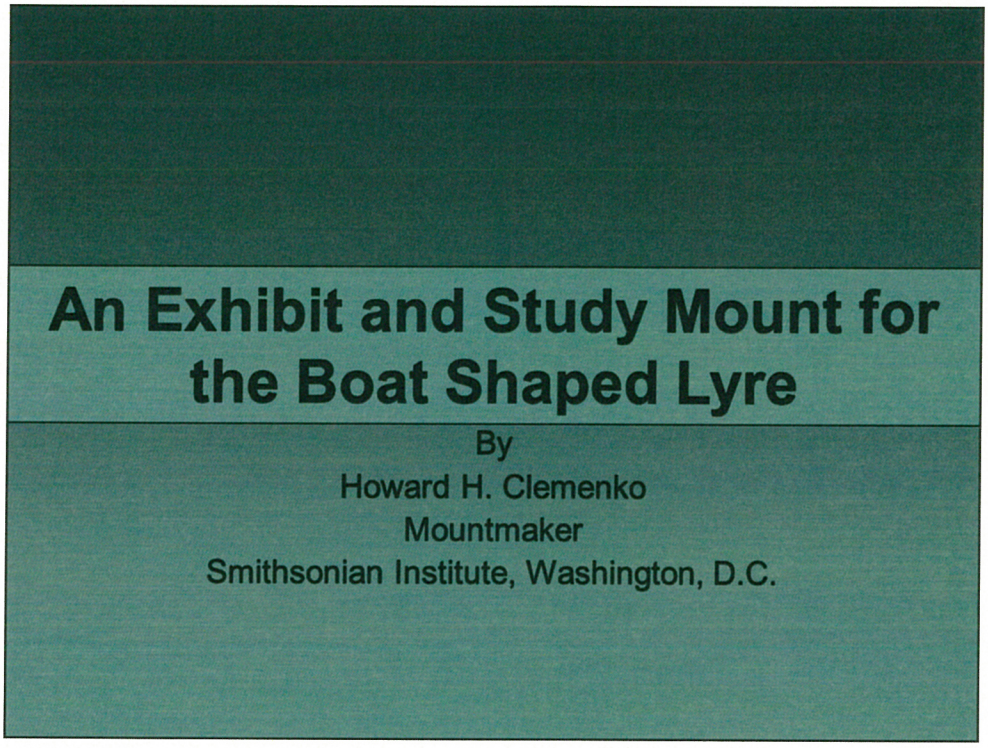

[SLIDE 1]

The general purpose of my presentation is to illustrate an alternative to a metal mount in a specific application by using virtually non-exothermic epoxy putty. This in no way indicates a value judgment but merely suggests one of many ways to approach a problem.

For most of you this is probably old hat but at seventy-two, so am I. I am grateful to the Getty mountmakers for giving me the opportunity to make this presentation. I also express my gratitude to Richard Hards for doing the reading for me.

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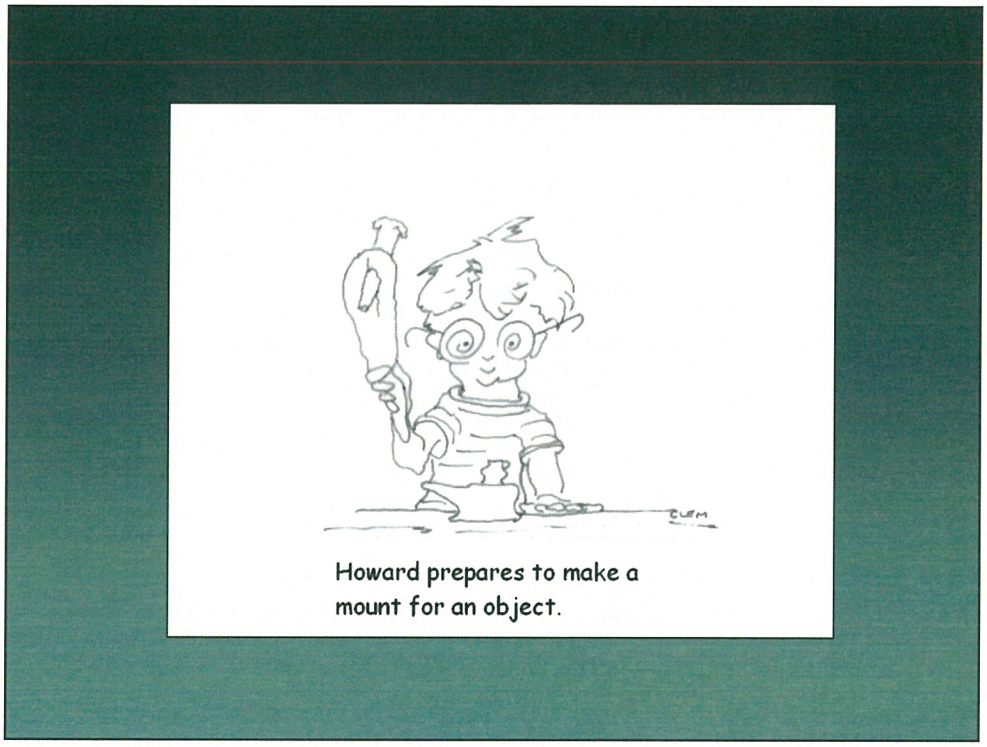
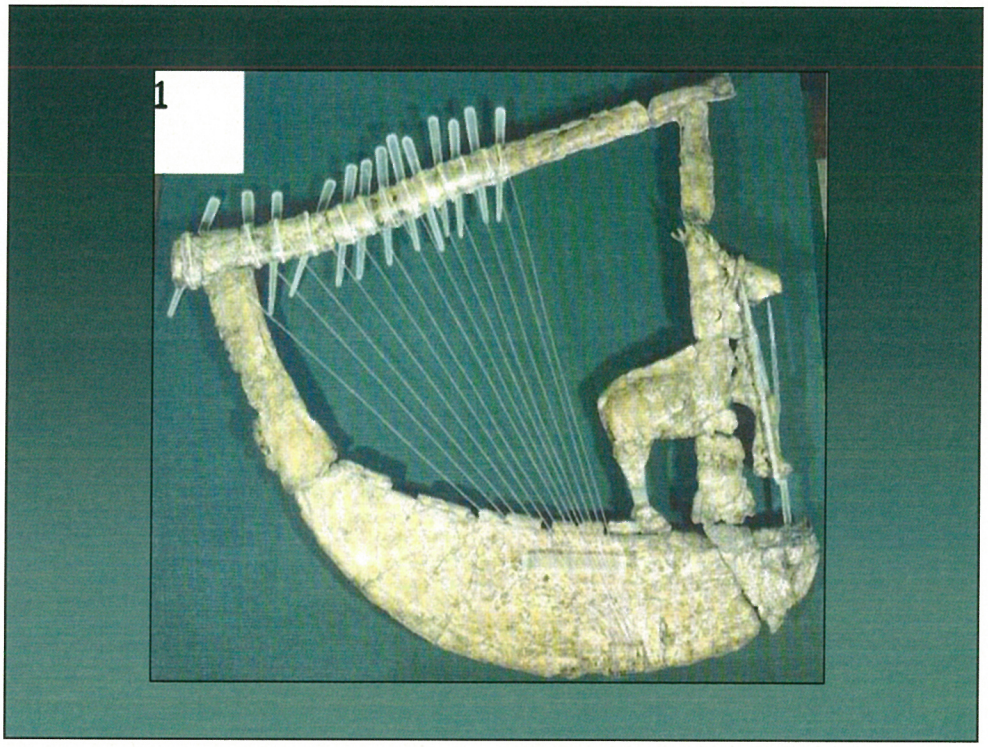


I have not had the pleasure of meeting most of you so I have included a picture of myself at my workbench.

[NEXT SLIDE]



All of the scholarship and a few of the pictures are from Maude de Schauensee's book

"Two Lyres from Ur". As many of you are aware, the Great Death Pit or Royal Cemetery at Ur yielded a wealth of object from the Sumerians in Mesopotamia. One of these was the Boat Shaped Lyre. The dig was a joint effort of the British Museum and the University of Pennsylvania Museum of Archaeology and Anthropology. During the 1928-1929 season C. Leonard Woolley found two lyres of special interest. It was one of these for which I was tasked to make a mount.

[NEXT SLIDE]

This slide shows the backside of the lyre.

There were a number of specific requirements that Maude set for me to meet.

1. The thirteen pieces must be supported individually so they could to be studied as separate entities.

2. Each fragment must be able to be individually lifted in its mount, and must be stable and level when put on a flat surface.

3. The pieces could not be held down by any device because of their fragility, and therefore had to be very secure in their cradles.

4. The individual mounts had to have some vertical adjustability to align properly, and each fragment must overlap where indicated but not touch.

5. The reconstructed elements that I would have to fabricate in order to approximate the original as a whole, needed to be obvious to the viewer, and could not touch the objects.

Finally, the assembly was to be presented on an inclined surface.

My strategy in approaching all of this was to address the mounts for the fragments before those for the reconstructions, because the requirements for the reconstructions were going to be add-ons by definition.

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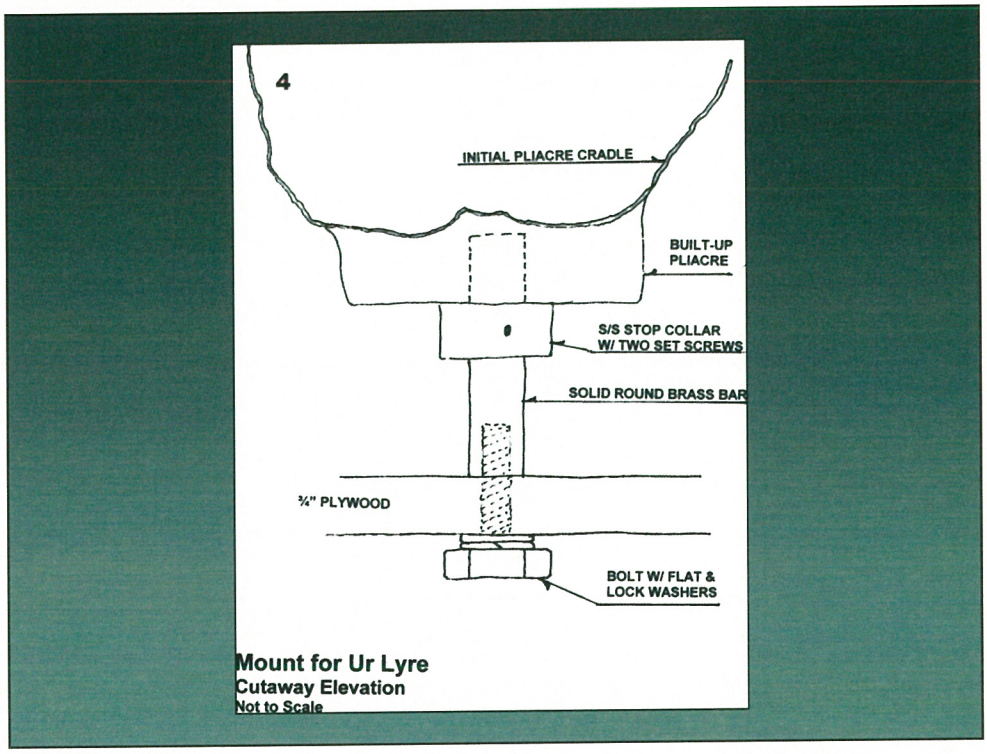

When I did this, I didn't think to take photos of the process so I present a drawing.

The objects were placed face down in a bed of sand. I then rolled out Pliacre (now known as Phillyseal R from Philadelphia Resins) between two sheets of plastic wrap. I used the cheapest that I can find because it will have fewer plastisizers, I am told. The inside surfaces are wetted so the Pliacre can move within as I roll. It is sometime necessary to peal and re-wet to keep the material spreading and not stretch the plastic wrap. When it is thin enough, I replace the plastic with new wetted plastic so I get all the stretch that I can. I use extra pieces of the plastic on the object for a fail-safe and to approximate the size of the Tyvek that I will use later to soften the bed. I then laid the Pliacre in, gently helping it to conform to the shape of the object. In some places I used sand bags made from the plastic wrap. The natural ability of the Pliacre to slump is helpful. I let it set up for twenty-four hours.

I then applied two coats of B-72 with 24-hour drying times in between coats. I imbedded but not soaked thin pieces of soft Tyvek in the B-72 and trimmed the next day. I didn't use Sueded polyethylene because it doesn't wear as well and I didn't want to risk getting the stickum on the objects.

I put all the objects in their respective cradles and set the whole thing up to determine how much mass I needed to build up the bottoms. I would also determine the approximate length of the support rods. By establishing specific points on the sides of the cradles, I was able to turn them over and press down to get a flat surface at the precise height and angle that I needed without having the objects in the cradles. I also needed to make these built up areas deep enough to hold the solid brass bars securely. When all the cradles were finished, I arranged them on a flat surface with the objects in to check their relationship to one another. I then outlined each cradle. With the cradles on a flat board, I used a drill guide to drill the proper sized hole on the bottoms of the cradles so that the holes would be perpendicular to the flat bottoms. I used chalk to locate the holes in the deck. The use of the stainless stop collars is self-explanatory. I put an extra setscrew in for safety. I used an appropriate bolt for the size of the shaft which varied somewhat. (Please forgive me for the size of the bolt head. I didn't want to re-draw it.) Because of the very shallow angle of the deck, I didn't need to do anything but make certain that the sides of the cradles were high enough to keep the objects securely in place.

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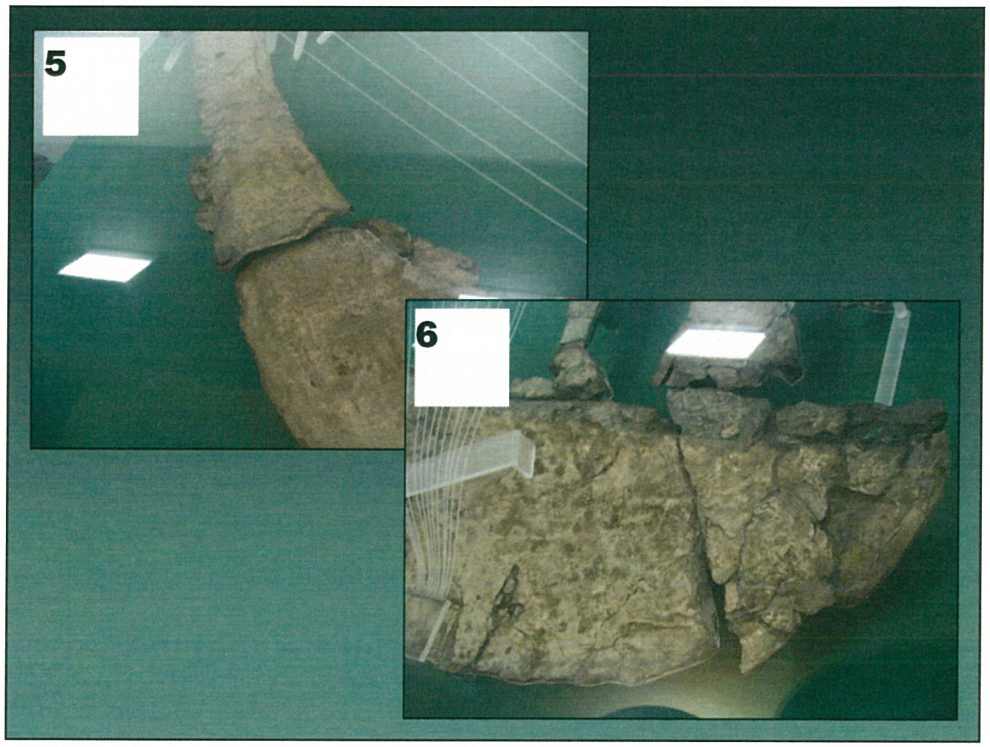

Slides 5 and 6 show the nature of the overlapping alignment problems. When removing for study, the pieces had to be removed a specific order.

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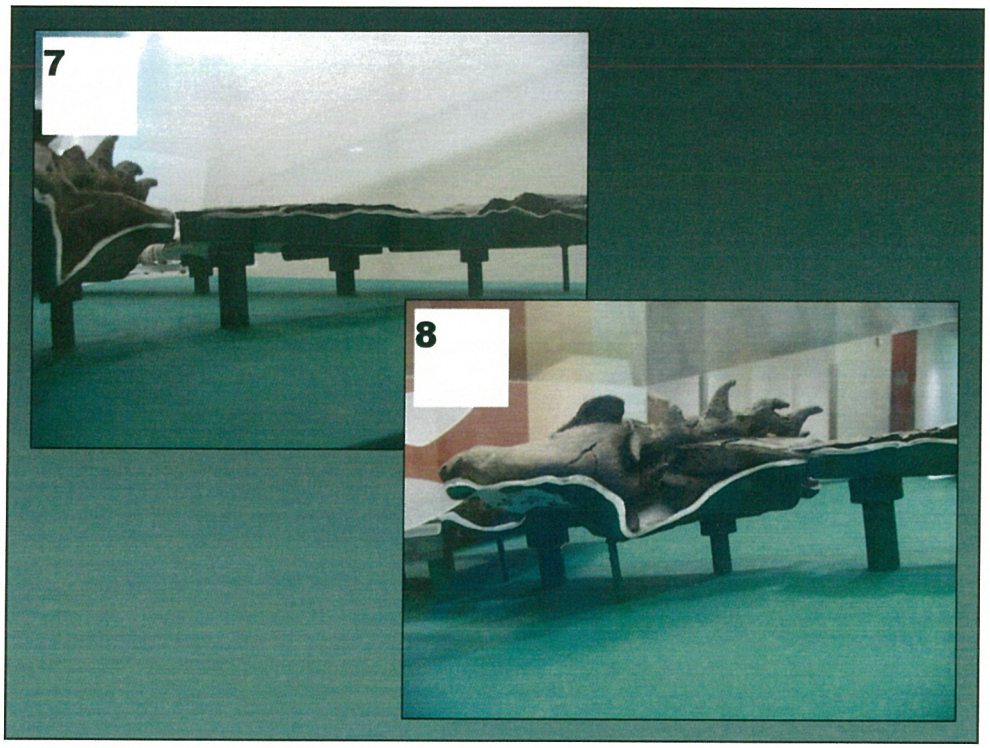

Slides seven and eight show how these looked finished. I painted out the edges in the same color as the background using acrylics. You will see some small studs. These were necessary for one or two small pieces and also as a stabilizing leg for one or two of the larger pieces. On the small pieces I used double nuts as the stop collars with a brass tube insert to prevent chipping. The larger pieces did not need to be drilled and just rested on top of the machine screw head.

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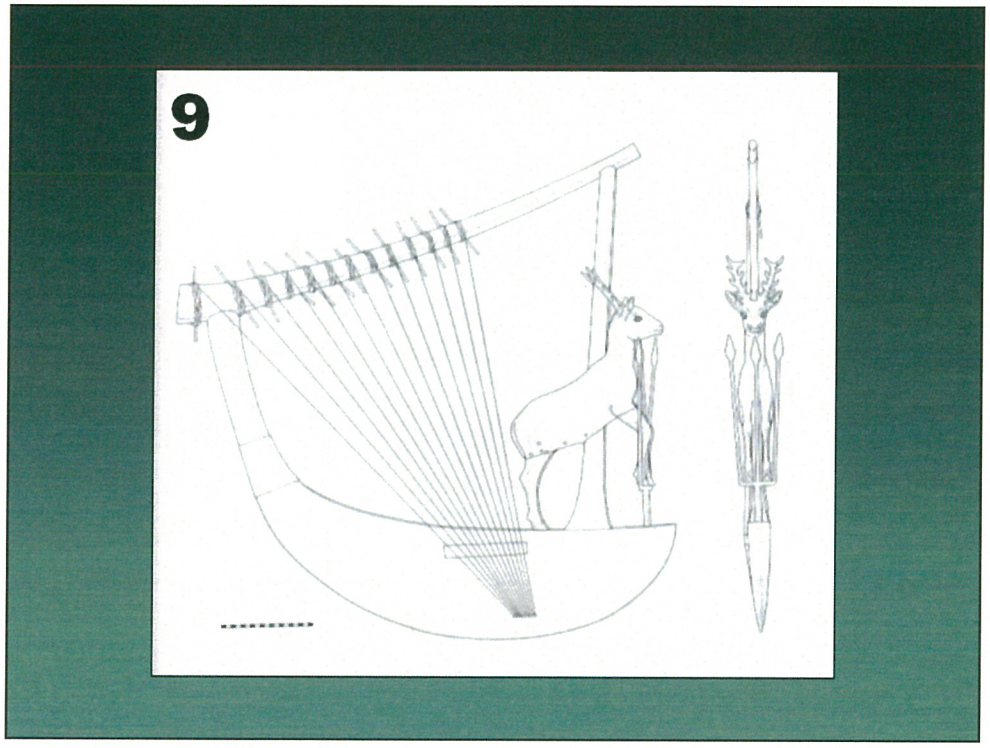

I was given a drawing to use for the reconstructed parts. Maude wanted them to be almost two-dimensional so it was easy to use acrylic. I only needed to use flat and rod.

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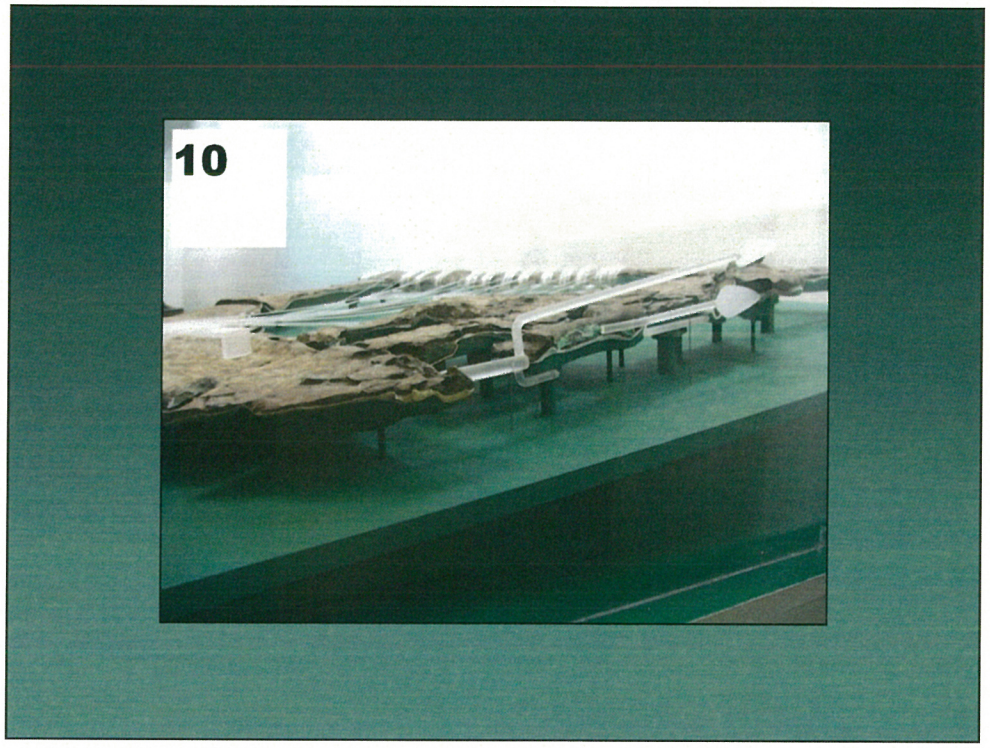

The requirement for them not to touch was solved for the plant stems by using small diameter stainless rod. I like stainless with acrylic because it seems less obtrusive.

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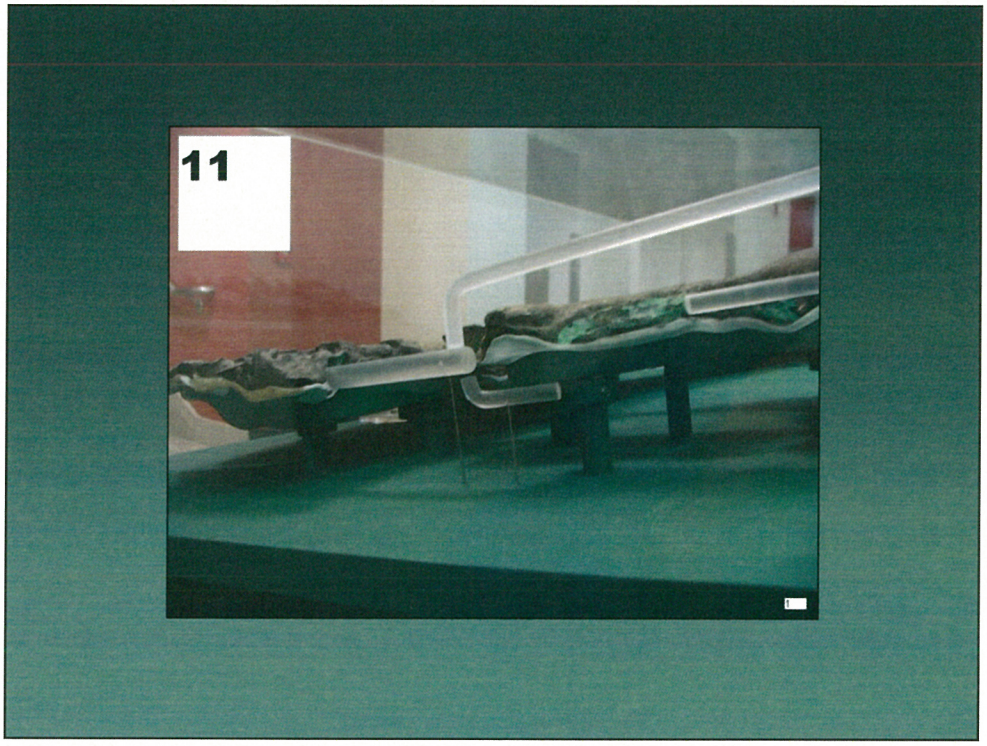

The rods can be turned or removed to get to the objects. The surface has been scuffed with wet sandpaper to make a distinction between evidence of what was actually found and what is surmised. The reconstructions that have no direct evidence were depicted in clear plastic.

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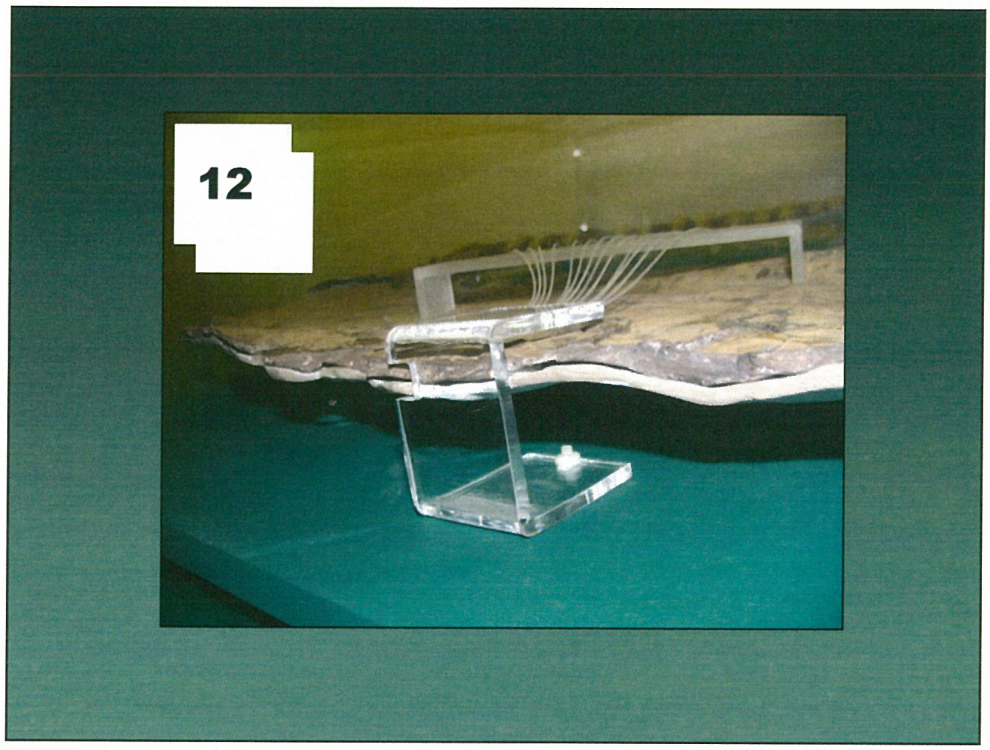

The problem of the anchor was relatively straight foreword. I used a U shaped piece of acrylic anchored to the deck. In this case, the strings were most likely anchored in the object. Since I was not able to levitate the bridge, it is the only piece that was permitted to touch the object.

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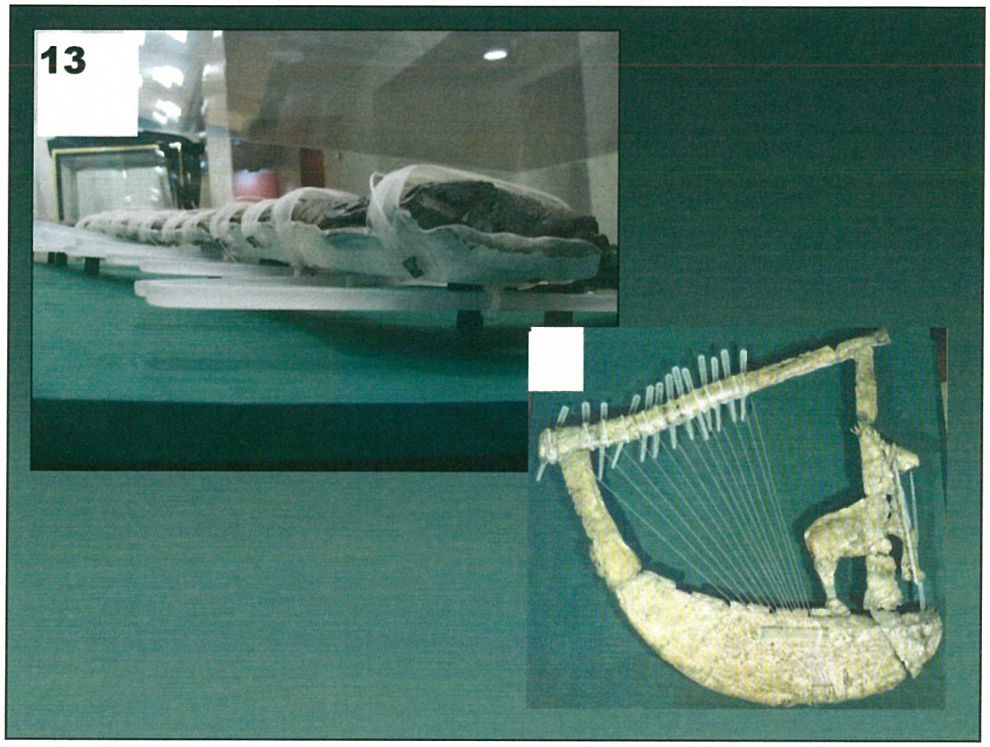

The tuning pegs were made of sanded acrylic and bolted to the bottom of the appropriate cradle. I put them at different angles to give the impression that they actually were working with the strings. Since the pegs are attached underneath the cradles, it is necessary they be unscrewed before the object can be removed. It is easy to do, since they are only finger tight. The strings needed to look like they were wrapped around the top part of the lyre, so I used brass tubing to make collars, then attached these collars to both ends of an acrylic clip. The clip represents material that it was thought would have been used under the strings. They are U-shaped and fitted individually so that they rest on the edge of the cradles and not on the objects. Again, to remove the object, one would undo the string anchor and unscrew the tuning pegs, then gently prying open the clips, slide them off the object one at a time.

Because of it's fragility, it was determined early on that this Lyre would not be a part of the Ur exhibit that traveled a few years ago. It is on exhibit at the University of Pennsylvania Museum.

Thank you for your patience.