

IV PROJETAR 2009

PROJETO COMO INVESTIGAÇÃO: ENSINO, PESQUISA E PRÁTICA

FAU-UPM SÃO PAULO BRASIL

Outubro 2009

EIXO: PROPOSIÇÃO

DRAWING OUT THE VALUE OF DRAWINGS

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Resumo

Este trabalho propõe uma explicação a respeito das discordâncias entre acadêmicos sobre o valor dos desenhos. Chama a atenção para o fato de que tais discordâncias ocorrem não apenas entre acadêmicos nas disciplinas tradicionais baseadas no texto, mas também entre acadêmicos em áreas não textuais como a arquitetura. O artigo não aborda a natureza dessas discordâncias propondo, ao invés disso, um referencial para explicar as causas disso.

O artigo baseia-se na discussão entre membros de um grupo de pesquisa que estão pesquisando a relação entre modelos de pesquisa tradicionais e não-tradicionais. A discussão foi estimulada pela análise dos exercícios aplicados em uma disciplina de graduação em arquitetura. No exercício, os estudantes foram instados a expressar seu entendimento de uma tipologia arquitetônica particular (a assim chamada Casa Bandeirista), por meio do desenho. Centenas de desenhos foram recolhidas por um dos membros do grupo ao longo de anos lecionando essa disciplina. No ato de selecionar dentre esse material alguns exemplares para serem usados em uma apresentação, a discussão iniciou-se em torno do que cada membro do grupo valorizava nos desenhos.

palavras-chave: desenhos, visões de mundo, valor

Abstract

This paper proposes an explanation for why academics disagree about the value of drawings. It notes that such disagreements can be found not only between academics in traditional text-dominated disciplines, but also between academics in non-textual subjects such as architecture. The paper does not focus on the nature of these disagreements but instead proposes a framework for explaining the causes of these disagreements.

O artigo propõe que diferenças na avaliação dos desenhos, tanto em contextos trans-disciplinares como entre colegas, surge devido à existência de mais de um paradigma entre profissionais igualmente bem informados utilizando meios não-textuais. O conhecimento explícito das conseqüências de diversas visões de mundo e paradigmas podem informar as discordâncias ao tornar clara a conexão entre aquilo que é pressuposto e aquilo que é valorizado.

The paper is based on a discussion between members of a research team that are investigating the relationship between traditional and non-traditional models of research. The discussion was stimulated by looking at the outcomes of a pedagogic exercise undertaken with architectural students. In the exercise, the students were required to show their understanding of a particular architectural form (the so-called *Bandeirista* House), through drawing. Hundreds of drawings have been collected by one member of the team as a result of undertaking this exercise over several years. In the course of selecting some drawings to use in a presentation, the discussion began about what each team member valued in the drawings.

The paper proposes that differences in the evaluation of drawings, in both cross-disciplinary contexts and between subject colleagues, arises owing to the existence of more than one paradigm amongst equally well-informed professionals using non-textual media. Explicit awareness of the consequences of diverse worldviews and paradigms can inform disagreements amongst professional because it makes clear the connection between what is assumed and what is valued.

keywords: drawings, worldviews, value

Resumen

Este trabajo propone una explicación para la cuestión de porque académicos están en desacuerdo sobre el valor del dibujo. En esta investigación, notamos que estos desacuerdos pueden ser encontrados entre académicos en disciplinas tradicionalmente dominadas por la narrativa textual, pero también entre académicos en disciplinas no basadas en expresión textual, como la arquitectura. Este trabajo no analiza la naturaleza de estos desacuerdos, pero propone un marco de análisis para explicar las causas de estos desacuerdos.

La investigación está basada en una discusión entre miembros de un grupo que investiga la relación entre modelos tradicionales y no-tradicionales de investigación académica. La discusión fue estimulada por un análisis de los resultados de un ejercicio pedagógico con estudiantes de arquitectura. En dicho ejercicio, les pedimos a los estudiantes que mostraran su entendimiento sobre una forma arquitectural particular (la llamada casa Bandeirista en Sao Paulo), através del dibujo. Decenas de dibujos fueron colectados por un miembro del equipo de investigación como resultado de años llevando a cabo este mismo ejercicio. En el curso de la selección de algunos de estos dibujos para una presentación, tuvo lugar una discusión sobre que elementos cada miembro del grupo de investigación valuaba en los dibujos.

Este trabajo propone la idea de que diferencias en la evaluación de los dibujos en contextos interdisciplinarios y también entre miembros de una misma comunidad surgen gracias a la existencia de mas de un paradigma entre profesionales igualmente informados y que usan media no-textual. Una comprensión de las consecuencias de distintos paradigmas de conocimiento puede informar desacuerdos entre profesionales porque eso vuelve explicita la conexión entre aquello lo que es esperado y aquello lo que es valuado por cada comunidad.

palabras clave: disegnos, visiones de mundo, valor

Context and conditions

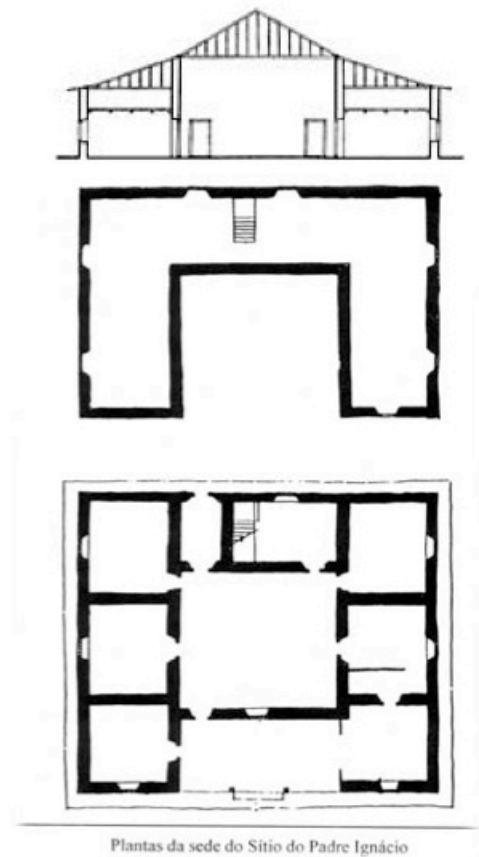
This paper addresses a familiar situation from a novel point of view. The familiar situation has two aspects: (1) that writing about architecture and drawing architecture produces two different types of outcome that are difficult to reconcile; and (2) that drawing about architecture does not produce uniform results and those experts who are used to evaluating drawings can identify a number of different languages within the visual medium. For example, drawing for recording and the communication of information, and drawing as a medium for thought. The problem underlying these situations concerns how to evaluate these outputs especially when comparing across types, i.e. text to drawing or drawing of one type to drawing of another type. This paper proposes that there is a much more significant and fundamental issue at stake than merely considering which medium is best for the purpose.

The authors currently collaborate on an international research project that investigates non-traditional knowledge and communication in academic research¹. This article reports on some of the debates amongst us on the value of non-traditional types of outputs, in this case architectural drawings, in academic research. In the context of a theoretical discipline on the history and foundations of architecture, the shared experience of considering the evaluation of the non-textual outputs led to long discussions about why each of us valued what we valued in the drawings. The drawings were the outcome of a novel didactic exercise. The exercise was undertaken annually with 5th semester architecture students over a 3-year period, and as a result approximately 1200 took part in the activity. In the exercise, students were introduced to a particular historical house typology – “The *Bandeirista* House” – that can be found throughout Latin America. This is a typology that dates from the colonial period, more precisely between the 1600s and 1800s, that presents elements of Palladian architectonic composition. However the building techniques that were employed – namely mud walls – are also determinant if its configuration.

After a theoretical lecture on the subject, the students were set a two-part in-class activity. In the first activity, students were given a text about the *Bandeirista* house and were asked to write a short essay based on it. The aim of the activity was to enable

¹ <http://r2p.herts.ac.uk/ntkc/>

students to conduct a critical analysis of the typology through reading and writing, i.e. through text-based media. In the second part, they were presented with a set of images projected on a screen – two photographs of one of these houses, the floor plans and a cross section (Figure 1) – and were asked to produce a freehand sketch that represented their three-dimensional tectonic understanding of the typology.



Slide presented for the drawing-to-drawing part of the exercise.

Our focus in this article is on the second part of the exercise – the non-textual reading to non-textual representation. The basic configuration scheme of the house is apparently very simple. However to accurately represent it, the particularities of the historical context, the building techniques and climatic requirements had to be fully understood. The purpose of this part of the exercise was to enable students to understand the complexities of a constructed architecture through freehand sketching. The task of evaluating these non-textual representations of the students' understanding of abstract concepts, revealed the existence of different value systems amongst the research team. It is this aspect that is the focus of this paper.

Values and evaluation

In the international project 'non-traditional knowledge and communication', the authors have adopted a framework that looks particularly at theories of worldview and research paradigms. In doing so we make reference to the work of Guba (1990), Guba and Lincoln (1994), and Heron & Reason (1997); and earlier work by Goodman (1978) and Kuhn (1970 [1962]). This framework is helpful in considering why it is that some outputs (such as journal articles, books, PhD theses) are accepted as academic whilst others (such as the design of an architectural building) fall outside and are not accepted as demonstration of scholarly knowledge (for example within the Brazilian 'Lattes' system²).

The terms "worldview" and "research paradigm" need some explanation. A worldview is basically a set of beliefs that one holds about the nature of the world and one's place in it, that determines the activities one would undertake as a researcher. So if we think of the model from classical physics: the classical physicist believes in an external world, and facts can be found out about that external world. Because it is external, it is independent of the emotional responses and interests of the researcher. It is an objective world and one can say objective things about it. One can find evidence for it, and anyone else can find this combination of evidence and objective statements. As a result, they will conclude broadly the same things about the nature of the world.

The more repeatable the outcomes, the more the statements and claims are held to correspond to what is actually out there. Such a worldview creates a research paradigm in which certain activities are relevant: reaching for evidence and setting up repeatable experiments becomes meaningful. But of course this is not the only worldview. If we compare this to the world of literary theory: the literary theorist does not approach the world in this way. They do not believe there is something objective out there, for example, the fundamental interpretation of a text. Their worldview is much more engaged with the reading of the individual person, i.e. with the subjective experience of the reader in constructing the text. The individual's interpretation is at least as meaningful as anything that one might claim the author put into the text.

² <http://lattes.cnpq.br/>

The fact that the world may be regarded as a construction of the individual, contributes to Goodman's (1978) concept of "world-making". Goodman regards worldviews as a representational problem whereas Guba and Lincoln refer to the relationship of the researcher to the world. Guba and Lincoln (1994) originally identified four main worldviews, but responded to the criticisms of Heron and Reason (1997) and later described five (Guba and Lincoln, 2005). This amendment suggests that there may be many more worldviews between the extreme Realist position of the classical physicist, to the anti-Realist position of the literary theorist and others.

According to Guba and Lincoln (1994: 108), worldviews centre around three principal questions: an ontological question, an epistemological question and a methodological question. The ontological question asks about the nature of the object of study, about the nature of the world and whether it is out there or inside us. The epistemological question asks about what kind of relationship we can have with that knowledge; and the methodological question asks what we can do to find out more about this object of study. According to which of the many ways these questions may be answered, so there are as many appropriate research paradigms in which there is a connection between the worldview and the research paradigm that is constructive and functional, and in which one could say that research actions were appropriate. This use of the term paradigm differs from Kuhn's (1970 [1962]) earlier use. For Kuhn, a paradigm is a large-scale set of dependent concepts that determines a view of the world across a wide range of subjects. It forms a way of thinking that pervades enquiry in all fields until it is replaced by a new paradigm. For Kuhn, paradigm shifts occur when the existing way of thinking becomes stretched to breaking point. For Guba and Lincoln, paradigms do not shift. For them, a paradigm is a way of addressing the world according to a worldview, which means that at any one time there are many different paradigms in operation.

As one introduces different responses and answers to the ontological, epistemological and methodological questions, so one defines a range of possible worldviews and paradigms. Issues such as the role of evidence become very strong in a Realist position and as one moves towards an anti-Realist position, the role of evidence changes. It is not that evidence stops being meaningful, it is that evidence stops being significant. The anti-Realist does not look for evidence in the sense that the Realist does, or at least the

meaning of the term evidence changes radically as one moves into more interpretative or Constructivist paradigms.

We felt, as a research group, that the worldview with which the arts were confronted when they entered the academy was dominated by concepts from the Realist position (UKCGE, 1997: 8). This is perhaps just one more phase of a general historical shift. With the entry of new subjects into the Universities over hundreds of years, the dominant paradigm has changed. Nonetheless, when we looked at the kind of regulatory framework that the Universities set up – that was supposed to be generic for all subjects – and the language that the research councils were using, there was a strong Realist component in them. For example, the use of the terms “question” and “answer” by the UK Arts and Humanities Research Council in their “definition of research” (AHRC, 2009: 29ff.), could have been made less Positivistic by the use of the terms “issue” and “response”. The former are not necessarily appropriate for the arts. As one goes further towards Constructivist anti-Realist paradigms in which the individual’s experience becomes not just an unavoidable nuisance but is constitutive of the kind of content that one thinks there is in a subject like the arts, so one moves away from what seems to be the preferred model of the Universities. It was more and more difficult for artists and performers to express what it was they were doing in terms that would satisfy the Universities for the award of a PhD, for example. So in the UK, and elsewhere in Europe, one can see individual institutions struggling with this, and struggling with what it is that artists and performers could do for which universities would feel able to award a PhD, or for which research councils would feel able to award a research grant.

The reality in Europe is that different models of research are valid and the discussion now is not whether one can conduct research in a different way but what that way is. Instead of asking whether non-traditional models of knowledge and communication exist, currently what is asked is: would research models that are used by design professionals in their practice constitute a new or alternative research paradigm. Furthermore, it is currently accepted that one worldview is not better than another and one research model is not more scholarly than another. In other words research models are different but equal and present equal potential for high-level scholarship so there can be unscholarly scientific research and scholarly artistic research, for example. The word ‘scientific’ and the word ‘scholarship’ are not synonymous and cannot be used interchangeably.

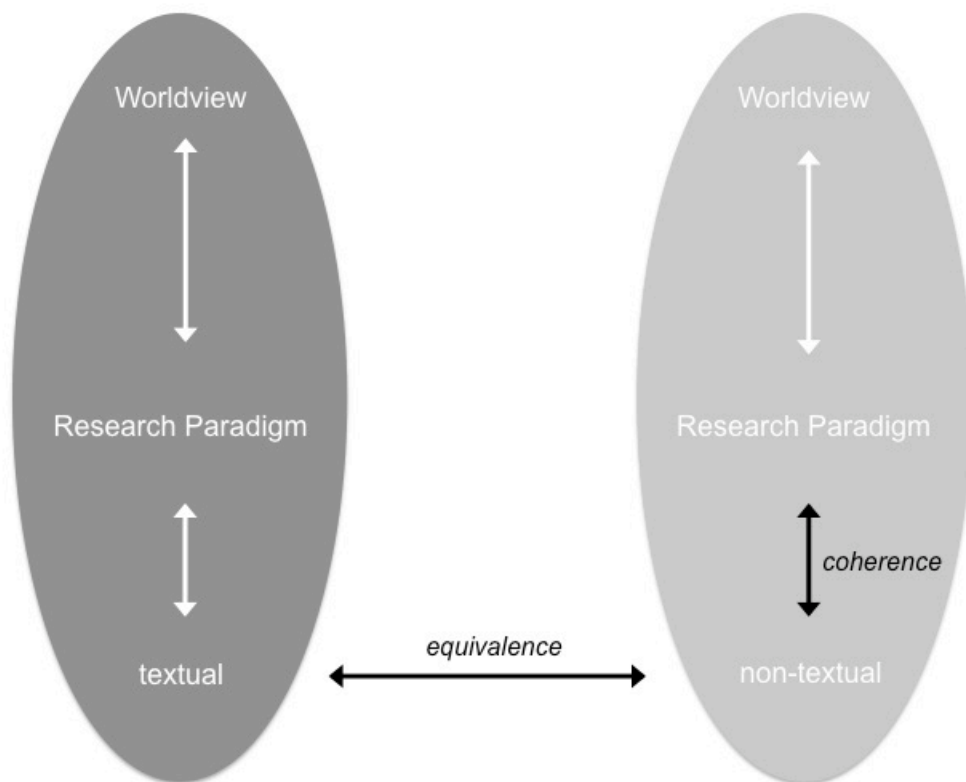
In the case of the particular discussion that arose when considering how the freehand drawings could be evaluated, we found that, although holding similar training and backgrounds and being part of the same research group, when it came to our academic alliances, we were in different camps. The discussion on what it was that was valuable in these drawings and why, helped us to confirm some criteria as belonging to more established and therefore more traditional research models, and some criteria as falling into the non-traditional category as far as mainstream research models were concerned. Because we were agreed that any system of values is valid what we sought was scholarly coherence between our value system and the evaluative criteria that we adopted. We did not have to defend that drawings are valuable in a particular worldview but we did have to identify what the value of those drawings is and therefore what are the requirements imposed on the drawings. Depending on an academic community's worldview, so the drawing has its own value and therefore has to respond to a different set of research requirements. To a Realist a drawing might have to accurately represent understanding, whereas to a Constructivist it might have to express original interpretation.

Returning to our experience, as academics discussing the drawings that were produced by our students, we wanted to separate out the subjective values that we held as individuals from values that we thought belonged to the appropriate evaluation of the drawings. Using the description above, we could see that our personal preferences were linked to our worldview and system of values and the drawings should be evaluated according to this position. As we presented above, a position is composed of coherent epistemology, ontology and methodology, meaning that when these are clear, sound evaluation can occur. To repeat, rather than debating whether or not drawings have value, we explored what the value of drawings would be and consequently what research model they should respond to.

The value of drawings

In areas of creative practice, the non-textual is at the core of the value system – it is only seen as a problem when viewed from a world other than its own. When the validation of the non-textual, in this case the architectural drawings, is done in terms of the textual it has to respond to the same values, and consequent requirements – i.e. rules, grammar,

skills, etc. – that are put on text. In this equivalence mode, the non-text has a role in terms of the text, either as demonstration of evidence, illustration of examples, as object of study on which to base a text-based interpretation, etc. This reasoning can be seen in Figure 2 where two different worldview-research paradigm sets are represented, one adopting the textual media and the other adopting a non-textual media. Our two positions can be mapped on to this diagram.



Diagrammatic representation of the relationship between worldviews and research paradigms, in particular the text-based medium that is adopted in one as opposed to the non-textual medium of the other. Depending on the research paradigm, so the evaluation of the non-textual will seek equivalence to the textual or will alternatively seek coherence with the values of the worldview within which it has significance.]

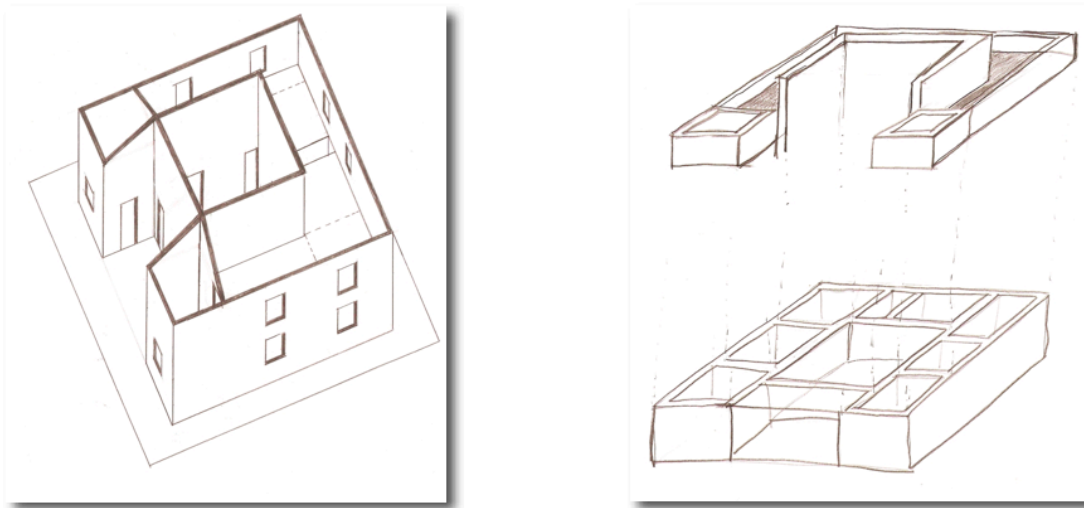
When discussing the output drawings from the class exercise, we repeatedly disagreed as to which were the 'best' ones. We then explored what it was that each side was claiming for the value of these 'best' drawings. Some drawings were upheld for their 'accuracy' and 'precision' whilst others were defended as showing 'insight' and 'originality'. From these disagreements we concluded that we were adopting two

different value-systems for the evaluation of the drawings. This debate amongst peers can be explained by the different research paradigms that each adopted and that ultimately informed our judgment.

When evaluating the drawings, it was possible to refer to traditional research models in which text is the chosen media for academic communication. In this case one would expect that the drawings were equivalent to the text-based medium and they should do what the text can do. To judge a drawing within this research paradigm, one would consider the requirements imposed on written text such as the expectation that the communication produce 'detailed accuracy', for example. Farthing calls such drawings 'recordings' (Farthing, 2008). It would also be possible to regard the drawing as a different but equal medium to the written text. This would occur within another research paradigm in which the non-textual is the preferred medium for communication of new knowledge. In such a context, the drawings should respond to the practitioner community values and, rather than be evaluated according to the text-based criteria, should respond to the value system in which that drawing had significance. Perhaps to an architectural practitioner, a drawing that revealed the draughtsman's thought process would be more valuable than one that slavishly and uncritically depicted the work in question. Rosenberg calls such drawings 'ideational' (Rosenberg, 2008). In a world in which photo-realism is not the most important characteristic of a work, accuracy is correspondingly less important.

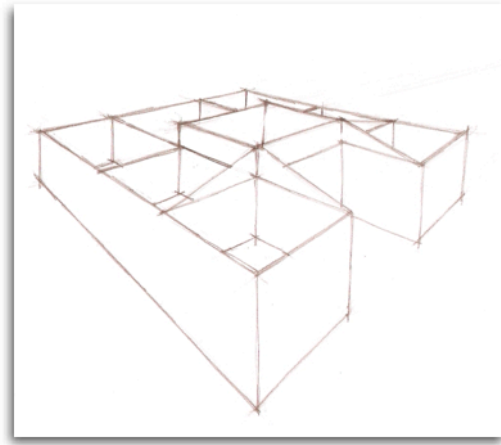
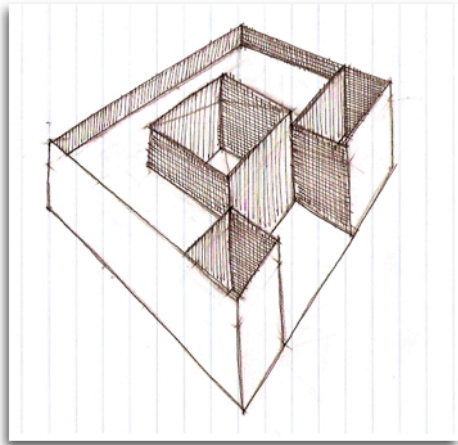
The argument in favour of judging the drawings in terms of how effective they communicated the architectonic understanding of the typology would rely on text-equivalence criteria, such as accuracy. According to this criterion, the drawings in Figure 2 are successful in faithfully representing what was called for in the exercise: a three-dimensional tectonic representation that reflected an understanding of the defining characteristics of typology. Both drawings reveal an understanding of the building technique by using appropriate wall thickness, of the internal configuration by representing the mezzanine, and by precisely differentiating the internal and external wall heights manage to express the structural particularities of the timber roof structure. The students have also chosen technical architectural grammar but using axonometric views and split-level drawings. By adopting traditional architectural drawing techniques, the particular grammar is not under scrutiny, the informational content can be made

more explicit and thus accuracy of representation can be more easily evaluated.



Two drawings that accurately communicate informational content.

Accuracy is a criterion that is coherent with the textual medium. However, if the non-textual is not to be judged according to text-based criteria, then it has to adhere and cohere to the worldview-research paradigm within which it has significance. Thus the argument in favour of the drawing as ideational would judge the drawings in terms of how successfully they expressed creative thought and critical reflection. Within such a research paradigm, where the drawings do not have to accurately communicate informational content, what is of value is the critical selectivity that the students have employed in representing some elements as opposed to others. There is a critical selectivity in the elements that the students have chosen to represent in the drawings in Figure 3. The quality of draughtsmanship in these two cases suggests that they fully understood the dynamic of the typology in all its complexity and, rather than neglecting to represent the thickness of the mud walls accurately, chose to expose their critical view that the thickness is not instrumental in that structure. One could argue in favour of these drawings that they successfully express the 'tectonic structure three-dimensionally' whilst revealing the exercise of critical reflection on what it is that is defining of that structure and have then been selective about what should be represented to express the typology appropriately. These students did not adhere to technical architectural drawing methods but again exercised selectivity in employing a style that reinforced their critical reflection process.



Two drawings that communicate critical reflection.

A criterion such as 'communicate critical reflection' seems less tangible than the accuracy criterion but we argue that this only seems to be the case owing to the hegemony of traditional academic models in which text, and hence accuracy, is the preferred medium.

Conclusions

This paper describes a discussion on the valuation of drawings that originated in different approaches which we have identified as representing different worldviews. The discussion revealed that there is more than one paradigm within the professional field. Thus it is acceptable, but rarely acknowledged, that drawings can be evaluated according to criteria from both the textual and the non-textual domains. In addition, though perhaps more recognizably within the field, drawings may sometimes be valued as records, or be valued for their ideational content. We have argued that there are many different research paradigms and that one is not intrinsically better than another. However, the research model that is adopted has to be coherent with the worldview of the community for whom the drawing is intended. In this sense, textual communication is not the only media for academic communication, but in some paradigms it is the most effective way of reaching the goals of that paradigm. Towards replicability of experimental results; writing a detailed academic text would arguably be more effective than making a freehand sketch. However, it is conceivable that within a worldview-research paradigm relationship in which evidence is not so important, then accuracy of

communication of results is less pressing and therefore the medium of communication could be non-textual.

There is more than one paradigm, so something can be appropriate in one paradigm and inappropriate in another. If something is highly valued by a community, we can infer what are the values and the associated paradigm of that community. Disagreements, about drawing for example, may be based on disagreements about standards within a particular paradigm, or may represent disagreements between two different paradigms. The latter is particularly apparent in discussions about the meaning-potential of images compared to the meaning-potential of text, in which the traditional academic position holds that images have less meaning-potential than text. The possibility of regarding academic research in areas of creative practice being an alternative paradigm means that the cross-paradigmatic problem goes away, and the meaning-potential of the non-textual can reflect the value system of the practice community. This paper therefore concludes that the explicit awareness of the consequences of diverse worldviews and paradigms can inform disagreements amongst professional because it makes clear the connection between what is assumed and what is valued.

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