac Roll of Arms: [Kingdom of Lochac Roll of Arms - Ceara Shionnach \(sca.org\)](http://Kingdom of Lochac Roll of Arms - Ceara Shionnach (sca.org))

Photo by Ceara Shionnach April 2023 of coils/outfit she made.

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2. Where are bronze spirals found?
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Bronze spiral decorations are documented in archaeological finds from the 6th to 19th centuries in Estonia according to Rammo and Ratas. There is also evidence of finds from from the 4th and 5th centuries in Lithuania and from the 6th century in Latvia (Volkaitė-Kulikauskienė 1997, 131; Zariņa 1999, fig 27).

References

Rammo, Riina and Ratas, Janna (2015). *Ühte kadunud tehnikat taastades: spiraalitorudest kaunistused rõivastel / Restoring a Lost Technique: Spiral Tube Decorations on Garments*. Published in Silmnähtav The Manifest, Volume 6 (2015).

[Ühte kadunud tehnikat taastades: spiraalitorudest kaunistused rõivastel / Restoring a Lost Technique: Spiral Tube Decorations on Garments | Studia Vernacula \(utlib.ee\)](#)

Anna Zariņa (1999). *Apģērbs Latvijā 7.-17.gs.* ISBN10:5796612352

Volkaitė-Kulikauskienė (1997). *Senovės lietuvių drabužiai ir jų papuošalai : (I-XVI a.)*. ISBN: 9986780144/9789986780144

Graph and bronze coil images made by Ceara Shionnach, 2023.

2. Where are bronze spirals found?

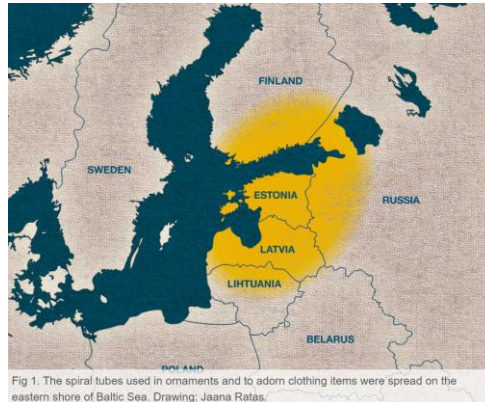


Fig 1. The spiral tubes used in ornaments and to adorn clothing items were spread on the eastern shore of Baltic Sea. Drawing: Jaana Ratas.

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Modern-day Baltic countries are presented in this map.

Note, however, that there were many conquests and boundary changes over the past several thousand years. For example,

“During the first millennium AD, three important cultural regions emerged: northern Estonia, southern Estonia, and western Estonia, together with the islands.”

“Interest in the Baltics by the increasingly powerful states of Germany and Denmark during the twelfth century may have been generated in part by the continued raids by 'Eastern Vikings' on their ports and ships.”

“What is now Estonia and Latvia quickly came to be governed by German prince-bishops in Courland, Dorpat, Ösel-Wiek, and Riga, while the Order of the Knights of the Sword conquered the rest of Latvia and central Estonia. The captured territory between Danish Estonia and independent Lithuania became known as Livonia.” The Eastern part of Livonia becomes known as Latgallia.

For more information on an overview of Estonia’s history, see [Kingdoms of Northern](#)

[Europe - Estonia \(historyfiles.co.uk\)](http://historyfiles.co.uk).

Map reference:

Rammo, Riina and Ratas, Jaana (2015). *Spiral Tube Decorations: a Thousand Years of Tradition*. *EXARC Journal Issue 2016/2*. [Spiral Tube Decorations: a Thousand Years of Tradition | EXARC](https://exarc.net/issue-2016-2/int/spiral-tube-decorations-thousand-years-tradition): <https://exarc.net/issue-2016-2/int/spiral-tube-decorations-thousand-years-tradition>

3. What are bronze spirals used for?



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In the SCA context, I'd wager most people think of Finnish aprons when they think of bronze coil decorations. But they go way beyond that in place, time, and form. There are lots of varying regional styles within each area and time of the Baltic area, with examples of coils in use from head to toes.

I'm not sure how widespread the beliefs were, but in at least some regions and times, bronze was believed to ward off evil spirits. There are examples of these found in worn-clothing and burial-specific clothing for this purpose.

Bronze coil decorations can be found woven into fabric, woven into bands and ties, appliqued onto fabrics, hanging from belts or headgear, and in jewellery. They have been found used for edge decorations, for example, to close-off weaving in a decorative fashion.

A non-exhaustive list of items they've been found in include varying forms of: head-wreaths and head-wreath tails, other woven headdresses, front and back aprons, belt ends, leg ties, edges of leg wraps, edges of dresses and skirts, necklaces, and shawls.

3. What are bronze spirals used for?



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3. What are bronze spirals used for?



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Regional styles of Finnish dress, source: [Finnish Iron Age Garb: Basic Info – finnishgarb \(wordpress.com\)](https://cearashionnach.wordpress.com)

3. What are bronze spirals used for?



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Regional styles of Finnish dress, source: [Finnish Iron Age Garb: Basic Info – finnishgarb \(wordpress.com\)](https://finnishgarb.wordpress.com)

3. What are bronze spirals used for?



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[Reconstruction of the 11th -12th century Latgalian woman's costume — Katram Savu Tautastērpu \(katramsavutautasterpu.lv\)](http://katramsavutautasterpu.lv)

3. What are bronze spirals used for?



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Source: <https://www.dare2wow.me/en/textile-history/latvia/>
<https://www.pinterest.com/pin/226094843768978101/>
<https://www.pinterest.com/pin/551902129335151528/>

4. Estonian Finds – 11th Century



Fig 2. One of the earliest finds in Estonia (AI 5295: 196). The grave in Raatvere cemetery has been dated to the 11th century. Photo: Jaana Ratas.

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Rammo, Riina and Ratas, Jaana (2015). *Spiral Tube Decorations: a Thousand Years of Tradition*. *EXARC Journal Issue 2016/2*. [Spiral Tube Decorations: a Thousand Years of Tradition | EXARC: https://exarc.net/issue-2016-2/int/spiral-tube-decorations-thousand-years-tradition](https://exarc.net/issue-2016-2/int/spiral-tube-decorations-thousand-years-tradition)

Estonia – 11th century Raatvere cemetery, one of the earliest Estonian finds.

4. Estonian Finds – 12th Century



Fig 5. 12th century find from the Kūti cemetery. A tablet-woven band with spiral tubes has been sewn onto the edge of a clothing item (AI 2731: 15). Photo and drawing: Jaana Ratas.

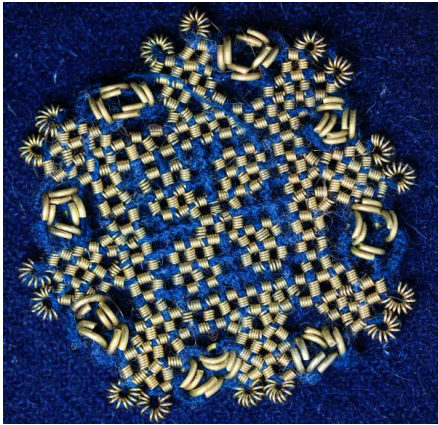
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Rammo, Riina and Ratas, Jaana (2015). *Spiral Tube Decorations: a Thousand Years of Tradition*. *EXARC Journal Issue 2016/2*. [Spiral Tube Decorations: a Thousand Years of Tradition | EXARC: https://exarc.net/issue-2016-2/int/spiral-tube-decorations-thousand-years-tradition](https://exarc.net/issue-2016-2/int/spiral-tube-decorations-thousand-years-tradition)

“12th century find from the Kūti cemetery. A tablet-woven band with spiral tubes has been sewn onto the edge of a clothing item (AI 2731: 15). Photo and drawing: Jaana Ratas.”

4. Estonian Finds – 13th Century



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Rammo, Riina and Ratas, Jaana (2015). *Spiral Tube Decorations: a Thousand Years of Tradition*. *EXARC Journal Issue 2016/2*. [Spiral Tube Decorations: a Thousand Years of Tradition | EXARC: https://exarc.net/issue-2016-2/int/spiral-tube-decorations-thousand-years-tradition](https://exarc.net/issue-2016-2/int/spiral-tube-decorations-thousand-years-tradition)

Reconstruction left and extant piece right of the “Braided pattern from a Lõhavere craft box dated to the beginning of the 13th century (AI 4133: 2274: 5 ribbon and 43 patch). Photo: Jaana Ratas.”

4. Estonian Finds – 14th Century



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Back apron – Left is a reconstruction, right is the Virunuka find from the 14th century (Estonia).

Sources:

- Silmnähtav (2015, Issue 6, Tartu University)
- Eastern-European stuff:
<https://zvetenze.tumblr.com/post/659856383826706432/back-apron-from-virunuka-cemetery-ai-4342-v-9/amp>
- Archaeological investigations on Ala-Kõrtsi cemetery in Urvaste parish centre in Võrumaa (Heiki Valk, Tartu University) -

https://www.researchgate.net/figure/Spiral-tube-decorations-1-the-pelvis-of-Urvaste-skeleton-with-spiral-tube-decorations_fig6_343556150 and
https://www.researchgate.net/publication/343556150_Archaeological_investigations_on_Ala-Kortsi_cemetery_in_Urvaste_parish_centre_in_Voru_maa

4. Estonian Finds – 14th Century



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Back apron – Virunuka find from the 14th century (Estonia).

Sources:

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- Eastern-European stuff:
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- Archaeological investigations on Ala-Kõrtsi cemetery in Urvaste parish centre in Võrumaa (Heiki Valk, Tartu University) -

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4. Estonian Finds – 14th Century



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Google translation: Mortuary grave in squares b'–c'/2–3, woman over 40 years old, head to the southwest (230°), buried in a wooden coffin. Skeleton partially decayed, arms straight, fingers on pelvis. The crown part of the wreath (: 3) was made of spirals, curls and tins decorations. The wreath tails were woven from wire and spirals; tassels (4) were fine spirals with a swastika motif (: 3a–d). A necklace (: 7) had four rows of kauri shells; the upper row against the chin was made of beads. On the edges and corners of the bronze-decorated friend (: 2) there is a svas tika ornament made of clips. One end of the stick was under the dead, the other was spread over. In half the turned side has run along the left edge of the coffin; the ends of the stick remained on the right edge of the coffin. There was a lump on the friend's corner, on the right humerus horseshoe shoulder (: 1). The other, the checkered friend (: 2a), was preserved with tassels corner. Fragments of a cloth with picked writing (: 8) originating from a friend were also found or from a decoration on the back of a shirt. On the left hip was a knife (: 4) with a Swedish tip into the shoe. There were three rings on the knuckles of the right hand (: 5a, 5b, 6). Hair was preserved in criss-cross locks under the skull, as well as a little above pelvis, suggesting long hair. Date: 1300-1400. (AI 5101: CLVIII: 1–8

Source: [siksali-II-veebi .pdf \(ut.ee\)](#), finds from Siksala

4. Estonian Finds – 14th Century



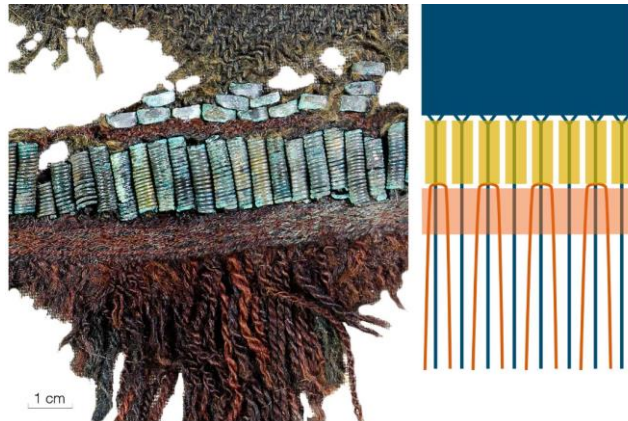
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Google translation: Burial CCXLIII (243) Mortuary in square I/13, 9–14-year-old (12y±30k) child, with the head to the northeast (60°). Old ground level along the grave there were large stones with a diameter of approx. 50 cm. The bone is well preserved. The right hand is turned to the chest, the left hand the fingers were on the right side of the pelvis. Buried 34 cm wide a pack coffin, from which a 13 cm thick ot sapack could be observed at the foot. At Peats, only a dark wreath remained from the coffin. Skull around it was a wreath (: 1), decorated with curls and tinulis. The wreath tails (4) were woven from woolen yarn and spirals; tassels with diamond pattern. Found between the wreath tufts and the body coarse twill textile (: 5) and a checkered frill on the tassels pieces (: 6). Around the neck was a necklace (: 2) in three rows of kauri shells and of beads. The middle row consisted of 15 coils, spirals and beads, in the middle was a cross braid (: 2a). On the middle finger of the left hand was a ring with the ends twisting around a broad shield (: 3). On the left tibia, 20 cm from the heel to the knee, 4 loose spiral tubes (: 4) were found, probably from leg bands. Date: 1300-1400. (AI 5101: CCXLIII: 1–6)

Source: [siksali-II-veebi .pdf \(ut.ee\)](#), finds from Siksala

4. Estonian Finds – 14th Century



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Rammo, Riina and Ratas, Jaana (2015). *Spiral Tube Decorations: a Thousand Years of Tradition*. *EXARC Journal Issue 2016/2*. [Spiral Tube Decorations: a Thousand Years of Tradition | EXARC: https://exarc.net/issue-2016-2/int/spiral-tube-decorations-thousand-years-tradition](https://exarc.net/issue-2016-2/int/spiral-tube-decorations-thousand-years-tradition)

“Edge of a shawl from the 14th century AD grave in Siksälä cemetery. The spiral tubes have been threaded onto the warp yarns of the fabric and fixed with tablet-woven band (AI 5101: CLXXXVII: 12). Photo and drawing: Jaana Ratas.”

4. Estonian Finds – 16th Century



Fig 3. Fragment of a festive head dress from Erreste hoard dated to the end of the 16th century (AI 739). It is possible that these items were used as bridal crowns in wedding ceremonies. In our opinion, the 'crown' had two long ribbons braided of linen yarn and/or horse hair hanging down at the back. Photo: Jaana Ratas.

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Rammo, Riina and Ratas, Jaana (2015). *Spiral Tube Decorations: a Thousand Years of Tradition*. *EXARC Journal Issue 2016/2*. [Spiral Tube Decorations: a Thousand Years of Tradition | EXARC: https://exarc.net/issue-2016-2/int/spiral-tube-decorations-thousand-years-tradition](https://exarc.net/issue-2016-2/int/spiral-tube-decorations-thousand-years-tradition)

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Rammo, Riina and Ratas, Jaana (2015). *Spiral Tube Decorations: a Thousand Years of Tradition*. *EXARC Journal Issue 2016/2*. [Spiral Tube Decorations: a Thousand Years of Tradition | EXARC: https://exarc.net/issue-2016-2/int/spiral-tube-decorations-thousand-years-tradition](https://exarc.net/issue-2016-2/int/spiral-tube-decorations-thousand-years-tradition)

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4. Estonian Finds – 19th Century

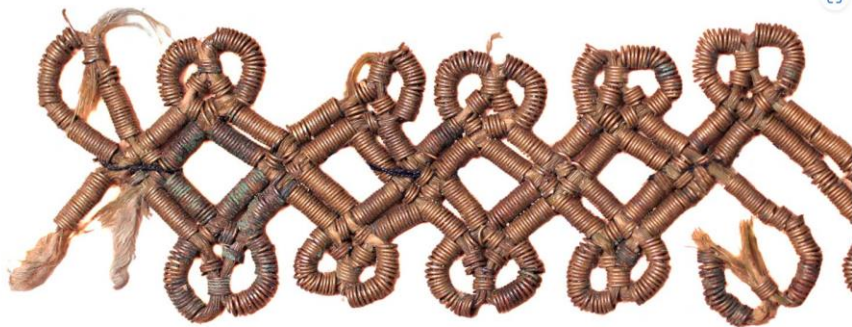


Fig 4. The youngest item of this kind in ethnographic collections of Estonian National Museum (ERM 18490). Photo: Arp Karm.

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Rammo, Riina and Ratas, Jaana (2015). *Spiral Tube Decorations: a Thousand Years of Tradition*. *EXARC Journal Issue 2016/2*. [Spiral Tube Decorations: a Thousand Years of Tradition | EXARC: https://exarc.net/issue-2016-2/int/spiral-tube-decorations-thousand-years-tradition](https://exarc.net/issue-2016-2/int/spiral-tube-decorations-thousand-years-tradition)

“The most recent fragments of spiral tube decorations were collected by ethnographers at the end of the 19th century and beginning of the 20th in South-Estonia (e.g. in Viljandi County; Kaljus 2009). The ethnographical items used to adorn the hem of a wraparound skirt and was worn in wedding ceremony, designate the end of the long tradition of spiral tubes.”

5. What materials do I need?



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1. Image of jewellery **coiling jig** was sourced from ebay. You can find a coiling jig from craft stores, etsy, ebay, and other online stores. There are also examples of people adding a long mandrel to a drill to wind wire coils fast.

2. **Bronze wire.** Extant finds appear to be made of flat wire rather than the round wire that's common today. I haven't found a source for flat wire yet, but have been able to find round bronze wire by searching Etsy. The gauge of wire and size of coils to make will vary on the extant source. For my coils, I used some of the headband images that have bronze coils with a size key included, I estimated approximately 1mm wide wire was used in the bottom of an extant tassel (Estonian headband grave find, page 39, Valk *et. al* 2014) to make 6mm long coils. I had bought a bronze wire sampler of 18 to 26 gauge wire from etsy, and played around to see the differences in size and appearance of coils. From this experimentation, I found 20 gauge wire was most suitable for my purposes.

3. **Pliers.** You'll need a selection of jewellers pliers for shaping and cutting the wire/coils. This image is sourced from Amazon, however, many craft and online stores have such tools available.

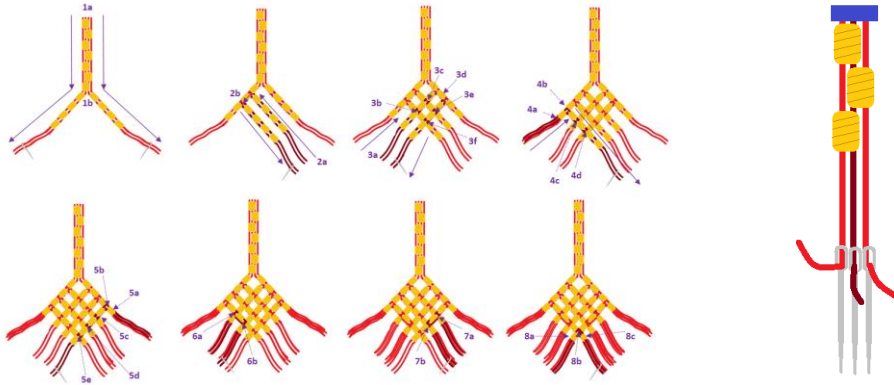
4. **Steady base** for pinning/weaving coil patterns. There are examples of sheets of bark being used in Estonia to serve this purpose (photo of a reconstruction by Jaana Ratas, published in [Ühte kadunud tehnikat taastades: spiraalitorudest kaunistused rõivastel](#) / Restoring a Lost Technique: Spiral Tube Decorations on Garments. Riina Rammo and Jaana Ratas (2015). I have also found cardboard and lace-making pillows useful for this purpose. The key is that the surface is relatively flat, and can be pinned or support holding stitches through it.

5. **Wool or horse hair** for weaving coils. Depending on the time, place, and item, there are examples of coils being woven with wool or horsehair. Wool thread can be purchased fairly readily from craft stores, and I have found that searching online for horse hair used for stringing violin bows is a great source of cleaned and straightened horse hair. Photo from Australia SoundStores.

You will also need needles to help with the weaving (unless you are using horsehair; the hair is straight and thick enough to thread directly onto bronze coils without use of a needle).

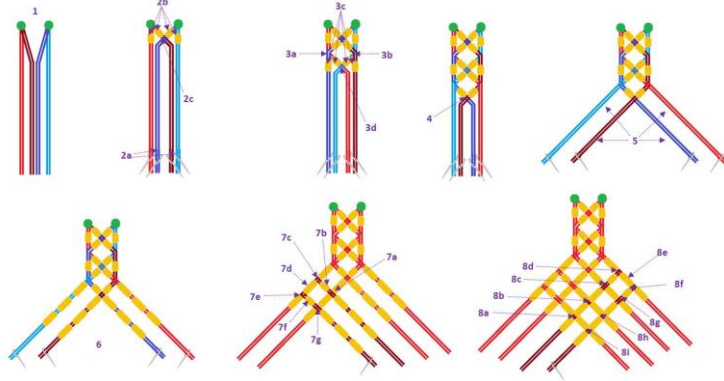
6. How to weave bronze spiral decorations

Instructions for how I made Siksälä wreath headdress tails (Ceara Shionnach, 2016)

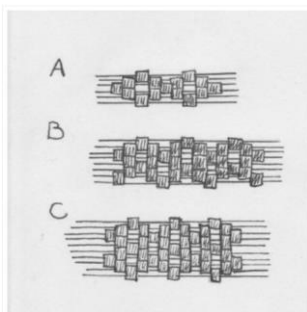


6. How to weave bronze spiral decorations

Instructions for how I made Siksälä wreath headdress tails (Ceara Shionnach, 2016)



6. How to weave bronze spiral decorations



Joonis 3 Võruosa rombliste punutiste skeemid

I used plaiting schema C from this figure published on page 25 of "MUINAS- JA KESKAEGSED PEAPÄRJAD SIKSÄLÄ KALMISTULT" (Signe Rätsepso, 2013).

Rätsepso, Signe (2013). [MUINAS- JA KESKAEGSED PEAPÄRJAD SIKSÄLÄ KALMISTULT Seminaritöö](#) (Ancient and Medieval Cemeteries of Siksälä Wreaths Seminar). Tartu University Viljandi Culture, Native Crafts Department, National specialty textiles.

[Siksälä Headbands – Weaving, Coiling, Beading](#) (Ceara Shionnach, 2016).

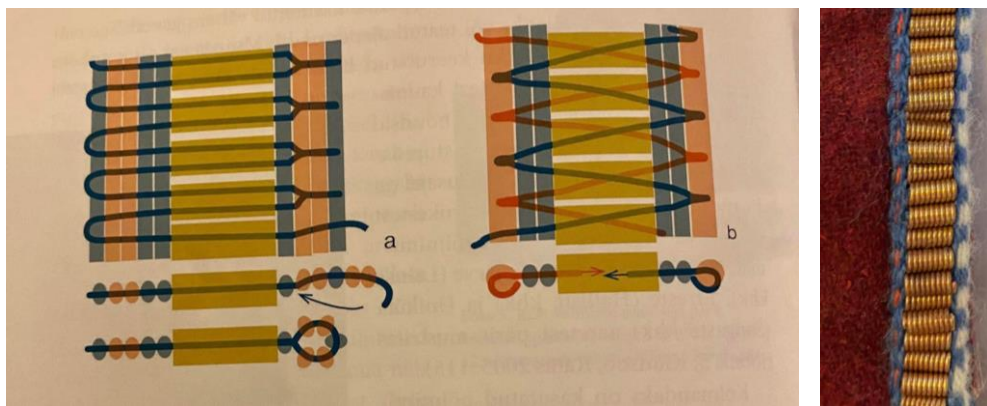
6. How to make bronze spiral decorations

[Ties for leg wraps](#), Finnish, Tekijä Mervi (2015)



6. How to weave bronze spiral decorations

Silmnähtav, The Manifest. Tartu Ülikool, Volume 6, 2015. ISBN978-9985-4-0986-2.



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Left are instructions from *Silmnähtav* for weaving coils into a band. Right is a reconstruction attempt by Ceara Shionnach (2020).

7. Useful resources

- ❖ Valk, Heiki and Laul, Silvia (2014). [*Siksälä kalme I, Muistis ja ajalugu*](#) (Siksälä mound , Artefacts and History). Published by the University of Tartu (Estonia).
- ❖ Valk, Heiki, Ratas, Jaana, and Laul, Silvia (2014). [*Siksälä kalme II, Matuste ja leidude kataloog*](#) (Siksälä mound , uncertainties and findings directory). Published by the University of Tartu (Estonia).
- ❖ [*Killud pikast traditsioonist. Spiraalitorud rõivastel*](#), Riina Rammo and Jaana Ratas (2015)
- ❖ [*Ühte kadunud tehnikat taastades: spiraalitorudest kaunistused rõivastel*](#) / Restoring a Lost Technique: Spiral Tube Decorations on Garments. Riina Rammo and Jaana Ratas (2015)
- ❖ Lang, Valter (2007). [*Estonian Archaeology Volume 3: The Bronze and Early Iron Ages in Estonia*](#). 298 p. ISBN 978-9949-11-726-0

7. Useful resources

- ❖ [What the dead wore? Female funerary fashion of Northern Estonia in the 12th century](#)
- ❖ Mervi Pasanen (2015). *Hibernaatiopesäke: Pronssia ja Ihanuutta / Eesti Rahva Muuseum / Bronze and Awesomeness.*
- ❖ [SCA Baltic Facebook group](#)
- ❖ [Finnish Iron Age Facebook group](#)
- ❖ [Heavy Metal Embroidery](#) blog including Finnish coil aprons by Duchess Siobhan