

Supporting Documentation for

# **52 WOOD WEAVING TABLETS**

original artifacts recovered from

## **The Oseberg Ship Burial, Norway - 834 AD**

prepared for:

Kingdom of AnTir Arts & Sciences Competition

prepared by:

Terri A. Morrison

(aka Bronwen Elgars)

### **Description:**

This competition entry is a set of 52 small weaving tablets. Made of Eastern "Hard Rock" Maple, they are thinly cut squares approximately 4.3 cm (1 5/8") to the side. Every tablet sports four holes, one cut through at each corner. Fine yarns are threaded through these holes and, when taken all together, form a small warp. The textiles created by weaving upon this tablet-carried warp are thin and often decorative bands, their width being defined by the number of tablets in the pack and the weight of the threads.

### **Summary:**

This paper is comprised of descriptive information about the Oseberg tablets, inclusive of; date and place of interment, technical specifications and dimensions and the material used in fabrication. It also contains details pertaining to Viking era construction techniques and the departures taken during this re-creation. Included are; photocopies of the photograph taken at excavation, personal letters, and technical drawings prepared by the artist to assist in this re-creation.

## Description:

These 52 wood tablets were created by this artist to use in her practice of the ancient art of tablet weaving or - as it is sometimes termed - "card" weaving. They are an attempt to re-create those weaving tablets recovered from the Viking era ship grave at Oseberg, Norway. Norwegian Archaeologist, Dr. Arne Emil Christensen, renowned specialist in shipbuilding history and craftsmanship in the Iron Age and the Viking Period, Professor and Chief Curator at the University Museum of National Antiquities in Oslo, specifies the burial age:

"The graves at Oseberg, Gokstad and Tune have recently been dated by analysis of the annual rings in the oak material. The Oseberg ship was built around 815 - 820 AD. The burial has been dated to an exact year - it was 834." <sup>1</sup>

Excavation of the Oseberg gravesite began in 1904 and the proceedings of the dig were recorded in the multi-volume archeological record *Osebergfundet* (The Oseberg Find). The narrative regarding the weaving tablets reads:

"An apparatus for card-weaving was found between the stones that filled the carriage (fig. 57, p. 75). It is provided with a complete set of 52 small square cards of wood, all of them with holes in the corners through which the threads are passed for weaving the ribbons and edge-bands." <sup>2</sup>



Fig. 57. Bretvæven med baandet oppe i seng no. 3, hvis pindeverk delvis sees mellem steuene.

### Figure 57 - page 75 from "Osebergfundet" <sup>3</sup>

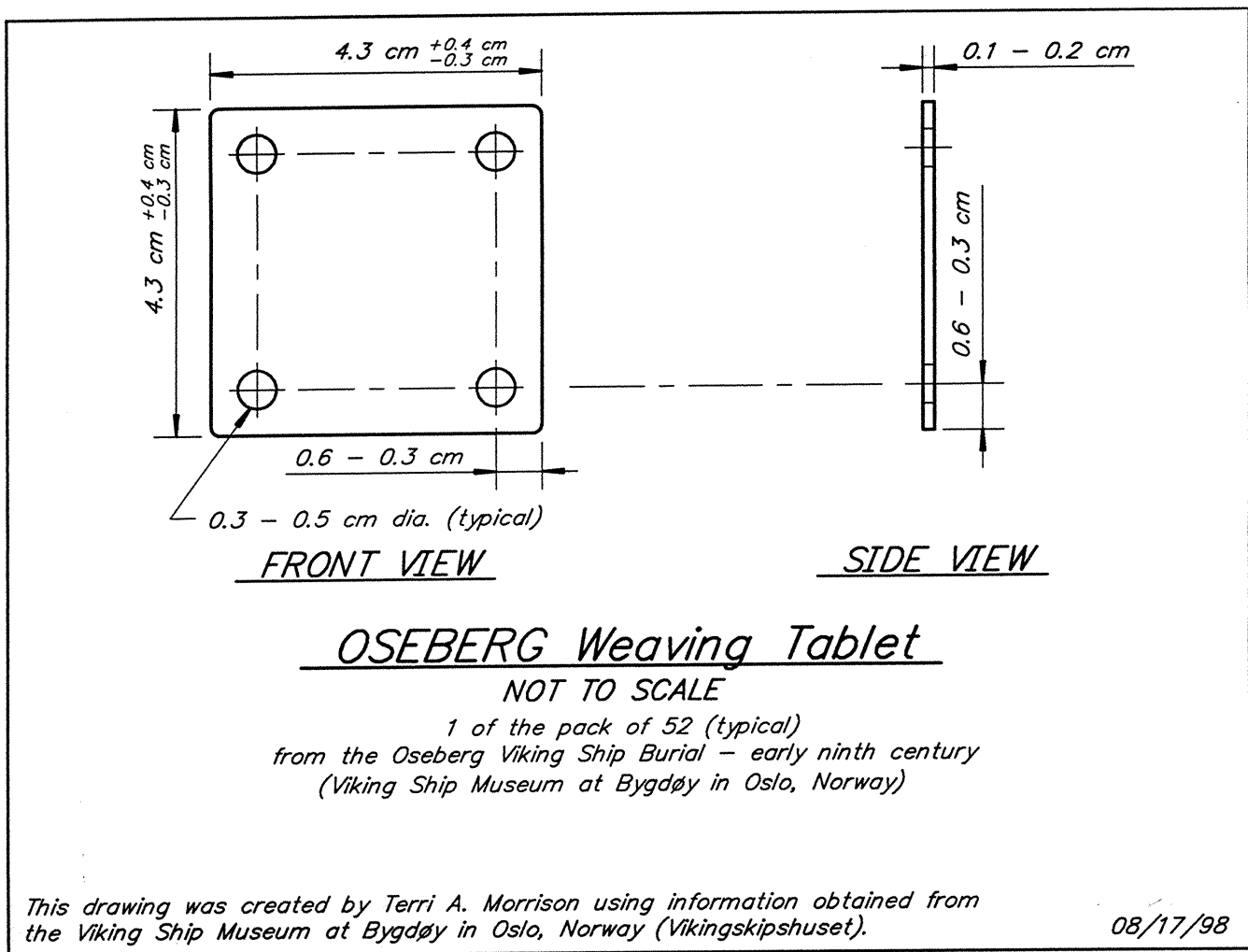
<sup>1</sup> Dr. Arne Emil Christensen, "The Vikings" *Publications in English* UDA302END (Norway: Nytt fra Norge, March 1996): 4 pp, Online, ODIN - Ministry of Foreign Affairs (UD), Internet, 22 Jan. 1999, Available: [odin.dep.no/ud/nornytt/uda-302.html](http://odin.dep.no/ud/nornytt/uda-302.html).

<sup>2</sup> A.W. Brøgger, H.J. Falk and Haakon Schetelig, ed., *Osebergfundet: Utgit av den Norske Stat*, Bind 1, (Oslo, Norway: Universitetets Oldsaksamling, Kristiania, 1917) 375.

<sup>3</sup> Brøgger 75.

There is little information available today, in print, which fully describes the physical characteristics of the Oseberg weaving tablets. This dearth of information prompted this artist to dispatch a letter of inquiry to the *Vikingskipshuset* (Viking Ship Museum) in Oslo, Norway, where the tablets are currently housed. A sketch of the tablets, with the missing measurements tagged, was included in the letter, in order that a museum curator might “fill-in-the-blanks”.

The letter of inquiry elicited a response from Dr. Arne Emil Christensen, Chief Curator. In his communication, (see Exhibit A), he provided the missing details and returned the sketch with all the blanks filled in. With the complete information in hand, a blueprint for the project was finally rendered (Fig. 1).



**Figure 1**

In his letter, Dr. Christensen also identifies the material the tablets were made from, as being “European maple (*Acer*)”<sup>4</sup> but he does not go on to name the actual species.

The “Country Reports”, published by the Food and Agriculture organization of the United Nations in the preparatory process for the 1996 International Technical Conference on Plant Genetic Resources, identify the species *Acer platanoides* as the only indigenous maple for Norway<sup>5</sup> and Finland<sup>6</sup>. There is no indigenous maple species listed for Sweden.<sup>7</sup>

After consulting different sources, it seems to be evident that in Europe, the common name for the species *Acer platanoides* is “European Maple”, just as Dr. Christensen has noted. Likewise, here in America, we use the common name “Norway Maple”.

## **Viking Era Construction Technique:**

Maple is a very hard wood and becomes more difficult to work once it has dried out, especially in consideration of the hand tools used by medieval craftsmen. Consequently, most experts are in agreement that the maple-wood, used in making the Oseberg weaving tablets, would have been wet or in a “green” state while the small squares were being shaped into their final form.

Using an axe, and possibly a hammer-type tool and wedges, the craftsman would begin work by “radially” splitting a freshly cut piece of maple into several pieces. These wedge-shaped pieces were then split into smaller and smaller units until it was feasible to begin working the wood with a good knife. During the Viking era, all items made of wood

“were given a rough shape [using the axe] which could then be evened off with a knife.... the most versatile all-around tool in woodworking”<sup>8</sup>

The knife would have been used in the final splitting and any shaping needed to achieve the tablets’ 0.1 to 0.2cm thickness. In his second letter to this artist, (see Exhibit B) Dr. Christensen asserts that the holes, in each corner of the tablets, would then have been

“bored with a small auger, or [made] by “drilling” with the knife point”.<sup>9</sup>

Dr. Christensen also provided a diagrammatic sketch of the construction process in his second letter. (Fig. 2)

<sup>4</sup> Dr. Arne Emil Christensen, Letter to the Artist, 3 Aug. 1998.

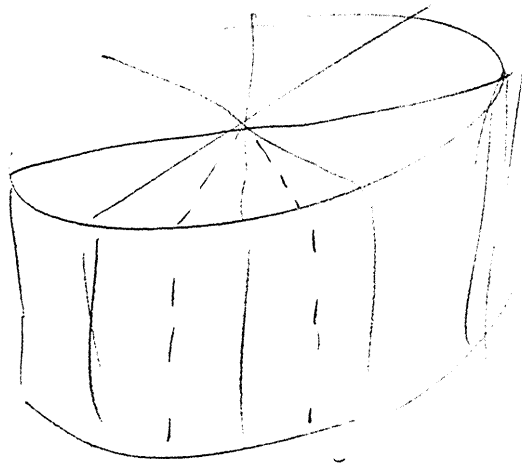
<sup>5</sup> Ministry of Agriculture, Norway, Norway: Country Report to the FAO International Technical Conference on Plant Genetic Resources, (Oslo, Norway: Ministry of Agriculture, Jun 1995), pp. 47-49.

<sup>6</sup> Leena Hömmö, Finland: Country Report to the FAO International Technical Conference on Plant Genetic Resources, (Jokioinen, Finland: May 1995), p. 11.

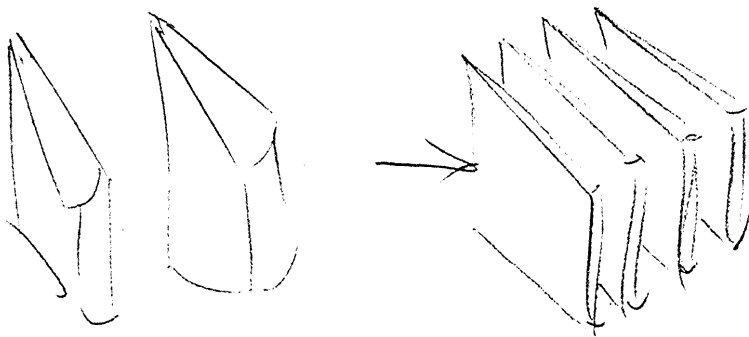
<sup>7</sup> Swedish University of Agricultural Sciences, Sweden: Country Report to the FAO International Technical Conference on Plant Genetic Resources, (Slalöv, Sweden: Swedish University of Agricultural Science, May 1995), 50 pp.

<sup>8</sup> The Viking – The Settlers, Ships, Swords and Sagas of the Nordic Age, (New York: Cresent Books, 1991), pp. 189 and 190.

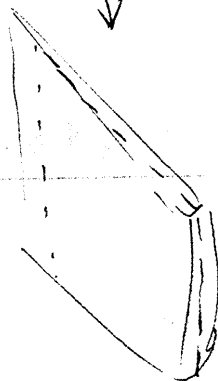
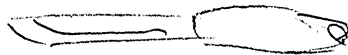
<sup>9</sup> Dr. Arne Emil Christensen, Letter to the Artist, 7 Sept. 1998.



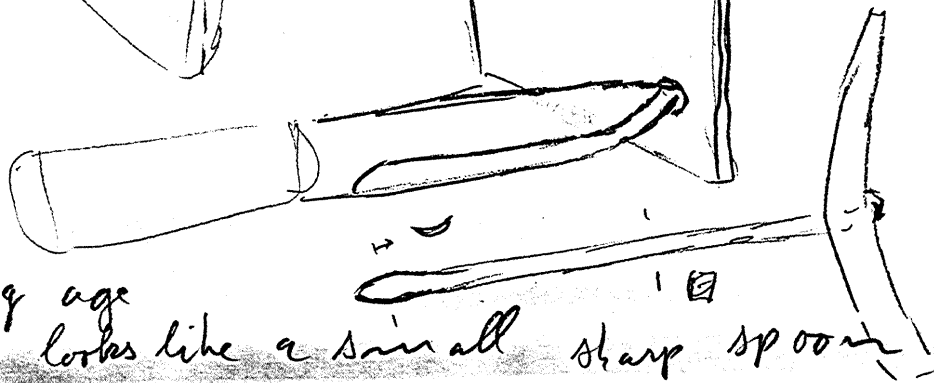
Final  
splits, axe  
& wedges



final  
splitting  
(knife)



Final  
work



Viking age  
auger looks like a small sharp spoon!

Figure 2

## Departures:

I do not care to use wood as a creative medium. It is hard and unyielding and the tools frighten me in their innate ability to injure - when wielded by unskilled hands. I knew before I ever started that this would be a difficult re-creation, but I wanted to practice the art of tablet weaving only with the proper "period" equipment. (Cardboard tablets just don't cut it in the "Enchanted Ground").

The first bit of difficulty I encountered and my first departure in this re-creation came in selecting the wood. I did not have a Norway maple to cut down and most hardwood lumber stores do not carry wood in a "green" (wet) condition, so I knew from the beginning that I would be working with dried wood. Also, local hardwood dealers do not normally carry European maple and when they do, I am told, the term "European" is generic and does not mean the wood from the specific *Acer Platanoides*. So, after discussions with my hardwood dealer about the color and properties of maple, I settled on a decision to purchase a piece of Eastern "Hard Rock".

Dealers don't carry radially split wood either and I was informed that I could only get a piece that had been "flat sawn". This meant, that my tablets would have grain lines running in a direction that would never have been seen on the "period" artifacts. I thought about trying to cut down the neighbor's maple tree in the middle of the night - bad business that would have been, so instead I grudgingly accepted the departure.

Next, I looked at the axe and the knife and I decided that I just "did not" want to learn to use these tools. All I wanted was the "period" product so I could go back to working in a medium that I was comfortable with. Well, there sat my husband's power tools and I knew just enough about them so as not to cut my fingers off. This departure, I could willingly accept, and that's about all there was to it.

I used the table saw to cut my "Hard Rock" maple into the right sized pieces, set up the drill press to make the holes and took sandpaper to the rough areas to get a good smooth finish.

With all my departures considered... still, I now have "maple-wood" tablets to carry my warp (instead of cardboard ones), and can openly practice my weaving in "period" environments.

## Bibliography:

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Christensen, Dr. Arne Emil, Universitetet I Oslo, Institutt for Arkeologi, Kunsthistorie Og Numismatikk [University of Oslo, Department of Archaeology, History of Art and Numismatics], Oldsaksamlingen med Vikingskipshuset. Letter to the Artist. 7 Sept. 1998.

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Ministry of Agriculture, Norway. Norway: Country Report to the FAO International Technical Conference on Plant Genetic Resources. Preparatory Process for the International Technical Conference on Plant Genetic Resources, June 17-23 1996, Leipzig, Germany. Oslo, Norway: Ministry of Agriculture, Jun 1995. pp. 47-49. Online. FAO – Food & Agriculture Organization of the United Nations. 22 Jan 1999. Internet. Available: [web.icppgr.fao.org/norway.htm](http://web.icppgr.fao.org/norway.htm)

Swedish University of Agricultural Sciences. Sweden: Country Report to the FAO International Technical Conference on Plant Genetic Resources. Preparatory Process for the International Technical Conference on Plant Genetic Resources, June 17-23 1996, Leipzig, Germany. Slalöv, Sweden: Swedish University of Agricultural Science, May 1995. 50 pp. Online. FAO – Food & Agriculture Organization of the United Nations. 22 Jan 1999. Internet. Available: [web.icppgr.fao.org/sweden.htm](http://web.icppgr.fao.org/sweden.htm)

The Viking – The Settlers, Ships, Swords and Sagas of the Nordic Age. New York: Crescent Books, 1991 edition. pp. 189 and 190

# **EXHIBIT A**

UNIVERSITETET I OSLO  
INSTITUTT FOR ARKEOLOGI,  
KUNSTHISTORIE OG NUMISMATIKK

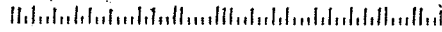
Frederiks gate 3, N-0164 Oslo, Norway

Terri A. Morrison  
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Ephrata WA 98823  
USA

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BY 1029412



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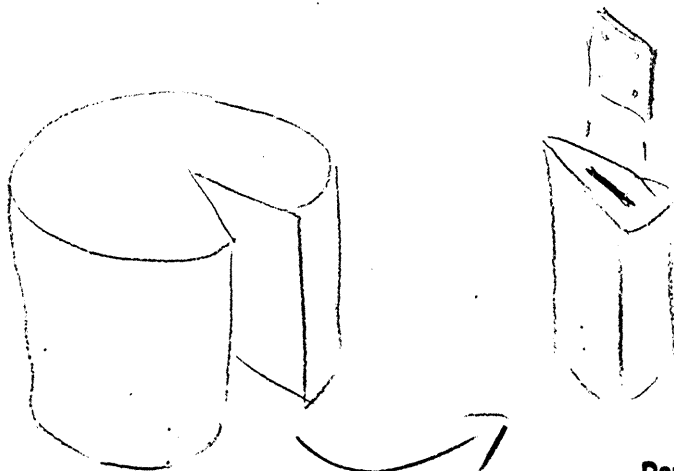


Terri A. Morrison  
226 Basin s.w.  
Ephrata WA 98823  
USA

Your letter of 17/7 has remained unanswered for some time due to vacations. The "pack" of tablets with the unfinished weave are quite uniform in size, average measures on your sketch. All together, there were 52 tablets with the band, while another 35 were found loose. The minimum dimension is 4 cm, maximum 4,7, some are rectangular, the majority square. They are made of european maple (Acer) and the wood has been split radially, see sketch below. As you probably know, tablet weaving is still done in Norway, today with cardboard tablets 7x7 or 8x8 cm. Active weavers claim that the Oseberg tablets would be difficult to use, as the small size gives a narrow shed. If you want to copy the Oseberg tablets for use, it would be nice to hear about your experiences.

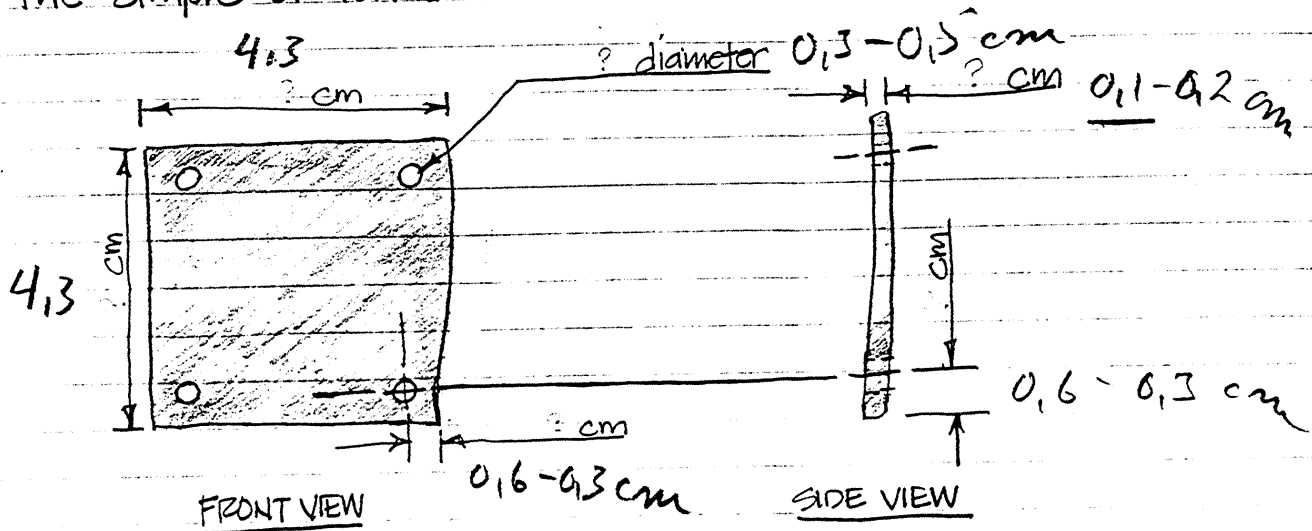
yours, sincerely

  
Arne Emil Christensen



PS. From what we know of viking wood work. The splitting would have been done on newly felled, "green", wood.

Can you assist me by supplying the missing dimensions in the simple sketch I have drawn below?



I only need the measurements of one average tablet from the pack.

Your assistance would be greatly appreciated,  
Sincerely,

*Terri A. Morrison*  
Terri A. Morrison

You may contact me at:

Terri A. Morrison  
226 Basin S.W.  
Ephrata, WA 98823  
U.S.A

or if e-mail is easier: [norseman@televar.com](mailto:norseman@televar.com)

or  
[tmorris@gcpud.org](mailto:tmorris@gcpud.org)

# **EXHIBIT B**


UNIVERSITETET I OSLO  
INSTITUTT FOR ARKEOLOGI,  
KUNSTHISTORIE OG NUMISMATIKK  
Frederiks gate 3, 0164 Oslo

Terri A. Morrison  
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USA



PRIORITAIRE  
PARAVION  
Bl. 70.34.1.12  
**A**

PORTO BETALT  
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PP  
  
NORGE-NOREG  
117210/60

Oslo 7/9 - 98

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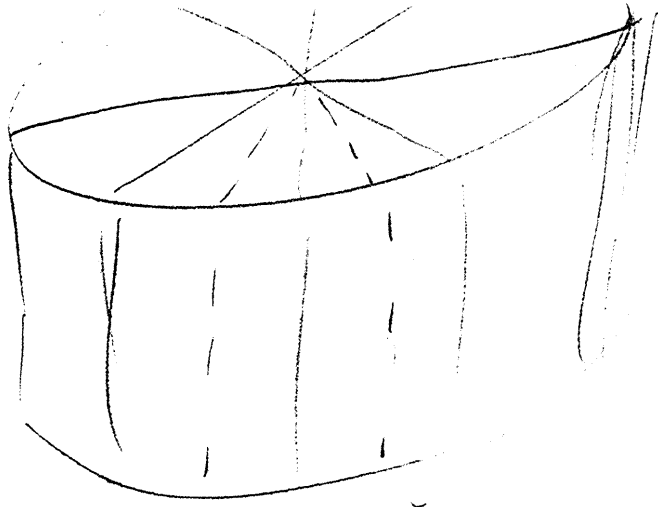
Thank you for your letter of 12/8. I think it is as close to fan mail as I will ever get. There are no objections to your suggested use of the material on Internet with the credit line you have included. After all, the tablets have been published (in Norwegian) since the 1920es, in Osebergfundet vol II. I think one of my sketches may be a bit misleading, as it looks as if you need a huge slab of wood for each tablet. I have tried to amend in the enclosure. I suppose that you are familiar with the technique used in Viking and Medieval times, where the tablets are treated individually for creating much more complicated patterns than you get by just turning the whole pack of cards, as is usually done today.

In making the tablets, i think it would be practical to split the wood quite thin, shave the blanks to even thickness with a sharp knife, make the holes and then cut to size. There are no traces of burning, so the holes must have been bored with a small auger, or by "drilling" with the knife point. It might be an idea to try to predrill a rather thick blank before final splitting, the risk of cracks might be less. If you do successful experiments, I would be happy to hear of them.

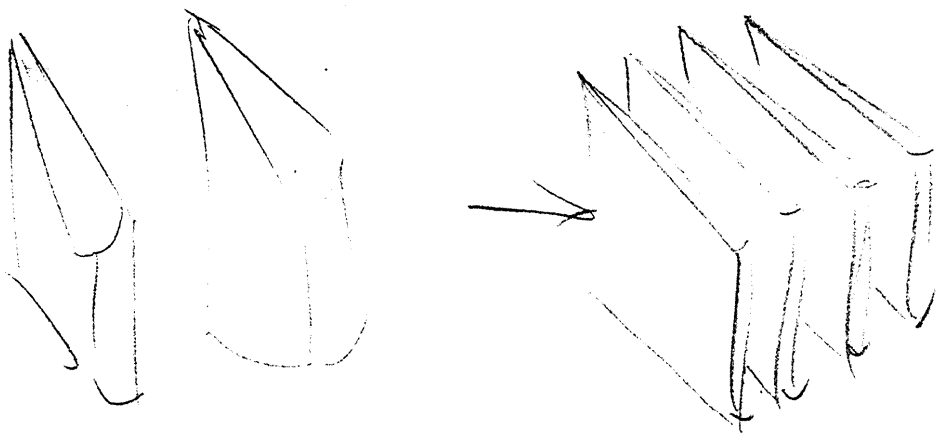
yours sincerely



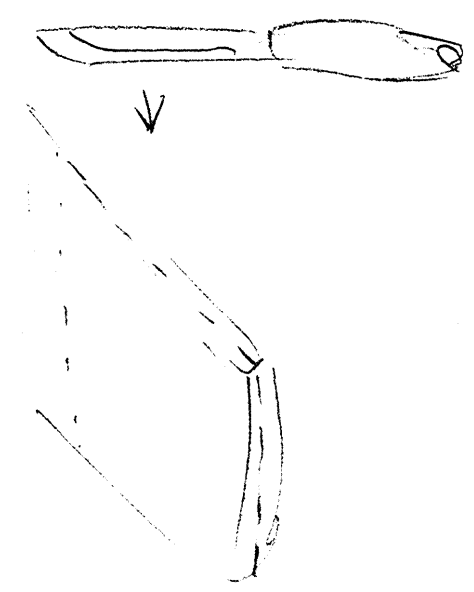
Arne Emil Christensen



Final  
splits, axe  
& wedges



final  
splitting  
(knife)



Final  
work



Viking age  
anger looks like a small sharp spoon