Clare Rangeley

Medical Model Maker

'A lot of my drawing was very sculptural'

GCE, Foundation in Art and design, Degree in Sculpture

Providing information and advice



Who I am: I am a freelance medical model maker specialising in medical training simulators.

An example of my work: I have twenty years experience of making medical models. One of my main clients is Bristol based 'Limbs and Things' where I make medical models for surgeons to practice new techniques. These products are in great demand to help with training and provide an alternative to traditional methods. The artificial parts of internal anatomy that I make both feel realistic to the surgeons' instruments and, importantly, look just as they would when viewed through the 'scope'. I work with a variety of materials (plasticine, clay, wax, even margarine (perfect for cysts), moulding and casting with resins, silicones and foam. I need to be inventive, use whatever comes to hand and always be looking for improvements. I have a degree in sculpture which is perfect for my work. My work is about converting what I see into threedimensional models. It's all about looking, observing, then converting what you see into a different form. My background is not in the medical arena but the art and design world. It has been less important to have medical or anatomical training than to have the art and design skills that help me realise my ideas.

Getting there: As I proceeded through my A Levels I kept my options open and I worked out where my strengths lay. Following my A levels I chose to study for an art and design foundation course since that allowed me to explore a wider range of art and design skills than was possible at school.

A fine art degree followed, I still focussed on drawing and painting but I realised that even my drawing was very sculptural and that my strength lay in three-dimensional work.

For further information please visit www.limbsandthings.com/uk/

Following university I established myself as a selfemployed artist and for six years I worked from my own studio. I did what I wanted to do artistically, working mainly in clay, but soon realised that due to the erratic nature of commissions, I needed to diversify to provide an adequate income. The solution was to take on other work on a freelance basis. These jobs included mould-making, training workshops, producing theatre props and model-making work for animation studios. In time I started doing some work for 'Limbs and Things' who I still do project work for.

To succeed in this area I needed to develop new skills and knowledge. I acquired the necessary medical knowledge for the job by watching surgical operations, visiting the anatomical rooms at the local medical school and by studying anatomy books. This built on my previous experience of observing and drawing from life models throughout my art and design courses.

Whilst the medical training world has moved on and computer aided design becomes more important there is still a place for traditional model-making skills and creative problem solving skills.

There are many other industries where 3D modelling is important including product and car design as well as architecture. What ICT skills might you need for these?

What pathways could learners follow in order to enter this career? Learners could draw a progression pathway and consider their options.

Linked Activity:
Professional Practices A08