Recycling Sprang

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Recycling Sprang

By Carol James

In this talk I would like to explore some of the evidence of sprang in history, how sprang travelled from place to place and some of the ways it was modified as it travelled. I will then suggest that sprang could be an exciting technique for the 21st century.

First let me explain how this technique works.
Sprang is a braiding technique. The worker winds one continuous thread around and around a frame. The worker then manipulates the threads at one end, and a mirror-image structure magically appears at the other end of the frame. Structures that lend themselves to this technique include interlinking, interlacing, and intertwining.
For more on sprang, please consult Peter Collingwood’s Sprang, Plaiting on Stretched Threads,¹ or Carol James’ Sprang Unsprung.² You might also view my YouTube video http://www.youtube.com/watch?v=JY3jyy2rGEs

Among the oldest evidences of sprang are bonnets, female head coverings, found in Scandinavian peat bogs, associated with human remains, dated to the Bronze Age. These have been described by Margaretha Hald,³ and were created using fine, tightly twisted wool. Some reveal a dense structure, others are lacy.

A classic bonnet shape is the Phrygian bonnet. It is in evidence since antiquity it is featured in sculpture and on vase paintings.⁴ According to Wikipedia, it reappears several times in Greek then Roman times. It reappears again in the 1675 in France, associated with anti-tax and anti-nobility. The bonnet appears on individuals of the working class in the French Revolution, but by this time, the Phrygian bonnet may have been knitted.

What is the evidence that the original Phrygian bonnet was sprang? If you look for them, sprang frames can be seen in Greek artwork. These small frames, with cloth forming at both ends can be found on pottery depicting women’s work. Recent scholarship by Marina Fischer has given us an interesting perspective on sprang in ancient Greece.⁵ She

1 Peter Collingwood, The Techniques of Sprang, Plaiting on Stretched Threads (Faber & Faber, Ltd, 1974).
2 James, Carol, Sprang Unsprung (SashWeaver) 2011.
discusses the images on these vases, with particular reference to the small frames held by women, and the bonnets they wear on their heads. Ms Fischer believes these frames are sprang frames, and at least some of the bonnets are sprang bonnets. She discusses the difference between women holding these small frames and those depicted with larger looms. Ms Fischer speculates that respectable women are depicted as working on a floor loom in the company of her husband. Those depicted with the smaller frames are clearly courtesans. So, was sprang associated with women of ill repute? But I digress.

In 2009 a colleague of mine introduced me to the magazine Archaeological Textiles Newsletter. That year’s issue featured an article by Dagmar Drinkler titled Tight-Fitting Clothes in Antiquity – Experimental Reconstruction. The article examines Greek representations of their enemies, the Persians. Ms Drinkler speculates on the textile method that could be used to create such garments. She has worked to replicate the textile designs. To date, using the sprang technique, she has been able to replicate all patterns she has found. Ms Drinkler hypothesizes that sprang was used by the Persians to create these tight-fitting clothes, shirts and leggings.

I know of no textile remains that have survived from Ancient Greece. However, the part of the world that, in the time of the Ancient Greeks we labeled as Persia, lay in the area that today is called China. I have heard about current archaeology in China including finds of mummies, and associated garments. It is said that sprang figures among the textile techniques represented in these Chinese finds. In September 2017, I will travel to China, part of a project in collaboration with the German Archaeology Institute. My mission there is to assist in the reconstruction of belts dating to 1000BC. Sprang is one of the techniques that could have been involved. I hope to learn more on sprang in ancient Persia and will report on this later. This would support Ms Drinkler’s suspicion that the enemies of Ancient Greece wore sprang clothing.

Many sprang hats have been found associated with Egyptian mummies. Note that Egypt was a Persian province starting in 525 BC. It was later a Greek province, and then a Roman province. Northern Africa finally returned to Arab control in 641 AD. I have seen many sprang bonnets of Egyptian origin, all dating to times after the Roman rule. I am unaware of Egyptian sprang bonnets that date back to Pharonic times, but would be happy to hear otherwise.

Bonnets from these Egyptian finds are made of linen or wool. Some feature open, lace-like designs, others are more solid, many are brightly colored. I speculate that perhaps

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it was the Persians who brought sprang to Greece, that it was the Greeks brought sprang
to Rome, and the Persians, Romans and Greeks who brought sprang to northern Egypt.

There is evidence to support the claim that sprang persisted in Europe. Many depictions
of the Virgin Mary working with her hands suggest the sprang technique. These include a
stained glass window in Esslingen from 1330. The painter Lucas Cranach was clearly
familiar with sprang, incorporating a sprang frame in the image of the Education of the
Virgin, in the altar painting 1510-1515, and then in as a bonnet in the portrait of
Katharina Luther in 1528.

We do have some surviving textile evidence of sprang from Europe. The Swiss National
Museum in Zurich holds a sprang tablecloth (LM-22119) that is 320 cm long and 75 cm
wide, made from linen/flax, origin date 1400 – 1450. The lace pattern features diamonds,
stylized lions, eagles, trees and other geometric figures.

Further evidence of sprang in the 1500s has been recently discovered at the Lengberg
Castle in Nikolsdorf, Tyrol, Austria. The castle was experiencing renovation in 2008.
Beatrix Nutz of the University of Innsbruck was called to examine a trove of textiles that
had been hidden within the walls since the 1500s and discovered with the renovations.
Among the items identified by Ms Nutz were three sprang bras.9

Sprang was the method to create sashes for European nobility and military in the 1700s
and 1800s. I have seen evidence of sprang in military sashes from Norway, Denmark,
Prussia, Hesse, Great Britian, France, the Netherlands, Greece and the Ukraine. The
curator at the Military Museum in Brussels, Belgium told me that Belgian army officers
wore sprang sashes into the time of the First World War.

In 2013, I had the honor of examining a collection in the keeping of the Cinquantenaire
Museum in Brussels, Belgium. They have a collection of articles of sprang, dating to
before 1830 - assorted bonnets, gloves, collars, a pair of stockings, and several strips that
can only be samplers. These might all be described as lacework in interlinking sprang.

Returning to the denser patterns in the Coptic bonnets, or the body suits of the Persian
warriors, can we say if this type of sprang has survived? Ms Drinkler tells me that, since
publishing information in 2009 on these garments which appear in Greek art, colleagues
have sent her images of late Medieval and early Renaissance portraits, depicting tight-
fitting leggings. There has been some debate concerning these leggings, as there are no
known extant examples of these leggings. What was the method of construction? Might
this represent knitting? These leggings appear as fashion in the late 1400s. The earliest
depiction of knitting of which I am aware is an altar painting, now in the art gallery
(Kunsthalle) in Hamburg, Germany, dating to 1390, so knitting could be an option for
these leggings. According to Drinkler, one of the most significant questions is why the
stripes are never horizontal, but always vertical in direction on these leggings. Vertical

stripes are possible with knitting, but horizontal stripes are far easier to execute. If these leggings were knitted, then one would expect that at least some of the depictions should feature sideways stripes.

On the other hand, vertical stripes are very easy using the sprang technique. I have made several pair of these leggings, exploring the construction method, and find an amazing fit between motif, structure and function. This leads me to believe that sprang was indeed the method of construction. Ms Drinkler and I presented information on this topic at the Early Textiles Study Group Conference in October 2014, and our paper should appear in the proceedings, to be published eventually.

So, why did people stop making leggings using the sprang technique? One clue might be the stripes. Michel Pastoureau proposes an interesting theory in his book, *The Devil’s Cloth, a History of Stripes*. Pastoureau points to the way that stripes disrupt order, draw the eye, and makes the case that striped clothing is associated with something evil or negative. Ms Drinkler has already noted that individuals depicted in the portraits are always less desirable elements in society. In the portraits that Drinkler cites, the persons wearing the striped leggings are those carrying out torture, or in the case of the Venetian gondolier, he is a black man in an otherwise white society.

Did sprang cross the Atlantic with the Europeans? There is evidence that sprang was already present in the Americas. According to research by Mary Frame, sprang was well known to the Paracas and Nasca people of South America. They used it for shawls and tassels, using sometimes very complicated three-layer techniques.

Sprang is also in evidence in North America. The Hopi people used circular sprang as their traditional method to create belts. I personally examined the cotton shirt in the keeping of the Arizona State Museum ASM C20512, known as the Arizona Openwork (Tonto) Shirt. It has been dated to somewhere around the year 1300. It is undeniably an example of sprang. The beginning loops are at the shoulders. The fringes at the hem represent the place where the flat warp was cut apart, separating front from back.

I visited Colonial Williamsburg in 2013, and discussed sprang with personnel there. I was told that, while there is no doubt that Williamsburg citizens owned sprang purses and sashes, and while they do have items of sprang in their textile collection (G1971-1421 and G1971 1423) and they acknowledge that sprang was the method used to produce military sashes of the time period, still they can find no evidence that sprang was done in Williamsburg. For this reason they do not feature sprang in their public demonstrations.

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13 Carol James, “Replicating the Arizona Openwork Shirt” Paper presented at the Pre-Columbian Textiles Conference at the Danish National Research Foundation’s Center of Textile Research, Saxo Institute, University of Copenhagen, June 1-4, 2016.
Sprang was abruptly abandoned in Western Europe in the mid 1800s. I attribute this to the advance of the Industrial Revolution. Many highly skilled weavers could no longer find employment. There were many long, bitter strikes by weavers, who bravely but unsuccessfully tried to maintain their profession. Much knowledge was lost in the fray, and it is my impression that sprang was one such casualty.

In the late 1800s textile specialists of western Europe were fascinated by the garments unearthed in Egypt and brought to Europe. Textiles were found in association with Egyptian mummies. Among the textile techniques were many sprang bonnets. The technique was described in 1890 as completely new, unknown\textsuperscript{14}. Textile scholars at this time adopted a Scandinavian term for generic openwork textiles: the term is ‘sprang’. I do not know the term used by medieval and renaissance workers.

The technique was re-discovered by Louise Schinnerer, an embroidery instructor from Vienna, who had heard about this ‘Egyptian braiding’. Researching embroidery techniques in the Ukraine, she was stunned to find this obscure Egyptian braiding in the Ukraine, and published her findings in 1895\textsuperscript{15}. Indeed much of Eastern Europe were little touched by the Industrial Revolution, and such traditional textile techniques survived.

Research by Sylva Antony Celakova reveals that sprang survived into the 1900s in eastern Europe, notably in Moravia, Slovakia. It was used in several places to create lacy bonnets. Sometimes the technique and object share the same name. For example, both bonnet and technique are called Croziensky in Slovakia\textsuperscript{16}.

Sprang is a textile method that has come and gone, and come back again. The ancient Persians probably used the method to create body suits. The leggings of Medieval and early Renaissance times could have been a re-appearance of sprang. We find lacy bonnets in Scandinavian peat bogs, also in Egyptian necropolis. Lacy sprang bonnets continued to be a tradition in many Easter European countries. Lacy bonnets are no longer the fashion in contemporary 2016 and machine-produced cloth is easily had for the production of leggings and vests. Could sprang cycle back in again and be a textile method for the 21st century?

Sprang has been used in outdoor textile installations. A group in California used the sprang technique to decorate the Transamerica Pyramid in San Francisco in 1974\textsuperscript{17}. French textile artist Edith Meusnier uses sprang to construct amazing landscapes. http://www.edithmeusnier.fr/

\textsuperscript{14} Collingwood, \textit{Techniques of Sprang}, 35.

\textsuperscript{15} Louise Schirnerer, \textit{Antike Handarbeiten}, (Vienna 1895), 172.


\textsuperscript{17} Jules Kliot, \textit{Sprang Language & Techniques} (Lacis Publications, Berkeley Ca. 1979), 2.
Dutch artist Ria Hoogheimstra has developed what she calls free form sprang. [http://www.freeform-sprang.simpsite.nl/](http://www.freeform-sprang.simpsite.nl/)

Sprang can also be credibly used to create contemporary garments, such as those created by Danish artist Herborg Wahl\(^\text{18}\), and Czech textile artists Ludmilla Kaprasová,\(^\text{19}\) and Marie Kielbusová.\(^\text{20}\) Another textile artist from the Czech Republic, Sylva Antony Cekalova, promotes ‘sprang on the go.’ She has created an amazing variety of garments, vests, skirts and dresses, on small, portable frames. These can be seen on her website at [www.krosienky-sprang.cz](http://www.krosienky-sprang.cz)

Sprang is an amazing technique - horizontal elasticity without vertical sag, a technique giving two for the price of one, and providing possibilities for a wide variety of motifs and shapes. By virtue of the fact that for every one row of work, two rows are produced, then, in general, a sprang garment can be created in half the time it would take to knit. In view of the amount of time and energy that people invest in creating hand knit garments, or hand woven cloth, I believe that there is a place in the contemporary textile world for the technique of sprang.


\(^{19}\) Ludmila Kaprasová, *Art of Lace* (Apeiron, Prague, 1993).