The *craft* of design

Does a fledgling designer need to make three dimensional sketches during the design process? Most designers would say it is vital. So why do many student designers think they can make one model and it be sufficient to 'solve' the design process? Designers of many years experience will make four, five or six models. Is this lack of patience and tenacity endemic in student designers?In the age of all things CAD, when we can print things 3 dimensionally, it seems more important than ever to ask this question.

In recent months we have witnessed the demise of Airfix because our kids prefer the quickfix of the Playstation or Gameboy. They are no longer prepared to invest hours in glue and patience. One artist, who undertook a number of residencies in schools was amazed that the children quite normally did not know how to handle scissors at the age of eight. If Lego and Airfix have been replaced by computer games then it makes sense that craft would give way to CAD. Increasingly children and students are not experiencing enough making within their creative education and gaining confidence in their abilities, to appreciate the value of the process.

'*Secondary teachers are, in the main, specialists, although many are trained in fine art and lack design and craft experience. In addition, larger class sizes, limited time and space and the cost of resources mean there is an overemphasis on two dimensional work and the use of secondary source materials, and insufficient opportunities for pupils to work in three dimensions.'* (Sources SSP; Ofsted: Chief Examiners; QCA visits to schools.)

We have to own up, we are coming from the subject of ceramic design and believe that design has to be experienced three dimensionally before its true quality can make itself known. On the BA Ceramic Design course at Central Saint Martins we have witnessed this accumulative effect of education and pastime on the aptitude towards making amongst our new students. The course is concerned with design but uses ceramics and our very strong craft skills, as a point of departure.

Should we be worried that young people are solving so many of their creative needs in a virtual world? As educators of designers we have become increasingly frustrated by the lack of manipulative making skills and tenacity in the physical working in three dimensions of these potential designers. Why is this? Is it us, the lecturers who are out of touch with the abilities and needs of the future design environment or is it that the educative background from which these students come have ill prepared them for starting to become fluent designers for the 21st century?

Our interest in the *Craft of Design* started here, encouraging students to use materials such as clay or plaster to realise maquettes as part of a designs

development. The students tend to enjoy making but not the evolution, often settling for the first object rather than making a number of prototypes.

What is obvious is the success of designs where the student has really began to explore a concept through models before investing in the lengthy ceramic process. Faced with this realisation of the importance of the maquette we coined the phrase the *craft of design* as a way of highlighting the importance of this process and decided to see if our theories matched that of the profession.

The *craft of design* is the use of thinking and making to translate real or undigested ideas into a three dimensional representation. It is the point at which we can finally say to a colleague or friend “hey check this out… it’s an idea I have been playing with for a while now…”

This could be said to be the pivotal point in an design’s gestation. The success of the object does not rely on the physical reality of the maquette, instead it is more concerned with the spirit or essence of the object. Does this capture the philosophy of the idea? Is your colleague excited, despite it being made out of 14 post-it notes, a paper clip and judicious amounts of sellotape? Our hypothesis at this moment of evolution is that the spirit of endeavour in trying to transform the ethereal idea into its first rudimentary physical representation is the hidden or forgotten *‘craft of design’*.

In our course, BA Ceramic Design, we are fortunate that the institution, Central Saint Martins College of Art and Design, believes that ‘learning through making’ is still considered a valuable part in the education of our subject for the professional world. But do students still value this and does the profession? We believe that making three dimensional notations of an idea can provide an opportunity to take risks, experience the rawness of the concept without being seduced by a visual in two dimensions. It faces the creator with the reality of that transient idea that can be handled, experienced and judged.

This article discusses *‘craft of design’* and discovers a range of viewpoints from a number of profiled and eminent designers of many ages, experience, culture and design backgrounds. We undertook these conversations during the Milan Salone with George Sowden, Satyendra Pakhale, Renny Ramakers, Shin Azumi, Kuno Prey, Maxim Velcovsky, Constantin Boym, Ana Mir and Emili Padros. The most surprising aspect of this venture was how eager and passionate these designers were about the importance of making in the design process either as visualization or inspiration.

As designers and educators we know if shown a model the viewer will understand the design better. This awareness works on many levels, an experience of the form through the hand, eye, body, weight, texture including spatial awareness, materiality, scale and emotion thus creating a personal understanding of the design's attributes. Therefore the use of a maquette to communicate an idea can be is pivotal in the relationship between the designer and the client. Fancy drawings, cross-sections, CAD renderings are re-assuring to the client that their designer is doing all the 'stuff' that a designer does, but often the client struggles to interpret these vital parts of the process, especially if the client is a retailer or buyer rather than a manufacturer or designer. Constantin Boym reflected *" I show models to clients because it kind of awakens the child in them, gives them a chance to play. If you show them a picture, they look at it, they get serious. The minute you show an object, you know, a little house, they're looking this way, that way; it gives them a good mood. But it's not just about mood, it's also about conditioning the perception of the project that it is something a little more light and acceptable"* Without the maquette, sometimes employing a designer is a bit like hiring a plumber, you sort of understand the solution to the problem but in the end just hope he knows what he's talking about.

The point at when a maquette is used is important. Initially it may be shown to clarify proportion, scale or a line for the designer, later the model might be used to present these thoughts to the client. The first edition maquette, by definition, has a role to play in the design development process, expressing, informing, explaining, communicating or eradicating preconceptions. This is likely to be superseded by more sophisticated models, which build upon the original idea, creating a complex evolution of the design process. Without this first notional object, attempting to harness the ideas that flit in and out of the designer's consciousness, the design process could be severely stifled as the idea may not be given the opportunity to show itself as a design worth consideration. This moment of bravado mixed with terror, when an amorphous material becomes the model of a teapot, is vital in communicating ideas from the virtual to reality.

Is it that new designers are afraid of a concept not looking good enough or being resolved sufficiently that they will not put it into a tangible form early on in its evolution and that a CAD rendering looks more believable? Shin Azumi enjoys that *'even on a basic level a paper maquette can express the sense of three dimensional beauty in a very good way'*

Interestingly many designers tend to self-select the modelling material of their choice by previous experience and history rather than appropriateness. In some cases the use of obscure materials such as toast or chicken wire adds to the poetry and wit of the object. The fact that a model has more spirit than accuracy can serve to reinforce the concept, this will evolve into a more sophisticated representation at a later date but in some cases this is part of the designers 'magic trick', helping the client to see that a design represented by a material such as blue foam or indeed toast, that lacks any material beauty or resonance, will be a beautiful bone china dinner service takes some creative translation.

When designing through materials one is able to capture some of that spirit which the material offers in the maquetting process, however many designers see it being a much more contained process. When Kuno Prey was asked whether the modelling material itself informed his design thinking he was very clear in his response *'No, when I make a model only have the relation one by one, any material is good, not any materials, but I look for the easiest and cheapest materials. But this doesn't influence the final decision. The final material comes from function, production and the cost.'* Where as Ana Mir was adamant that the *'quality of the materials is super important. It is a big thing. Shape is something almost like and it helps of course, but the most important things are the quality of the materials rather than the shape.'*

So what makes the maquette or three dimensional sketch successful? In this epoch of the computer visualisation, it is becoming evident there has evolved the need for the human touch in design. Has the Client after the seduction to all things computer begun to realise the importance of the hand in design? Maybe the client enjoys the idea that the designer is still using these craft skills, is it re-assuring to see that we can make as well as draw? However Constantin Boym shared our concerns that maybe the ability to make, as well as draw, is not as evident in a young designer's skill set. He says *"This kind of idea of crafting, like making something… it's kind of already a disappearing craft*" he went onto observe *"What interests me is this idea that the prototypes are an example of craft today because even though designers don't often make their objects by themselves but they almost always make their prototype".*

The fact that a designer can make three dimensional objects which help expand the process of communication and show an awareness of proportion, line and detail can only help the client understand the design intention. However designers are willing to spend much more time on CAD renderings rather than a three dimensional form which could convey so much more. Kuno Prey who is also Dean of the Faculty of Design and Art at the Free University Bozen, Bolzano comments "*I had these students for example lose many, many nights making these renderings, they forget, they forget the piece, forget the details, forget the scale… they are so concentrated about making the right surface with the right illumination".*

It might be assumed that the maquette, becomes redundant upon the completion of the project. The *craft of design* asserts that the product would not be completed without this first act of commitment to form as it could hold the most seminal element of the design concept as it has been created with a verve or degree of wit, which demonstrates the concepts aspiration most successfully. Very often the object bears little physical resemblance to the final form, but is likely to share an ethos or feeling of the final design, capturing the spirit or essence of the concept in a three dimensional object. That the provenance of the object lies somewhere in drawings and sketches only reinforces the integrity of the process. Even though the idea may be early in its development it raises clearer understanding for everyone as described by Kuno Prey *"From my experience, this 3D model, rough model, it's very important to communicate not just you,*

but with also with the producer, because if he sees a drawing, it is ambiguous, he imagines something and you imagine something but often it goes in different directions and this is not so good for the project".

Designers who come from a material perspective do respond to the intrinsic nature of materials in their design process as typified by the use of craft and will often employ the generation of designs that are not maquettes but 'early ones', as they are recreated they get better and more lucid in their application. This making design process is probably a 90% designer's internal reflection and 10% communication with someone else. This provides an opportunity to look at the idea from the corner of the eye as well as analytically, in terms of functionality and viability. Satyendra Pakhale asserts *'In the studio we use all the computers, we use everything all the softwares, but the thought starts in your mind, in your feeling, you put it on a paper as a sketch or a scribble or whatever, you put it in a computer in some very basic form, it never gets finalised there, ever, I will make sure it doesn't happen in my studio ever, we always make a model, always make a model'.* He also feels very strongly that the value of material qualities be asserted.

The *craft of design* is the intrinsic nature of the design process, valuing difference and recognising material currency. The choice of materials to embody your thoughts is important. It is vital that material can be formed into your idea and withstand the weight of scrutiny. It is of less importance that the maquette material is true to the final design, although a material that lacks an inherent quality can distract from the presentation of your idea, and in such cases the poetry of the story makes up for the lack of sympathy in the material is more important.

Through discussions with the designers, it has become apparent how vital this three-dimensional-*isation* process is. Reinforcing the hypothesis that the three dimensional sketch, model or maquette is a craft within design and the value it has within the profession. The maquette is a designers legacy, in the way that Leonardo's sketches of the helicopter reinforce his genius, the maquette made by the designer will enhance understanding of the design, its inception and its author. All of the designers interviews warmed to this idea, as Constantin Boym said *"I think it is an amazing educational pool and I personally love seeing this in the shows about other designers, the processes, the sketches – not so much the sketches really but the different variations, like how the first idea was and how it eventually, the final product, the things like why? It's sometimes obvious sometimes not. It's interesting"*

With this in mind the celebration of the maquette is investigated, and the intention to create further discussion through a conference and exhibition, which in turn will grow an archive of maquettes and prototypes, to be housed at Central Saint Martins, culminating in a publication of the subject.

More fundamental to this is to raise awareness of this endangered craft in the face of the CAD evolution. This is not a 'Luddite call to arms' in the face of innovation, instead this is a challenge for designers to recognise the importance of the hand in the design development process and to understand the experience of making the object, the nuance of forming the object firsthand might enhance the process and the final outcome. 3D printing has its place as do balls of newspaper and sticky tape. As Maxim Velcovsky states *"I think the computer is, in a way, like a pencil. It is in terms of the 21st century like a pencil of the last century. So it helps the designer to create his idea but there are a few ways to work with it. I would never rely on a computer 3D visual, inspiration comes in my studio when I see the plaster and the material around me and I test it, you know directly with polishing, brushing and I have all the tools around me."*

The maquette, the point where the idea and its three dimensional representative inhabit the world without recourse to manufacturing or market limitations could be said to encompass the essence of design activity and is the area we would like to describe henceforth as the *'craft of the design'.* It is this *craft* that we have to preserve and celebrate, or maybe it is more fundamental than that, it is this craft that we have to recognise its value and understand its resonance for the market, the client and the consumer. When you see somebody in a department store, thoughtfully holding a fork, testing weight and balance, it is at this point that the consumers act of enquiry exactly mirrors the investigations of the designer. This is why it is important!

Maybe George Sowden eminent designer and one of the founders of Memphis should have the last word " I had another client who actually complained to me that I was behaving unfairly because our models were too nice. Everybody liked them, this is what I was told by the marketing manager, everybody likes what you do, not because it is good but because the models are so nice that people fall in love with them. And I thought, that's my fault. Wait a minute, and I said well do you want me to make the models badly. It just didn't make sense. So yeah, people do react much more strongly to models, they are much easier than drawings, drawings can be misinterpreted"

The *'craft of design'* is a research project being undertaken by Kathryn Hearn and Anthony Quinn at Central Saint Martins College of Art & Design in London.

Forthcoming events
Craft of Design – conference & exhibition September 07
Craft of Design – Maquette Archive from Oct 07
Craft of Design – Publication Oct 08

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