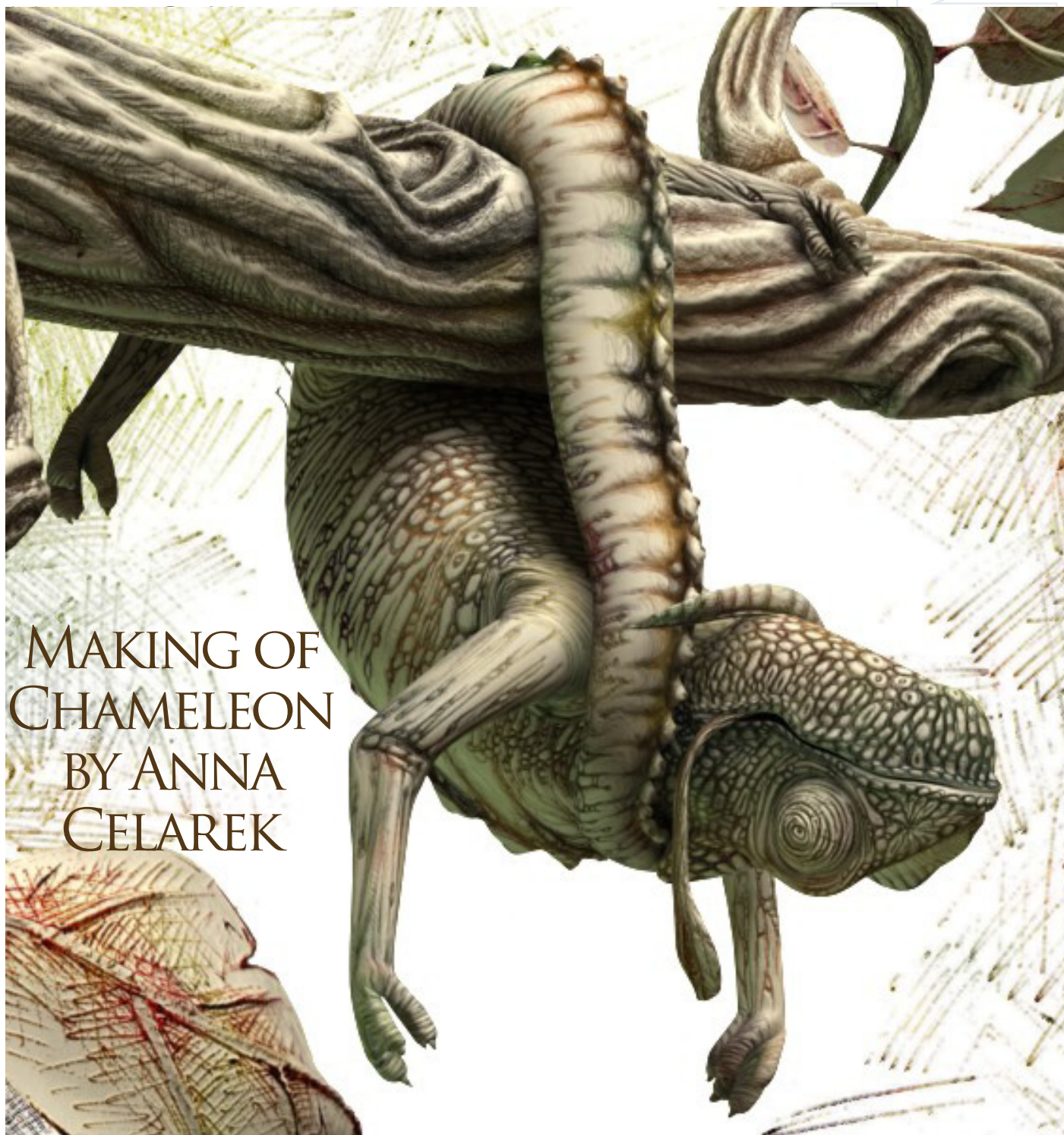# MAKING OF CHAMELEON BY ANNA CELAREK

MAKING OF CHAMELEON

At first, I'd like to say a thank you to all the people who supported me by giving me advice during the WIP phase of this and a special thanks to Mert Arslan.

I will not go into modelling details here, as it's standard modelling and nothing special. Rather I'll concentrate on the texturing. Also, I 've come to some dead ends in between (starting modelling several times, unwrapping thrice, multiple failures with the tail and feet, tea spilt over the texture, etc.), I will leave those things out.

As reference, I used around 30 images found through google, and 2 simple selfmade pencil sketches (side and top view) as blueprints. I modelled the chameleon with the poly-by-poly method, at first in a neutral position (Fig 1).

Fig 1
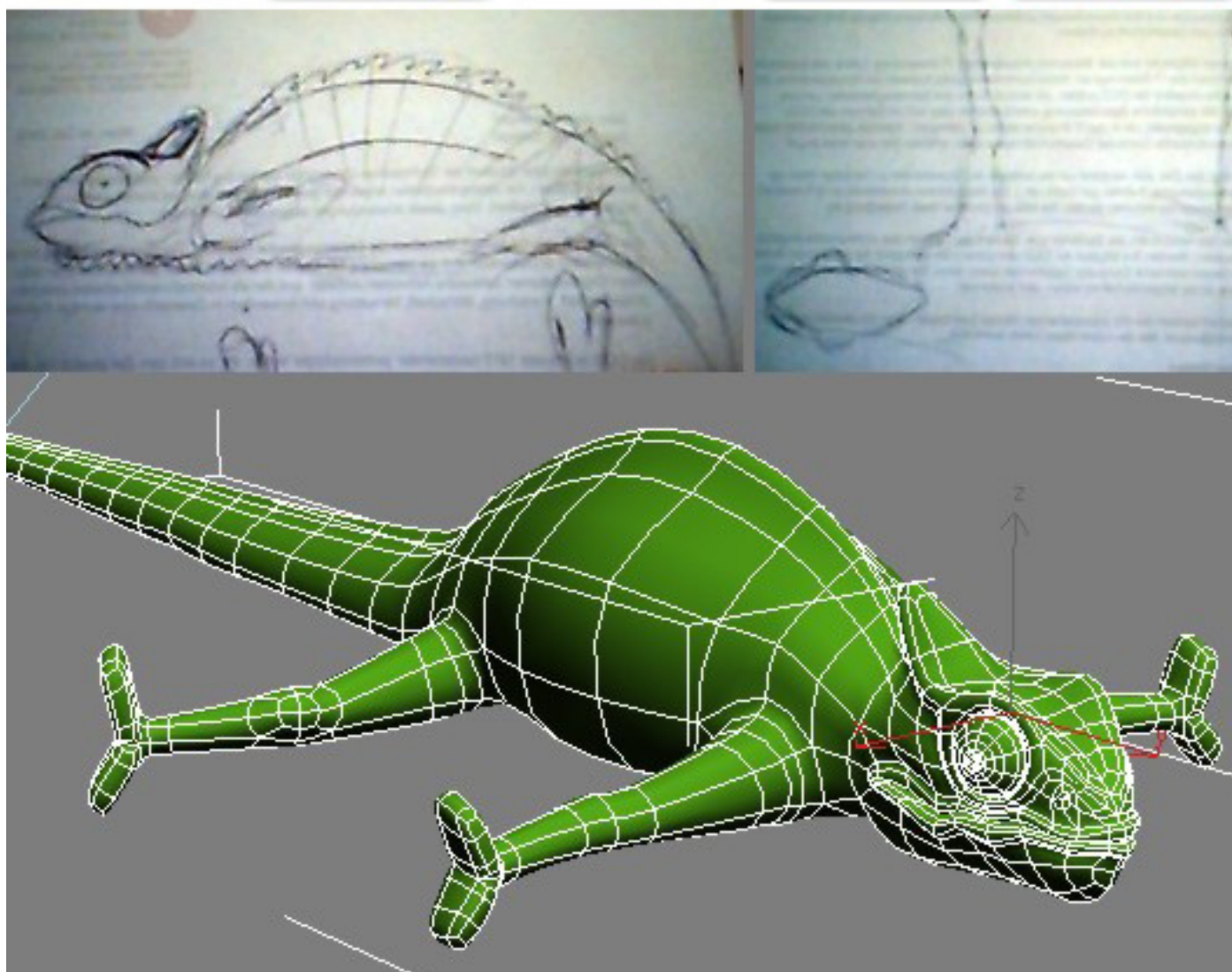
I rigged and positioned it on a branch. then collapsed it, and edited the mesh to remove some intersections and errors which came out during the positionning process. I then re-modelled new feet (Fig 2)

and unwrapped both models using pelt mapping. I didn't plan any animation nor view changes, so I unwrapped just the visible side. That made me less flexible for changing the camera, but it also gave me better quality and less stretching of the texture. I made most seams invisible by putting them on the backside (Fig 3).
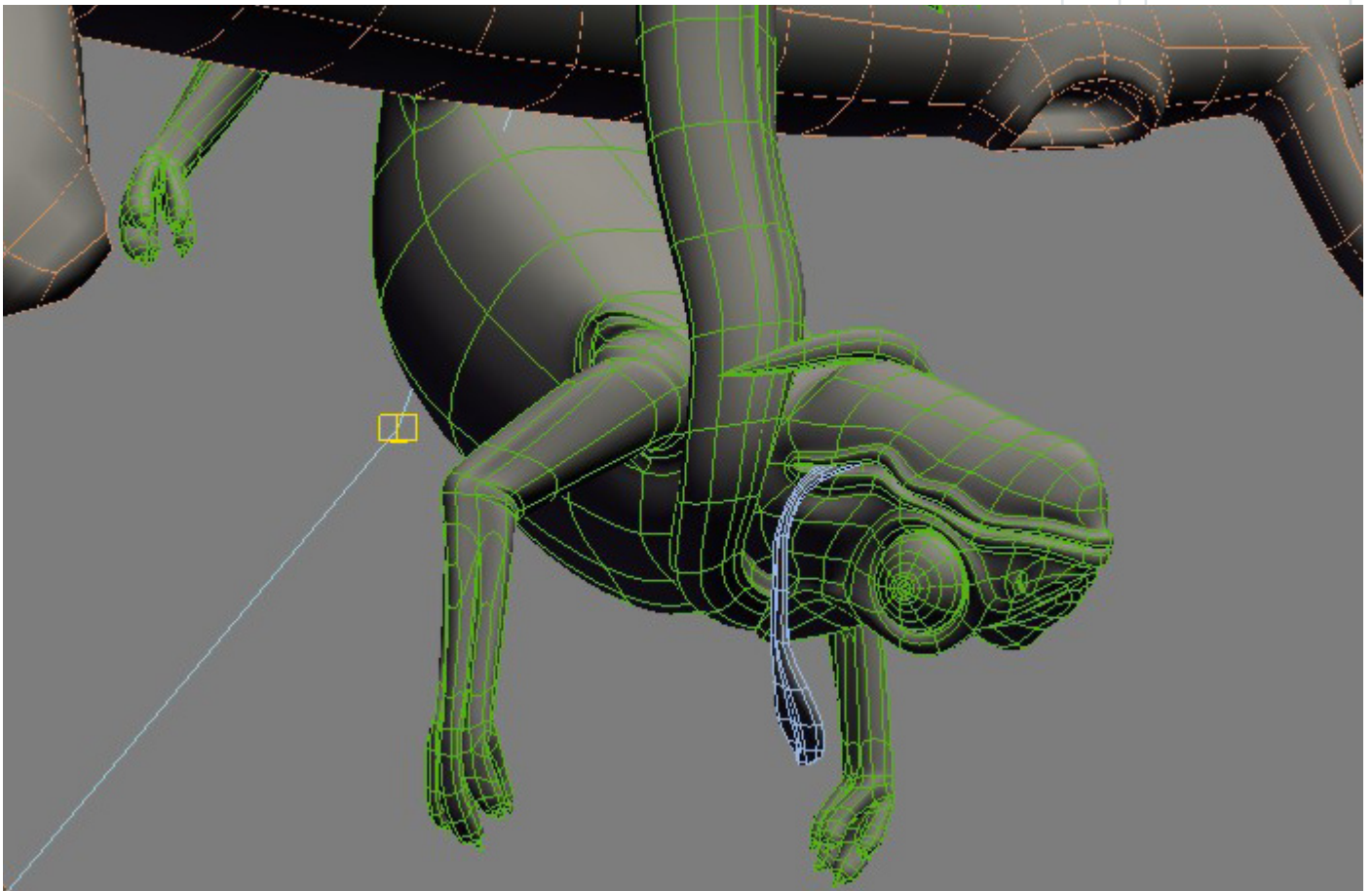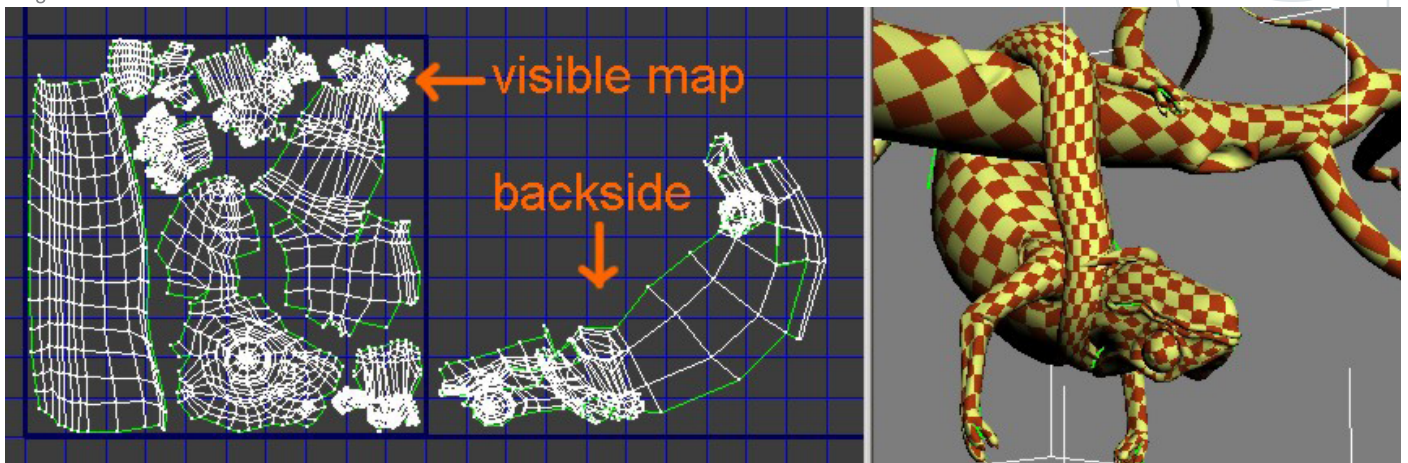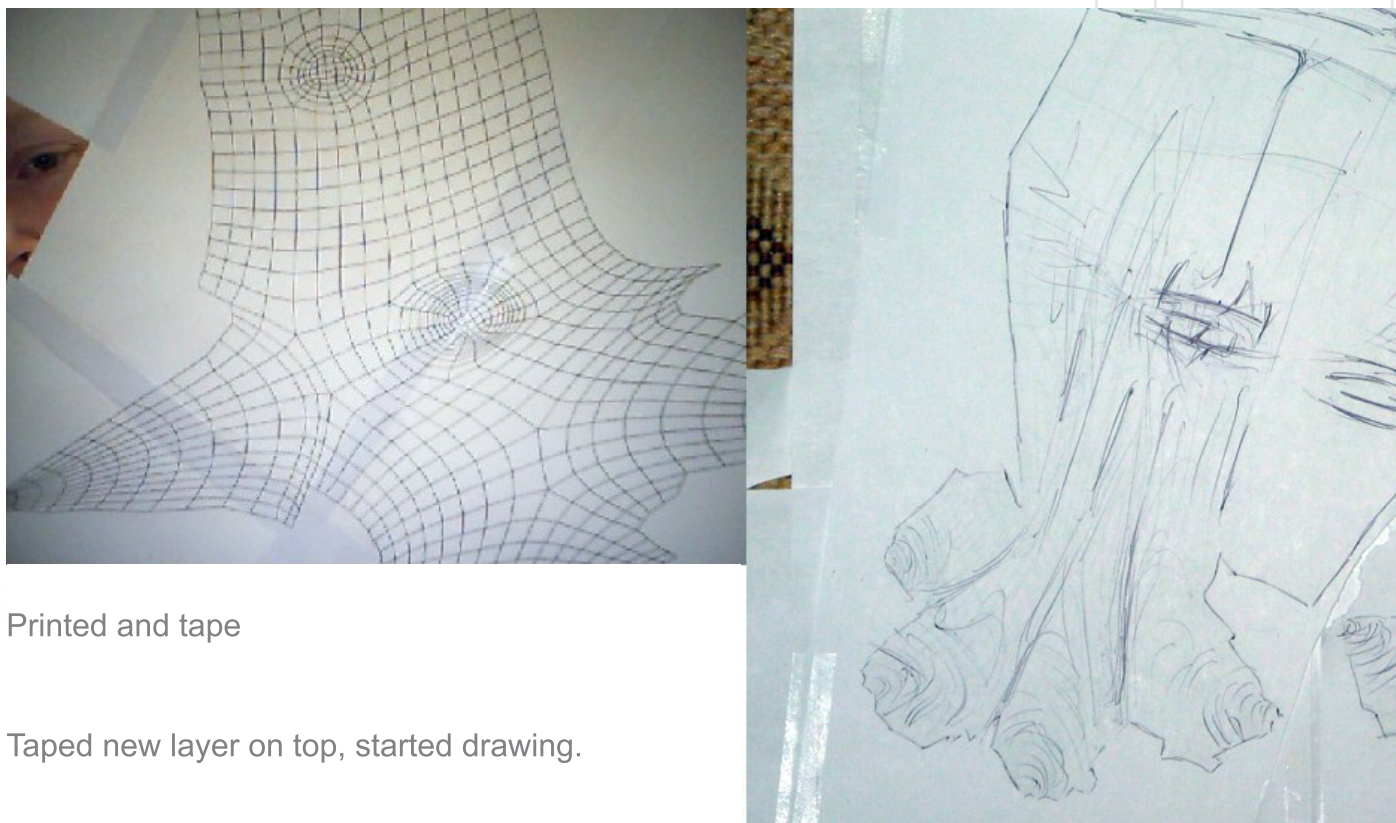
Fig 2

Fig 3

Fig 4

Printed and tape

Taped new layer on top, started drawing.

I printed the uvw maps onto 12 A4-sheets each, and taped them together and then, I taped clear paper onto the top. The original uv's were visible through the top paper, but wouldn't be visible in the final version.
I made the top paper overlap on it'sseams, so that later I could draw into the seam from both sides, which made it more convenient to puttogether again (Fig 4).

Fig 4

Fig 5
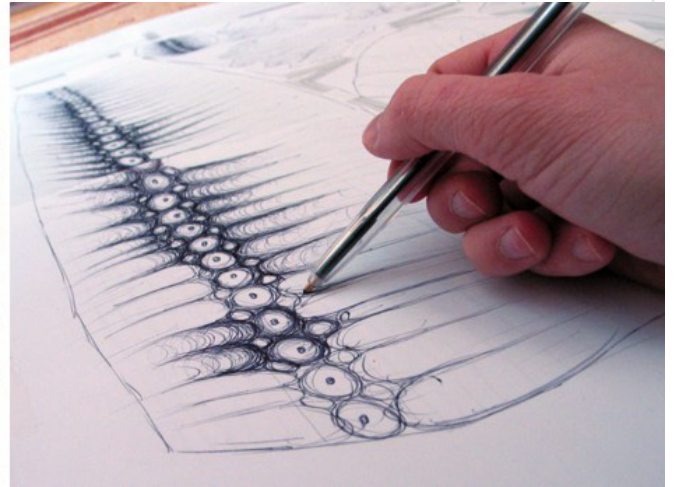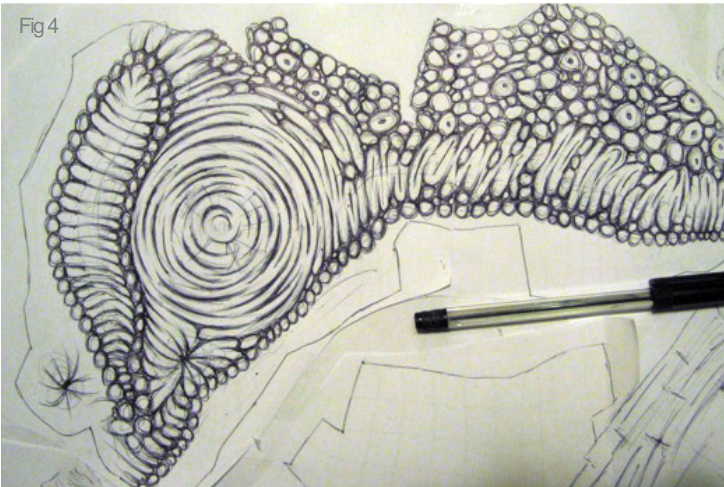
I started to draw, using a black ballpoint pen.
I drew the shape of a scale, then shaded it by
making strokes in the same direction as the
scale.

In between, I took photographs of the texture,
and made some render tests, to see where
I needed more detail, and where it looked
alright.

I noticed that I had placed the scales on the
back wrongly by one loop aside and so I
adjusted them in the unwrap modifier to fix that
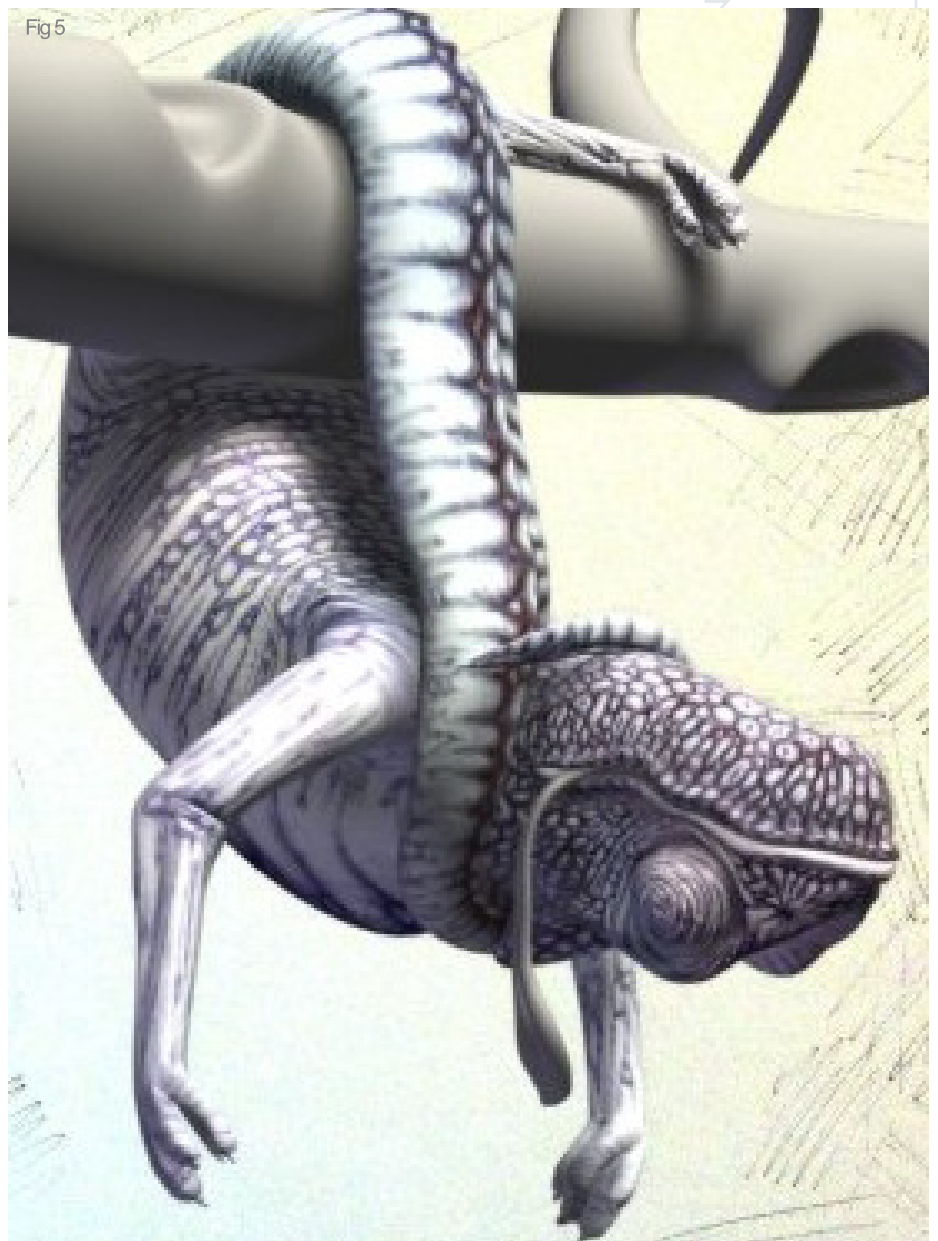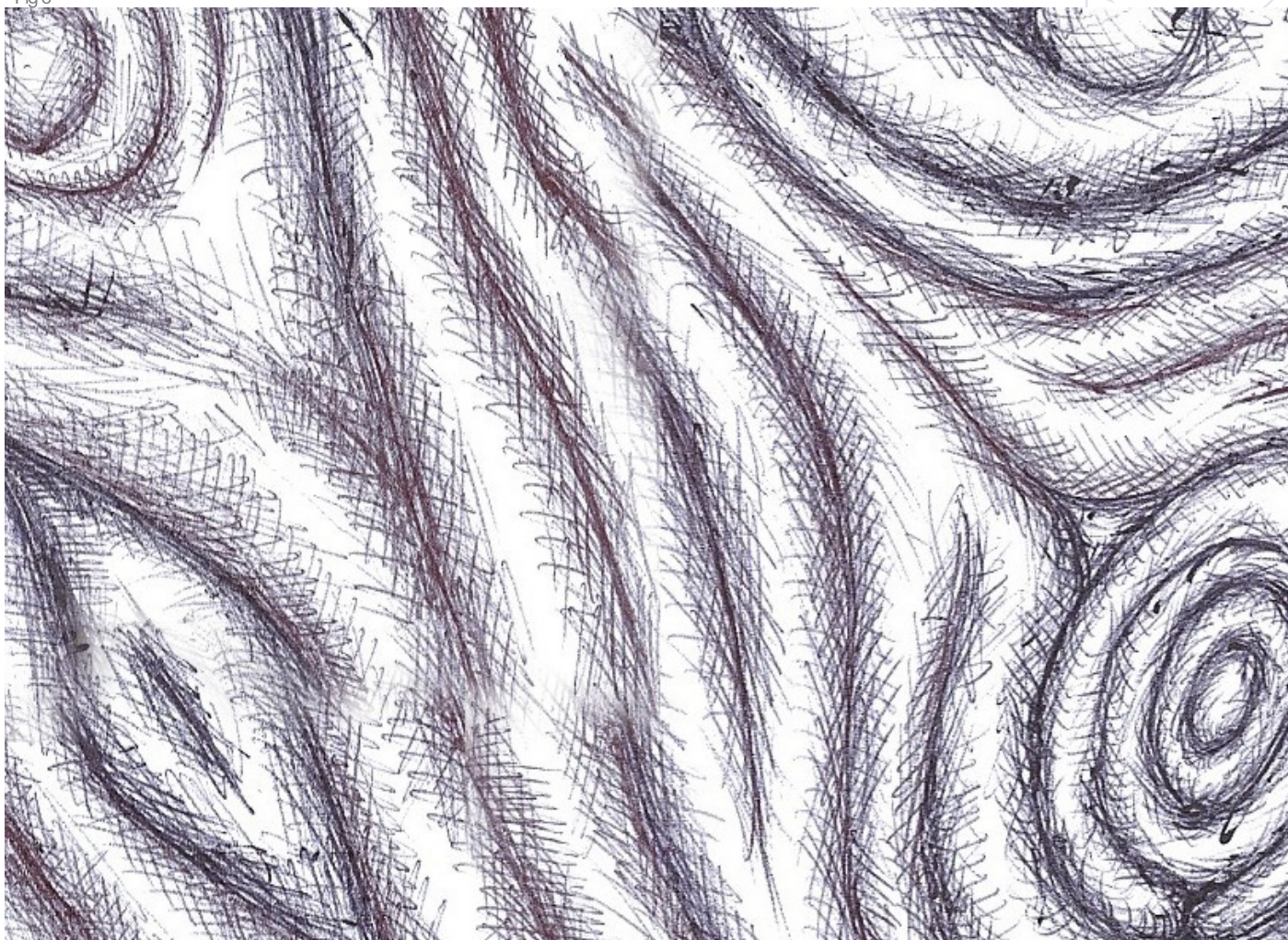problem (Fig 5 & Fig 6).

Fig 6

Fig 7

For the branch I drew the texture using, crosshatching. It was more work than the chameleon itself, but I think it wouldn't look good if I had put the same structure everywhere (Fig 7).

I drew a background for the picture onto one A4 sheet. Also, I drew 4 leaves, and then used them as reference for simple leaf models (Fig 8).

Fig 9

Overlay

When the two main textures were ready, I detached the paper from one another and scanned them. A bit of the detail (brighter lines) got lost, but apart from that it looked good. I was glad that I had not done it with pencil (which I had considered at the start), the scanner would have lost a lot more of detail.

Using Corel Photopaint, first I scaled the uvw map to the size of the scans (doing it the other way around, would lose more quality), and then I placed the scans over the uv's, being careful about making them fit as closely as possible. I used a soft erasor for the edges on the seems, so that in the end the seems between the different pieces of paper were hardly visible.

After initial renderings, I noticed that the colour didn't look that good, it was all too uniform and grey. To fix this I put a strongly blurred image (a random picture from some gallery) onto a new layer, and put it into soft light mode, or overlay mode.

For the background I used the same method,

again using a slightly blurred layer of the hand-painted texture (Fig 9).

For the displacement map on the branch, I put a strong gaussian blur onto my hand-painted texture, and increased the contrast. I put a black-and-white vertex colour map onto the branch object, which I used as mask for the displacement, so that the displacement on the

thin branches would be less than on the thicker ones.

For the displacement on leaves and the chameleon's back, I made just a few strokes in Corel. I also made an opacity map for the leaves (Fig 10).
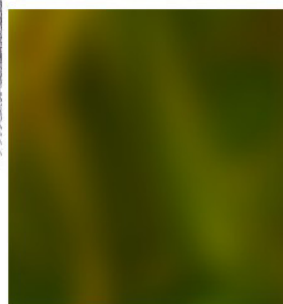
Fig 10

Branch
adjust to UVW
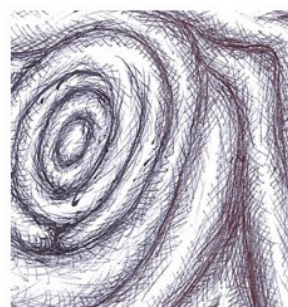
Unedited map
=>
bump

Gaussian
blur
and
contrast
=>
displace

Soft
light
=>
diffuse

I rendered it with scanline, advanced lighting (light tracer), using two direct lights - one strong, yellowish light from the front, and one darker, greenish light from the back/down, both directs had shadow maps. I also added a skylight to the scene, with a .hdri map as colour. I adjusted the colour of the .hdri by putting a RGB-tint map over it.

I didn't do much post production making only a very small colour change (Fig 11).

Thanks for reading, I hope I could give you some new ideas.

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Fig 11