Conference Notes

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- Thank you for attending my presentation.
- My name is Gerald Livings and my presentation today will be about aiglets.
- I would like to ask you to visit my website later where you are able to download a copy of my paper as well as find additional resources about aiglets.

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- I will be covering a very small segment of my research today because of time restraints.
- What are aiglets.
- How and when aiglets were used
- Aiglet types. (With proposed additions to the system of classification)
- I will also speak about Manufacturing Aiglets and the tools and techniques needed to make them.

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- The history of aiglets in Europe extends from the medieval era as a simple utilitarian item, to the late 17th century when they became mostly a decorative item.
- Most were meant to be used on everyday clothing and are simple and plain in design while some were very fancy, and for showing a persons wealth more than being a usable item.
- There are many different types of aiglets. The metals they were made from varied, the shapes varied, attachment methods varied.

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- An aiglet placed on both ends of a cord makes what is called a "point". The modern equivalent today would be a shoelace. But from the 9th to the 16th centuries, these were used for many more things then just shoes.
- Aiglets were not always riveted. Many had the ends crimped, compressed, or had tabs that were folded into the lace. While we have no physical evidence they were sewn to cords. We have several references in the book "Lost from Her Majesties back" there are several entries that note aiglets were returned to a jeweler for repair or replacement of lost gems. This suggests that at least some aiglets were sewn to garments. I am still looking for at least two other references to collaborate this.
- Ref: (Arnold, J. (1980). "Lost from Her Majesties back": items of clothing and jewels lost or given away by Queen Elizabeth I between 1561 and 1585, entered in one of the day books kept for the records of the wardrobe of robes. [London]: Costume Society.)
- The main thing all aiglets have in common is how they were used. For most aiglets, they were made to keep cords from fraying and for ease in lacing your clothing together.
- During the 16th century and later, buttons started to become popular and aiglets became less common.

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- Right now there are three recognized types of aiglets.
- The descriptions use many different criteria to determine which classification an extant aiglet might fall into but is confusing.
- Each type of aiglet, 1, 2, and 3, have one thing in common. They all have a seam defined by the edge of the metal used to make that aiglet.
- I am proposing that we simply things by using the one criteria that is unique to each type of aiglet. How the seam is formed.

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- I would also like to propose the following additions to the system of classification for aiglets.

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- What we know of manufacturing.
- We know a little bit about how aiglets were made but most of the information I have been able to learn so far comes from mainly illustrations such as paintings and woodcuts. We do know the following.
- They were made from copper and copper alloys such as brass and bronze. Also from the jewelry metals Silver and Gold. Aiglets were decorated in many ways to include enameling and being set with gems of various sorts. When riveted, the rivets used with them were iron, copper, brass. On the few I have.
- Aiglets were made by craftsmen who specialized in these as the demand would have been very high and an efficient manufacturing process would have been needed to meet the demand for them. I suspect that aiglets made from silver and gold might have been made by jewelers but so far I have not been able to verify this. But it seems reasonable.
- Type 1 aiglets are made by folding a metal blank over a mandrel and burnishing it down.
- After they are made, they then have the cord or lace inserted and then secured in several ways including rivets, compressing the tops around the cord, sewing and bending tabs filed into the top of the aiglet into the cord.

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- Unlike type 1 aiglets that are made and then attached to a cord, type 2 and type 3 aiglets are manufactured around the cord they will be part of.
- It is likely that small pliers were used to first crimp the edge of one or both edges of the metal around the cord or lace before it was rolled making the completed aiglet.

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- In "Post-medieval sites and their pottery, Moulsham Street, Chelmsford" figure 30.73, this aiglet was noted as possibly being decorated with something akin to ridged pliers. The curator was able to locate the aiglets in the illustration but was unable to take detailed images. He was gracious enough to send them to me for examination but unfortunately, they were too fragile and most of them did not survive the trip halfway around the globe.
- Of the eight aiglets sent, (Fig. 30.65, and 30.67to 30.73) only four made the trip intact. The aiglet in Figure in 60.73, was missing entirely, probably from being lost from the damage to the package in mailing.
- But, like a phoenix rising from the ashes, information became available that would not have been apparent if the aiglets had arrived intact.
- The aiglet depicted in Figure 60.65 had cracked down its length and had several smaller pieces break off, and some were missing, during the journey from Chelmford, UK to Wisconsin, USA. When examined, the aiglet was determined to be a Type 2 aiglet where both sides of the metal is folded into the lace to securely hold it in place. Only one side of the seam made the trip. This inner part, having been protected from polishing, wear, and corrosion, clearly shows marks left by tools during the manufacturing process.
- The edge has a pattern of bends that suggest it was folded over the lace, then crimped several times along its length by a small set of needle nose pliers to tightly grip the lace before the aiglet was bent into a round shape. It is possible it may have been done with a punch but that would take longer and involve more tools.
- The aiglet from Cunningham, C. M., & Drury, P. J. (1985), figure 30.65. The top of the aiglet is on the right and the seam is at the bottom of the image. I believe the preceding image shows enough evidence to say that pliers were used during the manufacturing of type 2 and type 3 aiglets.
- Thanks to Nick Wickenden, Museums Manager, Leisure & Heritage Services, Directorate of Community Services, Chelmsford City Council. Nick.Wickenden@chelmsford.gov.uk for the loan of these aiglets. www.chelmsford.gov.uk

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- One thing that is clear is that anvils with grooves were used as well as a selection of hammers and files. Other tools that would be used are a selection of mandrels, materials for making patterns, supplies of laces and cords and the cutting tools for cutting them.

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- The most basic tools would be a way to cut out the blanks, a way to form them into aiglets and a way to attach them to cords. A mandrel for each size of aiglet, shears, bezel roller, the bronze burnishing tool for type 1 aiglets, a flat ended punch for making holes, Brass hammer, riveting hammer, and a square punches, anvils with grooves, materials for making patterns, supplies of laces and cords and the cutting tools for cutting them.
- Type 4,5 and 6 aiglets vary so it is hard to define a specific tool set.

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- As early as 1422, guild regulations show that women were making aiglets as well as men. I have yet to be able to find other references to women working in the metalworking or jewelry fields during the medieval and post medieval era.
- (REF: The Medieval era is approximately from AD 600, the fall of the Roman Empire, to 1485. The post medieval era is 1485, the establishment of the Tudor Dynasty, to 1750, the start of the industrial Revolution. The Modern era is from 1750 and later.)
- The following entry from regulations of guilds in Paris in the 15th century show that woman can and did work making aiglets.
- 1422, 7 février. — Arrêt du Parlement permettant aux veuves de faiseurs d'aiguillettes, remariées à un homme d'autre métier, de continuer le métier de son premier mari. (Coll. Lamoignon, t. IV, fol. 179; mention d'après le 2e livre des Métiers.
- (Translation: 1422, February 7. - Judgment of the Parliament allowing for widows of doers of aiguillette, remarried to a man of another profession, to continue the business of her first husband. (Coll. Lamoignon, t. IV, fol. 179; Reference to after the 2e book of the trades.)
- Lespinasse, R. . (1892). Les metiers et corporations de la ville de Paris: 2 = 20,2. Paris: Impr. Nationale. Translation is by the G. A. Livings.

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- The discussion of what skills and tools were used to manufacture aiglets needs to start with what images that can be found. A bench jeweler is in the unique position to look at different paintings, engravings, illustrations, and images to determine which are accurate portrayals of tools and processes, and which are composed simply for esthetic value.
- Having knowledge of modern jewelry manufacturing processes and being knowledgeable of historical manufacturing techniques, and by experimentation using only the tools and methods of manufacturing that would have been available in the 16th century will provide an accurate idea of what could have been done.
- Being able to examine a small item such as a piece of jewelry or an aiglet, and being able to interrupt the marks left by tools during the manufacturing process is very important. Marks and impressions left by the manufacturing process hint at the tools and techniques used.
- Being able to look at the archeological record and identify the tools used in the manufacturing of an item is helpful but it does not completely inform us about the processes used in the manufacturing of that item. This is where experimental archeology becomes a useful tool.
- However, we must consider two important points from experimental archeology.
- First, modern anachronisms diminish the legitimacy of the experimental process.
- Second, fully authentic equipment and materials are hard, if not impossible to document further reducing the weight and substance of any arguments for a particular process.
- By carrying out repeated experiments, we address the above points.
- Each time we experiment, we can narrow down the possible processes that might have been used. Each time, with each refinement in the process, we learn what works and what does not. Each time we raise new questions while we answer others. Eventually, by repeating this experimental process we will reach a point where more questions are answered then raised. It is this experimental archeology that will lead to the statistically probable manufacturing processes we are looking to rediscover.

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- Aiglets: A small item, they were something that pretty much everyone owned. Then and now…
- Tools: The tools to make aiglets are very similar to those used by jewelers of the past and today.
- Techniques for making aiglets vary a slight bit but are fairly uniform due to them being similar in use. Function drives form.

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- Here is the link to be able to download more information from my website. I have cards with the link and my contact information if you would like one.
- Thank you for attending and learning more about Techniques for Manufacturing Aiglets in Sixteenth-Century England.