A re-assessment of design thinking through the experience of jury duty in a murder trial.

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ABSTRACT

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The paper is a reflection upon the concepts of 'process' and 'judgement', brought about by the author's experience of being a member on a jury. By adopting the methodological approaches of 'Reflective practice' (Schön, 1983, 1987) and 'Practitioner Based Enquiry' (Sullivan, 2004). The author undertook an exegesis of the experience and reflects on the role of judgement in relation to process. The philosophical framework of 'judgement' as a legal concept is not addressed but the paper draws implications for enhancing the designerly understanding of design process particularly within design education.

A design practitioner typically understands their design process and the judgements they make during design as a heavily entwined experience. Models like Broadbent's (1973) 'Spiral Model' and the more recent model by Swann (2002) emphasise the repeated returning to key points in the design process where judgments are made that often redirect the focus of the process. The models illustrate a highly interactive process where the designer has an enormous influence on the direction of the design process and the design solution that ensues. Hundreds of judgements can be made in the cause of a single design.

Contemporary design process theorising by Nelson (2003) and Fry (2004) explore in greater detail the judgment aspect of designerly thinking. This is brought to bear on the experience of being physically embedded in a trial process where one was a component rather than a designer/author of a process. Where the role of judgement was dictated as the jury's primary task and their influence on the process was minimal. This is in stark contrast to the role a designer normally has within a process. The comparison provided insights into the different roles of process and judgement particularly in relation to a designers understanding of process the implications with specific reference to design educators and design students in the understanding of their own design thinking.

INTRODUCTION

Twenty-four hours after delivering the verdict and being released from jury duty. The author worshiped the porcelain, in the loudest most cathartic manner. It was almost as if this allowed the vocalisation of a full throttle yell to purge the pent up emotions of the experience.

Waking after an extended sleep a recollection of the experience was penned. Six thousand words emerged with surprising ease. It was not a paper. It had more in common with the exegesis students create when using 'Practitioner Based Enquiry' (Sullivan 2005) or "Reflective Practice" (Schön, 1987) methodologies.

The document is an interesting read but apart from being too long, it was not intended to be a paper. It was the starting point for a reflection on the experience which has clarified the role of judgment in a designerly understanding of the design process. Both personally and from an educator's stand point.

I. DESIGN PROCESS

A design practitioner can identify the words, process and judgement, as separate entities but in the normal run of professional life experience they would be experienced as heavily intertwined. Absorbed into the contiguous, seamless, flow of design practice. There have been many models that have been used to explain and theorise the design process. Broadbent's 'Spiral Model' (1973) provides an early example.

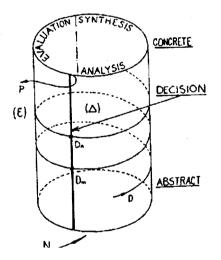


Fig. 1. Broadbent's, (1973) 'Spiral Model'. The spiral path of the process is used to plot design activities

"Evaluation, traditionally, is a matter of experience and judgement..." (Broadbent, 1973, 259). Repeated judgments are called for as the issues of a specific design move from the abstract to the concrete. The model can be used to represent a component of a design or a whole process. It presents design as having a clear path towards a solution. The model presented by Swann (2002, 53) provides a more contemporary representation of the design process. In the tradition of models proposed by Jones (1970), Lawson (1997) and Cross (1992). The Swann model represents a process where ideas are explored, revisited, redirected. A process involving multiple points of judgment that intrinsically influence the direction the process pursues. The practitioner is intimately involved in judgments about the process and the judgements that direct the process.

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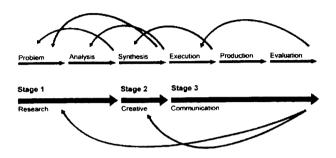


Fig. 1. Swann (2002, 53) illustrating the stages or interrations of a design process with arrows moving from left to right. The arrows moving from right to left indicate the constant revisiting of the different stages typical of a design process

II. THE JURY PROCESS

Jury duty followed a prescribed process, which was run with clinical precision in comparison to the design process The word clinical may appear inappropriate but every aspect of procedure was controlled, where to sit, when to sit and if you needed a toilet break the whole jury went with you back to the jury room. The clinical aspects are also evoked by the sense that all the parameters of the process you're embedded in are set out in minute detail. An abnormal experience, from the perspective of personal norms, but for the major players of the attending judiciary their behaviour and the process they follow was indeed normal. The clinical precision and orderliness of the process had overtones of a laboratory rat experiment of Skinner-esque proportions. Where the jurors are allowed to explore but only within the confines of a predefined process. Except that the jurors are instructed to make no judgements about possible directions, they are indeed encouraged to refrain from making any judgments until the process has finished, until the process had run its course.

Judgments about validity of evidence and a persisting desire to apply the Gestalt 'Law of closure' (*prägnanz*). To create a whole, a neat mental model from the sometimes disparate vignettes of information was evident in a number of the jurors. The desire was to create an intelligible construct that was identifiable within the individual understandings of legal and societal systems. Despite the prejudgement musing that may have taken place by individual jury members, it was done in silence, there were no proclamation announced and they had no impact on the direction of the unfolding process.

The process meandered along despite the obvious confusion and frustration evident in the faces of different jurors at different times. All the jurors passed comments about how strange an experience it was. Comments varying from feelings of claustrophobia to the sensation of being on an endless circuit of airline travel.

II. CONTEMPORARY THINKING ON DESIGN PROCESS

Nelson (2003) and Fry (2004) explore judgment as a key aspect of designerly thinking. Design process is a term often used and referred to by students and academics. The author argues that design judgment is not often specifically referred to. It is simply understood as an inherent part of the design process but by not isolating it as a critical and independently identifiable entity its pivotal role and the opportunity to develop judgment as a skill, particularly in an educational setting, is neglected.

Designers, be they students or professionals, do not easily come to a full understanding of judgments position in what they do because it is intertwined with process. For students the mistaken belief can take root that process in itself can produce design. Design students may require a catalyst which forces the disentanglement of judgement and process. For the author the experience of being physically embedded in a process, the proceedings of a murder trial, established by custom, precedent and law. Where the input to the process was effectively reduced to zero except for the final judgement, proved to be a catalyst.

The atmosphere created in the jury process resembled a clinical or scientific experiment where the role of judgement was isolated in a way that made it distinct and observable. The trial was not an experiment. There was not the intentional or purposeful planning this would normally entail. Nor was there ethic clearances to negotiate, typical of today's academic requirements. Despite this, the procedures and delivery of the trial created a situation with many similarities to an experiment.

Consider the randomised selection, a controlled environment, and a clearly defined process, which leads to the extraction of a discernable result. The objective of the "experiment"; to determine what the collective judgment of the twelve subjects would be after being engaged in the experience of the process.

A. Nelson on Judgement

When Nelson discusses judgment he works within a systems approach to an understanding of design. Making judgements is a very normal part of day-to-day activity. It is a fundamentally human activity and often aligned with reason. Nelson argues that in today's environment of hyper information availability it is logistically impossible to achieve a comprehensive understanding. Comprehensive being the objective when applying the power of reason but there is a catch. He states "Those who continue to cling to the belief that comprehensibility can be achieved will invariably experience analysis paralysis." (Nelson, 2003, 124)

Some jurors made great effort to follow or apply rational analysis but were often lead down a trail of an ever-growing list of questions and possibilities. It was interesting to watch the pursuit of unfettered rationality create a knot, which can't escape the need for the making of a judgement. There are limits to the ability to better understand something simply by trying to absorb more and more information. Especially when trying to understand a complex reality or another human's perception of such. Which was the key element of the defence's argument. Students need to be made aware of this and learn how to deal with the inability to comprehensively cover complex realities and utilise the power of judgment. As Nelson (2002, 260) points out "Judgements are always made in the absence of perfect knowledge,"

B. Fry's Model

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Another person who has reflected on the design process is Richard Fry. His approach to modeling the design process has been to produce a tool for analysis, particularly selfanalysis, of individuals who are engaged in design practice and "identify personal strengths" (Fry, 2004, 87). Using the model in Figure 3. He has identified contributing factors, notably in the bottom right hand corner there is 'Judgement Theory'.

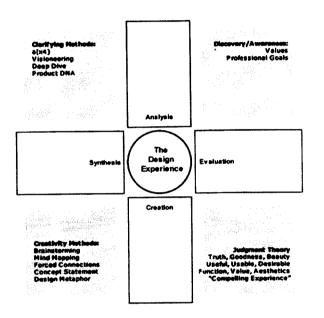


Fig. 3. Fry's 'Design Process Model' (2004). In his model he sets out an overlying structure to manage the tools used in design.

The advantage of this model is that when it is adapted to map an individuals design process a visual representation is available of the different activities being utilised. Despite our ability to theorise about design. We work in the specific. Three worked examples are presented in Figure 4.

It is the quality of the judgements made that steer the designs we produce. Schön argues, "The designer's role becomes that of integrating the results of inquiry..." (1972, 22) but studies of 'Wicked Problems' by Rittel and Webber (1984) reveal that novice subjects had to be told when they were finished as there were no criteria for making that judgment. Students not only have to learn of the need for judgement but how to make and when to make them.

Student Profile

- All areas are shallow
 Less Synthesis than Analysis (http:// use.gov/completence.gov/c
- Insight is weak

Junior Designer Profile

- Creation tool-set increases in 1st year.
 Methods for Conceptualization
- begin to deepen
 Insight related to
 - Conceptualization increases

Senior Designer Profile • Ability to synthesize becomes stronger. • Method Sections Broaden

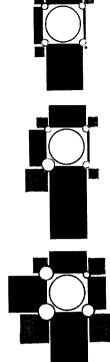


Fig. 4. Three worked examples of Fry's (2004) design process model. The layout of the contributing factors presented in Figure 3 are reconfigured to represent the proportion of use in designers at different stages of their careers. The increase in the utilization of the judgment area by more senior practitioners is clearly evident.

III. BACK TO THE TRIAL

A murder trial carries all sorts of connotations. Amongst them is the idea of getting to the truth, through the pursuit of perfect knowledge. As the trial progressed fellow jurors remarked on the feeling of being lead, blinkered and deliberately denied information. Frustration would surface when legal council would ask seemingly irrelevant questions while appearing to deliberately avoid an apparently obvious question. Creating areas of (deliberate) imperfect knowledge. There is no implication of misconduct here. It is assumed that there were specific and legitimate legal reasons but information was edited and withheld for example. The jury remained out of court while a morning was spent in legal arguments over which images the jury was to be allowed to see. After this was settled the jury re entered court to receive a collection of about 30 images with a numbering system, which went to 170 indicating a large cache of missing images. They could have been image duplicates but it did not appear to be the case.

The comparison can be made here to the classic scenario described in Plato's (1993, 240-247) 'Allegory of the Cave'. The deliberate creating of a single perspective worldview, despite the equal time available to the prosecution and defence the total view presented is limited in the same way as the shadows in the cave. It is from this single perspective that the twelve subjects were invited to make a collective judgment. The jurors received such a specifically apportioned set of informational experiences that there is a sense of groupthink is established. When there was disagreement within the jury on the validity or impact of a specific piece of evidence. It was difficult to argue that one somehow possessed addition information because all the contributing evidence and arguments were delivered in unison.

C. Facts, Facts and more Facts

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There was a desire by some jurors to go on gathering facts obsessively. You may have encountered either a student or colleague exhibiting similar traits. Whether this was a desire to avoid having to make a judgment or a belief that there is a point where a group of accumulated facts will miraculously produce a judgement. The cause can only be speculated but their behaviour has resonance with the thoughts of Valsiner (2001).

In particular a lecture he delivered at Sydney University in 2002 where he expanded on the 2001 paper. He lamented the current state of research process even amongst PhD students. Pointing to the fishing for ready-made theories and solutions instead of building their own. Comparing this student behaviour to the perusing of shelves in a supermarket looking for ready-made packages with promises of 'just add water' or 'heat and serve'. The argument is that we developed highly tuned consumption skills, which elevate the ability to make a choice between prepackaged items of limited difference into an important decision. This has been done with a consequential loss of production and process skills. To use a simple example your ability to select a shirt is highly developed but do you know how it was made or how to make one yourself? Relate this to what we do when we make a judgement and consider if you are just selecting between what has been offered off the shelf. Do you know how a judgment is made, how would you construct your own judgment?

There were no shelves in the jury room, no aisles to peruse. Judgement was the only task. The process provided information about the alleged crime, the context, and the people involved but assumed the skills of making a judgment existed as a given. The author argues that in design education, process can often over shadow the crucial role of judgment. It being left as understood but not disentangled from ideas about process nor understood as something that is made not just selected.

Returning to the trial and the concluding of the judicial process, that which happens in the jury room, the judgment of guilty or not guilty. The jurors were civilised but this only barely provided a thin veneer, which covered the palpable possibility of a real 'Lord of the Flies' type scenario. So much in the end depended on the judgment individuals had made on how to frame the uniform information that had been presented. There was discussion, argument, and persuasion. There was reverence to logic and reason but values and beliefs carried as much weight. Nelson points out in his discussion of designerly thinking "The reasoning and logic behind an accurate explanation of the existing are not the same as the logic and reasoning used to determine what is desired that does not yet exist." (Nelson, 2002, 165) Until there was agreement and there was two days of existing in a state of unresolved tension, there was no release from the singular responsibility of making a judgement.

II. JUDGEMENT

Until one is confronted with separating judgment from the other intertwined activities that constitute our thinking, judgement remains confused with the other activities. Nelson who has reflected on the issue states, "Judgement is, by definition, an elusive animal. It is as distinct from rational decision-making as it is from intuition. Judgment has practical, pragmatic value and academic legitimacy, without having to be codified and generalized, as science demands on behalf of its cousin reason." (Nelson, 2003, 181)

As a result of the courtroom experience the author has drawn the following educational application from the reflection. Postulating that the when we identify a student as gifted, or when we discuss a student as having a sound understanding of design process. Are we actually diagnosing the presence of effective design judgement with out acknowledging it? Making students aware of judgements role in the design process will give them an insight, an advantage for engaging in future design practice. It will enhance their designerly thinking. The lesson for students is that decisionmaking can be based on reason, reason is a tool, but reason does not make a judgment.

My part of this reflection is over. Its usefulness or applicability will be a judgment you will have to make but as Nelson states, recipes and rules are not what create quality design. "Rather, they are the outcome of judgment." (Nelson 2003, 127).

REFERENCES

- Broadbent, G. 1973. Design in architecture: Architecture and the human sciences, John Wiley & Sons: London, p 258.
- Cross, N. 1992. Engineering design methods: Strategies for product design, Second edition, John Wiley & Sons Ltd, England
- Fry, R. 2004. A common mental model for the design process, In the proceedings of Futurground Monash Melbourne Australia.
- Jones, J.C. 1970. Design methods: Seeds of human futures. John Wiley & Sons Ltd: Great Britain.
- Lawson, B. 1997. How designers think: The design process demystified. Third edition Oxford and Boston: Architectural Press.
- Nelson, H.G. and Stolterman, E. 2003. The design way: Intentional change in an unpredictable world. Educational Technology Publications, Englewood Cliffs, New Jersey, USA.
- Plato. 1993. Republic, Translated by Robin Waterford, Oxford: Oxford University Press. pp 240-247 (514a-520a).
- Rittel, H.W.J. & Webber, M.M. 1984. Planning problems are wicked problems, in N. Cross (ed.), Developments in wicked methodology, John Wiley & Sons, New York, pp 135-144.
- Schön, D.A. 1972, Design in the light of the year 2000, Design Australia, April/May 1972, p 22.
- Schön, D.A. 1983. The reflective practitioner: How professionals think in action. New York: Basic Books.
- Schön, D.A. 1987. Educating the reflective practitioner. Jossey-Bass Limited, London.
- Sullivan, G. 2005. Arts practice as research: Inquiry in the visual arts. Sage Publications, London.
- Swann, C. 2002. Action Research and the Practice of design, Design Issues: Volume 18, November 2 Winter.
- Valsiner, J. 2001 Process structure of semiotic mediation in human development. Human Development 2001; 44: 84-97.