

*An Update on the  
Northern New Mexico Museum of Lace*

Rocky Mountain Region, EGA

March 14, 2024

Laurie Waters

<https://nnmml.org>

# Definition of Lace

Modern the use thereof in England, not exceeding the middle of the Raign of Queen Elizabeth ; let it not be condemned for a superfluous wearing, because it doth neither hide not heat, seeing it doth adorn. Besides, though private persons pay for it, it stands the State in nothing; not expensive of Bullion, like other Lace, costing nothing save a little thread descanted on by art and industry. Hereby many children, who otherwise would be burthensome to the Parish, prove beneficial to their Parents. Yea, many lame in their limbs, and impotent in their arms, if able in their fingers, gain a lively-hood thereby, not to say that it saveth some thousands of pounds yearly, formerly sent over Seas to fetch Lace from Flanders.

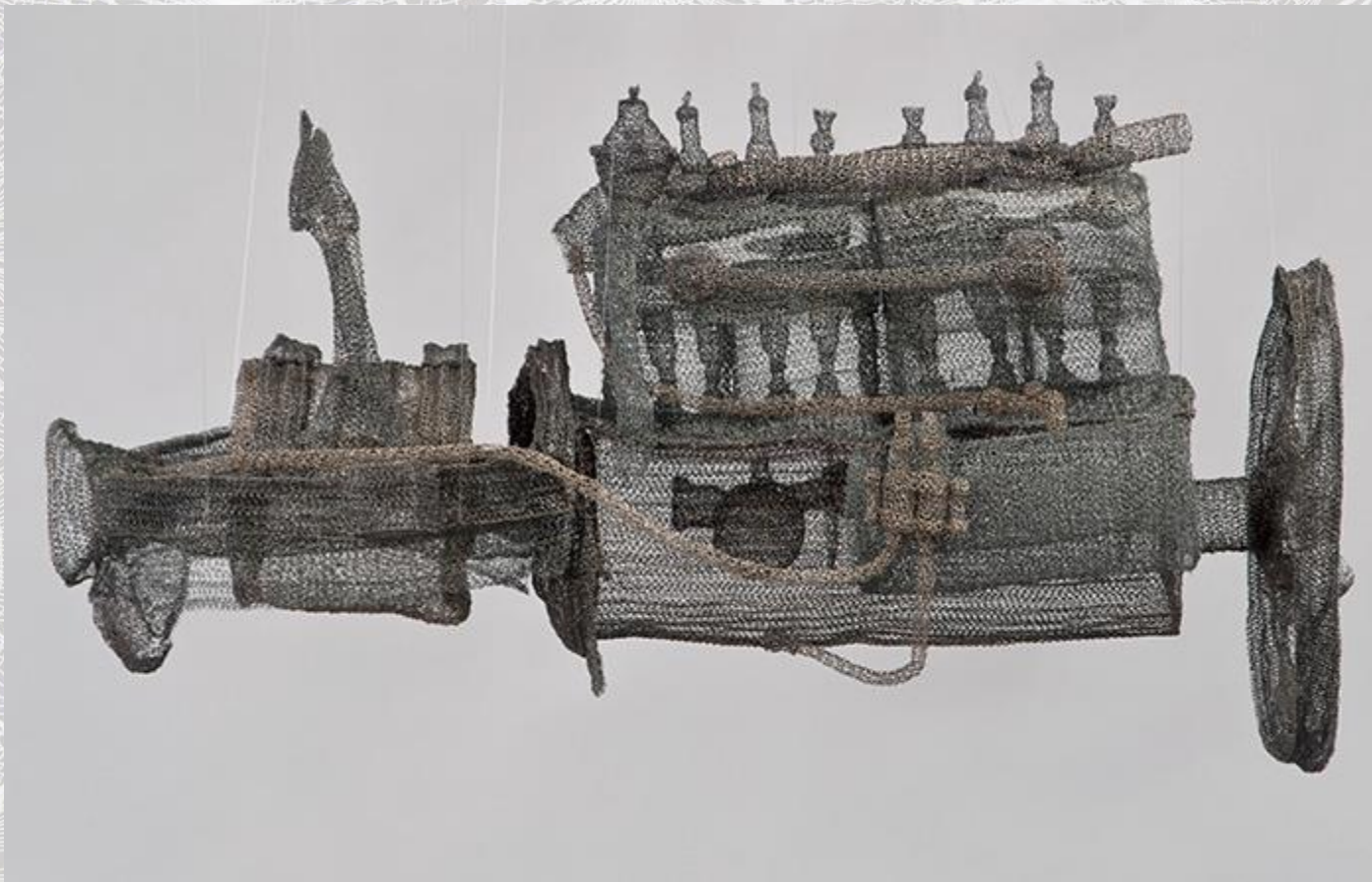
Thomas Fuller, 1662

“The History of the Worthies of England”



Elizabeth I, The Ermine Portrait  
Nicholas Hillard, 1585  
reigned 1558-1603

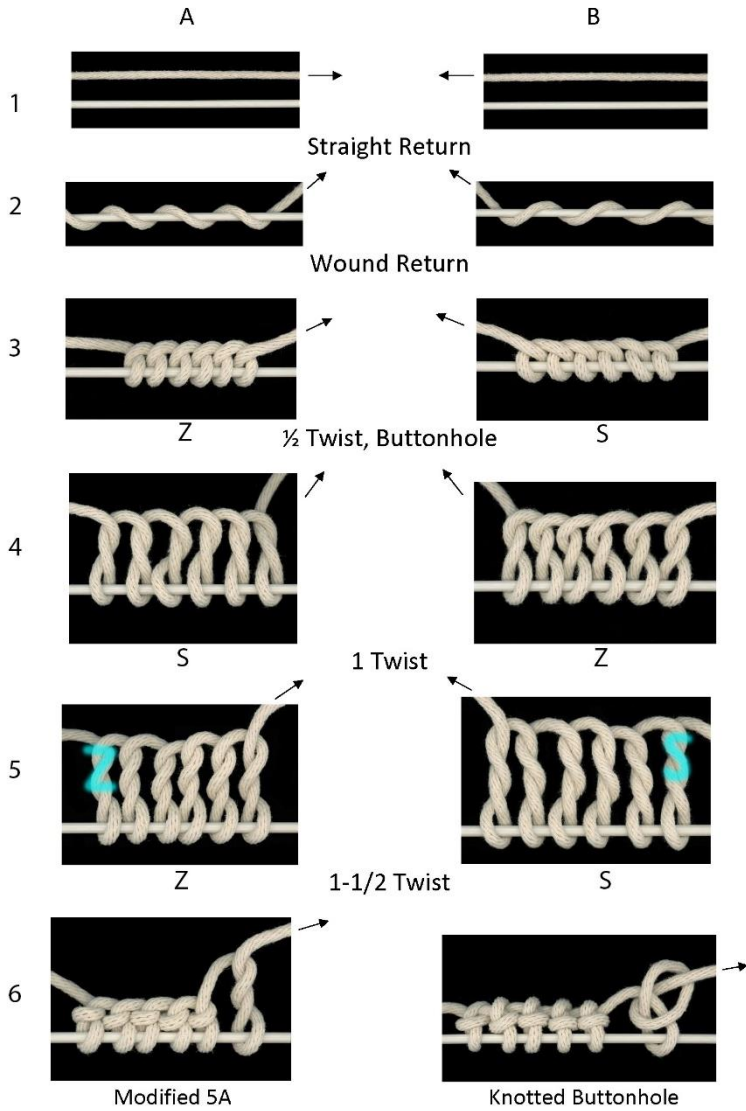
Detroit's Shadow, Anne Mondro  
Powerhouse Museum Love Lace Competition winner, 2011



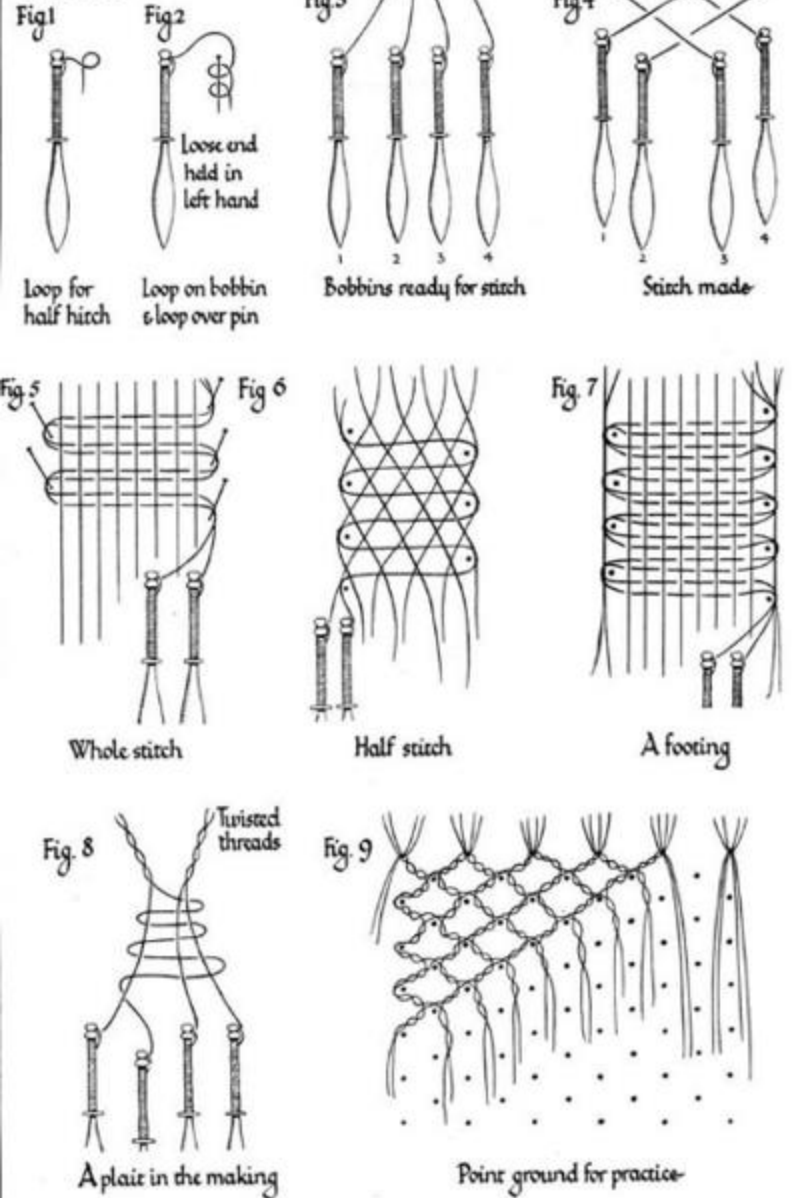
# Lacemaking Equipment



# Needlelace Stitches



## LESSON 1



# Types of Lace - 1

## 1. Bobbinlace

- *Point ground*: Arras, Baueux, Beds, Beveran, Blonde de Caen, Buckinghamshire, Chantilly, Lille, Neuchatel, Punto Aquilano Antiquo, Tønder, Spanish Ret-fi/Catalonian Blondes
- *Other grounds*: Binche, Flanders, Mechlin, Point de Paris, Pottenkant, Valenciennes
- *Guipure*: Almagro, Bedfordshire, Cluny guipure, Flemish Van Dyke, Le Puy, Lepoglava, Maltese, Miracourt, Pescocostanzo, Vadstena
- *Pieced*: Brabant, Bruges Bloemwerk, Brussels with brides, Brussels with Droschel ground, Duchesse de Bruxelles, Early Devon, various early Flemish, Honiton, Point de Flandre, Polychrome, Rosaline, Valenciennes de Gand, Valenciennes de Brabant
- *Tape laces*: Abruzzi, Cantú, early Flemish tape laces, Idrija, Milanese, Vogolda, Yelts, various eastern European
- *Plaited Laces*: Geometric Cluny, Genoese, early Venetian, various 'Le Puy' geometrics
- '*Torchon*': Michailov, Torchon, various metallic laces

## 2. Needlelace

- Alençon, Argentalla, Burano, Coraline, Early Belgian, Early English, Flat Point, Point Colbert, Point d'Eeckent, Point de Gaze, Point de France, Point de Neige, Puncetto, Punto in Aria, Sedan, Tatting, various types of Venise, Youghal, Zele

## 3. Combination Bobbinlace and needlelace

- Brussels and Honiton applique on machine net, Duchesse de Bruxelles, Honiton Point, Point d'Angleterre, Point de Milan, Vieux Flandre

## Types of Lace - 2

4. Knotted laces
  - Armenian, Chebka, Hollie Point and early English needlelace, Macramé, Mediterranean, Netting, Oya, Pag, Puncetto
5. Looped laces (thread not drawn completely through a base loop)
  - Crochet - guipure and continuous, Knitting
6. Drawnwork and Cutwork
  - ‘Punto Tirato’, Carrickmacross, Cilaos, Dresden drawnwork, Lefkara, Mexican drawnwork, Reticello, some Tenerife techniques
7. Embroidered nets
  - Buratto, Filet, Laci, Limerick, Liere, Ñanduti, ‘Sol’ laces, Tambour embroidery on net
8. Mixed Tape
  - Battenburg, Borris, Branscombe, Mezzo Punto, Princesse, Romanian

Machine-made is a whole subject in itself.

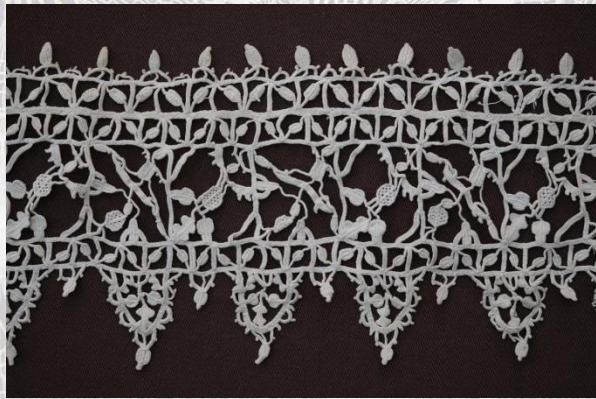
16<sup>th</sup> & early 17<sup>th</sup> centuries



Punto tirato tela sfilata



Reticella



Punto in Aria



Puncetto



Early Venetian plaited bobbinlace

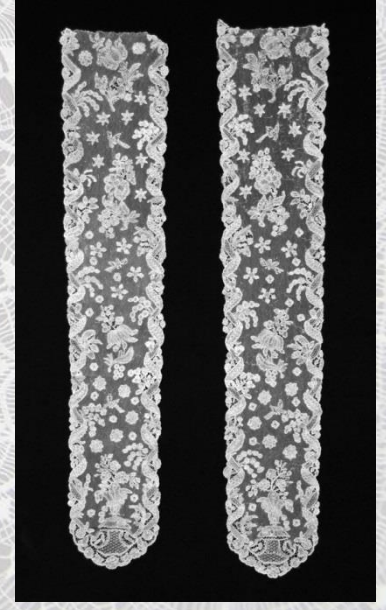




17<sup>th</sup> c  
Italian  
Needle &  
Bobbin laces



17<sup>th</sup> c English  
Needlace



18<sup>th</sup> c Flemish and French bobbin and needlelaces before 1750



18<sup>th</sup> and 19<sup>th</sup> c Belgian Needlelaces  
Point d'Aiguille Belge



19<sup>th</sup> c Alençon, France



Late 18<sup>th</sup> c Mechlin  
Belgium



19<sup>th</sup> c Duchesse de Bruxelles



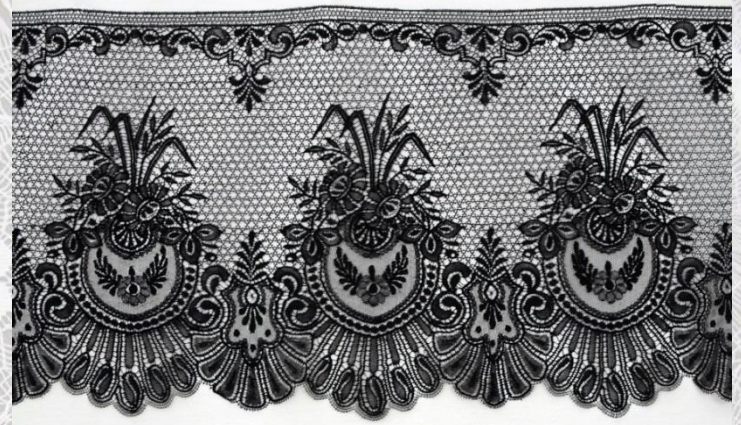
19<sup>th</sup> c Valenciennes ombré, France



19<sup>th</sup> c  
Burano  
Italy



19<sup>th</sup> c French Chantilly



19<sup>th</sup> c Le Puy Guipure



19<sup>th</sup> c Spanish  
Blonde



19<sup>th</sup> C Maltese

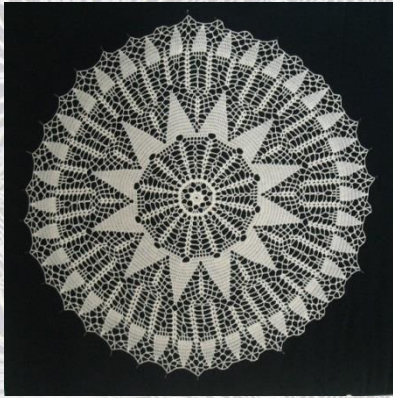




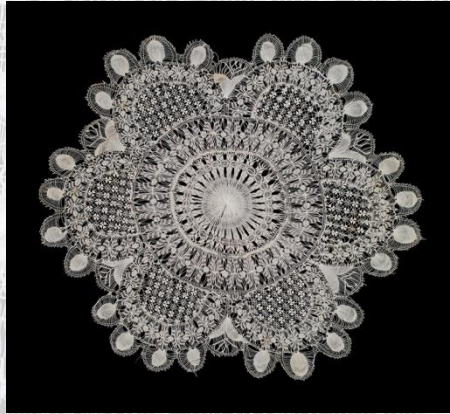
Irish Crochet



Knitting



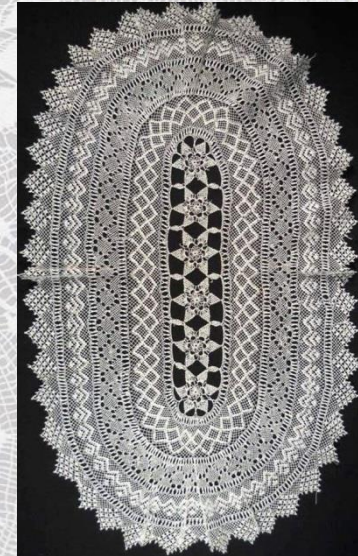
Crochet



Ñanduti



Mixed Tape

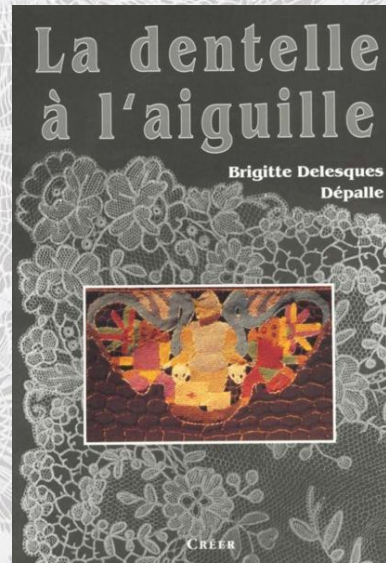
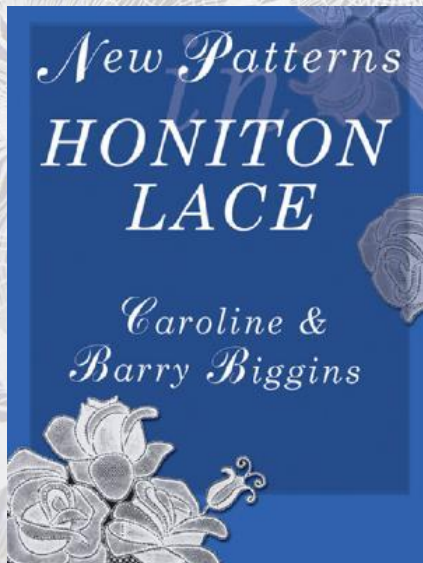
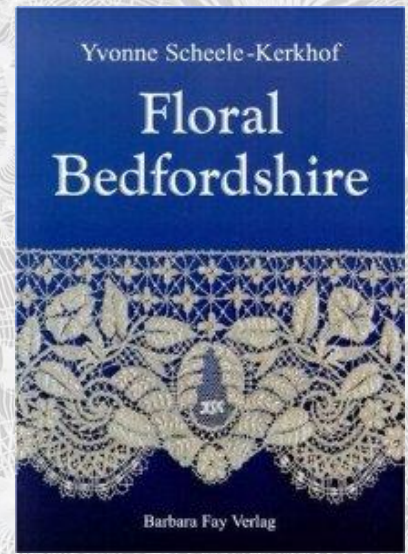
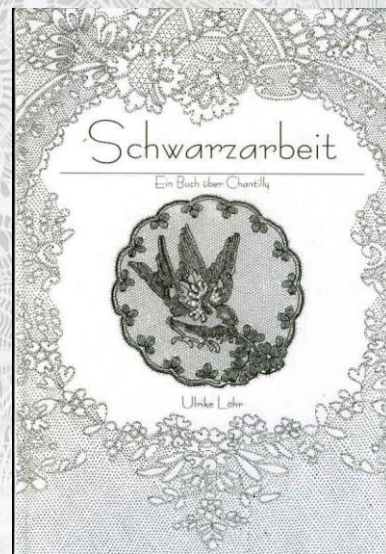
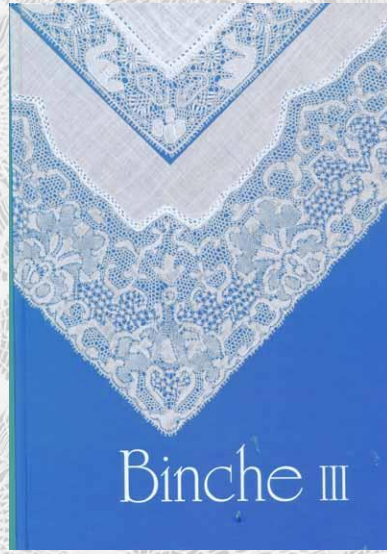
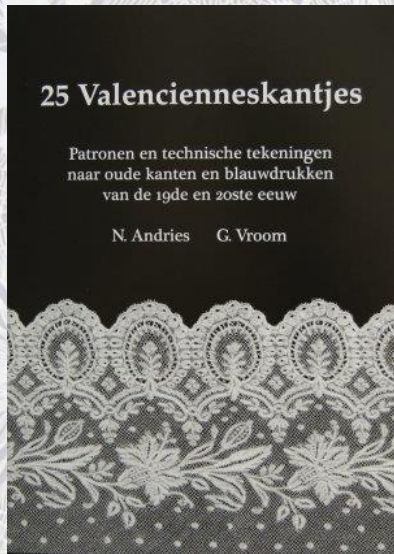


Armenian



Tatting

# Myth: Lacemaking is a Lost Art



<https://nnmml.org>

## *Northern New Mexico Museum of Lace*



[Contact](#)    **Search (in progress)**

The Northern New Mexico Museum of Lace (NNMML) is home to a private wide-ranging collection of handmade lace and associated items. Although currently a virtual resource, a permanent home is being investigated. In the meantime, research is happening, exhibitions are being held, and visitors are always welcome!

\*\*\* All images are the property of the Northern New Mexico Museum of Lace and are subject to copyright unless otherwise indicated. \*\*\*

### **Announcements**

7/2/2022 Cleaned up a lot of pending pieces below. Also finished fighting the latest forest fire (Cerro Pelado). It didn't come too close to the town, and now that it's raining, we can all unpack because we won't be evacuated!

3/10/22 Added 7 new pieces to 'New Acquisitions' below.

2/5/2022 Added 15 new pieces to 'New Acquisitions' below.

1/27/2022 The entire Belgian equipment section has been revised and updated.

# Collections

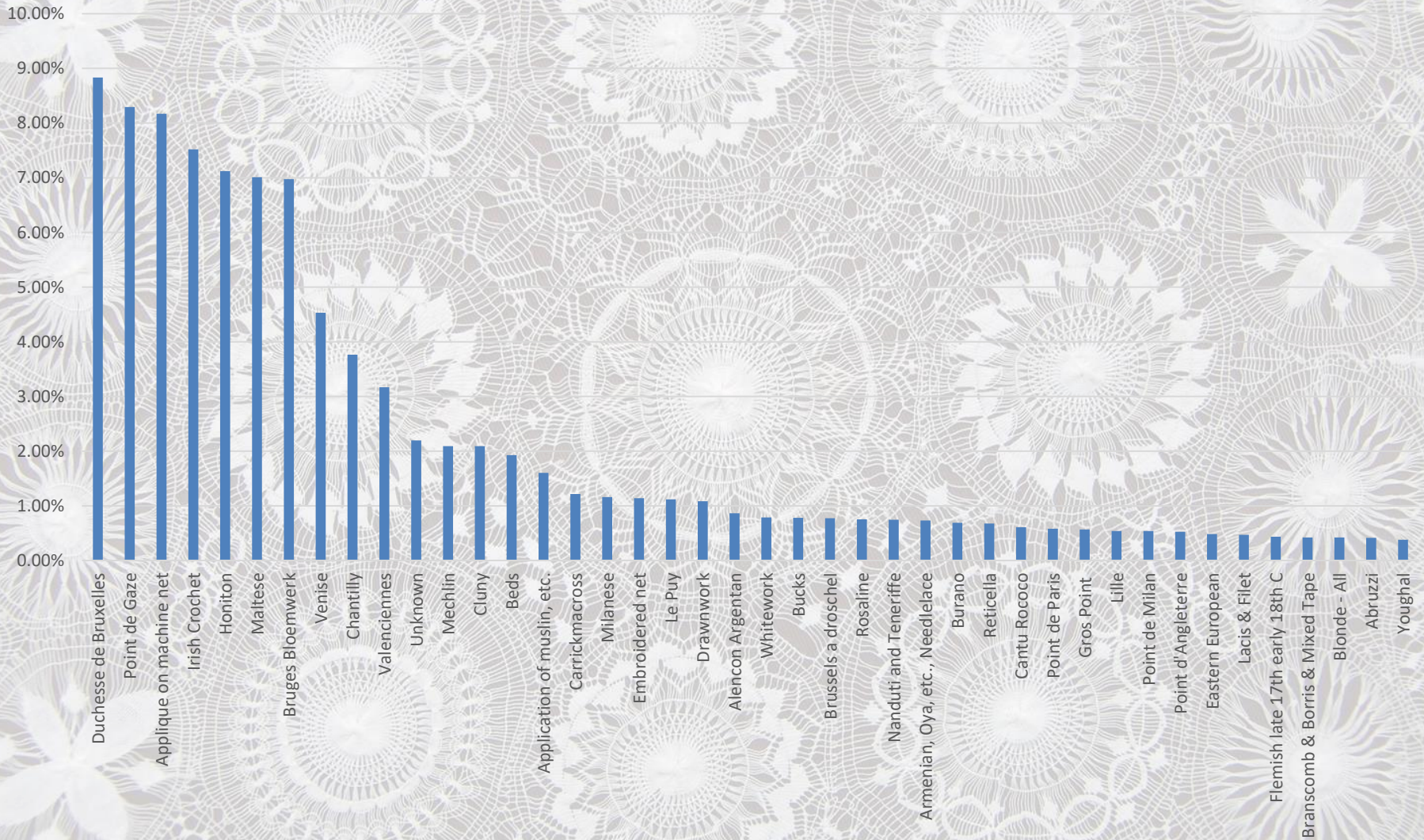
	Cataloged items (sets)	Pieces	Waiting cataloging	Total items
Lace	1280	1712	341	1621
Equipment	316	376	101	417
Numismatic	53	61	19	72
Philatelic	528	1016	176	704
Figures	121	139	75	196
Collectibles	62	70	22	84
Postcards	446	461	212	658
Photographs	17	21	19	37
Lantern Slides	36		36	36
Archives	152	224	43	195
Advertising	14	98	19	33
Paintings/Prints	16	16	29	45
Books, etc.	3154			3154

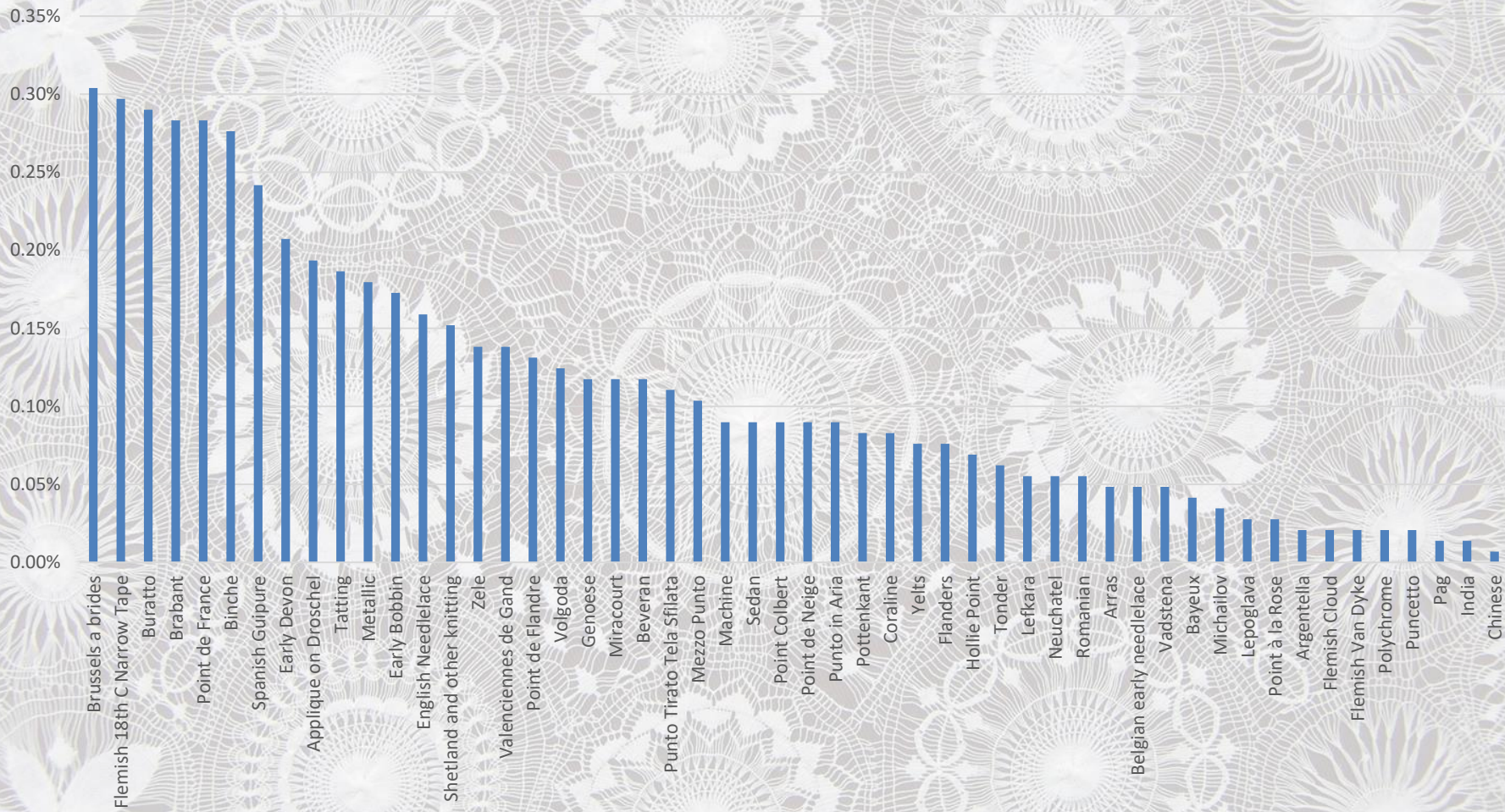
# How can we get data without a lot of expense?

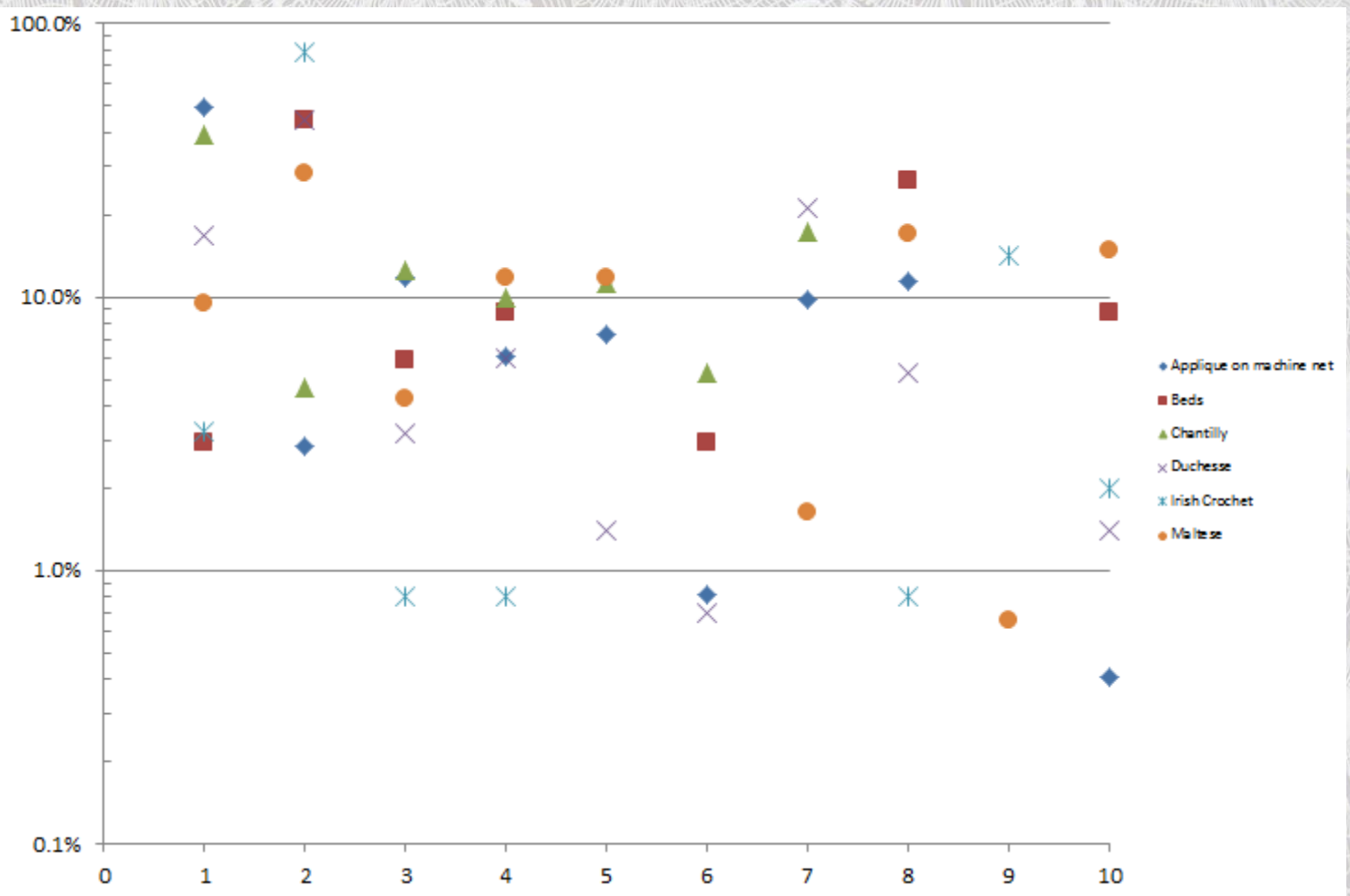
- The search for an unbiased collection of data
  - What types of lace were made in what quantities and qualities?
  - What forms were made – what factors influenced demand?
    - Very little manufacturing history survives.
- Examine pieces in museum or private collections
  - Attributions sometimes questionable
  - The collections are highly filtered
  - Cost – many now online, but others you have to visit and research
- Auctions
  - Often pieces unidentifiable due to inadequate photography or descriptions.
  - ‘Lesser’ items often bundled together
  - Ebay
    - Currently a database of just over 33,000 pieces gathered over 12 years
    - It’s all a matter of figuring out the biases



# Types of laces found on Ebay







borders

Collars & frontpieces

headpieces

scarves

shawls

parasol covers

fans

handkerchiefs

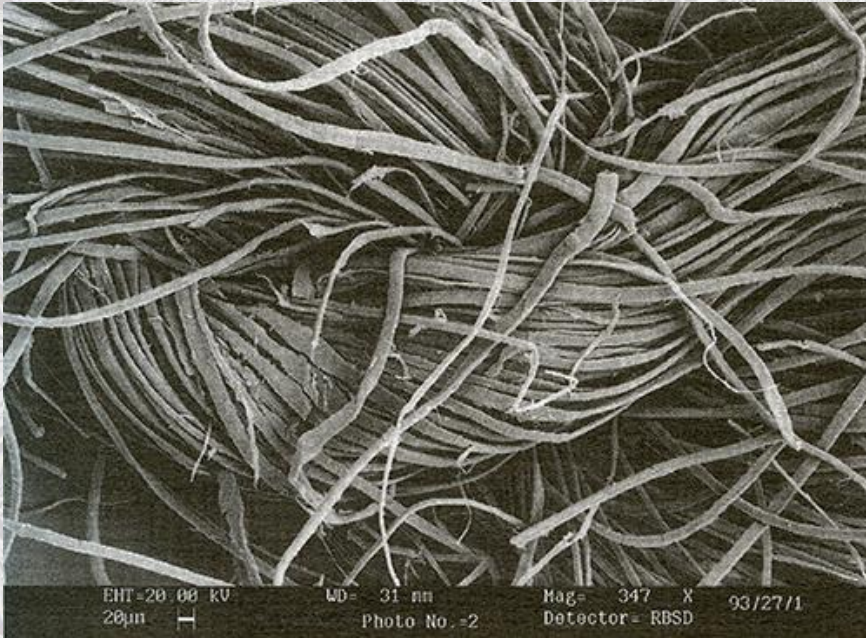
clothing

miscellaneous

# Textile Research Methodologies

- Applying tools to the challenges
  - Sociology, who made it and what did they make
    - Studying the economic impacts over a wide range – personal to national
      - Then and now
    - Study the cloistered, factory and ‘piecework’ systems
      - Folklorists find fertile ground in lacemaking traditions
    - What was made and why?
      - Data mining the digital world
  - Structure, composition, methodology
    - Thread identification, how threads are spun, weaving structure, origin color values, dyestuffs and dye sources chemical compositions of metal threads
      - Reproduction, extension to new techniques
      - Cleaning, repair, restoration and conservation
      - Storage, handling, mounting, gallery exposure
    - Dating the earliest samples
    - The super-fine linen grand challenge

# Scanning Electron Microscopy (SEM)



Linen and cotton  
SEM Photo Sue Lindsay, Australian Museum, Sydney

Myth: cotton was not used in lacemaking prior to ~1820, while earlier examples were all linen.

The Dutch East India Company ship Batavia sank off the coast of Western Australia In 1629. Fragments of a bobbinlace collar were discovered during excavations from 1972-1976.

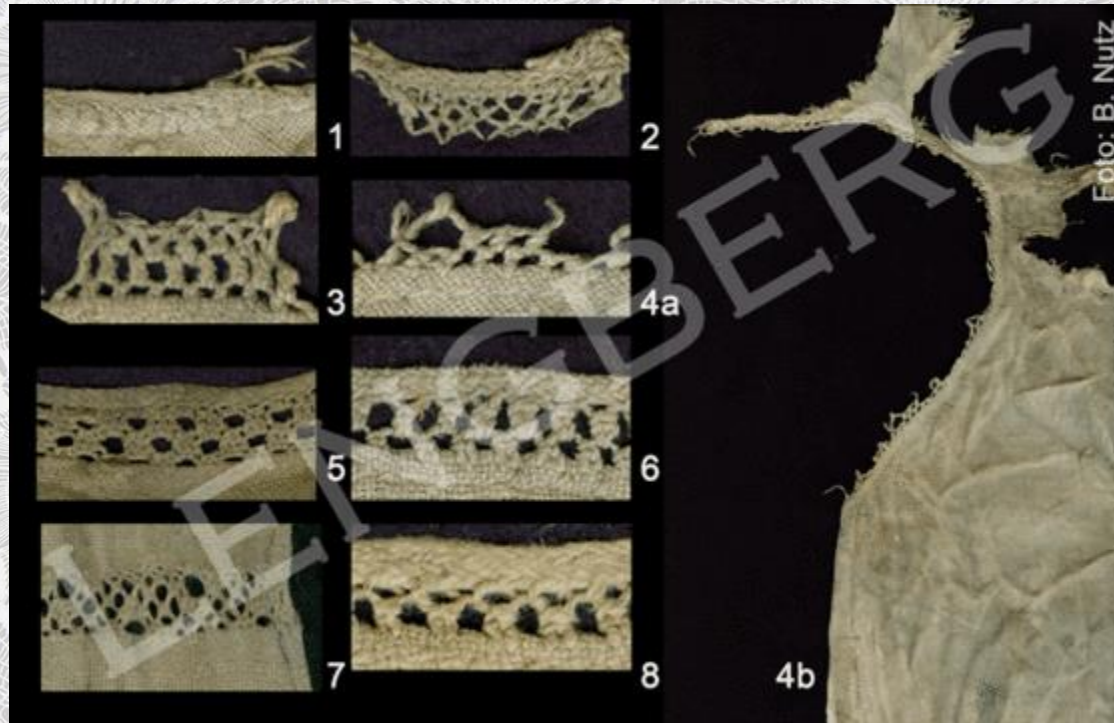
A study was done with the Batavia lace and 10 other early samples dating from 1550-1630. 9 of the 11, including the Batavia lace contained a mixture of linen and cotton.

A further study of 21 bobbin and needlelaces from the 16<sup>th</sup> & 17<sup>th</sup> centuries was done. 53 samples were taken.

- 21 samples were linen
  - 4 laces entirely cotton
  - 4 laces a blend of linen and cotton
  - 1 lace was hemp
  - 1 lace was a blend of silk and linen
  - 7 samples were too damaged to determine
  - Others mixtures

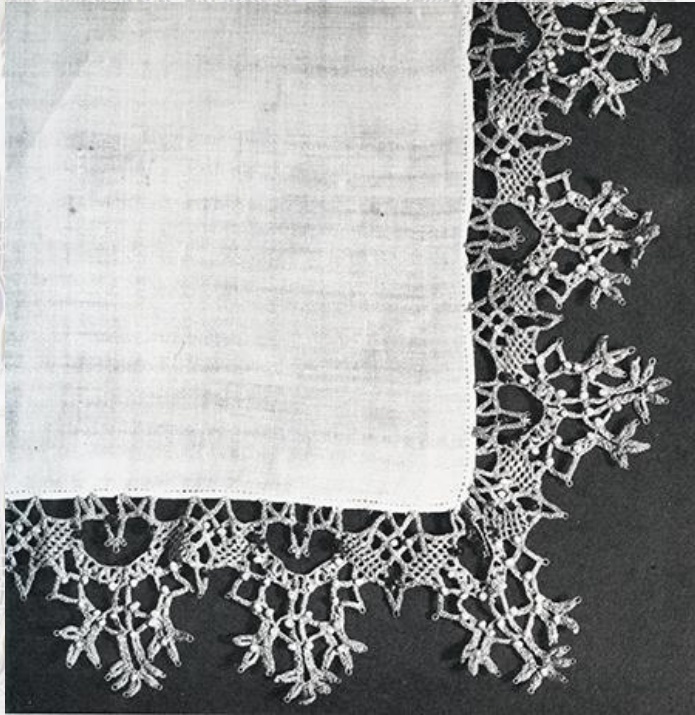
Angharad Rixon, "A Fault in the Thread? Examining Fibers taken from Laces of the Sixteenth and Seventeenth Centuries", North American Textile Conservation Conference, Philadelphia, 2002.<sup>21</sup>

## Carbon 14 dating - Example from Schloss Lengberg



In 2008 a group of textiles were found in fill material at the Schloss Lengberg, East Tyrol. Some of the fragments of linen clothes were decorated at the with what look like needlelace stitches. It was estimated that construction on the site dates from 1485, and carbon dating confirms a 15<sup>th</sup> century origin.

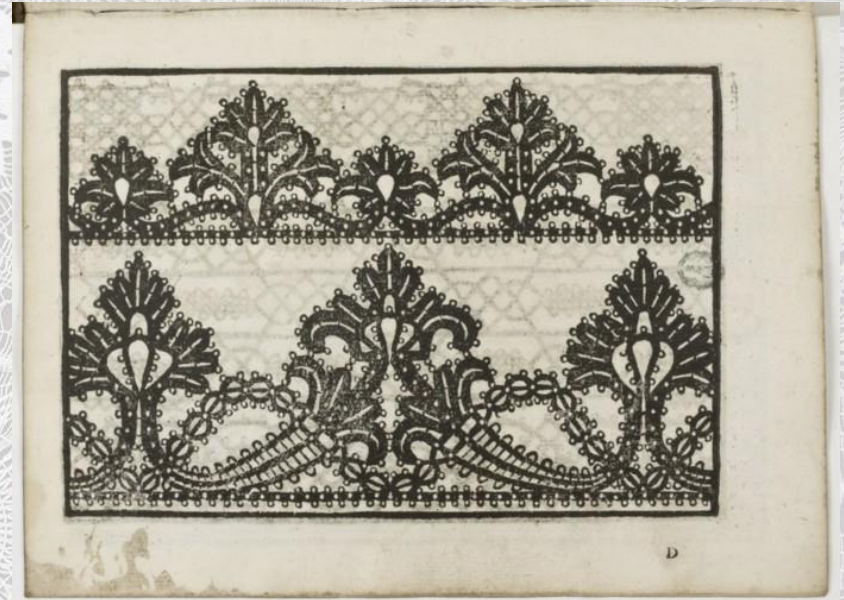
# Dating Early Laces



Monasterio de Pedraldes, Barcelona

Le Pomp  
Giovanni-Battista and Marchio Sessa for Matio  
Pagano, Volume 2, 1560, 1562 (30 plates)

50 micrograms is about the size of a postage  
stamp.



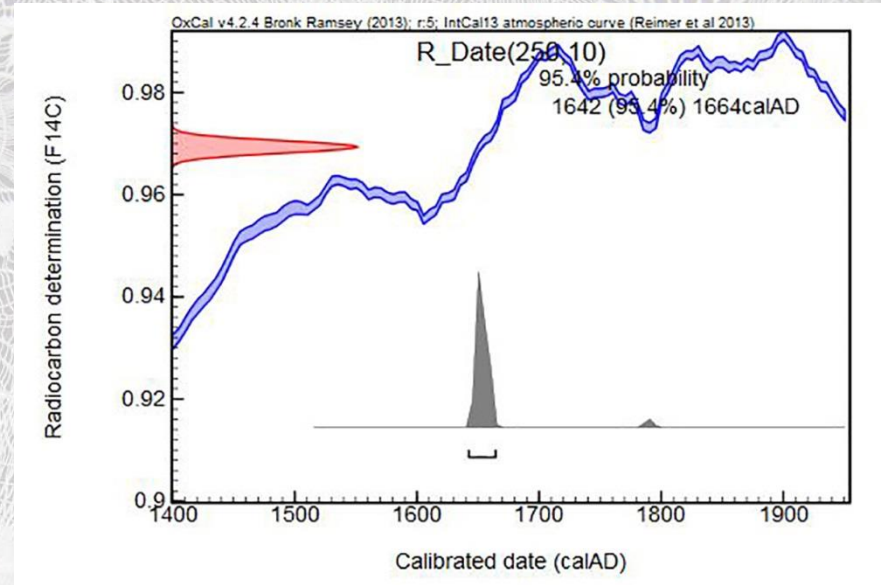
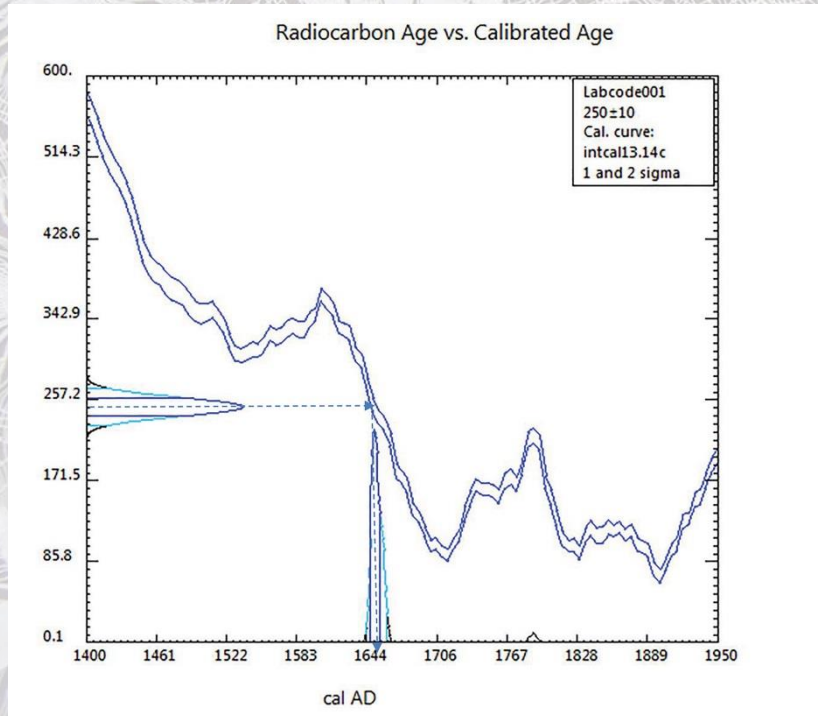
June 9, 2016





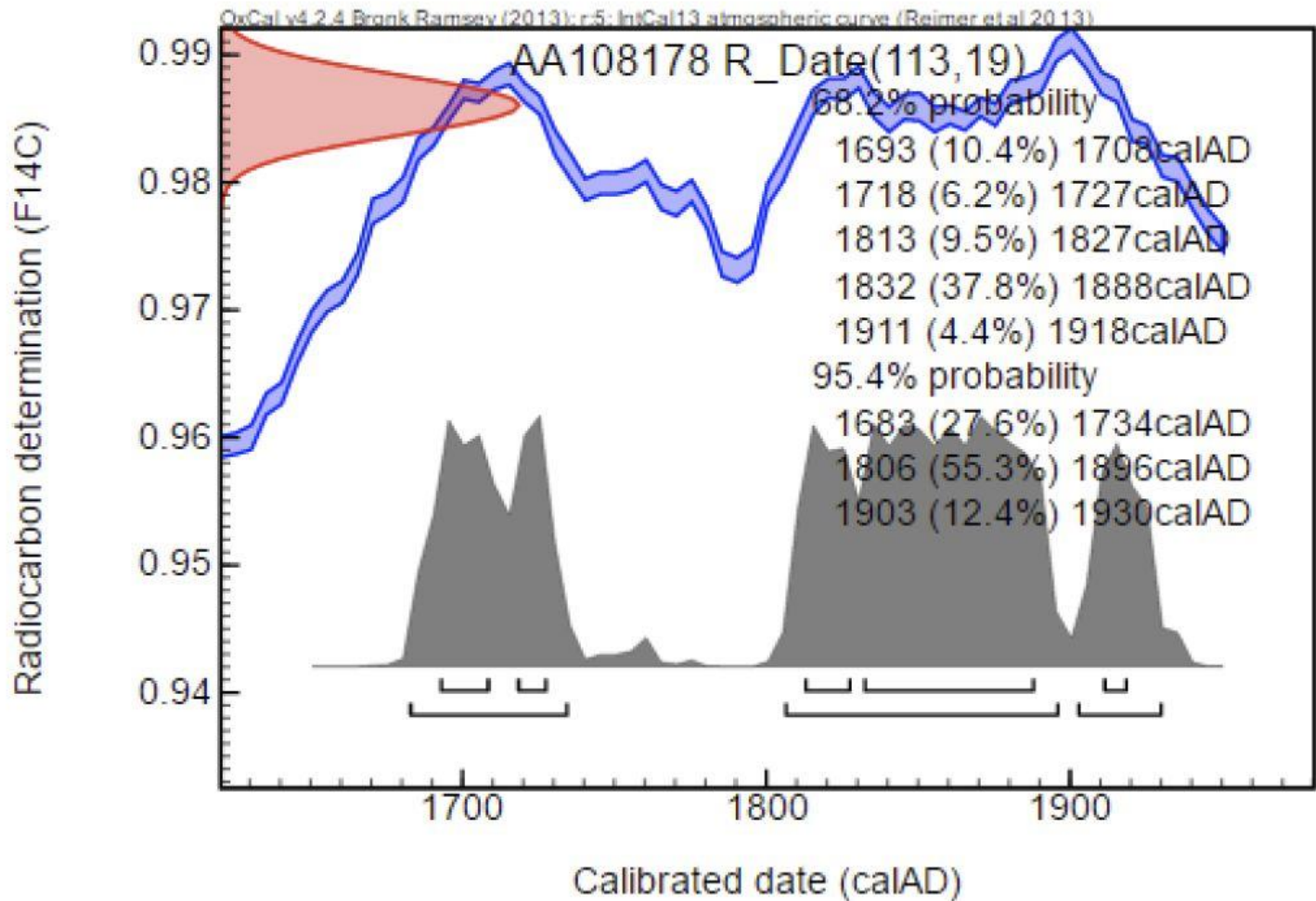
# Measurement, Calibration Curve, Result

- Carbon-14 is produced in the atmosphere
- By the interaction of a neutron on Nitrogen-14. C-14 has a half-life of  $5,730 \pm 40$  years.
- Carbon is absorbed in living tissues through
- Photosynthesis.
- Animals eat the plants and also absorb carbon.
- When the plant/animal dies, C-14 is no longer absorbed and starts to decay.

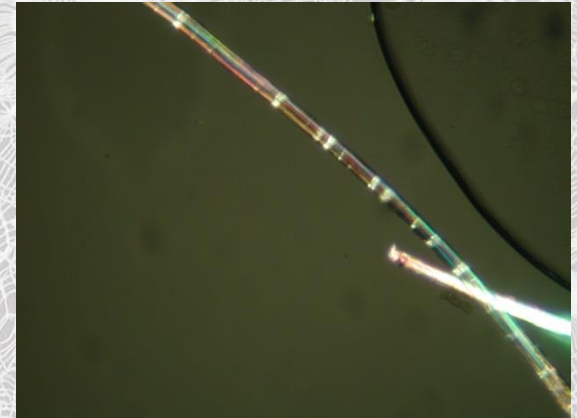
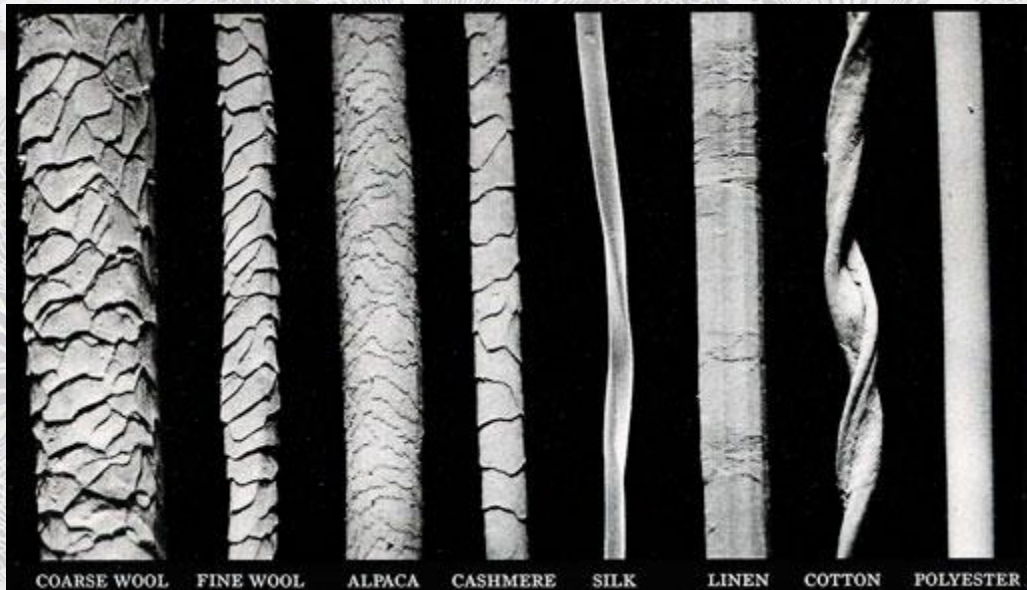


- Measuring the ratio of C-14 to C-13 (stable) can give an estimate of the age of the material.
- Catch: C-14 and C-13 are not present in the atmosphere in the same amounts from year to year.
- Therefore tree ring data is used to calibrate the measurement.

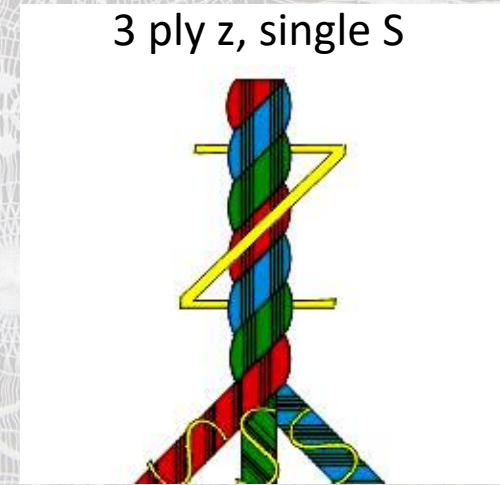
# July 7, 2016



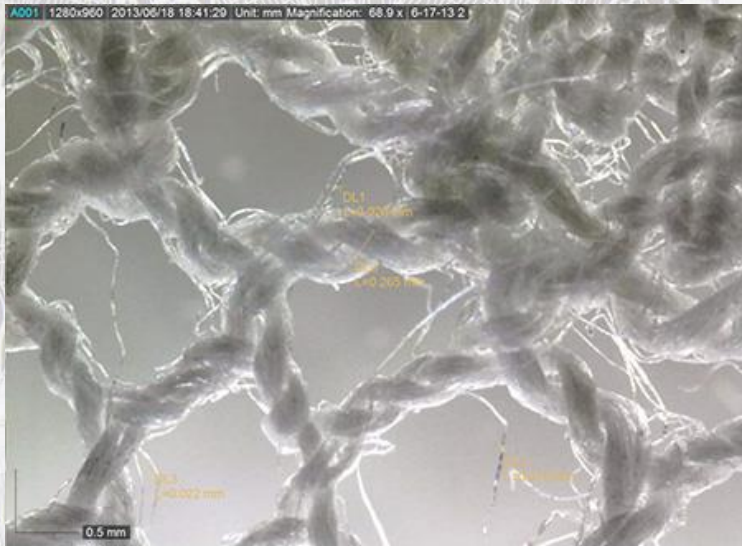
# Thread and fiber structure



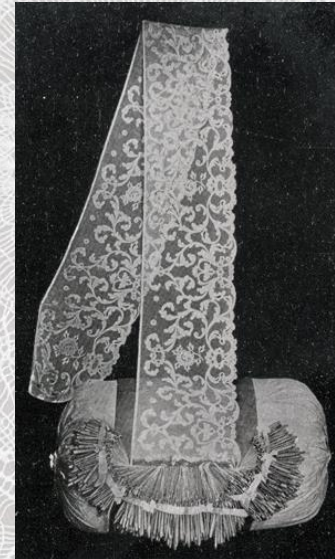
Linen 100x



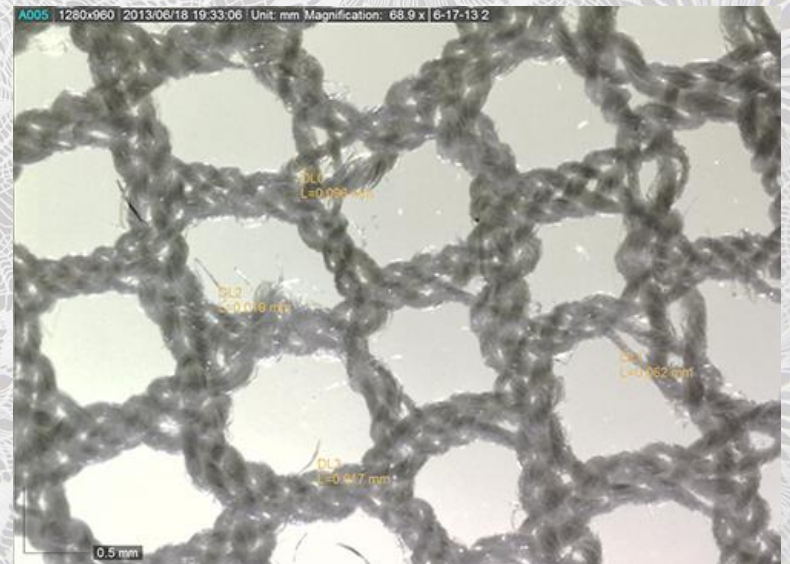
# Superfine Linen Thread



~1890



~1840



~1750

# Processing Flax (*linum usitatissimum*) to create Linen Thread

## National Flax Museum, Kortrijk, Belgium

- Growing the flax, pulling and cutting
  - 25 to 150 mm long fibers, average 12-16 microns in diameter
- Beating, rippling
- Retting – water, dew, chemical
  - Water of the River Lys well suited for retting and bleaching
- Breaking, scutching, hackling
- Spinning
- Bleaching



# Flax spinning

None but Belgian fingers are skilled in the high art of spinning the fine thread used for lace-making in the Netherlands. It is an operation demanding so high a degree of minute care and vigilant attention that it is impossible that it can ever be taken from human hands and constructed by machinery. In damp, underground cellars in Brussels the very finest sort of this thread is made. For it is so extremely delicate, that it is liable to break by contact with the dry air above ground. It is obtained in good condition only when made and kept in a humid subterranean atmosphere. Hundreds and thousands of the old Belgian threadmakers have, like spiders, passed the heyday of their lives thus spinning in damp, dark cellars. As this occupation is injurious to health they receive high wages as a set-off.

To form an accurate idea of this operation it is necessary to see a Brabant threadspinner at work. Every thread is closely watched as she draws it off the distaff. A piece of dark-blue paper is used as a background for the flax, that she may the more distinctly see it. The spinner stops the revolution of her wheel, breaks off the faulty piece of flax, whenever she notices the least unevenness, and then resumes here spinning...

\$12 to \$500 per pounds of thread. Prices as high as \$2,000 per pound were noted.

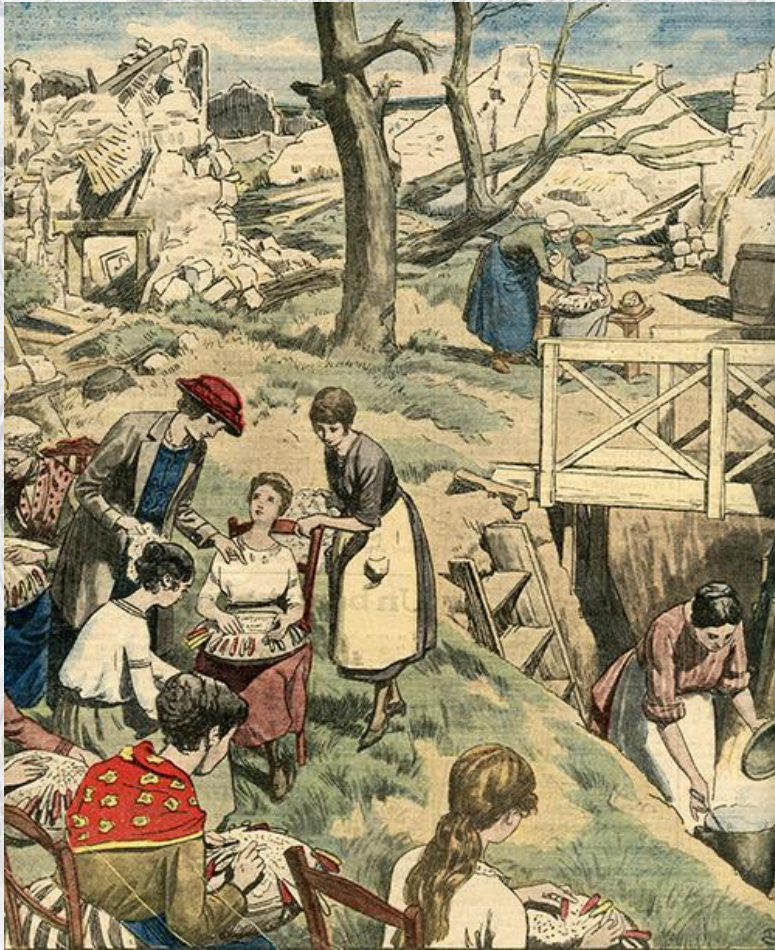
Current Literature, A Magazine of Record and Review, Vol. XVIII, July-December 1895

# Flax Genetics

Cullis, Chrisopher A., “Mechanisms and Control of Rapid Genomic Changes in Flax”, *Annals of Botany* 95: 201-206, 2005

Heritable phenotypic and genetic alterations in flax are consistently produced after undergoing environmental stress.

Hypothesized that there is an RNA cache that plants use in times of stress.



“La Résurrection de la Dentelle des Flandres”  
Le Petit Journal, Supplément Illustré, June 20, 1920

# Lace Organizations

- The International Organization of Lace, Inc. (IOLI)
  - Rocky Mountain Lace Guild <https://www.rockymtlaceguild.org>
  - Enchanted Lacemakers Guild  
<https://www.facebook.com/enchantedlacemakers/>
- Great Lakes Lace Group, Inc. <http://www.gllgi.org>
- Organisation Internationale de la Dentelle au Fuseau et à l'Aiguille (OIDFA, France)  
International Organization of Bobbin and Needle Lace <https://www.oidfa.com>
- The Lace Guild (UK) <https://laceguild.org>
- Traditional Lace Makers of Ireland <https://www.traditionallaceireland.com>  
The Guild of Irish Lacemakers <https://irishlaceguild.com>
- Kantcentrum (Bruges, Belgium) <https://www.Kantcentrum.eu/en/welcom>
- Associació Catalana de Puntaires <https://www.puntaires.com>
- Suppliers for Lacemaker Equipment and Books  
<http://www.vansciverbobbinlace.com/>  
<http://www.lacis.com/>