



BIROn - Birkbeck Institutional Research Online

McFadyen, Lesley (2012) The time it takes to make: design and use in architecture and archaeology. In: Gunn, W. and Donovan, J. (eds.) Design and Anthropology. Anthropological Studies of Creativity and Perception. Farnham, UK: Ashgate, pp. 101-120. ISBN 9781409421580.

Downloaded from: <https://eprints.bbk.ac.uk/id/eprint/5009/>

Usage Guidelines:

Please refer to usage guidelines at <https://eprints.bbk.ac.uk/policies.html>
contact lib-eprints@bbk.ac.uk.

or alternatively



BIROn - Birkbeck Institutional Research Online

Enabling open access to Birkbeck's published research output

The time it takes to make: design and use in architecture and archaeology

Book chapter (Author's draft)

<http://eprints.bbk.ac.uk/5009>

Citation:

McFadyen, L. (2012)
The time it takes to make: design and use in architecture and archaeology
In
Gunn, W.; Donovan, J. (Eds.) - **Design and Anthropology**
(ISBN: 9781409421580)

© 2012 Ashgate

[Publisher Page](#)

All articles available through Birkbeck ePrints are protected by intellectual property law, including copyright law. Any use made of the contents should comply with the relevant law.

[Deposit Guide](#)

Contact: lib-eprints@bbk.ac.uk

The time it takes to make: design and use in architecture and archaeology

Lesley McFadyen

'Indifference towards people and the reality in which they live is actually the one and only cardinal sin in design' (Dieter Rams).

Introduction

I am an archaeologist, a prehistorian to be more precise, and the case studies used here are projects from thousands of years ago. I will be talking about architecture rather than products, but hope to illustrate a shared problem that relates to design. This chapter explores why, in their accounts of their evidence (in drawn and written format on building), archaeologists constantly reduce dynamic building projects down into static forms (for a reading of this problem in product design see Redström this volume). I focus on how archaeological accounts represent a moment in the time of a project, and when and where these descriptions stop time from moving. A static form means that description is not about the actions of building in the past, it is the explanation of something else: the architectural object (McFadyen 2006, and for a reading of this problem in architectural design see Hill 2003). Drawings define so much of what it is that archaeologists' communicate about past worlds. But there are problems with them, and contradictions in them. I refer specifically to the architectural object that is depicted in plan. Archaeologists use these drawings as if they project backwards into an idea of design (i.e. as if the drawing represents an original idea), and then forwards into a never changing built form (i.e. as is the drawing translates seamlessly into a physical building). None of these explanations seem remotely close to the ways in which people make, change and experience their worlds. Why do archaeologists see architecture as perfect and complete instances of idea-objects, when their discipline is defined by its time-depth? Surely archaeology, of all the disciplines, should be able to take the time to understand architecture as an ongoing and changing practice? A practice that is defined in the time of its making and unmaking, change and alteration. The chapter goes on to discuss how architecture as idea-object fixes the relationship between design and use, architecture and occupation, with one always coming after the other; and goes on to suggest that use may not be something that comes after design but instead always there as a precondition of creativity. In the conclusion, I will argue that if occupation is a precedent for architecture, then this reverses the meaning of the concept of living with design. If the conditions in which people live are there *a priori* as a creative medium for the design process, then making is inspired by things already there in life, and this delves a little deeper into the time it takes to make.

Prehistory

Before I begin, I want to say something, especially to practitioners of other disciplines, about prehistory. Prehistory is the study of evidence for people's lives before written records; it is about coming to know something about other people through the things that they make and live with. It is the study of past people's relationships with things, rather than the study of objects in their own right. It is a partial engagement with the material and historical conditions of people's lives. The evidence is always fragmentary, but this engagement is nevertheless one that is defined by presence (McFadyen 2010): it is the study of past contexts, but at the time when those people were alive. It is based on the reality of the relationship of the past to the evidence (Barrett 2006). I feel it is important to say something about the nature of prehistoric evidence and how I approach it, in order to shake off any preconceptions of prehistory as the study of dry bones or abandoned ruins, or the idea of it as the surviving fossils of a dead humanity. For these are concepts characterised by absence. There is nothing intrinsically wrong with this evidence; in fact there is great force in what lingers of humanity, and great value in knowing something of people solely through their relationship with things. Similarly, and perhaps this is what archaeology has to offer to a design audience, there is a lot to be learned from paying attention to what is already there in the world.

All of that said, there is a problem with what archaeologists do with the architectural evidence that they study. There is a problem with the reception of architecture in archaeology. The history of ideas between archaeology and architectural history go unheeded, but they are connected. So, what is this problematic perspective, and how did it come about?

Architecture and Design

'..architecture does not exist without drawing, in the same way that architecture does not exist without texts. Buildings have been erected without drawings, but architecture itself goes beyond the mere process of building. The complex cultural, social, and philosophical demands developed slowly over centuries have made architecture a form of knowledge in and of itself. Just as all forms of knowledge use different modes of discourse, so there are key architectural statements that, though not necessarily built, nevertheless inform us about the state of architecture-its concerns and its polemics-more precisely than the actual buildings of their time' (Bernard Tschumi 1996:102).

Architecture is a physical object, yet one that is critically understood in text and drawing. We know what we know about architecture by visiting books as much as buildings. The history of architecture as it has been studied in Western Europe since the Renaissance, has sought its origins in the Roman world. A Roman from the Augustan period called Vitruvius is considered by architectural historians to be one of the first architects. Although Vitruvius himself neither constructed nor designed buildings, his programmatic handbook of architectural form and practice seemed to offer to the students of Renaissance Italy a model of classical order. This is an architecture that is

measurable, it is made in proportion, and it is built to last with durable materials such as stone (Rowland and Howe 2001). But I want to focus on how principles of classical order are depicted in Renaissance accounts onwards, that is to examine the reformulations of Vitruvius' treatise where drawings are used as illustrations. It was Alberti's 'Ten Books on Architecture' (1965), that really took on Vitruvius' work and reformulated it within the Renaissance period, and in light of a Humanist perspective. The architectural historian Joseph Rykwert has written that Vitruvius became 'the guide and standard of all new buildings, of an architecture worthy of a new and great Rome' (in editor's forward of Alberti 1965:v).

Alberti's vision of an architect was a person who was also an artist, for Alberti produced written discourses on painting (Alberti 2005) and architecture, and human figures were drawn in Italian art during the fifteenth century within already drawn architectural frameworks (i.e. a geometric grid was drawn to set composition). Alberti and his master Brunelleschi established relations between theories of optics and painting (Gadol 1969), and these relationships have stayed with us in drawing architecture. For example, in Figure 1, a geometrical method of perspective is used in the drawing to convey a classical architecture that is measurable and made in proportion. The lines draw a clear and perfect architectural object, from start to finish, in a static form. The illustrations are used to portray a consistent design approach in Vitruvius (see Noble and Howe 1999: xv). However, the dual interest in perspective and classical architecture is significant. If we look at the way proportion is depicted in the drawing, we see lines that examine buildings that seem already to have been built, *and* lines that are to project future construction. The architectural historian Jonathan Hill has pointed out that this is because in the Renaissance design meant drawing (*disegno*), and the conception of design first promoted in Italy, from Alberti onwards, bound the drawing of a line to the drawing forth of an idea (Hill 2003). What this means is that architecture had to be thought about before it was built, and that that was done through drawing. It also suggests that we can read back to the intentions of the architect in drawings and buildings. With this view of things, the source of creativity is located in the idea and in the object. This is why we have a drawing that depicts past record *and* future projection in the same frame.

Architecture and Drawing

In architecture, drawings hegemony over architectural practice, as has been argued by Hill (2003) in terms of design, is further complicated when you consider that, although it is argued that creativity is located in idea and object, architects never work directly with the object of their thought. Put simply, although drawings bring forth ideas about building, they do not build buildings. The architectural historian Robin Evans has written about the translation between drawing and building, and of the architect's labour in the production of architecture as '...always working at it through some intervening medium,

almost always the drawing' (1997: 156). He points out that in art you can think through drawing, and at the same time you make the painting. In architecture, you can think through drawing, but the building never materialises. Drawing precedes building in architecture, but painting follows from it in art. Furthermore, Evans argues that in paintings by architects:

'..it was the architect who was obliged to show the first drawing in a pre-architectural setting, because without drawing there could be no architecture, at least no classical architecture constructed on the lines of geometrical definition' (Evans 1997: 164).

So art may be within architectural frameworks, but architects have to draw drawings of buildings into their art because of their link to design. This is another example of the dual binding of perspective and classical architecture, with the drawing as medium for future projection and past record.

In archaeology, you draw to make something of what someone else has made in the past; the archaeologist thinks through drawing to understand something that already exists. Physical buildings are always material. Building precedes drawing, and so one might think that the drawing is uniquely about the past and as such it is a record. However, a form of knowledge where the shape of an architectural object depicts the start and end of the architectural story is as fictitious here, in the archaeological drawing, as it is within architectural history. Furthermore, the legacy of drawing is always one with a dual interest. It is presumed in drawing that there was a process of ideas that made a building (i.e. the idea-object), a design. 'The design' and 'to draw' (*disegno*) in architecture have become 'the plan' and 'to plan' in archaeology. Remember that drawing and design are bound together, so when the archaeologist starts to draw a building, a process of ideas is understood to materialise. That is why archaeological plan drawings are also considered as blueprints, as if they hold in them the projection of the future ideas of the original builder. It is also one of the strongest reasons why archaeologists will not let go of them, even when they work on alternative interpretations of the built world. Archaeologists draw to better understand the things that are there in front of them, what it is they see, but in that process the drawing depicts more than the archaeologists own designed intentions: it becomes the medium of an original design and so looks like the intentions of someone else.

There is a real legacy here, and the plan has taken on an iconic status in archaeological accounts as if its graphic detail creates reality at a higher level of realism than the archaeological evidence itself. I am not the first to mention this within the discipline. There exist a number of published works that question the way in which archaeologists perceive and understand architecture in the prehistoric past. For example, the archaeologists Chris Tilley (1989) and Julian Thomas (1993) have critiqued the power of the plan in archaeology. Their criticism is restricted to an argument against geometrical perspective and its method of the objectification of things in a material record. They state that prehistoric people would not have perceived their worlds in

this way, and this is an important point. However, Tilley and Thomas do not discuss the dual interests of these drawings as a medium of projection and record; with design creating ideas about objects. This is why, even after the deconstruction of the plan, archaeologists continue to get caught up in their visual workings again and again. These architectural static forms are not only presentations of physical objects with solid parameters; there is also the reality of ideas that the objects are seen to have built into them. So drawings and design hold to them the assumption that there is thought before building, that the idea and the object mark the start and end of the story of architecture, and that both of these are drawn. Drawings are complicated static forms.

Archaeology and Drawing

This is an archaeological drawing (Figure 2), it is the composite plan of the Chalcolithic walled enclosure of Castelo Velho, situated in the Alto Douro of Portugal. This bird's eye view displays a monument that comprises a series of subcircular structures and wall footings made out of schist that once had clay superstructures. There is also a ramp that is semi-circular in shape and made out of clay with stone. The main enclosure wall, with multiple entranceways, is elliptical in shape and contains an inner tower. The base of the tower is formed from a large natural outcrop of schist that is interdigitated with stretches of coursed walling. This bird's eye view is thought necessary in archaeology because it produces an overall spatial distribution of the main architectural features that make up a site (i.e. it is a checklist of the features that are there and that need to be described). However, the description offered is limited and sparse in detail. The emphasis on naming and listing different kinds of features, along with the focus on their outline in the plan drawing, gives the impression of a clearly defined architectural object. Perhaps more misleading, is that time is frozen, and every architectural feature exists at the same time on the surface of the page (i.e. the checklist is not useful for understanding how things were made). This drawing, although depicting prehistoric architecture, conforms to the same principles as the classical architecture in Figure 1. Description has broken away from action and has become the explanation of something else. Walls are depicted in outline as a past record of a building, whilst, at the same time, the hardline shapes form ideas of the original builder. The drawing inevitably conveys a future projection of design.

The archaeologist Susana Oliveira Jorge carried out a programme of excavation at Castelo Velho from 1989-2005. This site is interesting for the extensive timeframe of the excavations, and because S.O. Jorge's ideas on architecture have changed during the process of excavation. These changes are openly documented in the site archive and in her publications. I started working on the archive in 2008, and for just over two years have been carrying out research on the relationship between the material culture studies and the architectural histories of Castelo Velho. Even in mentioning the existence of counter-workings, it is important not to overlook the fact that

archaeologists continue to carry copies of plan drawings on clipboards on site, and pin them up on the walls of their offices, even though the process of excavation and post-excavation deny much of the reality of the drawings. This contradictory tension in the discipline is important. What follows here is a brief description of how the reality of the drawing is unpicked at a series of scales.

Drawings and Sequence

The process of excavation reveals that the architectural features, outlined in the plan, do not physically relate to each other at the same time. Conventionally, archaeologists will look for a sequence to construction whilst digging, and focus on unpicking junctions where different architectural elements lie above or below others, or where one thing butts up against or is cut by another. These physical relationships are also associated with a series of radiocarbon dates that are taken from organic materials within and around the different features, and so archaeologists create an order in time to the construction of particular elements. The order to how things physically relate to each other, along with the sequence of radiocarbon dates, is used to produce a series of phased plan drawings. Figure 3 shows the four drawings together, but I will describe the scale at which they are broken down into their separate components and the way in which they are ordered at Castelo Velho. The subcircular structure marked *T1* in Figure 3, is physically earlier than the main enclosure wall. The main enclosure wall was then built, but many entranceways into it were created, blocked up, and remodeled at a later date. The later elaboration of the enclosure was also associated with the most intensive phase of construction of the site with further subcircular structures, the tower, and the portion of walling that is located to the west. Small plaques of schist then covered these features. The construction of *T1* was around 3000-2900 B.C., the main enclosure around 2900-2500 B.C., the elaboration of the enclosure and the building of other structures around 2500-2300 B.C., with the schist blocking of the site around 1300 B.C.. With prehistoric architecture, we are not only dealing with actions that took place over 5000 years ago, we are dealing with activities that span a period of 1700 years. And yet to understand them, archaeologists refer to the hardline edges of architectural features in plan drawings, and presume that preconceived ideas materialised into forms.

The start and end limits of the story of architecture should be put into question, but are they? If we focus on the large time-scale, and its staggered tempo, then yes. For how do you pinpoint the start and end of a building project that has no straightforward trajectory? And how do different elements relate to each other in practice? For example, how did creativity work in a project where some things were already there and made to be seen, whilst others were being built? A constant insistence on originality, and a drawn path between ideas and objects, will not do. Similarly, it is interesting that materials are only depicted in a final phase of blocking. Where are the fills of the structures, where is the material culture? In a sequence of drawings of

outlines of architectural elements, there is no description of action, and so the plan of enclosure will eternally surface in idea and object, because it is impossible to locate creativity anywhere else in the drawing (see Figure 3). Practice cannot be drawn upon.

The phased plan drawings are as general and abstract as the composite plan in Figure 2, the architectural features defined in the above sequence could never have stood as a series of buildings each with their own space and own distinct block of time. During the excavation of Castelo Velho, most of the time, and when dealing with most of the features, it was not possible to identify a series of constructions that represent the residues of distinct phases. Similarly, the hardline edges of features in drawings, mask a multitude of more complex relationships to the way things were built. For example, there are areas of the site where the lower parts of the walls of subcircular structures and the enclosure wall stand separate but their upper portions are entwined together, and so it is impossible to order the features in time. Vice versa, there are features where the upper parts stand alone and then further down in the build their structures are knitted together¹. The intertwining of features is a reality of past practice that works against the normal procedures within archaeology. Rather than thinking that the archaeologists that excavated Castelo Velho were unlucky in not being able to uncover ideal stratigraphy, I argue that the woven nature of these conditions suggest that it was the dynamic of building that was the point, and that the built world was inhabited through its ongoing production and not in a sequence of forms (McFadyen 2006 and 2007). This is also what S.O. Jorge is suggesting of the site of Castelo Velho in one of her later publications.

‘...um elemento construído mais como uma teia de acções’ (S. Oliveira Jorge 2007: 11, ‘...an element constructed more like a web of actions’).

These Chalcolithic building projects were undertaken not once but over and over again, sometimes after brief intervals and sometimes after much longer periods. The question should be, as archaeologists, how can we better enter into the creative practices of making and re-making, with their different durations and scales of change and alteration? How, in short, can we become more immersed in the dynamics and the activity of the site? After all, excavation in archaeology is itself a practice and should therefore resonate more directly with an architecture understood through the process of making and unmaking.

However, before I move on, there is one more implication to the plan, or a sequence of plan drawings, that I want to discuss. I have argued that with this view of things, the source of creativity is located in the idea and in the object, and so meaning can be read back from the form. This concept of design

¹ This discussion of the archaeological evidence brings to mind a comment by the anthropologist Ingold that things are never *of* a time, but always *in* time (Ingold 2010: 160).

jumps from an idea to an outcome. It misses out practice, but it effects the timing of things in another way. The plan drawing also sets an order to how people are to live in the world – architecture is made, and then it is used. Use is something secondary. This hierarchy attributes to use a form of behaviour acceptable to the architecture. At the very best this is a functionalist account with a passive user, and, at its worst, a denial of use altogether (in architecture see Hill 2003). For example, there is no drawn detail other than an outlined shape in the archaeological plan. Design as idea and then object, is a relationship of cause and effect, origins and endings. In this determination, the use of a building project does not need to be a part of the story of architecture, for use has already been prescribed by design (in design see Redström 2008:410, this is also an example of ‘over the head’ technical mediation where environments are understood to direct human history as explained in Dorrestijn’s chapter this volume).

Design and Use

In the Castelo Velho archive there are also drawings and descriptions at small registers of scale. Drawings in which details of form, material, and material culture are found together. S.O. Jorge has termed this work, research into moments (S. Oliveira Jorge et al. 1998-1999). Moments are constructed from detail revealed during the excavation of a particular feature. This scale is the time and space of the archaeological context, and relates most directly to the time and space of depositional practice in the past. An example, that S.O. Jorge has paid particular attention to, is a C-shaped structure that contained fragments of human bone. She described practice through five moments, moments that she reproduced in five drawings (see Figure 4). Here is a further account of the five events: firstly, on a base of clay on the north side of the structure there was a deposit of loomweights (*P*), and fragments of animal bone (*A*), human bone (*B*), and pottery (*C*). This concentration of materials, further delimited by plaques of stone, made a niche in which were deposited fragments of animal bone, human bone, pottery and two loomweights. Outside of the niche there were further fragments of human bone, loomweights and sherds of pottery. Thirdly, the inside of the C-shaped structure was partially covered with large slabs of blue schist (*L*) and loomweights, whilst in the niche there were articulated parts of a human skeleton (*H*), fragments of animal bone, loom weights, and a near complete small vessel (*V*) along with sherds of pottery. A fourth event was defined by the beginning of the "closing" of the structure with several large stones and the further deposition of fragments of human and animal bone and pottery. Finally, the structure was blocked with a packing of small-medium sized plaques of schist.

In one way, these drawings are very different to the plan drawing because they draw on an extended range of objects, and they are about the material culture rather than the structure. They demonstrate that the processes by which things were assembled together also carry with them a spatial quality.

Similarly, the drawing, through outline, shade, and labels, is able to depict other materials, and so bone appears as much as stone. The impact of this work is that architecture *and* occupation are linked more closely through the study of material culture. This is important. These drawings are inspired by the reality in which people live, they describe actions. Figure 4 has drawn into it the story of the use of architecture by highlighting events of deposition. This approach to building takes a more spatial and dynamic turn. This work focuses on spatial practice, and the experience of architecture: paying attention to, what the architectural historian Jonathan Hill would describe as, a 'creative user' (2003). Yet these spatial depictions are still bound to the architectural object, and the temporal dimension is limited to a series of moments played out in and around the architectural object. The architectural object is always present in the drawing, and this is why in four out of the five images a heavy black ink line outlines the C-shaped structure. No matter how creative, this is a relationship where experience is post-design. Architecture still exists as idea and object, design only exists in the concept and static form of the C-shaped enclosure, and then there is the story of how it is used and how material culture is deposited. It is simply, the story of use has such a dynamic and detailed character, that attention has been drawn away from how it is set by the architectural object.

All the elements from this context are active participants, for there is now a depiction of the details of material and material culture, but the problem is that this participation is frozen in time to the space of the deposit (i.e. time is spatialised (see Berger 1974:40)). Figure 4 is a study in the spatial distribution of material culture, it shows how often particular objects occur and the density of particular categories of things, it is possible to analyse the presence or absence of material culture in a specific space: it is about *where* things are. The problem is that it is not about *when* things are. For example, in the drawings the loomweights are no longer attached to the loom, the bones are from bodies but not living animals or humans, the sherds are from broken pots. Something has happened to these objects. There was a time before deposition that exists outside of the frame of the drawing, which is not drawn upon here. Fortunately, the fragments of material culture hold to them parts of those other stories. Other times are material in things if not in drawings. Therefore to further explore the relationship between design and use, it is important to move out of the structures and follow the material culture.

Time and Things

I said at the beginning of this chapter that prehistory is about knowing something of other people through the things that they make and live with, and yet in the text I have written so far there has always been something that intervenes - the archaeological drawing. Drawings define so much of what and how the archaeologist communicates about past worlds. Nevertheless, archaeologists also think through drawing in order to understand what is before them, and there is always something in the archaeological evidence

that resists explanation, that has an escapable quality. There is always a tension between the process of excavation and the practice of account making, and there are always different things to be found between drawing and text in accounts about the past. Archaeologists spend a long time with what is already there in the world, and they take time to understand it. The anthropologist Tim Ingold (1993) even describes archaeology as a form of inhabitation (in archaeology see Lucas 2002 and Edgeworth 2006). I cannot emphasise enough how peculiar a skill this is. It is not just that this is about spending time with things, it is about always spending time with what someone else has made. What other discipline does this? It is time to show some of the smallest registers of scale at which the archaeologist works.

I have been studying the fragmentation of the pottery from the site of Castelo Velho, and how this relates to the excavated contexts in time. My aim is to get at the immediacy, or distance, between the breaking of a vessel and the deposition of its fragments, and pinpoint the other practices that the sherds were caught up in. For example, I stated that time is material in things, and if you look closely at the refitting sherds in Figure 5 you can see that the middle two fragments display patches of external surface wear that appear to have occurred prior to the breakage of the pot. The four sherds on the right show definite evidence of being burnt post-breakage as the discolouration caused by refiring continues around the breaks. Significantly though, the adjoining sherd on the left does not display the same pale grey colouring suggesting that it had not been burnt, whilst it retained an area of post-breakage abrasion along its refitting edge. So this sherd was caught up in other activities that involved weathering rather than burning, before all the material was brought back together and deposited in a feature. The material culture holds to it the time of its use, the time of the pieces after breakage, and the time of deposition.

Things happen to pots before and after they have broken, they do not remain frozen as perfect objects, they have extended histories (Redström might call these 'unfinished things' 2008:417). So focusing on the pre- and post-breakage histories of pots tells us something about what happened to the objects prior to deposition, it gets at other kinds of practice, other times, and it takes us into other spaces. Perhaps most importantly of all, this is a study of something before walls, and something before the moment of deposition. This is an interesting overlap, for in following the extended history of material culture these broken objects are going to take us backwards through the construction of architecture. This would typically be understood as the use that happens *before* design, and so is a different strategy to that outlined by the design theorist Johan Redström of extending the design process into use (ibid). Archaeology is backward thinking, whilst design theory is forward thinking (N.B. this is not 'backward looking' in the sense of searching for an essence, it is 'back to the things themselves', as outlined in Dorrestijn in this volume and Verbeek 2005).

Figure 6, is a photograph of the pottery that was recovered from the C-shaped

structure that was described by S.O. Jorge through moments of deposition. From an investigation of the overall percentage of small, medium and large sized sherds in the assemblage, it was evident that medium-sized sherds dominated the excavated context. This is interesting because Figure 4 highlighted where the sherds were located but it did not detail the state that the pottery was actually in, except for the one near complete vessel (V-Figure 4) (inside the white box-Figure 6). Figure 6 shows the homogenous character of the pottery and the greater proportion of medium-sized sherds. It also portrays to some extent the large number of refits, suggesting an immediacy to the deposition of the pots after breaking, but crucially not a direct relationship. Several refitting sherds were recovered from outside of the C-shaped structure, and these connections across the site must have been made during the use of the feature because it was sealed with a stone capping soon after it had been used.

Rather than thinking in traditional terms about a structure and its subsequent use, I use my work on the pottery to turn things around, and think about building projects at Castelo Velho as a series of activities that emerge out of the rhythm and tempo of occupation (after Lefebvre and Régulier 2004). This is where the large proportion of medium-sized sherds, and the non-complete nature of the vessels, really comes into play because there was no evidence for a direct connection between breakage and deposition; there is a crucial absence of large-sized pieces and near-complete refits. There were a substantial proportion of small sherds with weathered and abraded edges that are evidence for other practices post-breakage and pre-deposition, but these did not dominate the assemblage. Therefore, people were living in and around broken pots before they entered this structure, prior to deposition, but this was not a simple matter of residuality: the relationship was more direct than that. Instead, it is the tempo of occupation, the daily practice of living with things (many in a broken state), which created the conditions for the C-shaped structure. Maybe it is precisely because activities were produced out of occupation that the feature was constructed in a part-open shape, and this may be why refitting pieces of pottery could be identified at the larger scale of the site. The analysis of the patterns of fragmentation demonstrate that occupation, the playing out of time, was a part of the building project. Improvisation must have played a key role here.

It is not simply the case that the study of material culture needs to be drawn into an understanding of the architectural history of the site of Castelo Velho, rather an analysis of the patterns of fragmentation demonstrate that occupation, the playing out of time, is a part of building. Therefore we need to add to our stories and accounts in archaeology, add other practices. And this questions our understanding of design.

Inhabited Architecture

This may seem a little strange compared to the way in which we normally

conceptualise a building project and the design process. However, as an example of a different take on the making of things, the Italian architect Aldo Rossi took polaroid photographs in the 1980s and 90s. The polaroid was important because it captured instantaneous bits and pieces of life, but it was the practice that was important to him, not any one polaroid. Rossi took and collected such images, over and over again, and this took time: these were actions in time. What is important to me as an archaeologist, is that his creative process depended on that accumulation, and living amongst the fragments of that accumulation. That is why he talked about his architecture as things that had already been seen (documented in Constantini 1996). It was a creativity that 'reverberated between memory and invention' (Ghirri in Constantini 1996: 34), and was not simply located in an idea and an object. If we think in these terms about the broken pots I have been studying (see Figure 7), then the use of things may not be something that comes after design but is instead always there as a precondition of creativity. I repeat my point, that this reverses the meaning of the concept of living with design and delves a little deeper into the time it takes to make.

I have attempted to show a legacy of thinking about design in architectural history and its effects in archaeology. However, this relationship is not all bad, for it is the work of architectural historians, such as that of Jonathan Hill (2003), that have helped me find a way to articulate a problem in archaeology. Furthermore, these works, through accounts of occupying architecture (Rendell in Hill 1998) and creative users (Hill 2003), open up design, and as Redström (2008) has argued they extend the design process into use. I agree with them that relations between design and use unfold over time. However, due to the nature of the archaeological evidence that I study, I argue that this unfolding can happen in the opposite direction. I would also draw attention to the time of design in other architectural projects. For example, in the 'As Found' movement of the 1950s there was the perception of inhabitation as a creative part of the design process itself, creativity was to do with an attentiveness and a concern for that which already exists. The architects Alison and Peter Smithson described their building projects as 'the task of making something from something' (in Lichtenstein and Schregenberger 2001:10). There was an awareness of the importance of the already there in the creative practice of architecture. This seems to me to be very similar to the archaeological endeavor because it is a material practice and one that is all about the time of things. And where inhabitation does not occur post-design but is a creative part of design practice. Although, this might be when, as Redström writes: '...we might ask whether 'a definition of use through use' ever can become a new 'design' (1998:419).

I went into the discipline of architecture to understand building in archaeology, but in the end I have found what I describe as an archaeological approach to understanding within architecture. Archaeological evidence has at work within it moments of creative practice, that are juxtaposed with different durations of making and unmaking, and various scales of change and alteration. As a discipline, archaeology will only succeed if it starts to create for itself different

and more effective ways in which to understand processes of design within these currents. This chapter is an attempt to show some of the ways in which archaeology might become an important discipline to others scholars interested in a process of design that creatively deals with the reality in which people live.

Acknowledgements: Thank you to Susana Oliveira Jorge, the director of the Castelo Velho excavations, for permission to reproduce fragments of the drawn archive. Thank you to Vicki Herring (Cambridge Archaeological Unit) for drawing Figures 1, 2, 3 and 4. Thank you to Wendy Gunn and Jared Donovan for asking me to contribute to this volume and for their editorial work on the text. Thank you to Thomas Yarrow for reading and commenting on the text, and finally thank you to Mark Knight for help in developing the ideas presented here on time and the activities that pottery is caught up in.

References

Alberti, L.B. 1965. Rykwert, J. (ed.) *Ten Books on Architecture*. Reprint from the Leoni Edition of 1755, with the addition of the 'Life' from the 1734 edition. London: Alex Tiranti.

Alberti, L. 2005. *On Painting*. Reprint Edition. London: Penguin Classics.

Barrett, J.C. 2006. Archaeology as the investigation of the contexts of humanity. In Papaconstantinou, D. (eds.) *Deconstructing Context. A Critical Approach to Archaeological Practice*, 194-211. Oxford: Oxbow Books.

Berger, J. 1974. *Ways of Seeing*. London: Penguin.

Constantini, P. (ed.) 1996. *Luigi Ghirri-Aldo Rossi*. Montréal: Canadian Centre for Architecture.

Edgeworth, M. 2006. *Ethnographies of Archaeological Practice: Cultural Encounters, Material Transformations*. Lanham: AltaMira Press.

Evans, R. 1996. *Translations from Drawing to Building and Other Essays*. London: Architectural Association Publications.

Gadol, J. 1969. *Universal Man of the Early Renaissance*. Chicago: The University of Chicago Press.

Hill, J. (ed.) 1998. *Occupying Architecture: Between the Architect and the User*. London: Routledge.

Hill, J. 2003. *Actions of Architecture: Architects and Creative Users*. London: Routledge.

Ingold, T. 1993. The temporality of the landscape. *World Archaeology*. 25(2):152-174.

Ingold, T. 2010. No more ancient; no more human: the future past of archaeology and anthropology. In Darrow, D. and Yarrow, T. (eds.) *Archaeology and Anthropology. Understanding Similarity, Exploring Difference*, 160-170. Oxford: Oxbow Books.

Jorge, S.O. 2007. Formas de organização do espaço e técnicas de construção durante a pré-história recente. In Jorge, S.O; Bettencourt, A.M.S. and Figueiral, I. (eds.) *A Conceção das Paisagens e dos Espaços na Arqueologia da Península Ibérica*, 9-12. Promontoria Monográfica 08: Universidade do Algarve.

Jorge, S.O; Oliveira, M.L; Nunes, S.A. and Gomes, S.R. 1998/99. Uma estrutura ritual com ossos humanos no sítio pré-histórico de Castelo Velho de Freixo de Numão (V.N. de Foz Côa). *Portugalia*, Nova Série. XIX-XX:29-70.

Lefebvre, H. and Régulier, C. 2004. The Rhythmanalytical Project. In Lefebvre, H. *Rhythmanalysis. Space, Time and Everyday Life*, 71-84. London: Continuum.

Lichtenstein, C. and Schregenberger, T. (eds.) 2001. *As Found. The Discovery of the Ordinary*. Baden: Lars Müller Publishers.

Lucas, G. 2002. *Critical Approaches to Fieldwork: Contemporary and Historical Archaeological Practice*. London: Routledge.

McFadyen, L. 2006. Building technologies, quick and slow architectures and Early Neolithic long barrow sites in Southern Britain. *Archaeological Review from Cambridge*. 21(1):115-134.

McFadyen, L. 2007. Neolithic architecture and participation: practices of making at long barrow sites in Southern Britain. In Last, J. (ed.) *Beyond the Grave: New Perspectives on Barrows*, 22-29. Oxford: Oxbow Books.

McFadyen, L. 2010. Spaces that were not densely occupied – questioning ‘ephemeral’ evidence. In Darrow, D. and Yarrow, T. (eds.) *Archaeology and Anthropology. Understanding Similarity, Exploring Difference*, 40-52. Oxford: Oxbow Books.

Redström, J. 2008. RE:definitions of use. *Design Studies*. 29:410-423.

Rowland, I.D. and Howe, T.N. (eds.) 2001. *Vitruvius: ‘Ten Books on Architecture’*. New Edition. Cambridge: Cambridge University Press.

Thomas, J. 1993. The politics of vision and the archaeologies of landscape. In

Bender, B. (ed.) *Landscape: Politics and Perspectives*, 49-84. Providence and Oxford: Berg.

Tilley, C. 1989. Excavation as theatre. *Antiquity*. 63(239): 275-280.

Tschumi, B. 1996. *Architecture and Disjunction*. Cambridge, MA: MIT Press.

Verbeek, P.-P. 2005. *What Things Do: Philosophical Reflections on Technology, Agency and Design*. Pennsylvania: Penn State University Press.

Figure List:

Figure 1: Examples of how illustrations are used to portray a consistent design approach in Vitruvius, aspects taken from T.N. Howe's illustrations (Noble and Howe 1999: 147 and 195, figure 9 and figure 40, and redrawn by Vicki Herring).

Figure 2: The composite plan of the site of Castelo Velho (archive element redrawn by Vicki Herring).

Figure 3: The sequence of phased plans of Castelo Velo, from top left to bottom right (archive element redrawn by Vicki Herring).

Figure 4: The sequence of phased plans of the C-shaped structure and the deposition of material culture from Castelo Velho, from top left to bottom left (archive element redrawn by Vicki Herring).

Figure 5: A broken vessel displaying different sherd histories from Castelo Velho (photograph by author).

Figure 6: The pottery assemblage from the C-shaped structure at Castelo Velho (photograph by author).

Figure 7: Sherds from Castelo Velho laid out during a refitting exercise (photograph by author).