EXPRESSIVE FACES

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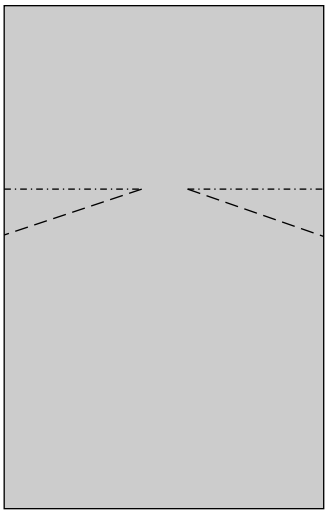
1. Introduction

These diagrams are not a step-by-step instruction showing how to fold a certain face. Instead, they aim at providing instructions to folding separate facial features. I divided these into 'eyes', 'mouths' and 'noses'. In principle, each type of eyes can be combined with each type of mouth and nose, which will allow to create a large range of different faces. I will also provide some hints on how to give the faces different expressions.
In fact, the folds that are used are not complex; the complexity comes from the fact that different folds need to be performed at once and that most of these manoevers will make the model threedimensional. An additional challenge lies in finding the best proportions of the faces (i.e. the distance between different facial features). There is no 'rule of thumb' for this (no reference points), you should 'feel' it or find it via 'trial and error'. Also, this will be different for different faces.
At the end of the diagrams, there are some pictures of faces I have created in order to illustrate the different possibilities.The faces are best folded from foil-back paper or by wet-folding. I mostly use a 2x1 rectangle, although it' s also possible to use a square (diagonal symmetry). These diagrams can also be used to add a face to human figures using only one flap for the head (see last section for an example). Enjoy creating faces!

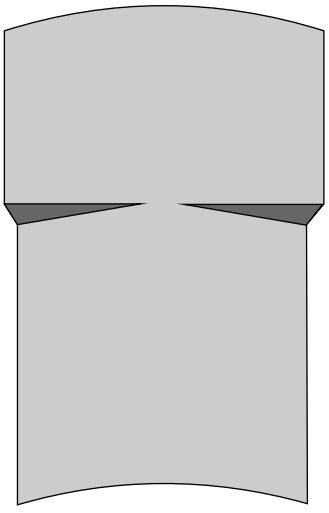
2. Eyes

2.1. Eyes type I

This is the simplest type of eyes. It's suggesting eyes rather than really folding eyes. See pictures 1 and 10 at the end of the diagrams for examples.



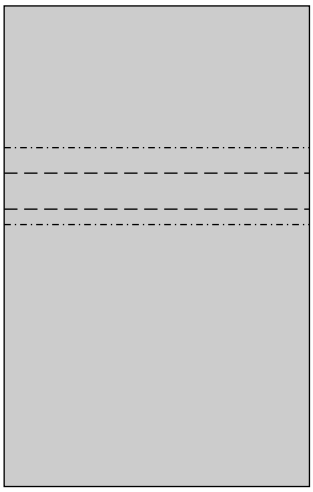
1. Crease as indicated (the upper creases are mountain folds, the lower ones are valley folds). The model will become 3D.



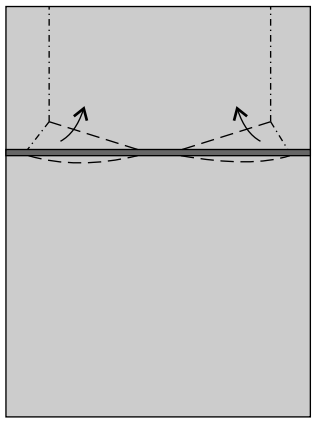
2. Finished eyes type I.

2.2. Eyes type II

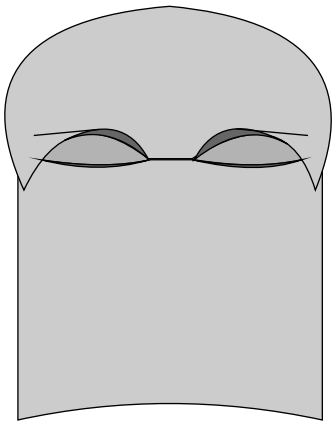
These are the most complex eyes. Although the folds are not so complex, they make the model highly threedimensional. The challenge is thus good 3D shaping. See pictures 2, 4 and 7 at the end of the diagrams for examples.



1. Pleat as indicated (the upper pleat is wider than the lower one).



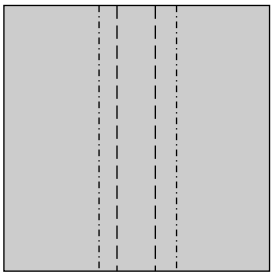
2. The upper eye-lid is created by valley-folding the pleat made in step 1. The mountain folds are not sharp folds. The model will become 3D. The lower eye-lid is suggested by pinching the lower pleat.



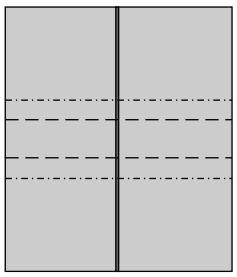
3. Finished eyes type II. You can give the eyes different expressions by altering the pleat widths.

2.3. Eyes type III

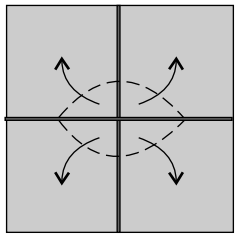
These eyes are based on perpendicular horizontal and vertical pleats. Horizontal and vertical pleats can have the same width or can have different width, depending on the expression one wants to create. See pictures 3, 5, 8 and 9 at the end of the diagrams for examples.



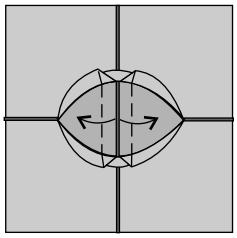
1. Pleat as indicated (both have the same width).



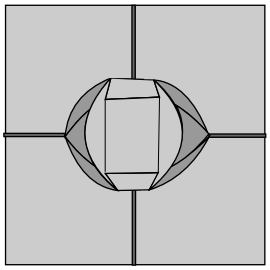
2. Pleat as indicated (both have the same width).



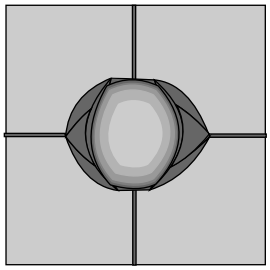
3. Valley-fold the two upper corners together. Some hidden paper will come out when stretching open the corners. The model becomes 3D. Repeat with the two lower corners.



4. Valley-fold the edges.



5. (Optional) Push from the back to create a dome-like structure.

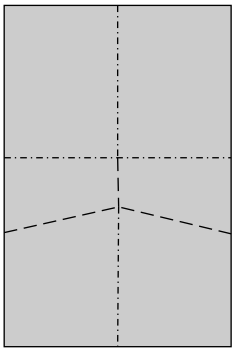


6. Finished eye type III.

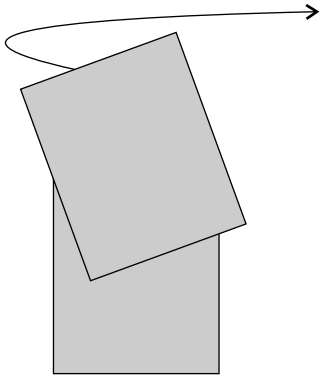
3. Noses

3.1. Nose type I

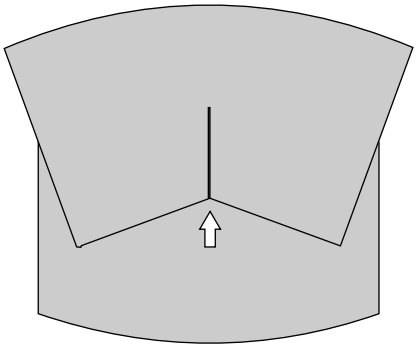
See pictures 2, 4 and 10 at the end of the diagrams for examples.



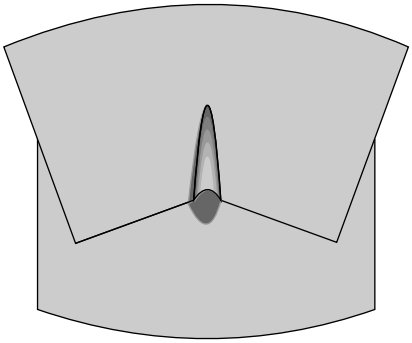
1. Fold as indicated. Start with the horizontal mountain fold. Then fold in half and finally, slide the lower edge back to the bottom.



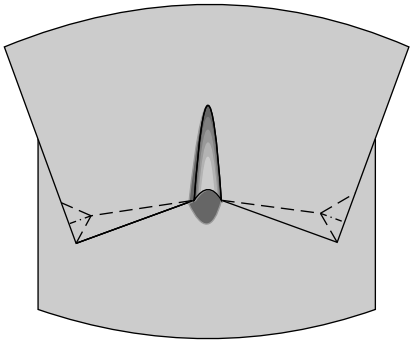
2. Like this. Open the model. The nose will not lie flat.



3. Push inside to open, and shape the nose.



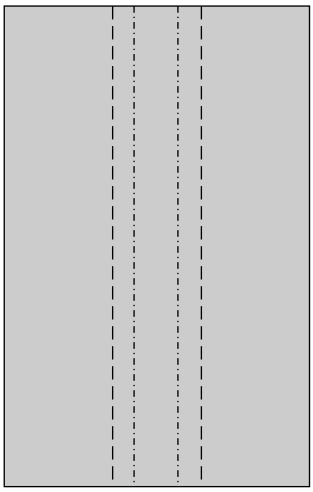
4. Finished nose type I.



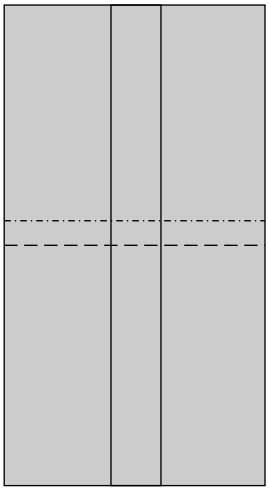
5. Extra: you can give the face a moustache by folding the lower tips into a rabbit ear.

3.2. Nose type II

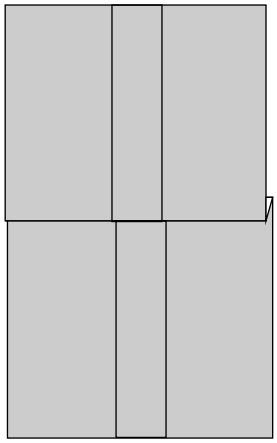
This nose is based on perpendicular horizontal and vertical pleats. The horizontal and vertical pleats can have the same width or can have different width, and this will alter the 'sharpness' of the nose. See pictures 1, 3, 5, 7, 8 and 9 at the end of the diagrams for examples.



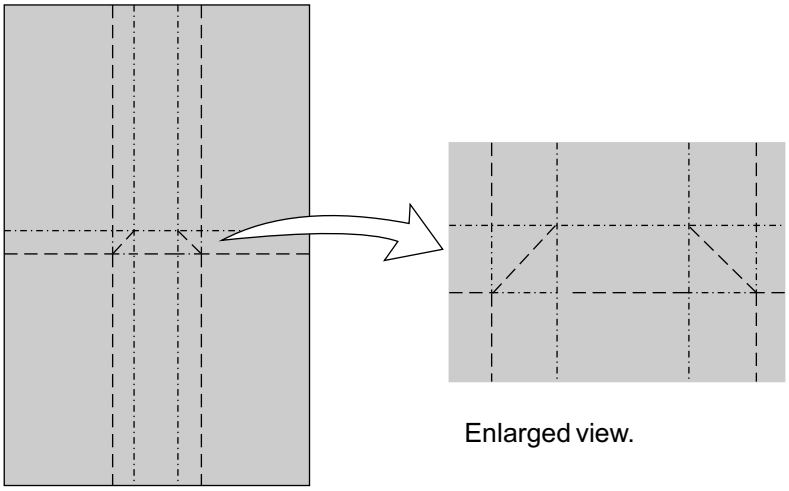
1. Pleat as indicated (both pleats same width).



2. Pleat as indicated.

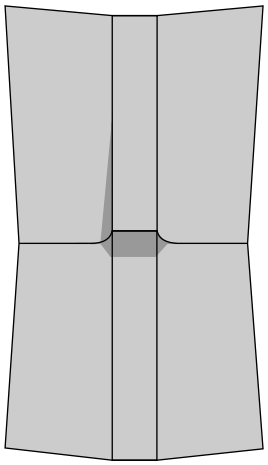


3. Unfold completely.



Enlarged view.

4. Add 45° valley folds. And collapse along existing creases.

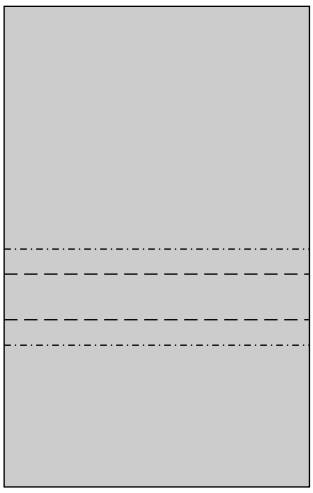


5. Finished nose type II. Hint: Opening of the vertical pleats will create more volume, which can be used to make a hat (on top of the face) or a beard (at the bottom). The effect will even be more pronounced if you use eyes of type III and then also open the vertical pleats used for the eyes.

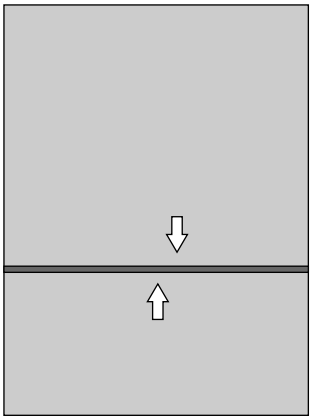
4. Mouths

4.1. Mouth type I

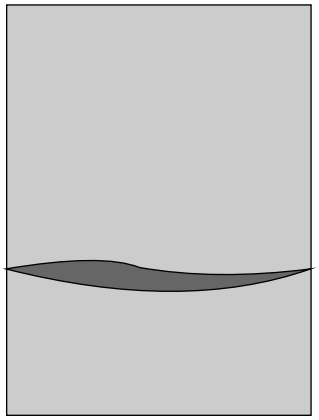
This is a very simple mouth; its based on two parallel pleats. See picture 1 at the end of the diagrams for examples.



1. Pleat as indicated.



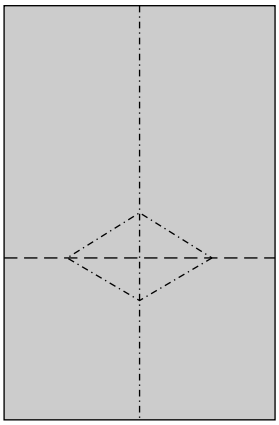
2. Open the pleats to shape the mouth.



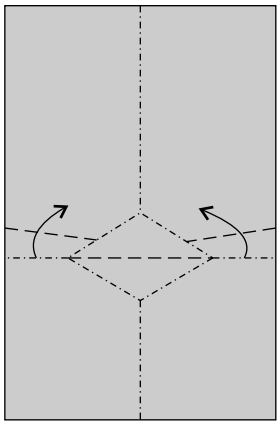
3. Finished mouth type I.

4.1. Mouth type II

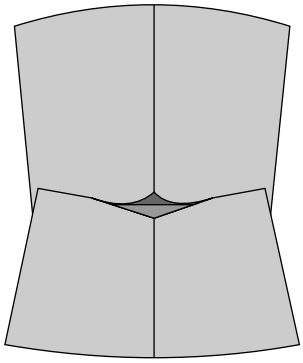
Using this type of mouth, faces can be given very different emotions by altering the dimensions and locations of the creases. See pictures 2, 3, 4, 5, 7, 8, 9 and 10 at the end of the diagrams for examples.



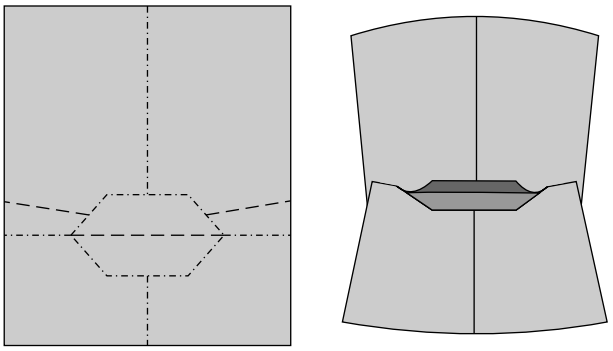
1. Precrease as indicated.



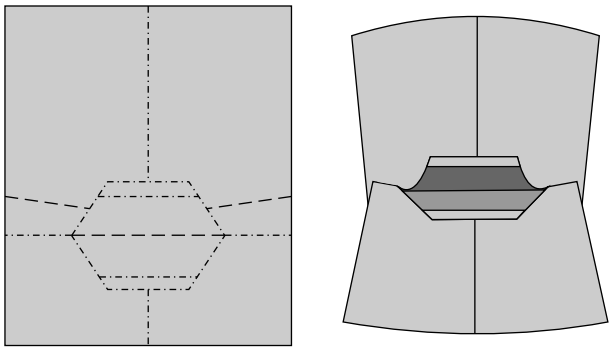
2. Collapse. Fold the edges upwards. The model will be threedimensional.



3. Finished mouth type II. You can alter the expression of the mouth by changinh the dimensions of the creases made in step 1 (length and heighth of the mouth), by changing the orientation (more or less horizontal) and position (folding edges up- vs downwards; altering distance to horizontal center line of mouth) of the creases in step 2.



5. Variation: insert horizontal creases to make the mouth wider.



6. Extra: add mountain creases to suggest lips.

5. Folding sequence

If vertical pleats are needed (i.e. eyes type III and nose type II), then start by folding the vertical pleats. Then fold the nose. This will allow you to locate the position of eyes and mouth. Finish the face by folding extra features (moustache, beard, hat), adjust the threedimensional shape of the face and round the edges.

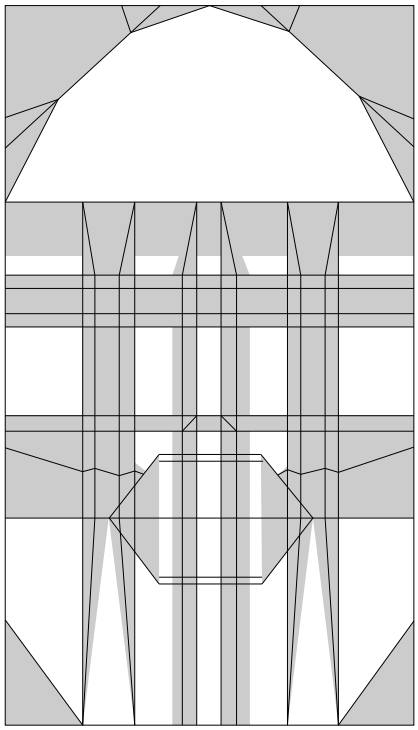
6. Examples

Below are some examples of faces I have folded so far. More pictures @ www.tomdefoirdt.tk

Picture 1. African mask; folded from a chocolate wrapper. For this face, I used eyes type I, nose type II and mouth type I.

Picture 2. Ancient mask. For this face I used eyes type II, nose type I (note the moustache) and mouth type II. I aimed at depicting a shouting commander (mouth wide open, large eyes).

Picture 3. Soldier. For this face I used eyes type III, nose type II and mouth type II. The vertical pleats used to create nose and eyes were opened at the top of the model to create the helmet.



Picture 4. Soldier. Approximate crease pattern. Paper that is hidden in the final model is shaded.

Picture 5. Dark face. For this face I used eyes type II, nose type I and mouth type II. The teardrop was created by inserting horizontal and vertical pleats.

Picture 6. Viking. For this face I used eyes type III, nose type II and mouth type II. The helmet was made as explained in Picture 3. The top corners were folded into horns. The vertical pleats were also opened at the bottom of the model to create the beard. A horizontal pleat was inserted below the nose to suggest a moustache.

Picture 7. Goddess. For this face I used eyes type II, nose type II and mouth type II. A tesselation was added to suggest hair.

Picture 8. Satyr. For this face I used eyes type III, nose type II and mouth type II. The horns were created by inserting horizontal, diagonal and vertical pleats.

Picture 9. Rice field worker. For this face I used eyes type III, nose type II and mouth type II. The vertical pleats used to create nose and eyes were opened at the top of the model to create the hat.

Picture 10. Troubadour. Techniques explained here to make expressive faces can be used on the “head flap” of human figures. For the face I used eyes type I, nose type I and mouth type II.