## Recreate a period pack of playing cards

St. Festus Faire Challenge

#### **Summary**

We have created a pack of playing cards using woodblock printing, stenciling and painting. The court card images are mostly based on those found on German playing cards from the 1500s. The pip cards are stenciled with the traditional French suits.

## **Background**

Playing Cards

Playing cards arrived in Europe during the latter half of the 14th century. The first documented appearances are in Spain and Italy in the 1370s, and the cards described are similar to those from the Mamluk Sultanate of Egypt (1250-1517). These early decks were made up of 52 cards divided into four suits much like the modern playing cards we know with only a few differences. The earliest suits were swords, polo-sticks, cups and coins. Each suit included pip cards from 1 to 10, as well as three court cards: a king and two deputies. The two deputies were distinguished by the way they held their suit signs the higher ranked one held his suit upright and the lower ranked one held his down holding it from the top. As cards and card games grew in popularity through the 14th and 15th centuries, people started experimenting with different deck configurations. During this time the number of cards in a deck, the suit signs and the court cards could vary greatly from place to place.

#### Making Playing Cards

The earliest decks were hand painted, a process which required both skill and time, and so they were only available to those people who could afford to commission them. By the 1400s the combination of paper mills opening in Europe, and woodblock printing being adapted from printing fabrics, allowed for the production of cheap playing cards. Woodblock printed cards could be colored by hand, or through the use of stencils. The modern card suits were adopted in France and England primarily because they could be easily stenciled, eliminating the need to block print the pip cards.

## **Materials**

Woodblocks

The wood used to make woodblocks was usually cherry, walnut, pear, or other dense grained woods. Hard woods are harder to work with, but can support much finer details. We tried a few kinds of wood (including basswood and some random wood we had available) before settling on a basic white plywood, designed for woodblock printing, which fit both our needs and budget.

## Paper

Paper was usually made from scrap linen and cotton. Thin sheets would be pasted together to make the thick playing cards. We selected a thick paper made of 100% cotton by Cartiera Magnani, an Italian paper maker that has been in business since 1404.

#### Ink

Both water and oil based inks were used in period print making. Water based inks containing pigment such as lamp black or lead, along with a binding agent like gum arabic were common. After the invention of the movable type press, oil based inks became more common. We used a variety of water based inks for our cards. A basic black printing ink was used for the block printing and gouache paints with period pigments (or safe replacements in some cases) for the stenciling and coloring. Ink used for printing needs to be very thick compared to ink used for writing or painting. This allows the ink to evenly coat the woodblock and transfer to the paper to make sharp lines and details.

Page 1 of 10 9/18/2008

#### **Process**

Given our lack of experience (neither of us had done any drawing, carving, or printing before) and time constraints, we started with some quick practice: carving wood, printing, stenciling and drawing. Normally each of these would have been performed by a different person. An illustrator would draw the image onto the wood; a woodworker would carve the block; a printer would print the cards; and a card painter would stencil or color them. Even within these tasks multiple people were often vital. One person would ink the block, another would place the paper and maybe a third would run the press.

#### *Illustrating*

We drew the face cards directly onto the wood in pencil, this allowed for mistakes to be erased. Once we were satisfied with the images we inked them using a sharpie marker designed not to bleed. The images were drawn freehand, but inspiration was taken from period sources.

#### Carving

Wood carving by hand has not changed much since period. Chisels and gouges were used to remove the white space of the image. When inking, only the wood that was not carved away should pick up ink and then transfer it to the paper. Sharp tools and patience is the key to success at this stage. We first outlined both sides of every line in the image using a sharp knife, and then began removing the inner white space, and finally removing all the outside white space.

## Printing

For printing we decided to use a modern water based block printing ink, a modern brayer (roller) rather than a leather ink ball, and Japanese barrens, which we chose because they are closer to what would have been used in period when blocks were not printed with a press.

When the blocks were first inked we were able to determine which negative space (white) areas were not carved deeply enough and were being inked, so after the initial inking we would carve out these sections. When the blocks were ready to begin printing we would ink them using the brayer making sure that each raised section was generously covered in ink. Next the person who had not touched the ink dampened down a piece of paper on both sides, this helped for an even coating of ink on the paper and reduced the curling that would have occurred if only one side was dampened. The paper was then placed carefully on top of the inked woodblock and a piece of thin paper was laid on top. The purpose of this thin paper is to ensure that the image does not become visible on the back as these areas will become shiny and allow the image to be determined. The barren is used to apply even pressure to the entire block. It is held in one hand and moved in small circles with a constant downward pressure.

## Stenciling

To ensure that each pip looks identical we purchased craft punches in the shape and sizes we needed for the 4 suits. Due to the construction of the punches, however, we were unable to punch out the pips for an entire sheet or even an entire card. We were able to make stencils with two to four of the pips and then used this stencil repeatedly to create the entire set. In period the stencils would have been made from thick sheets of paper, or thin leather and oiled to prevent the ink from sticking to them.

#### **Painting**

We decided to use modern gouache paints but limit our selection to those that used either period pigments or safe modern replacements for toxic medieval pigments (such as substituting zinc for lead). In order to use these paints for stenciling they had to be slightly watered down and tested until the water content was not so much as to cause bleeding and smearing around the stencil. By having a different amount of water at different times some of our pips are a darker or richer color than others. We also used the water to make the paints less opaque specifically for painting the face cards.

Page 2 of 10 9/18/2008

## Cutting

Once the sheets were printed, stenciled and painted, we cut them into equal sized cards using a basic paper cutter. We were not able to document how this was done in period, but we can't imagine it being much more than a large straight knife or cutter.

#### **Conclusions**

We made our cards from woodblocks rather than just hand painting them because it was interesting to us to make a style that allowed playing cards to become common and easily produced. Our main goal for this project was to learn about playing cards and the techniques used to make them. With the painted style we would have been mainly learning about painting techniques and materials. With woodblock we learned entirely new skill sets, including drawing images appropriate for woodblock printed cards and the techniques for carving the blocks and printing.

We learned not only what materials they used but also the difficulty level of carving woodblocks. As complete novices who had never carved before it really put into perspective how relatively easy it is to make these playing cards. Before we started this project we were not convinced that it was something we could feasibly accomplish, let alone accomplish in the time that we had. After experimenting with different types of woods, learning to carve the wood, learning to draw appropriate images, and learning how to print, we had only one week to complete the entire deck. We learned a huge amount about printing, including different techniques to get an even image. In the process we also learned new questions to ask.

If we had significantly more time we would have preferred to carve all 52 cards and use German pips or pips of our own design (since the pips on German decks varied a lot). However for a first chance it was nice getting some experience with both woodblock and stencil techniques so we can better decide which technique we would like to try in the future. We would have preferred to have made stencils for either the full sheet or at least for each card individually. This was our intention, but we ran into some logistical problems with cutting out the images for the stencil.

Overall we are extremely pleased with what we were able to get done and what we learned, and expect to continue making more playing cards in the foreseeable future.

#### Sources

Braunstein, Philippe. *Un Banquier Mis à Nu*. Paris: Éditions Gallimard, 1992. (Used for some of the court card images)

Canne, Karen (SCA: Fredeburg von Katzenellenbogen). *Relief Printmaking*, *14th-16th Century Europe*. Pennsic 37 class handout.

Creighton, Richard (SCA: Padraig Muadhan). *Period Printing*. Pennsic 37 class and additional discussions about block printing techniques and materials.

Hargrave, Catherine. *A History of Playing Cards*. New York: Dover Publications, 2001. (Used for some of the court card images)

Parlett, David. A History of Card Games. Oxford: Oxford University Press, 1991.

#### **Recreation By**

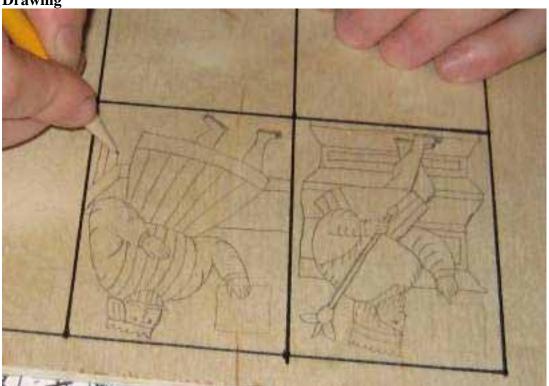
Naomi bat Avraham (mka: Naomi Hampson) blastedoak@gmail.com

Michel Wolffauer (mka: Mike Knauer) mike@knauer.org

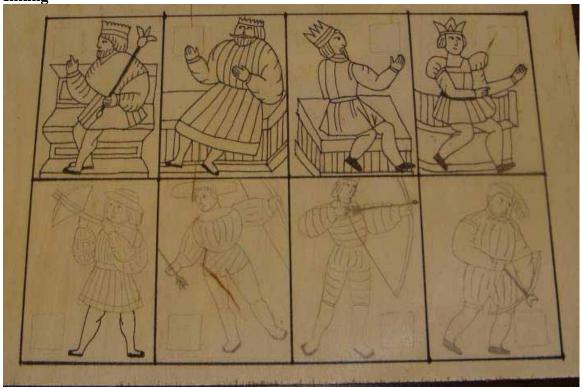
Additional carving and painting help: Violet Coleson (mka: Amy Knauer)

Page 3 of 10 9/18/2008

# Drawing







Page 4 of 10 9/18/2008

Inked - before carving



Page 5 of 10 9/18/2008

Carving (outlining first, and then removing the middle)

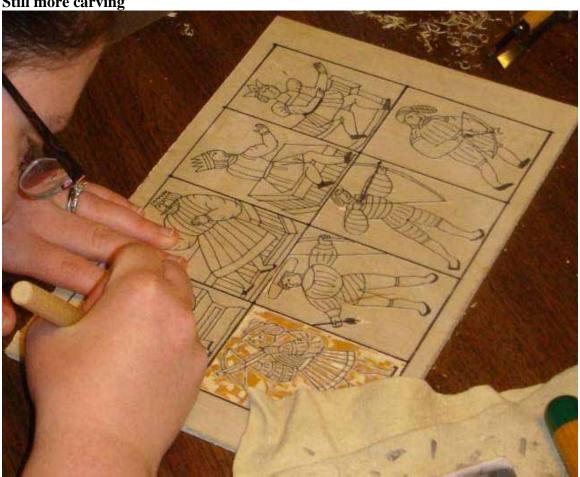




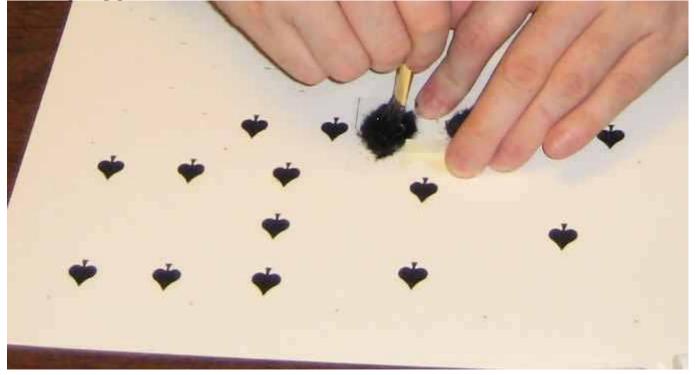


Page 6 of 10 9/18/2008

Still more carving







Page 7 of 10 9/18/2008

Inking the woodblock



Page 8 of 10 9/18/2008 **Printing** 



## **Printed and stenciled**





Page 9 of 10 9/18/2008



Finished



Page 10 of 10 9/18/2008