

## **Egyptian Reed Pen**

by Beak Bell of Dumfries (aka Amanda Eckard)

I wanted to learn how to use a reed pen from Ancient Egypt from around the time that Queen Hatshepsut ruled between 1503-1482 BCE. The following shows why I chose it, who would have used it and the process I used to make one. I researched about the pens, the ink and the writing surfaces to complete this project in order to put the pens in context.

I chose Ancient Egypt because I have always loved its history, the way the people thought, and how they interacted with their world. To think that their civilization lasted around 3000 years is astonishing. They always seemed to go back to what they knew when times got rough to rebuild and be stronger. The time frame I chose was that of Queen Hatshepsut. In her book *the Queen Who Would Be King*, Kara Cooney (2014) she researched the life of Queen Hatshepsut who ruled as regent for many years bringing great prosperity to the country and eventually as Pharaoh at a time when women did not rule directly. As a scribe in modern times, it made sense for me to look into aspects of scribes of this time period to see what I could learn.

### **Who Would Use Reed/Rush Pens?**

My research started by knowing more about who would be using these pens. None of the texts I read mention what the Egyptian name for scribe was. However in the *Handbook to Life in Ancient Egypt* by Rosalie David (2003) she says the word would mean “he who writes (p. 247)”. Sometime after the age of four boys were taught to write. They became scribes because their fathers were scribes. To be a scribe was a position of prestige and put them above the status of trade workers in the social hierarchy because they were considered educated. Scribes were generally exempt from manual and agricultural labor as well as taxes (David, 2003). Because of

their ability to read and write they were likely supervisors which gives them positions of great power and control over those below them in status.

The purpose of writing in Ancient Egypt was recording information. Scribes were the historians and administrators of the society. A scribe would either become a priest, a supervisor, an accountant, or a physician because their beginning training was the same (Bibliotheca Alexandrina Antiques Museum, 2017). Each one of these positions first required an excellent knowledge of cursive hieratic or later Demotic writing before they find their place in society. It seems that not all scribes could read or write hieroglyphs, as they were used for the sacred texts and they were only known by priests (Bibliotheca Alexandrina Antiques Museum, 2017).

### **The Pen**

The Brooklyn Museum (Danzing, 2010) shows two styles of reed pens. This rush style was used all the way through the New Kingdom from around 1567 to 1085 BCE, about 500 years.



Scribe's Palette with 4 Reeds in a pen holder, #37.450E, Brooklyn Museum, 2017.

A reed pen with a sharpened tip such as might be seen today in an art supply store (see the picture below) was starting to be used during the later Roman period during the 1<sup>st</sup> century BCE. This is not the style I researched because they were not used until the later part of Ancient Egyptian history.



Wooden Board with Five Scribe's Pens attached and Bound Together with a Small Piece of Linen, Roman Period #37.451E, Brooklyn Museum, 2017.

The examples I found in various museums either describe the pens as being made of reed or rush. Many times they are even described as organic in nature but most of the conservators did not know what exactly they were made of. The samples found in The Metropolitan Museum of Art (2017) are between 6 ½ and 7 1/16 inches long. They are long, slender and with what looks like a rounded tip.



Palette inscribed for Smendes, High Priest of Amun found in The Met Museum, 2017.

According to the research at the Louvre (2017), the plant used for pens is *Juncus Maritimus*. This plant is a type of sea rush that grows on coastlines in various areas including Africa (Encyclopedia of Life, 2017). Information suggests they used this particular rush for fine work and palm ribs or fibrous wood for less fine work (The Louvre, 2017). This has been the only reference to a specific plant I found thus far.



The information I gathered on how the pens were made described the process as either flattening (The Louvre, 2017) or bruising the end (Bibliotheca Alexandrina Antiques Museum, 2017). David describes the early pens as “thin reeds with frayed tips (2003, p. 247)”. My goal is to make each of my pens with a slightly different technique to see which version seems to work the best. I could not get the exact reed/rush as they do not grow in the Pacific Northwest so the best material that seemed to work were bamboo skewers. This material seemed similar in that it is a type of reed and I thought it would fit some of the size requirements. It also gave me the option of working with a pointed tip and a blunt tip.

Before talking about the experience, I want to mention some of the other materials I used. I wanted to utilize a period writing surface and period ink. For this experiment I bought sheets of papyrus from a company that sold them imported from modern Egypt. While the exact way papyrus was made at the time I am researching is still an uncertainty (Parkinson & Quirke, 1995) it seemed appropriate to buy a modern version from its place of origin. I also want to mention the other types of writing surfaces could be used such as ostraca (broken pieces of pottery), plain wooden boards and boards prepared with a gesso or a type of plaster, fabric and/or limestone fragments (The Louvre, 2017).

Ink is also an important component of writing with reed/rush pens. The Royal Society of Chemistry (2017) published a paper discussing the types of inks that were used for painting and writing in Ancient Egypt. The most common colors for writing are black and red. Black ink is usually composed of carbon and red ink which could be made of haematite, a natural type of iron oxide (Parkinson & Quirke, 1995) or from red ochre an earth which contains iron oxides as mentioned by The Royal Society of Chemistry (2017) and The Louvre (2017). Each material is mixed with some sort of vegetable gum as a binder and made into cakes (The Royal Society of Chemistry, 2017). The Louvre (2017) says the gum could be from the acacia tree. I made my own ink from soot collected from a wood stove; I ground it with a mortar and pestle, and then mixed in gum Arabic and let to dry. The reed/rush pens were dipped into the water and then into the ink to write on the surface.

## The Experiment

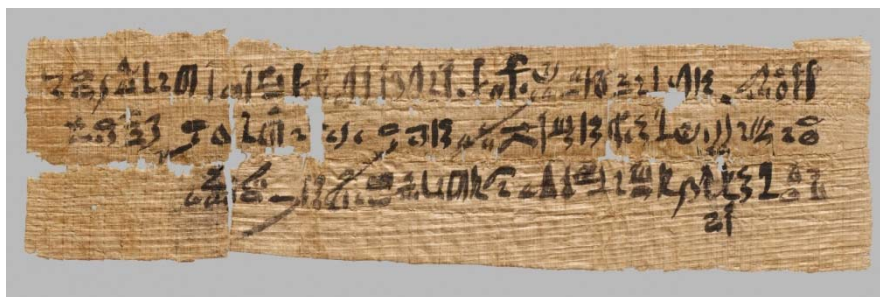
### Pre-Experiment

My first try involved fraying the end by using a small hammer. This separated the fibers of both pens: one with the blunt tip and the other with the pointed tip. The example to the right was a first attempt with them. The top sample is writing with the frayed, pointed tip the full size of the reed. The second is the blunt end of the tip. It should be mentioned that both of these reeds were dry before being put into the ink. It is easy to see the spread of the ink is patchy and looks more like a scratch on the paper. My husband, being a



woodworker, asked why I did not wet the wood first before using them. [That is why I used the bottom example with a frayed, blunt ended tip.] I soaked it in some water before using it with the ink. With his help I realized that having water on the pen before using the ink made the difference with the spread of the ink. This first experiment gave me a chance to be able to see how the ink works and that there is a need for the pen to be a little wet to encourage the ink to spread better. I also discovered later in the writings of The Louvre (2017) that the scribe would dip the pen in water and then onto the dry cake of ink to put ink on the pen. The above example was used by wetting the ink down first like using gauche. The following examples will be done wetting the tip of the pen first and then rubbing it on the ink. This did seem to make a difference in how the ink was applied to the pen and then to the paper.

I also chose to utilize a sample of Ancient Egyptian writing to do these examples. A small sample of papyrus was found at the Metropolitan Museum of Art (2017) which was made during the time of Hatshepsut and written in hieratic. The letter was apparently written by a man named Tet to his lord Djehuti saying he should correct a situation he made insulting a high priest of Heliopolis. I also used this as an example of how ancient scribes wrote with the pens. The script was written from right to left. The language in Ancient Egypt could be written left to right, right to left, or top to bottom. The most common being right to left unless there was a specific reason to do otherwise (Parkinson & Quirke, 1995).



Letter written in hieratic script on papyrus, The Met Museum, 2017. (above)

### Experiment #1

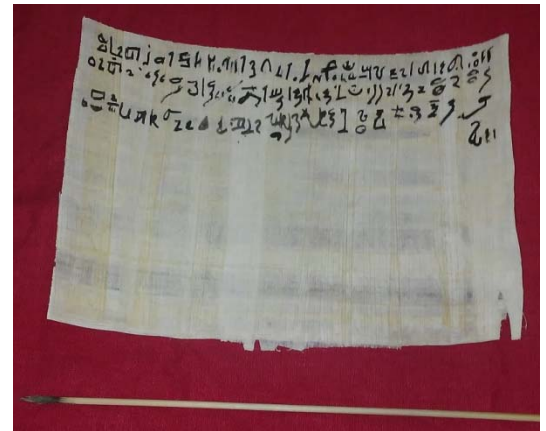
Here I wrote with the large, frayed, pointed tip pen. There was less control of the pen on the surface of the papyrus. The pieces of reed went in different directions and made it difficult to get a solid line. The lines were thick when it did work. The water spread was unpredictable and definition was lost. It was very frustrating to use and I quit before finishing the sample



text. This does not seem like a very viable pen at this size. The question after I used this pen was whether it would work better if the reed was smaller in diameter.

### Experiment #2

This pen was also a frayed, pointed tip, but the tip was sliced in half so that the tip itself would be smaller. This allowed for better distribution of the ink, gave an actual tip allowing for definition of the script and even allowed for getting the script the proper size based on the sample. I was able to get more symbols written before needing to re-ink the

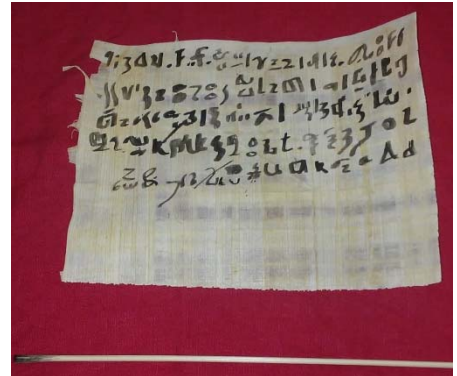


pen than in some of the later experiments. This pen was useable but there was a problem with it. There was some limitation to direction the pen could be moved. When using the pen against the papyrus fibers the tip would catch. This meant I had to move the pen in a fashion like a

calligraphy pen. I do think the writing seems pretty good in regards to the ability to see the lines and the flow of the ink.

### Experiment #3

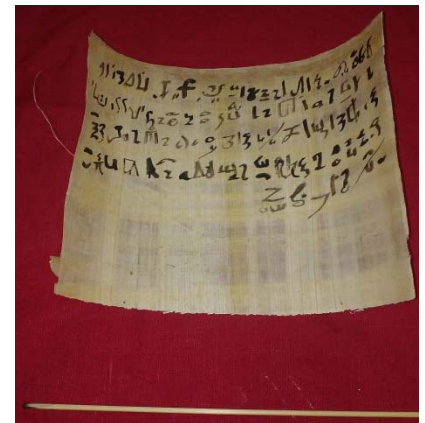
In this experiment I used the frayed, blunt tip. Using the hammer to fray the tip made it look more brush-like. It provided a much bigger brush which held the ink well enough, but provided some difficulty in writing. There were times when the pieces of the pen would get caught on the ridged part of the papyrus causing small splotches. The tip was also much broader



than was practical. It required using much more room of the papyrus and while usable did not match the size or style of the period sample. Definition was also very difficult making areas fill in with ink. This pen did not work very well.

### Experiment #4

In this experiment I explored the pen using a flattened tip. For this I used the blunt end of the skewer and flattened it between a hammer and a miniature anvil. I did it this way only because it was available, as the tip could just be pushed between two hardened surfaces to be made flatter. I compressed the tip to the point before the wood broke. The purpose was to have a flattened edge but not to fray it in any way. This pen worked pretty well. It held the ink well enough and it provided the ability to go in multiple directions. The only problem with this one was that the reed was wider

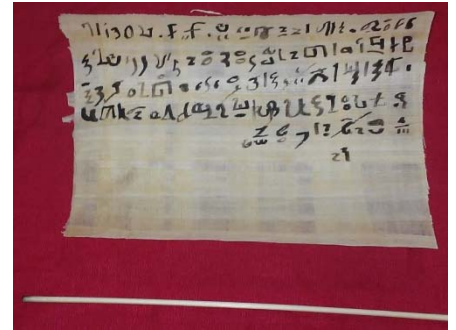




making the letters larger than the sample. I also had some difficulty with getting too much ink on the tip at times.

### Experiment #5

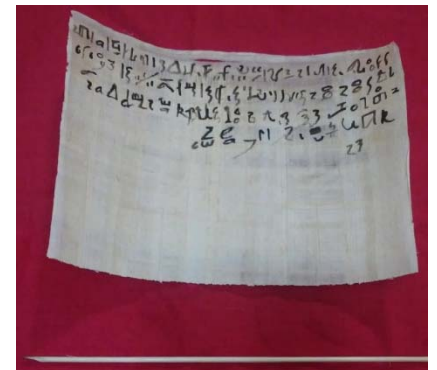
I flattened this blunt pen tip also but first I sucked on the reed and pressed it between my teeth. I decided to try this because my teeth are a readily available tool and the moisture of the saliva could help with forming the reed. At first it did not seem like this was going to work as well as the one flattened by the hammer. It



was a bit ribbed from my teeth and seemed much less uniform. However, this pen allowed for a better definition and slid across the paper in different directions very well. It was smooth and easy to handle. While it is still hard to get the script size the same as the sample, I can see how the strokes might have worked and could gain better control of the pen.

### Experiment #6

The last experiment I did was with a carved tip similar to what was used in medieval times or even to the tip used with actual reed pens later in Roman times. It was suggested by Randal fitz Alan the Redowtable and I was curious to see how well it would work with the reed/rush pen. I thought this might work better than



some of the other styles but there were other challenges. The biggest seemed to be the amount of ink that the pen was able to use. There are no reservoirs at all, but the pens do keep a certain amount of ink on the tip. This pen had to be dipped much more frequently (about every two words instead of every four or five words) and the quality of the strokes seemed weaker than the

others. I found it frustrating to see that more could be done with this pen, but the strength of the strokes was not as good.

### **Conclusion**

This project allowed me to take an area of interest, in a time period I find fascinating and to do some hands on experimentation. The vagueness of the information can be a bit frustrating, but it was enough to try making my own reed/rush pen. This is what I learned from it. First, I learned about the importance of water. The pen needs to be wet before using it. This helps with the delivery of the ink. Using the pen to wet the cake of ink is part of the motion of the writing.

The next thing is the tip. The samples all look as though the tips are a little rounded but none of them look frayed. If they were, it would seem that either that portion of all of the examples degraded in some way or maybe they were not frayed at all. This does not mean a frayed tip does not work. Having a reed/rush of the Egyptian plant may make a difference and not be quite as stiff. The pens that worked the best on the page were the smaller flattened tip that was chewed and the small frayed tip. This could mean that the examples used were a bit bigger than traditional pens. Of these two the flattened tip did not stick to the texture of the papyrus like the frayed tip wanted to do. It had great range of motion and was smoother on the papyrus.

The last thing I learned was that in doing the experiments and executing them in a way which was appropriate for the culture and script helped to determine what type of pen worked best. In the period sample I could see how some of the strokes were made, which helped me to determine how I might write the script. The frayed tips limited some of the directions which I could use the pens. While I was able to make the font a better size with the smaller frayed tip, it does not seem likely that it would work for an actual scribe who knew how to properly write the

script. The flattened, chewed tip is the one I would pick. The tip is smaller and the fibers are closer allowing the tip to hold the ink and distribute it in a more even fashion. This is the pen which I feel works best from these experiments.

In the future I would like to see if there is any more information I can find on scribes and their writing. I would like to see if the *juncus maritimus* can be acquired so that I might see how it works in comparison with the pens I made here. I want to know more about the diameter of other pens in period to see if this has a factor in how the pens work. I found evidence of this when I was doing these experiments already.

I will continue researching Ancient Egypt and the role and tools of the scribe. I have already started finding out what I can about their pallets, the inks they used, and how to create my own papyrus. My goal is to someday create my own manuscript in an Ancient Egyptian format and having my own scribal kit.

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