LACE CLASSIFICATION SYSTEM

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Powerhouse Museum, Sydney
LACE - DEFINITION AND CLASSIFICATION

Introduction

When I came to the Museum in 1983 most of the lace collection had no documentation beyond its original brief entry in the stock books. Because there had been so little work done on the lace it seemed an ideal opportunity to give serious thought to its exact nature and provide not only a definition but also a theoretical framework for its documentation in the form of a classification system. This seemed both possible and desirable given the discrete nature of the lace collection and the complex and varied techniques it encompassed. Furthermore, a theoretical framework would both simplify and clarify the documentation process.

In the museum context a classification system is essentially a tool for understanding a particular subject or collecting area. A definition of that subject is needed before decisions can be made about how to classify the objects within it.

Everyone thinks they know what lace is, but describing it unambiguously is not so easy. Those who make lace assume that any fabric produced using a lacemaking technique is automatically lace, but such techniques are used in many interesting contemporary textiles that are too dense to be called lace. On the other hand, those who are not makers invariably have a very fixed idea of lace based on its traditional forms, regardless of the way it is made.

The definition of lace as a decorative openwork fabric in which the pattern of spaces is as important as the solid areas¹ is not only appropriate for historic and traditional lace, but also takes into account current and future developments in technique and expression. It was written from the point of view of a maker of lace as well as a lace historian, with the expectation that lacemaking will continue to evolve, possibly beyond any techniques we might currently conceive of.

Technique² was chosen as the primary characteristic of lace for this classification system because the documentation was likely to be of most interest to textile practitioners, students and collectors, and technique would be their most useful starting point. Another reason for selecting technique is that some properties of lace – date, style, origin - are debatable, whereas recording what one can see of its structure and other physical properties is not. In fact, quite often it is only possible to make the other decisions after the technical notes are completed. Angharad Rixon’s recent SEM analysis of fibres in a group of seventeenth century lace was a timely reminder not to speculate or take anything for granted when modern scientific techniques might provide answers.

A further advantage of the technique-based approach is that it makes possible comparison with other textile processes, which in turn enables a better appreciation of their development. For example, the square mesh of early lacis is closely related to the

¹ One acknowledges that lace would not have reached such sophisticated perfection if the simple techniques from which it developed at the end of the fifteenth century had not been applied to fashionable dress. However, adding to the definition to reflect this would be limiting, both for collection development and for any discussion about the nature of lace.

² Technique as it is used here generally reflects both the means of production and the resulting structures. This places this lace classification system between the general textile systems of Irene Emery (The Primary Structures of Fabrics, Textile Museum, Washington 1980) and Annemarie Seiler-Baldinger (Textiles: a Classification of Techniques, Smithsonian Institution, 1994)

knotting of fishing nets, and the looping process in needle lace was, and still is, used for making carry bags and hunting nets in many different cultures.

Within each of the major technical groupings the laces are classified according to regional style, and arranged chronologically within that classification so that development of style and techniques is clearly visible. (This is a different approach from that usually employed where the whole spectrum of laces is examined across a particular period in time.) Then within that framework normal cataloguing conventions apply.

Extensive cross-referencing is possible, and a set of indexing terms is attached to each individual record, so that, for example, nineteenth century Belgian laces of all techniques can be called up for display or study.

An important characteristic of this classification system is its inclusiveness. One often reads that the only "real" laces are bobbin lace and needle lace. From the 16th to the 18th centuries, when the wearing of lace was an essential part of fashionable dress, this was probably true, in the sense that those particular laces were the most sought after and the most expensive. Today most lace historians take a more liberal view and include in the subject other openwork fabrics such as crochet, knotting and knitting, as well as certain embroideries and weavings, whether hand or machine made.

The following pages contain an illustrated outline of the classification system. The basic structure has changed little since 1983, but there have been some refinements during the intervening years.

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I. EMBROIDERED LACES

Embroidered laces are based on a woven fabric or other fabric construction. They first developed during the fifteenth century.

1. Cutwork

Holes cut in the fabric are the basis of the design; these may or may not be embellished with bars or other decoration depending on their size or the style of lace. These began in the 15th century as small areas of open relief to surface embroidery, becoming more sophisticated with the passage of time. For example, some forms of ‘reticella’*, hedebo, hardanger, richelieu, and broderie Anglaise.

* The term ‘reticella’ is nowadays reserved for those geometric needle laces that are worked on a grid of plaited or laid threads. Previously the term also included the geometric embroidered laces, which were worked on a fabric grid; these are now thought of as cutwork, even though in many instances they may look like the true reticella. A third form of ‘reticella’ - free needle lace motifs within a (larger) square grid – is more correctly termed ‘punto in aria’ or sometimes ‘geometric needle lace’. The developmental progression was probably from cutwork to reticella to punto in aria.
2. Pulled fabric and drawn thread work

1) In **pulled fabric** work the threads of the (loosely woven) base fabric are left intact, but re-arranged by working various decorative stitches tightly over groups of threads to form openwork patterns; for example, Dresden work and other muslin embroideries. Some such laces are a combination of drawn and pulled work in that some of the base fabric threads have been removed and those remaining have been decorated with pulled work stitches; for example, some pina cloth (pineapple fibre) embroideries from the Phillipines.

2) In **drawn thread** work some threads of the base fabric are removed and the remaining threads re-arranged or decorated with stitchery; for example, punto tirato, Mexican drawn work.

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3. **Embroidered nets**

1) **Embroidered handmade nets:**

   a. filet or lacis - the pattern is darned into a knotted square or diamond mesh, either within the mesh or around it.

   ![17thC lacis darned around the mesh bars](A9148-7: 17thC lacis darned around the mesh bars)

   ![20thC lacis darned within the mesh bars](A9148 8/1:17thC buratto, enlarged at left to show the woven intersections of the mesh)

   b. buratto - the pattern is darned into a woven square meshed (leno weave) fabric

   ![A9148 8/1:17thC buratto, enlarged at left to show the woven intersections of the mesh](A9148 8/1:17thC buratto, enlarged at left to show the woven intersections of the mesh)

   c. miscellaneous other embroidered hand made nets.
2) Embroidered machine made nets:

   a. needle run and/or tamboured; for example, Limerick lace.

   b. muslin appliquéd; for example, Carrickmacross applique. (Carrickmacross guipure is really a form of cutwork.)

   c. machine made braids (or motifs) hand appliquéd to machine made net: for example, "tape" Honiton, Brussels "princess". These are probably borderline inclusions in the embroidered lace section, were it not for the fact that there is often some additional embroidery of the net as part of the design and a not inconsiderable amount of other handwork is involved in the attachment of the tape motifs to the net.
II. NEEDLE-MADE LACES

Needle-made laces are made entirely free of a base fabric. They developed at the end of the sixteenth century from techniques used in the embroidered laces, particularly cutwork and drawn work.

1. Buttonholed needle laces

These are the largest single group of needle laces and include punto in aria, Venetian gros point, Venetian flat point, point de France, Alencon, Argentan, hollie point, etc.

![A9148-4: 17thC Venetian gros point](image1)

![H5111-80: 17thC Venetian flat point](image2)

![85/1046-1: 18thC French Alencon needle lace](image3)

![H6625-1: 18thC English Hollie point](image4)

![H3627: late 19thC Belgian point de gaze](image5)
Needle-made laces continued

2. Needle woven laces

That is, laces woven over a basis of stretched radiating threads; for example, Teneriffe and other "sol" laces (probably a development of the early Spanish drawn work). Some knotting of threads occurs in these laces but the designs are mostly created with a darning stitch.

3. Knotted needle laces; for example, punto a groppo, bebilla, Armenian, etc. These can be very simple, or extremely elaborate, even three-dimensional, and there is some regional variation in the structure of the knot. Because of their structure these laces were originally grouped with the Knotted Laces

4. Needle laces with mixed techniques; for example Halas (Hungarian) lace in which the solid areas of the design are needle woven, as in simple darning, and the fillings buttonholed. Other combinations are also possible.

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III. BOBBIN LACES

Bobbin lace is woven over a pattern on a firm pillow, with threads wound on bobbins. It developed at the end of the fifteenth century, probably from one of the braid-making techniques of the time.

1. Continuous or "straight" bobbin lace in which pattern and background are worked together.

1) Plaited and guipure laces; for example, the early ‘pattern book’ laces and their derivatives, Le Puy, Bedfordshire, Cluny, Maltese.
2) Bobbin laces with a mesh ground; for example, Valenciennes, Binche, Mechlin, Lille, Buckinghamshire point, torchon.
Bobbin laces continued

2. Sectional or part lace

1) Motifs are made separately and joined later, with mesh or bars; for example, Brussels and Honiton bobbin laces.

A1059: Early 20thC Brussels bobbin lace

H3753: late 19thC Honiton bobbin lace

2) Braid or trail lace is a continuous shaped bobbin tape joined back on itself as the work proceeds; for example, early Milanese, Russian braid, Idrija lace.

A9148-11: 17thC Milanese
A9148-16: late 17thC peasant braid lace
IV. MIXED LACES
From the sixteenth century many laces have been made which combine two or more techniques. These were very popular in the nineteenth century and continue today.

1. Bobbin plus needle; for example, Brussels duchesse, Brussels needle lace motifs appliqued on bobbin net, bobbin braid with needle fillings (mezzo punto).
2. **Bobbin plus machine**: bobbin motifs appliqued on machine net; for example, some 19\(^{th}\) C Honiton and Brussels laces which replaced the more costly laces with hand made net.

![Image of bobbin plus machine lace](image1)

\[H5111-67:19th\text{C} \text{Brussels bobbin appliquéd on machine net}\]

3. **Needle plus machine**

   1) Needle lace motifs on machine net; for example, some 19\(^{th}\) C Brussels needle applique.

   2) Machine woven braid motifs with needle made fillings and/or bars, known as tape or "point" lace; for example, Branscombe point.

![Image of needle plus machine lace](image2)

\[H5111-67: \text{Brussels needle appliqué on machine net} \quad 87/340/5:20th\text{C} \text{machine tape with needle fillings}\]
4. **Other mixed lace techniques** include crochet with machine braids ("antimacassar" or "Gordon" braid) and crochet braid motifs with needle lace fillings (nowadays known as Romanian lace or macramé crochet).

![Machine made braid fashioned into lace with crocheted Connecting bars - a popular and time-saving way of making lace in the late 19th and early 20th centuries.](image)
V. KNOTTED LACES

Knotted laces probably developed from various kinds of functional knotting, originally used to make carrying, hunting and fishing nets.

1. **Netted laces** are knotted from a single thread wound on a netting shuttle, the mesh regulated by gauges of varying sizes.

2. **Macramé lace** is fine hand knotting of multiple threads, chiefly using clove hitches.

3. **Tatted lace** is knotted from one or more threads, wound on and manipulated with small boat-shaped shuttles. The basic knot is similar to that of macramé.

Note: knotted needle laces are now grouped with the needle laces, because that is apparently where most people would expect to find them, despite their knotted structure.
VI. KNITTED LACES

Knitted lace is constructed from a single thread manipulated to form a looped openwork fabric – a development from functional knitting, which was probably practised as early as the 12th century.

1. Hand-knitted lace (and any other hand-knitted fabric) is made by manipulating the thread with the aid of two or more knitting needles.

2. Hand controlled machine knitted lace (‘hand flat knitting’) is individually designed for one-off production. While the fabric produced is often indistinguishable from hand-knitting, it also allows for technical innovations which are unavailable to the hand-knitter.

3. Mechanically controlled machine knitted lace is designed for mass-production, and does not necessarily involve a single thread source.
VII. CROCHETED LACES

Crocheted lace is constructed from a single thread, looped by means of a hook. It is thought to have developed early in the nineteenth century, from a denser kind of looped fabric used earlier for items of clothing.

1. Simple lace crochet

H7400: simple crochet imitating reticella, early 20thC

2. Filet crochet

86/1746-34: filet crochet border, 20thC

3. Relief or Irish crochet

H6437: early 20thC Irish crochet

4. Hairpin crochet in which strips of openwork braid are crocheted around a u-shaped gauge, and later crocheted together to make the completed item.

86/762-3: 20thC hairpin crochet border
VIII. WOVEN LACES

There are no woven laces in the Lace Study Centre and few in the collection.

1. Hand-loomed

Varied lace gauze effects, hand woven;  detail;  \(^6\)Earnshaw, p262

2. Power-loomed

A complicated lace weave, power-loomed;  detail (\(^7\)Earnshaw, p 262)
And jacquard controlled, 19thC

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\(^6\) Earnshaw, Pat, *Lace Machines and machine laces*, Batsford, 1986
\(^7\) ditto
IX. MACHINE-MADE LACES

Each category of machine-made lace is related to a particular kind of machinery.

1. **Laces with a looped construction** are made on descendants of the warp knitting frame.

Raschel knit curtain with inlay threads over a marquisette ground, and detail showing the lighter inlay threads held by each knitted pillar, and the heavier inlays held only at their extremities. (Earnshaw p. 64-5)

2. **Laces with a twist construction** are made on the Leavers and related machines.

Leavers mat made for the 1900 Paris exhibition and a detail of the structure. (Earnshaw, p.145)

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8 ditto
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3. Machine embroidered laces may be automatically embroidered and mass produced on the Schiffli and related machines, or individually designed for one-off production and embroidered on a hand-controlled machine.

Schiffli needlerun on net (Earnshaw, p247)

Early 20thC ‘chemical lace’; cotton thread embroidered on a base fabric which was later dissolved with harsh chemicals.

“Shiro kuro” man’s shirt trimmed with lace designed and embroidered in 2001 by Anne Farren on a domestic sewing machine, using a water-soluble base fabric.
X. MISCELLANEOUS CONTEMPORARY LACES

Textile processes not covered in other categories may produce fabrics with the form of lace, according to the given definition, for the decoration of dress and household furnishings.

A fabric constructed entirely from hot glue by Yogesh Purohit

Sarah Maris made this lace fabric by stitching together three layers of synthetic organza with a square grid, then burning a hole in the middle of each square, thus making ‘a pattern of spaces’