

# Relief carving introduction

John Samworth takes a look a relief carving, the technique of illusion

**M**any people, me included, attempt a relief carving as one of their first carvings. Simple really, just copy a favourite picture, or so I thought. Sadly no, that's not the case and it went horribly wrong. I no longer have my first relief carving. The purpose of this article is to explore why it went wrong, what can be done to prevent this and allow people to quickly develop their skills, without my mistakes.

By its very nature, relief carving is a 2D project where the subject matter being depicted is 3D. Painters have struggled with this phenomenon for centuries – not until the 15th century was perspective and the use of vanishing points discovered. As carvers, we too must follow these rules to achieve a true likeness for the viewer to interpret the project as having depth, an illusion to trick the mind into believing

the third dimension is present.

Definition: Perspective 'the art of representing three-dimensional objects on a two-dimensional surface so as to give the right impression of their height, width, depth, and position in relation to each other' (reference Google dictionary 2020). Since the 15th century perspective has become widely understood and classified according to the number of vanishing points.



One-point perspective

## One-point perspective

One-point perspective shown above is typically used to represent views. The vertical lines remain vertical and parallel to one another, but the horizontal lines converge together in what is known as the vanishing point. This is true for all views, being Italian street view on the left or Canadian tree lined quay sides on the right. Here the vertical lines of the buildings and trees are parallel to each other, while the horizontal lines of the street and quay side slope inwards, converging together, meeting somewhere in the distance beyond the green ivy. There is only one vanishing point, hence one-point perspective. The illusion is so convincing, if this were painted, blurring the red brick street into the grey brick harbour side, stretching the buildings' shadows to the right and bringing the tree line left over the street you could believe this to be a real image.

## Two-point perspective

Two-point perspective is typically used when the artist wants to place the viewer at the corner of an object such as a building. Here we are looking at the corner of Duomo Pisa. Again, the vertical lines remain parallel to one another (almost), but the horizontal lines converge to one of two vanishing points, to the left and right of the object. There are two vanishing points, one to the left and one to the right, hence two-point perspective. Neither vanishing points need actually be within the image. Ignore the tower to the right, it's just wrong!

## Three-point perspective

Three-point perspective is typically used when the artist wants to place the viewer above or below an object. This time, as in two-point perspective, the horizontal lines converge into vanishing points but also the vertical lines converge into their own vanishing point. Here we are close to the corner of the Udine Lodge of the Lion, Italy, and it is the sheer height of the building which emphasises the third vanishing point.



Two-point perspective



Three-point perspective

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Including perspective is not normally where carvers trip up. If you copy a picture you will copy its inherent perspective. All photographs will have perspective automatically.



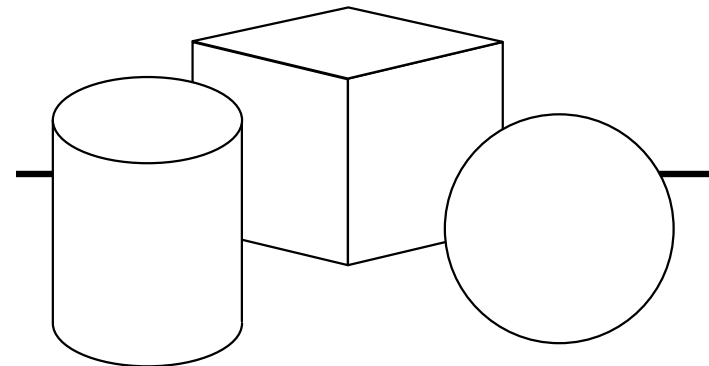
Can you now draw in the vanishing points to the Hotel Duke of York, Toronto?

Another technique to create depth, when the clear lines of a building or a road are not available, is foreshortening. Note that foreshortening is part of the perspective but can be simply used without clear lines.

## Foreshortening

Definition: Foreshortening 'to portray or show (an object or view) as closer than it is or as having less depth or distance, as an effect of perspective or the angle of vision' (reference Google dictionary 2020).

A simple example of foreshortening can be seen in the drawing of geometric shapes. The angling back of the bases and tops of the shapes tricks the eye into seeing these objects as solid. An interesting exercise is to carve this classic artist exercise of geometric shapes. I tried this, with mixed success. Some adjustment of design is necessary to create the appearance that the objects are sitting on a surface, which is typical in relief work. While the cube and the cylinder appear to work as solid objects, however the sphere lacks the illusion of depth. For the viewer they are unable to distinguish between the sphere and a disc. A little detail on the sphere; wrapped in a ribbon or partitions as a football and the illusion is complete.



Foreshortening illustration and test carving below



Carvers can also foreshorten by adjusting our cuts. In this example of a Cornish engine house (pictured above right) the illusion of depth within the engine house is created by carving the side walls very short in relation to the front and the gentle curve of the stack across the front becoming much steeper to the sides as indicated by the elliptical opening at the top.



Five illusions

In the yacht picture we perceive one yacht is closer to us than the others. There are at least five illusions here. Can you identify them?

Foreshortening: by making yachts smaller than the green keel yacht, they appear further away than the green keel yacht. Over-lap by allowing one yacht to obscure another we perceive one as in front of the other. Foreground: we automatically identify objects low in the foreground as being closer than those higher in the background. Colour: the green keel jumps forward while the darker sails recede into the background. Detail: detail is clearer on closer objects. Those closest are seen in greater detail, while those further away may appear faint or blurred.

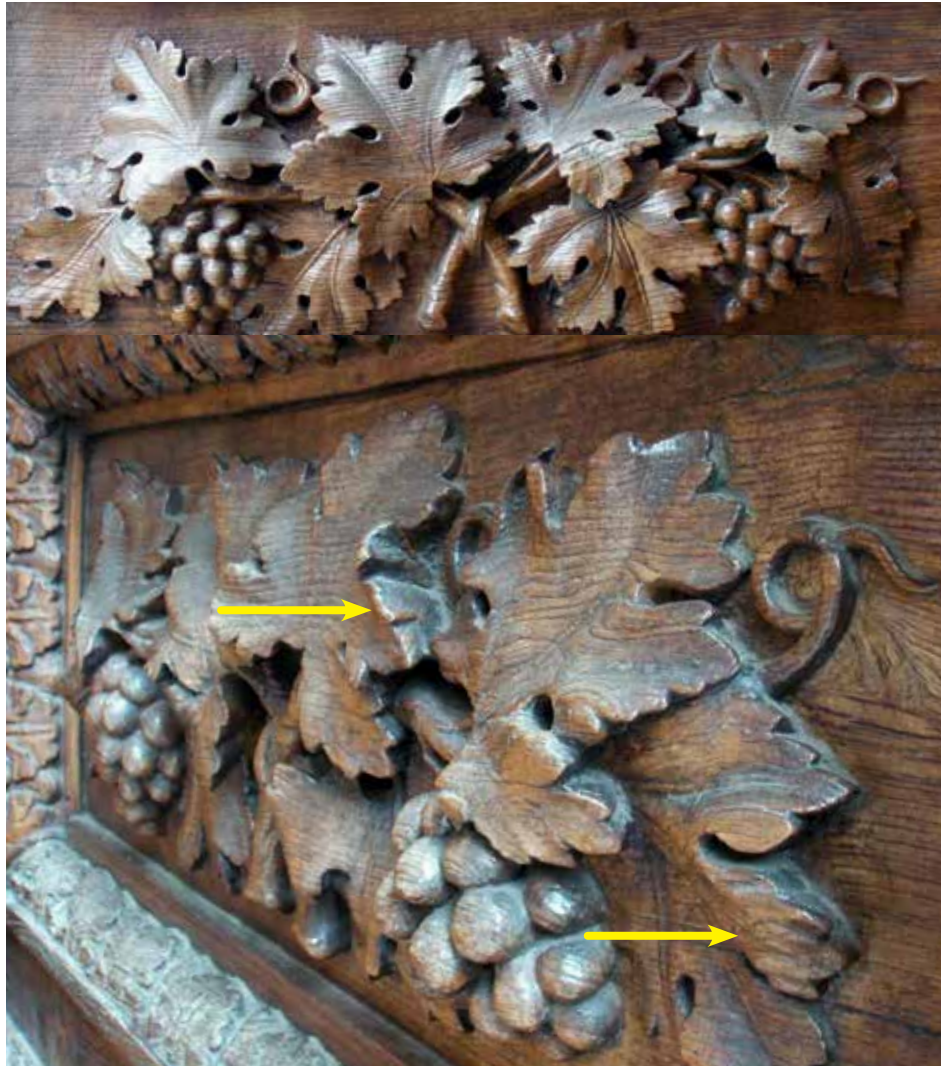
## Shallow relief work

In this shallow relief work below, a door panel from Duomo Florence, how many techniques can you identify?





In this shallow relief (pictured right) from a door panel Duomo Pisa, the carver has used under cut & shadow on the leaves to create a feeling of depth. Look closely at the 'eyes' of the leaves and how the dark shadow prevents any visual clues as to the true depth of the piece. The Undercutting too throws a deep shadow defining the leaf outlines lifting them from their background. The side view reveals the true depth, and just how little undercutting (follow arrows) is necessary for the illusion to be complete. It should also be noted that larger shadows are cast by object near to us, but we can barely perceive shadows cast from distant objects.



The height variation technique can be seen in this door panel below. Did you spot it? The carver has used height variation. By carving the mirror handle higher, undercutting to allow the tip to float in the air it appears much closer than the piece of cloth which has been carved so shallow (to the right) that the cloth is nothing more than a fine line in the wood. This makes this area faint to the eye, a little blurred from clear sight – a phenomenon associated with objects in the distance. For the same reason, carve detail into close objects rather than on distant ones. Their detail, being distant, is small and difficult to see.



### Sloping the horizon

The final technique I want to list is sloping to the horizon. The carving of the Cornish Engine House (shown below left) was an early one of mine inspired by cliff-top walks close to home. Many of the techniques outlined above are included: one-point perspective vanishing point on the horizon; foreshortening the chimney stack; overlapping the foreground fields in front of the engine house; undercutting the horizon, shoreline and windows; use of foreground and background and the final technique for sloping the ground away to the horizon. My mistake here was not to slope the sky down to the horizon. By leaving the sky flat the piece has an uneasy feel to it. Not even the brewing storm clouds can save the piece from the flat sky.

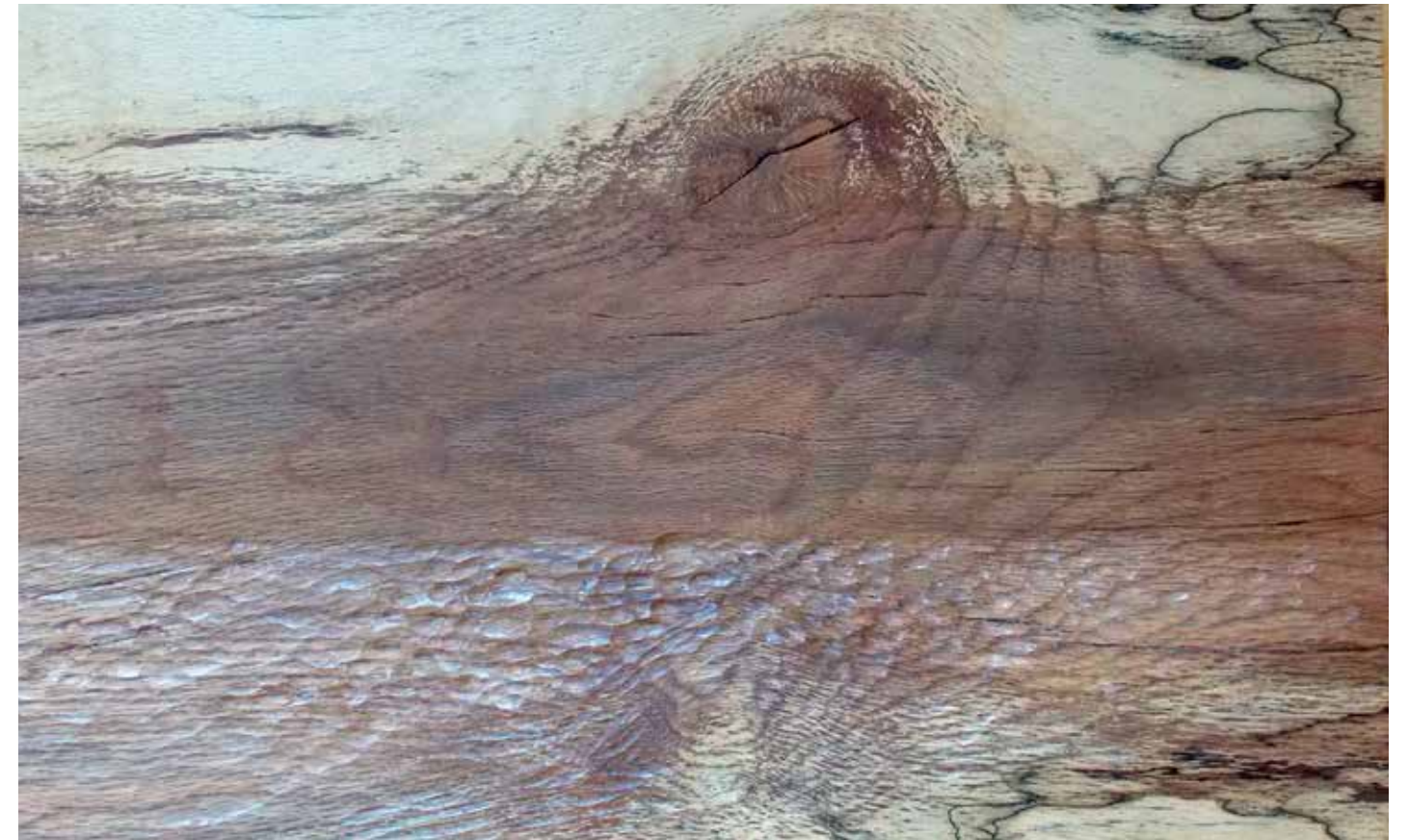
### My first relief carving

My very first relief carving – where did it fail? On none of these points I might add. I had religiously trace copied Dante Rossetti's masterpiece of Proserpine, 1874, model Jane Morris (copyright prevents reproduction) on to the wood and carved it in fine detail, for a first piece. When near completion I decided that more work was required on the face, to make

a more natural appearance. Using my knowledge of the structure of the face I set about the task. My downfall; every relief carving has a viewing point or angle, normally from the front. If you look from the side you see all the compromises a carver accepts to create the view from the front. Once I had made my adjustments, the view of the face from the side was fine, but all the rest failed. And from the front, all the carving worked except for the face. The moral here is only view the piece from the intended view point to appraise it. From any other angle it will rest uneasy on the eye. Some carvers go further, arguing that this is the key to success. Before attempting a relief carving, it is imperative to plan where it will be displayed, what light is present creating shadows and where it will be seen from.

Occasionally, the focus of the carving is on the light reflected, not the shadows. In this piece below, a simple celebration of the beauty of the wood, the piece is displayed with strong light angled across the face creating a shine in the heavily waxed lower portion.

Try for yourself at every opportunity you can. Examine the piece from the side and identify the compromise and, more important, how they were resolved. One day you might need these solutions too.



### Everyday examples

Finally let's take a close look at some of the best relief carving I've ever seen – money. Metal engravers are able to work to much finer tolerances than woodworkers. Here the entire carving is a fraction of 1mm in depth. Many techniques mentioned above are all present, most work but there are a few areas where they don't. For example, on the 10p coin, the lion's three feet on the ground are arranged with the front paw and the rear back paw on the same horizontal line, while the other back paw is very slightly raised (test it with a straight rule). Recall that items in the lower foreground appear closer than those higher. This is subtle but works effectively. Where the coin fails for me is that all four feet stand out as bold as each other. I would like to have seen the lion's two right side paws very slightly less prominent as the two left side paws are. Have fun with this exercise. ▶