

This is the peer reviewed version of the following article: Yarrow, T. and Jones, S. (2014), 'Stone is stone': engagement and detachment in the craft of conservation masonry. *Journal of the Royal Anthropological Institute*, 20: 256–275. doi: 10.1111/1467-9655.12103, which has been published in final form at <http://onlinelibrary.wiley.com/doi/10.1111/1467-9655.12103/full>. This article may be used for non-commercial purposes in accordance With Wiley Terms and Conditions for self-archiving.

‘Stone is stone’: engagement and detachment in the craft of conservation masonry

THOMAS YARROW

Durham University

SIÂN JONES

University of Manchester

Abstract

Since the mid-nineteenth century, craft has been characterized by relations of engagement, resonating with broader romantic discourses that idealize craftsmen in explicit contrast to forms of alienation linked to capitalist production. In recent work on craft, the analytic lens of engagement usefully highlights the dynamic interplay of human and non-human agencies. Our own account builds on these ideas but suggests that the conceptual privileging of engagement creates interpretative problems, precluding ethnographic attention to the role of detachment in craft. Focusing on the skilled practices of conservation stonemasons, we describe the specific constellations of ideology and practice involved in cutting and fixing stone. Through elucidating masons’ own understandings of their work, we highlight their commitment to the ‘disciplined’ embodiment of tradition as a means of separating personal subjectivity from the stones they carve. Our analysis of the skilled practices required to work stone questions the primacy of engagement, suggesting instead that detachment and engagement are mutually implicated relational forms. This finding sheds new light on craft practice and offers a position from which to reconsider broader anthropological commitments to concepts of engagement.

Introduction

Standing at the eastern end of Glasgow Cathedral, an imposing gothic building, Ally reflects on his work as a mason involved in the building’s conservation. He speaks in a thick Glaswegian accent with a modest authority, acquired through decades of experience. As we crane our necks to see the corbels the masons have recently replaced, he remarks: ‘When we get things that come together you just see a couple of wee bits of stone. You don’t actually see the work that’s went into it. People go “Oh, that’s nice”. But it’s satisfying getting it to all come back as if it’s never been touched’. His comments articulate the fundamental paradox of the masons’ work: while the craft of cutting stone involves complex, highly skilled practices, these are erased by successful execution. For the masons conserving Glasgow Cathedral, the skill required to cut stone inheres precisely in an ability to elide their individual input by internalizing a set of principles and traditions held to be unchanging.

A small team of stonemasons makes up the core of Historic Scotland’s Monument Conservation Unit at the Cathedral, where they are carrying out a thirty-year programme of maintenance and repair. This involves removal and replacement of decayed stonework, and selective repointing. The conservation environment in which the masons work is highly regulated, with a strong emphasis on minimum intervention to preserve authenticity. In contrast to their commercial counterparts, they

predominantly use hand tools, with an emphasis on slow, measured, and sensitive work. Their traditional building skills and handwork are highly valued, one public information board at the site stressing that, 'like medieval craftsmen, today's masons use hand tools to maintain the Cathedral'. More generally, 'traditional craft skills' are central to Historic Scotland's conservation guidelines and policies, and the organization is at the forefront of supporting traditional building crafts, which have dwindled in commercial environments.

Based on ethnographic research with the stonemasons at Glasgow Cathedral (Fig. 1), this article discusses the practices and relationships involved in the craft of cutting stone.¹ In particular, we explore the kinds of relationships that the masons sustain with the stones they cut, and how the principles they employ, the tools they use, and the personal characteristics they cultivate mediate these relationships. The analysis reveals how specific modes of engaging and detaching are mutually implicated in the craft of cutting stone, highlighting a series of dynamics that have received relatively little sustained analysis in the literature on craft.

Detachment and engagement in craft

In various guises, craft has been promoted as an antidote to the social and psychological alienation caused by mechanization and centralization of manufacturing processes. As Adamson (2010: 2-3) discusses, the standard narrative asserts that craftsmen and -women were marginalized by machines, resulting in deskilling and workplace alienation. In relation to successive modern eras, including nineteenth-century industrial capitalism (Marx 1970 [1887]: 124), twentieth-century mass production (e.g. Braverman 1974), and more recently neoliberalism (e.g. Ingold 2000; Sennett 2009), the 'craftsman' emerges as a symbol of unalienated labour. The ideal of the craftsman thus becomes the converse of modes of production that separate and socially institutionalize related distinctions between thought and practice, head and hand, mind and world. While such framings emerge in critical tension with understandings of Western modernity, they have often implied a specifically Western understanding of the individual as a morally superior form of being. Craft reintegrates the self, relating what is understood to be fragmented by modernity.

Working for the government conservation agency responsible for protecting Scotland's heritage, the masons at Glasgow Cathedral stand in a specific relationship to this history. Their work enacts principles that can be traced back to the conservation movement of the nineteenth century, and to the ideas of activists such as John Ruskin and William Morris. Opposing mechanized production, they idealized the anonymous masons who fashioned the medieval Gothic buildings of Europe, seeing them as the antithesis of nineteenth-century industrialism. In *The stones of Venice*, published in 1851-3 Ruskin rails against the separation of designer and maker, family and leisure:

We are always in these days endeavouring to separate the two; we want one man to be always thinking, and another to be always working, and we call one a gentleman and the other an operative; whereas the workman ought often to be thinking, and the thinker often to be working, and both should be gentlemen in the best sense (Ruskin 1876 [1851-3]:).

Reflecting on his tour of French cathedrals, Morris, explicitly influenced by his friend Ruskin, celebrated old buildings as embodiments of unalienated labour (Miele 2005: 2),

urging the reader against a wave of Victorian restoration to 'go forth again to gaze upon the old Cathedral front ... examine once more those ugly goblins and formless monsters, and stern statues, anatomiless and rigid; but do not mock at them, for they are the signs of life and liberty of every workman who struck the stone' (cited in MacCarthy 1994: 84). In the moral and political debates of the day, the great gothic cathedrals stood as testimony to the life and liberty of the craftsman, as opposed to the degradation of the machine operative. Opposing newly emergent ideas of detachment, and the celebration of truth through distance in a range of literary and scientific contexts (Anderson 2001; Daston & Galison 2007), the medieval revivalism of Ruskin and Morris reflected a wider Victorian romanticism that re-cast detachment as a debilitating alienation from organic forms of life, and was tantamount to the privileging of rationalism over creativity.

The trope of 'engagement' has been central to theoretical discussions of craft, in anthropology and beyond, where romantic strands of thinking have been refracted through different analytic lenses. From various theoretical perspectives, these have highlighted the material and social connections integral to craft practice, often as an explicit critique of modernist Cartesian separations of head and hand, mind and world. As early as 1927, Boas highlighted how form develops through technical activity rather than abstract contemplation, and celebrated 'the forms of manufactured objects of all primitive people that are not contaminated by the pernicious effects of our civilisation and its machine-made wares' (1955 [1927]: 19). More recently, practice theorists (e.g. Dobres 2000; Keller & Keller 1996; Lave 1993) and cognitive anthropologists (e.g. Marchand 2010) have focused on the relationship between thought and action, stressing how craft inheres in dialectical, mutually transformative, engagements between head, hand, and material. Influentially, and most explicitly, the concept of 'engagement' has been central to phenomenologically influenced approaches to craft and skill (e.g. Kalshoven 2012; Marchand 2010; O'Connor 2005; Portisch 2010; Venkatesan 2009). In this respect, Ingold's (2000) and Sennett's (2009) work has been particularly important, theorizing craft as a model of an ontologically engaged orientation to the world, in contrast to modernist alienation and rupture as naturalized in Western Cartesian separations.

For the sociologist Sennett, neoliberalism is the most recent transformation of capitalist systems of production that institutionalize detachment of mind and body. As a moral counterpoint, 'the craftsman represents the special human condition of being engaged' (Sennett 2009: 20), and is explicitly celebrated as a model of skilled integration of person and world. For Ingold, craft similarly represents a concrete manifestation of the primacy of engagement in both an ontological and conceptual sense. Critiquing Western philosophical traditions that 'set out from the postulate of an original detachment of the intelligent subject' (Ingold 2000: 417), he starts instead by proposing an original position of 'direct perceptual engagement' (2000: 22). As a literalization of this perspective, he highlights how craft inheres in skills that engage the worker in the world, such that thinking and doing are indissolubly connected through the current of practical action. For both authors, craft practice assumes a central place as an empirical manifestation of the primacy of engagement: it opposes the conceptual detachments of modernist Western thinking and it represents an ethically superior form of working practice. As influential formulations of more widely shared approaches to craft, the work of Ingold and Sennett demonstrates how the theoretical and

ontological primacy afforded to engagement acts to render detachment as a secondary and subsidiary relation.

At Glasgow Cathedral, romantic strands of thinking that inform the masons' perspectives explicitly borrow from earlier nineteenth-century romantic thinking on conservation. As an echo of such ideals, masons at times attach value to 'engaged' forms of relationship and practice, most explicitly in opposing their work as craft practitioners to forms of alienation and rupture inherent in capitalist modes of production. However, the situated rejection of certain forms of detachment goes hand in hand with recognition of the virtues that other forms of distance and disconnection can achieve. As we elaborate below, masons cultivate various forms of detachment to produce work that bears only circumscribed, and often hidden, connections to the individual subjectivity of the person who produced it. Our theoretical framing explicitly acknowledges the utility of phenomenological and practice-based approaches in highlighting how action emerges in craft through mutually transformative conjunctions of people, materials, and technologies. However, we contend that the theoretical trope of engagement introduces an unhelpful conceptual hierarchy. In prevailing theories of craft, practical engagement with things is prior to the cogitating ego, just as involved activity is seen as more fundamental than detached contemplation, and relations that conjoin are privileged over those that separate.

Notwithstanding the prevailing theoretical emphasis on engagement, existing anthropological studies demonstrate in empirical detail a range of ways in which craft practitioners value and cultivate relations constituted through separation. In particular these describe explicit value given to the separation of maker and artefact through the denigration of ideals of individual creativity and the celebration of standardization achieved through technical proficiency (e.g. Kondo 1990; O'Neale 1932). Ethnographic accounts also show how learning is orientated towards the cultivation of an autonomous individual through the deliberate separation of master and apprentice (e.g. Herzfeld 2004: 124). However, these empirical insights have remained latent in individual studies, and have not been accompanied by reflection on the broader conceptual implications of these practices. Seeking to develop a more sustained analysis of the relationship between detachment and engagement in craft, we take inspiration from work in other areas of anthropology (e.g. Candea 2010; Strathern 1995, Willerslev 2007) as well as from literary criticism (Anderson 2001) and the history and philosophy of science (Daston & Galison 2007).

Taken together, this work lays the foundations for the conceptual rehabilitation of 'detachment', revealing how prevailing analyses that reify the relational and engaged nature of social life negate understanding of the empirically complex ways in which disconnection is understood and valued in specific contexts. From this perspective, detachment is approached not as a determining singular logic but rather as a regulatory and sometimes contested ideal. This may be latent in a range of practices orientated towards the separation of subject and object. Focusing on the actions through which this is more or less perfectly achieved foregrounds the situated nature of such ideals along with the plural and at times precarious practices required to sustain them. Detachment, from this perspective, does not map as one side of a Cartesian opposition, but is rather an outcome of processes that complexly enjoin a range of people, materials, and technologies in shifting configurations. As scholars have highlighted in relation to scientific practice (Candea 2010; Daston & Galison 2007) and nineteenth-century

literature (Anderson 2001), such ideals sustain a range of ways in which selves are fashioned to produce distanced viewpoints and objective artefacts through the suppression or regulation of the personal, subjective, and particular. Collectively, these approaches open up analytic perspectives that prompt detailed empirical consideration of the ways in which ideals of detachment emerge in practice, and the promissory as well as problematic inflections these may acquire. Our analysis of stonemasons extends these perspectives to the significantly different context of craft, seeking to draw out ethnographically how skilled practices of masonry are orientated towards specific forms of detachment.

We suggest the practices required in stonemasonry entail the complex conjunction of engaged and detached orientations, in ways that are not well apprehended through analytic framings that assume a necessary antipathy between the two. Grasseni argues that management of a compromise between distance and proximity is integral to the cultivation of a range of 'skilled visions' (2007: 8). In his analysis of Yukaghir hunters, Willerslev similarly alerts us to 'a mode of being that puts us into contact with the world and yet separates us from it' (2007: 190-1). Extending these approaches to craft, we explore how cutting stone conjoins detached and engaged orientations in complex dialectics. The point of our analysis is not to arrive at a general model of craft practice, but to expand the conceptual repertoire in order better to apprehend the diverse relational forms this can practically take.

Craft, conservation, and tradition

At Glasgow Cathedral, a team of seven stonemasons makes up the core of the Monument Conservation Unit. Five work primarily as 'banker' masons, cutting new stone indents in the yard (Fig. 2). Others principally work on removal of decayed stone, repointing and 'fixing' newly cut stones in the building (Fig. 3). This article focuses on the practices of banker masons and the principles by which they cut stone. Fixing replacement stone in the building is understood as a crucial but less skilled activity, depending on rule-of-thumb knowledge of the action of forces and loads, mixing and pointing using lime mortar, and the hydraulic processes by which buildings take in and 'breathe' water. Socially, masons characterize the yard in terms of unity and equality, highlighting the lack of sectarian sentiment that is widespread amongst other trades in Glasgow. Unity, however, is undercut by a 'pecking order' that relates personal reputation to relative differences in skill, experience, temperament, and character. Most masons have served apprenticeships, which are three-year programmes, usually undertaken shortly after leaving school. While these combine formal training at vocational colleges with practical training on the job, masons attach particular importance to the latter. Through apprenticeships, they form lasting friendships and acquire a strong sense of community that extends beyond specific sites of work (cf. Lave & Wenger 1991). Reputation, and the personal relations resulting from this, remains important in gaining employment and eliciting advice.

Living and working in a city built of stone, the masons see themselves as part of a long-standing tradition and take pride in the role of their trade in the city's construction. Particular gratification derives from working on the Cathedral, a building of civic and national significance, also emblematic of the pinnacle of skilled craftsmanship. Predominantly, the masons locate themselves within a working-class

culture, associated with practical work, and the lack of airs and graces. These components constitute a particular kind of masculinity that informs their sense of collective identity. With only a handful of exceptions, the profession remains overwhelmingly male. Masons connect this in explicitly gendered terms to the physicality of the work and the bodily strength required. The craft of masonry is not simply a set of skills, but entails embodiment of a series of social values and attitudes (Herzfeld 2004; Lave & Wenger 1991). The performance of a specific form of masculinity is upheld through various forms of 'bantering' that meld ideas of physicality and strength with those of honesty, unpretentiousness, and taciturnity. These distinctions play into wider stereotypes, where Glasgow is seen as a working-class city associated with industry, the proletariat, socialism, and masculinity, in contrast to Edinburgh, associated with art, politics and learning, and more negatively with middle-class pretensions and femininity (Hearn 2003).

Historic Scotland operates within a framework of international charters and conventions that uphold many of the principles expounded by Ruskin and Morris regarding significance, authenticity, and minimal intervention. The desire to protect old buildings was intricately linked with the revival of craft, and specifically the Arts and Crafts Movement, in which Morris was a key figure. For its proponents, machine production debased the maker of the object, and produced commodities that were standardized, mediocre, and ugly. Craftsmanship was associated with the production of beautiful objects, and was also linked to a romanticization of rural vernacular culture symbolized by the Gothic. The conservation of old buildings went hand in hand with the preservation of traditional craft skills that were intended to reintroduce a sense of harmony and beauty in later nineteenth-century decorative arts and architecture. The Arts and Crafts Movement, including Morris's Society for the Protection of Ancient Buildings, thus placed great importance on establishing craft guilds and colleges, and creating guides to practice to help preserve dwindling crafts (Hassard 2009: 277-8). Explicitly reflecting these ideas, the importance of traditional craftsmanship is defined as an object of conservation by UNESCO (2003). Heritage professionals also perpetuate the romantic link between craft, vernacular culture, and nature. Graham, a conservation architect connected to the Cathedral, explains: 'It's the craft culture that's moulded by the materials, the weather, the place. *Genius loci*, you know, I think that's something the crafts really preserve ... Not many left, but that's why it's so important'. Reflecting this vernacular aspect of craft, heritage professionals describe stonemasonry and other crafts as 'living traditions'. Drawing on these ideas, they echo earlier concerns about the loss of traditional craft skills and stress the threats posed by technological and commercial changes in the building industry. In response, Historic Scotland, like many heritage organizations, seeks to preserve 'traditional building crafts' through practical handbooks, apprenticeships, and specialized centres.

Discourses of modernist disenchantment, and the corresponding celebration of tradition, also inform masons' own understandings of their work. They stress the 'traditional' nature of masonry, and articulate a sense of temporal continuity through unchanging practice. Doug, a mason who has worked on the Cathedral for over a decade, explains that masonry has 'been for thousands of years the exact same – it's just a process, the same process that's been from the medieval [period] to what it is today'. The work is informed by a strong sense of connection to previous generations of masons. John, another experienced mason, describes how this sets up an uncanny sense

of connection to medieval masons who built the Cathedral: 'It makes the hairs on the back of your neck stand up, you know, when you realize that you're part of an unbroken chain that just doesn't change'. Skilled practices thus bind masons to their predecessors as to their fellow workmates (cf. Keller & Keller 1996; Sennett 2009).

Masons at Glasgow Cathedral echo other conservation professionals, contrasting this more 'traditional' form of masonry to the commercial sector. In the conservation sphere, there is time for reflection, the opportunity to develop skills, and space to pursue good work for its own sake – all considered integral aspects of craft (Sennett 2009). In the commercial sector, masons are paid by piece-rate, often cutting to the same pre-designed template as if on a 'production line'. Recalling earlier experiences at a private company, Angus describes the haste and anxiety associated with the financial imperative: 'Your head starts to go as if, "Am I making enough money?"' The reduction of quality to quantity was accompanied by a broader concern that the spirit of the craft is being lost, echoing wider romantic discourses conceptualizing craft as a locus for 'honest' work in opposition to alienated labour.

The protection afforded to these important elements of stonemasonry in the conservation sector is, however, accompanied by forms of regulation that are specific to the modern conservation movement. Conserving the building in its 'authentic' state enjoins a diverse range of conservation professionals, including architects and cultural resource managers, whose activities are informed by wider policies (see Jones & Yarrow 2013). The conservation strategies, plans, and drawings they produce frame the masons' work, ostensibly producing the division between design and execution, head and hand that craftsmanship, as an ideal, is supposed to overcome. Thus masons sometimes express concern that the emphasis on 'minimum intervention' can 'throw out' their own work. Where conservation policies freeze the building in time, staying true to the traditional principles of masonry can be difficult. Such tensions relate to different professional cultures, where the protectionist ethic of conservation runs up against the masons' own sense of the importance of autonomy for the appropriate exercise of skill. In common with other conservation contexts (see Marchand 2009; Herzfeld 2004), the work of masons at Glasgow Cathedral is therefore framed by broader policies and institutional understandings about the linked concepts of 'craft' and 'tradition'.

Cutting stone

In the mason's yard at the Cathedral, two masons are at work, the simultaneously dull and metallic sound of hammer on chisel echoing round the walls. John, one of the senior masons, is carving a practice piece, 'getting a feel' for a new gargoyle he will produce to replace a severely eroded original. The head's grimacing, fantastical features draw the eye. Yet, later, as we chat over mugs of tea, John is quick to deflect attention from his carving. 'It's just creating, there's no skill in that', he explains, nodding dismissively towards the elaborate head. By contrast he highlights the skill involved in the deceptively simple finial one of the other masons is cutting. 'That's the real stuff', he continues, 'one hundred per cent discipline. That's pure geometry'. If a mistake is made with the gargoyle, John can just rework it. He demonstrates the point, nicking off a corner with his chisel before cutting back to erase the damage. 'There's no right or wrong', he emphasizes. By contrast, the finial exemplifies the exactitude and patience he

takes to be at the heart of the craft. Skill lies in the discipline of following rules that are both the means by which a correct result is achieved and a set of standards against which it is judged: 'It has to be right'.

Conceptually speaking, masons start at the end. Form does not organically emerge from the process of cutting, but is prefigured at the outset (*contra* Ingold 2007). Working in this way requires an imaginative capacity referred to as 'the mason's eye'. Over time, masons acquire the ability to look at an uncut stone and see in it the end-point of their task. John, an experienced banker mason, describes this as a 'second sight', and equates it with a capacity to see 'that the form is already there'. Visualizing an end-point, the masons then work back to plan the stages required to get to it. As craftsmen involved in what Pye (1968) terms 'the workmanship of risk', they seek to minimize deviation from this prefigured ideal form. Technical competency is celebrated as a means to realize correctly an initial plan (Chick & Roberts 1987; O'Neale 1932). Unlike the blacksmith artists described by Keller and Keller (1996), skilled practice is not in this sense a source of novelty and originality. Templates facilitate a process of literalization (Turnball 1993), guiding masons' actions, but they do not determine the actions required to get there. Self-regulation emerges from the dynamics of skilled practice, rather than from the coherence of an external determining system (Ingold 2001; Simonden 2010).

The masons acknowledge distinctive qualities in different kinds of stone, but, claiming that 'stone is stone', they relate unchanging properties of the material to an enduring set of principles that regulate cutting. At the Cathedral, the masons work with Callalo and Dunstone stones, which have been carefully sourced to match the characteristics of the original materials. Yet, whilst they acknowledge the different properties of these two stones, and the adjustments required to work them, they do not alter the principles of cutting, which conceptually prefigure all possible contexts. The materiality of stone is thus emphasized over and above the specific qualities of the materials used (Conneller 2011). Masons stress the importance of 'starting right'. After the stone is squared off, cutting begins with the mallet point, making parallel grooves in the surface. This makes ridges that are knocked out using the toothcomb, before finally the stone is flattened off with the chisel. These techniques are utilized to shape the stone using two basic principles: 'checks' create a right-angled indent, while 'splays' are diagonal incisions across right-angled edges. Surplus stone is taken down through repeated use of these principles until the final form is revealed. This set of rules is held to underpin all masonry. Angus makes this point explicit while explaining these ideas: 'Masonry is incredibly, incredibly simple. I'm teaching you everything there is to know'. The application of finite rules enables the generation of infinite formal possibility. As Angus puts it 'There's nothing you can't cut using these principles'. While simple to understand in the abstract, the skill required to embody and apply these principles effectively is understood to require 'a lifetime's learning'.

Masons attempt to regulate their own actions in accordance with these principles. Stability of form results from stabilization of the material conditions of production (Boas 1955 [1927]; Ingold 2000; Pye 1968). Mastery of the process of cutting enables mastery of the product. If enacted correctly, the result will be the same regardless of who performs the task. Defining these principles as 'rules', masons highlight their inviolable nature, claiming 'the rules never change'. Skill is located in precision of execution, in explicit opposition to creativity. 'Rules' do not mechanistically

determine the outcome, but elicit regulated action involving constant modification and adjustment (Bernstein 1996; Ingold 2000). Different working contexts throw up different kinds of problem. Since neither the individual nor conditions in the wider environment are ever stable, problems have to be constantly solved through 'intelligent attention' (Portisch 2010: S75). The rules do not dictate where checks and splays should be cut, or in what order. Distinct types of stone call for subtle adjustments in how principles are applied.

The individual subjectivity of specific masons is allied to the collective traditions of the craft through the enactment of unchanging principles by the skilled practitioner. This is not simply because conservation masonry is aimed at the production of 'authentic' reproductions in accordance with externally prescribed principles, but, more profoundly, from their own perspective, because work is only recognized as good to the extent it conforms to collectively recognized principles and traditions of masonry. Masons take pride in themselves insofar as the self takes the form of a mason.

Rules are held to be fundamental to the practices by which masons detach themselves as specific individual subjects from the objects they make. The enactment of this detachment constitutes a kind of 'resolute passivity' (Daston & Galison 2007), in this case achieved through adherence to tradition. As long as principles are correctly enacted, conservation masons are able to cut stones that accurately replicate the originals they replace. Masons embody shared principles and traditions so that their actions emerge as instances of a form of practice that is not straightforwardly their own. As such, the skilled enactment of convention acts to suppress a more 'personal' set of motivations and thoughts, enabling a relationship to the stone that is at once generic and individual. The masons seek to stabilize their actions in accordance with these conventions in different contexts, where both the subject and object of working practices are constantly changing (cf. Harvey & Venkatesan 2010). While easy to understand in the abstract, acquiring the skill and experience to apply these conventions correctly is an unending task. The acquisition of correct technique can only be learned with time and patience. Being a good mason therefore requires specific personal qualities.

Discipline and patience

In order to cut stone correctly and consistently, masons cultivate a set of personal values and dispositions. Apprenticeship is not just about learning a set of principles and skills, but also about acquiring the personal qualities necessary to embody and apply these (cf. Applebaum 1999; Lancy 1980; Marchand 2009). In the Cathedral yard, 'slanging', joking, often abusive, banter intended to cut people down to size, underscores the apprentice's position at the bottom of the site hierarchy and is regarded as a necessary part of the process of becoming a mason: arrogance must be removed for the virtues of patience and discipline to be instilled.

The masons stress the virtues of a 'disciplined' and 'patient' approach, which they connect to the physical properties of stone: to cut stone correctly, underlying principles must be applied logically and patiently. Hurrying the process results in shoddy work and mistakes. Boredom, frustration, and impatience must be kept in check. Masonry entails an ability to perform repetitive actions with consistency, persisting

when things get difficult. This necessitates 'discipline', regarded as an unswerving commitment to the application of underlying principles (Pye 1968). Some masons are held, by disposition, to be more disciplined than others, but over time the nature of the work itself instils these qualities.

Thus, masonry involves the whole person and frames a broader outlook on the world. Masons describe 'falling' or 'drifting' into the trade, emphasizing serendipity over choice (cf. Thiel 2007), but recognize a subsequent process of fundamental personal transformation. John took up masonry after a series of unsatisfying menial jobs and echoes others in speaking of 'getting hooked'. Masonry leads to personal change as skills learned through the trade are applied to other areas of life. Contrasting his current disposition with the misplaced arrogance of his youth, Stuart suggests it 'makes you the person you are' and 'teaches the right attitude'. Commitment and dedication are necessary, because masonry is a difficult skill that can only be learned over time and because novel contexts continue to trouble and perplex. Stuart explains that no matter how good the teacher, 'you've got to have the passion in there yourself'.

While masonry is therefore described as personally 'engaging', the point of this engagement is to allow a particular form of detachment: through discipline and patience, masons regulate their actions to produce an object independent from themselves. Acquiring these personal characteristics is a necessary counterpart to learning the 'rules'. Through the cultivation of discipline, masons are able to regulate the process by which skills and techniques are applied. The ideals of patience, discipline, and commitment constitute forms of cultivated self-fashioning that engender an externally orientated disposition. Being 'disciplined' entails a 'commitment' to underlying 'rules' and, correspondingly, cultivated indifference to more immediate, individual motives. The pursuit of excellence through the enactment of the craft's traditions overrides other, more personal, concerns.

Contrasted with modernist forms of industrial production in which the self-realization of workers is curtailed by determining technological systems, craft has been celebrated as a domain facilitating individual expression (Greenhalgh 1997). However, masons at Glasgow Cathedral are ambivalent with regard to notions of creative individuality, stressing instead the discipline and patience required to actualize a tradition which remains fundamentally unchanged. Like Yurok-Karok basketweavers, who 'contrive to sever the active connection between basketry and the imaginative faculty' (O'Neale 1932: 85), they locate the source of their own actions in underlying, collectively shared conventions, techniques, and skills. In particular, through the acquisition and cultivation of discipline, creativity, subjectivity, and authorship are carefully separated from the stone. In this sense, detachment is an active if precarious achievement of holding unwanted forms of subjectivity at bay. The result is not a deadening conformity, but attentive appreciation of the quality of a correctly realized form and the difficulty of embodying the skills required to produce this (cf. Chick & Roberts 1987).

Experiencing cutting

Masons experience the process of cutting as a movement in and out of different relationships, to others in the yard, to various tools and machines, and to the stones

they work. In this process, skilled practice acts to conjoin and relate but also to detach and differentiate. This fluid negotiation involves ideas, bodies, technologies, and materials in complex and shifting configurations.

Experienced masons describe cutting as a 'natural' process of bodily engagement with the mind 'on auto-pilot'. Stuart explains: 'It's just second nature to you. It's like cutting grass or whatever ... You're just keeping an eye, you're just watching. Your eye is constantly just for guiding, but your hands there, they determine if it's going to be right or no'. When cutting goes to plan, the rhythm with which problems are encountered and solved proceeds through the modulation of practical action. The 'current of practical action' (Ingold 2000: 417) is here understood to entail engagement in the sense that it conjoins body, tool, and stone. Correspondingly, the mind is characterized as a locus of conscious thought, detached from the process. This internal division is understood to enable a relationship in which the mind monitors and guides a process that originates elsewhere. This active detachment, a necessary state for cutting, is contrasted with the problems that can result from the passive disconnection of a mind that wanders onto unrelated thoughts. Daydreaming and lack of concentration result in small mistakes that amplify through subsequent practice.

Where problems become intransigent and disrupt the flow of action, a qualitatively different relationship to the material is produced. Such moments can be personally frustrating. Although only in his mid-twenties, Stuart started his apprenticeship at the Cathedral as a teenager, and is now considered a skilled cutter. He talks about a process of 'falling out with the stone' when problems creep in and small mistakes get magnified. 'Sometimes you come in [to work] and you don't want to continue. Stone cutting can get you really annoyed. It can put you on a downer'. Corresponding feelings of frustration and anxiety accompany him away from work, and even into dreaming and sleeplessness.

Confronted by such difficulties, masons describe standing outside the problem to see it afresh. If cutting can lead to myopic absorption and an obsessive concern with detail, withdrawal from the process enables 'distance'. The metaphor of perspective connotes a particular relationship between vision and knowledge, whereby new insights are produced by forgoing superfluous aspects of detail (Merleau-Ponty 2000 [1968]). Practically, masons highlight how such detachment is enabled through the temporary suspension of activity and a spatial 'stepping back'. This may involve banter over mugs of tea and a smoke, or reading newspapers in the mess hut. Physically disengaging from the process allows other forms of relationship to emerge, which in turn enables re-engagement with the process via the perspective that is gained. Here perspective is not synonymous with an individual vision, and the separation thereby enacted is not between the subjective mason and his work. Rather, acknowledging that good work emerges through the underlying principles of masonry, they seek to realign their activities with these ideals. In this sense, the mason walks away from himself (as subjective individual) in order to see the problem more clearly through the objective principles of masonry.

Theories of craft have often highlighted the 'engaged' nature of skilled practice. Echoing these theories, masons recognize the absorbing nature of their work, describing how cutting acts to dissolve distinctions between otherwise distinct entities: while novices may feel disconnected from tool and material, skilled cutters experience

these as conjoined in a singular fluid action. However, masons also recognize points of detachment that are integral components of the process. Concentration is enabled by cutting off from other people and activities in the yard. The mind, understood as external to the body, is able to monitor and correct mistakes. Perspective is also gained on problems through physical and spatial movements away from the stone. If cutting therefore entails a multiplicity of agencies, including bodies, tools, and materials, masons locate skill in the capacity to conjoin and disconnect these contextually in the right way at the right time. Aiming to produce particular material outcomes, masons show how different forms of detachment and engagement are mutually implicated in negotiating the various forms of relationship they seek to sustain.

Tools and machines

The relationship between tools and machines has been central to debates about the nature of craft since the mid-nineteenth century. In the context of critiques of mechanized production, handcrafts were valorized as a more 'human' alternative to the alienation associated with machines. Questions emerge about the extent to which personal agency is curtailed or enhanced by the machine. Is it a friendly tool or an enemy replacing the work of the skilled human hand (Dormer 1997: 102, Greenhalgh 1997b: 111; Sennett 2009: 81)? Where is the distinction to be drawn between, on the one hand, the tool that extends the capacity of the user and, on the other, the machine that incorporates the user into a determining system (Braverman 1974; Marx 1970 [1887])? For the Cathedral masons, such concerns are refracted through the lens of specific practices.

Historic Scotland favours the use of 'traditional' hand methods in conservation work, in contrast to commercial contexts, where machine buffers and grinders now prevail. The commitment to hand tools follows a long-standing tradition in British conservation circles that can be traced back to Morris's Society for the Protection of Ancient Buildings. Hand methods are promoted on grounds of greater sensitivity, 'authenticity' of finish, and the preservation of 'traditional' ways of working. In practice, however, the masons use machine buffers and grinders in the early stages of blocking out, to speed up the process and reduce wastage. These different kinds of technologies are sometimes related to qualitatively different ways of working.

Hand tools are associated with an iterative process in which the mason responds to the material, modifying his own actions with respect to the effects of his previous actions. This form of work involves 'rhythm', in the sense of balancing repetition and anticipation (Sennett 2009: 175). In the later stages of cutting, hand tools are associated with a degree of control that power tools lack. Angus explains: 'You know your next cut, you know what you're doing, you know where you're going'. When used by a skilled practitioner, hand tools enable a repertoire of actions that the mason continues to see as an extension of his own. As objects of 'subsidiary awareness', they are understood to recede from conscious attention as an extension of the body (O'Connor 2005). Such understandings elide a distinction between person and tool, by contrast to the more mediated relationship that masons sometimes understand power tools to entail.

While power tools are owned by Historic Scotland, hand tools are personal possessions. Masons acquire these during apprenticeship, and take pride in building up

collections. The bond that develops is intimate and enduring. On one occasion Angus lays out his tools on a piece of unworked stone and describes the biography of each: 'I've got chisels in there that I've had since I started, you know what I mean, and you just ...you realize it's an old faithful, I cut this with it and I cut that with it'. Tools acquire a biography associated with the history of their use (Applebaum 1999); on the rare occasions they get broken, 'it's like there's been a death in the family'. By contrast, Angus characterizes the relationship to power tools as one of functional necessity and emotional distance, 'Machines, they can come and go, you know what I mean'.

Masons describe the introduction of mechanical buffers and grinders into commercial masonry in the 1980s as a 'revolution', turning a slow and thoughtful craft into a 'production line'. Through the introduction of power tools, 'electric masons' became caught up in production processes that compromised their autonomy and skill (cf. Braverman 1974; Marx 1970 [1887]; Simonden 2010). Yet if masons echo broader romantic discourses in highlighting the potential for machines to displace the 'human' element of production, their ideas also resonate with Enlightenment thinking that casts the machine as a potentially progressive force (Sennett 2009). While hand tools are celebrated as embodiments of a traditional, more engaged, way of working, they are also at times derided as slower and less effective, eliciting boredom and frustration. In the hands of a skilled mason, power tools can be used without compromising the underlying principles of the craft. Heritage professionals who privilege hand tools are derided for their misplaced reification of 'tradition'. Claiming that medieval and Egyptian masons also worked with the best tools available, the Cathedral masons see buffers and grinders as different means to enact a fundamentally unchanging set of principles and techniques. When applied with skill, power tools are said to enable a more sensitive, less damaging means of dealing with stone. The incorporation of machines into the process of cutting is therefore compatible with the notion that since 'stone is stone', the process remains fundamentally the same.

Romantic and Enlightenment traditions of thinking are interwoven in complex ways with the masons' understandings of the tools and machines they use. Masons echo romantic discourses that see the machine as an extension of capitalist modes of production, and deride the sense in which these displace their role as skilled craftsmen. Opposing detachment in the Marxist sense of technologically mediated capitalist alienation, they celebrate hand tools as symbols of a more engaged, slower, more responsive 'traditional' way of working. However, they are also sceptical of the external imposition of 'traditional' methods in conservation contexts, including policies that prescribe hand-tool use to the exclusion of power tools and machines. Though hand tools are symbolically invested as a locus of tradition, resistance is not to specific tools or machines but to the determination of working practices in accordance with externally imposed standards and processes. The masons' claim is not that such standardization undermines their personal creativity, but that it disrupts their capacity to enact skilfully the principles and traditions at the heart of the craft. Thus masons seek to protect a space in which artefacts are detached from themselves through the embodiment of tradition, a process in which a variety of tools and machines have a role to play, and contextual decisions about what is most appropriate remain with the craft practitioner.

Letting go

Doug describes the often tedious process of cutting by contrast to feelings of release that accompany the moment of 'letting go': 'There's great satisfaction in saying, thank, thank God! That's up and out the road now and you're glad that it's up and always stand back and look at it, and it's looking good – a lot better than before'. Achievement is located in 'a job well done' and 'getting it right'. At this point, masons see their own work objectified in a way that is invisible during the process itself. The act of cutting calls into question the notion that masons act as discrete stable selves. This can be seen in the recognition that they are inextricably bound to tools and materials that extend beyond the body, as well as in their assertion that specific acts of cutting are always framed by collective principles. By contrast, completion constitutes a moment in which the self is revealed, precisely through separation from this broader field of actions and relations (cf. Leach 2007).

This process of self-extrication is not straightforward. Discerning the point when the object is complete is a matter of judgement. Angus, a mason with over a decade's experience, describes the dilemma: 'It could be right, it could be absolutely perfect and some people will still want to play about with it. You've got to go, "right", and let go of the stone'. Thus completion emerges as a balance between competing forces. The task should take the time it needs, but prolonged engagement in cutting leads to 'over-working'. The perfectionist impulse can thus undermine practical realization of a perfect end result. Balancing these conflicting imperatives, the point when cutting ceases is not a passive 'ending': it must be actively created.

Once the piece is set within the building, the connection between the mason and his work is publicly severed in the sense that the stone bears no obvious individuating marks. However, the form of detachment involved in the moment of completion does not amount to the creation of a 'non-relation' (Candea 2010); rather, it transforms the nature of the mason's connection to the object of his work. When the stone is incorporated into the building, a personal relationship is created of a qualitatively different kind to that latent in the process of cutting. As we walk around the back of the Cathedral, inspecting the conservation repairs, Stuart remarks that although the repairs bear no personal characteristics, 'you know yourself'. As he points out his own work, he explains, 'I could tell you every bit of stone I cut'. This personal relationship resides in private contemplation, as Stuart puts it, 'for your own self-pleasing'. John worked on a number of sites around Glasgow and Edinburgh before coming to work at the Cathedral. He describes the ongoing connection to this work as a form of posterity that other masons share:

Even old men you worked with say, 'I done that back in nineteen fucking thirty', or whatever. So, aye, that posterity thing when you look back and say, 'I did that' and it's still there ... In a hundred years' time, what we do here is going to be historical.

Personal relations between masons and their finished work are also evoked and made tangible through the collection of images in portfolios and through hidden masons' marks applied to important and difficult pieces of work. Doug undertook his training at the Cathedral and has worked there for over fifteen years. He explains that in the past the mark acted to regulate quality and quantify output, but 'nowadays it's done just for the future ... to leave some evidence for three, four, five hundred years' time for

somebody to come back and say that this bloke has got his mark on quite a few of these'. The paradox entailed in this relation to a putative future mason is that the connection can only become evident at the point at which the work fails. Stuart finds the prospect of somebody seeing his mark disturbing: 'Hopefully someone *doesnae* see it, because I don't want it coming out of the wall again – I hope it's there for a long, long time'.

Even in their detached form, completed and inserted in the building, stones stand as material embodiments of the people who created them, projecting their actions forwards in time. Indeed, it is only through the suspension of the process of making that an artefact is detached as an object that condenses a set of personal memories. Emotional attachment constituted through a series of memories and thoughts evoked by completed work is here premised on detachment from the cutting process and the reappropriation this makes possible (cf. Miller 1987).

Conclusion: craft as detached engagement

For over a century, theorists have highlighted the engaged nature of craft, focusing on relations that draw together mind, body, and material through various forms of skilled practice. Understood as a quintessentially engaged activity, craft has often been celebrated in explicit opposition to modernist working practices that institutionalize and technologically embed the detachment of head and hand. As recent developments of this intellectual tradition, post-human and phenomenological approaches have been particularly influential, highlighting the dynamic interplay of human and non-human agencies in craft practice (e.g. Ingold 2001; Kalshoven 2012; O'Connor 2005; Portisch 2010; Sennett 2009; Venkatesan 2009). Our account builds on these insights, specifically in the rejection of conceptual distinctions based on Cartesian dualisms between head and hand, mind and body, individual and world. From this perspective we have described elements of skilled practice inhering in relations that draw together entities, including hand, mind, body, tool, and stone, in dynamic and fluid conjunctions.

However, our account highlights a range of practices and relations that are not well captured through the analytic lens of engagement. These involve various ways in which masons cultivate and value forms of detachment that are often only obliquely acknowledged in studies of craft, and which have rarely been subject to sustained discussion. While our aim has been to enlarge and reframe the conceptual vocabulary for understanding craft, our account has a polemical thrust. Taking seriously masons' understandings of relations of detachment challenges theoretical framings that obscure these.

Conservation masonry is orientated towards the achievement of an active withdrawal of the mason from the stone that he cuts. We suggest that this constitutes a form of detachment that is distinct from the alienation associated with mechanized industrial production, with its linked detachments of head and hand, design and production (Braverman 1974). Capitalist production extracts value from the labourer through the appropriation of his or her work in detached commodity form (Marx 1970 [1887]). By contrast, conservation masons detach themselves from their work, and take explicit pride in their capacity to produce objects that take conventional, non-personal form. To the extent they experience workplace alienation, it is a product of the constraints imposed by the conservation context, where the need for minimum

intervention can at times undercut the rules at the heart of masonry and erode the commitment and discipline required to enact them. Daston and Galison describe the emergence of nineteenth-century scientific ideas of objectivity as a form of 'resolute passivity' (2007: 17), governed by an empiricist logic that attenuates subjectivity to apprehend the world 'as it is'. Masonry is framed by a similar commitment to an achieved passivity, but utilizes this ideal in the service of practices orientated in the opposite direction, moving from abstract forms and ideas to material substantiation. The practices required to perform this are regulated by a cultivated self that acknowledges subjective thoughts and individuated actions, but deliberately seeks to regulate these through the embodiment of traditional rules, procedures, skills, and personal characteristics. For masons, the overarching aim is not to create an artefact that indexes individual creativity, but to arrive at a form that conceals its own conditions of production. Adherence to rules involves skilled practices that stabilize form in conditions of material and subjective flux. These abilities require cultivation of a particular temperament characterized by discipline, patience, and humility.

As a counterpoint to existing work, which assumes an antipathy between detached and engaged relations, we have shown how they are necessarily mutually implicated. Breaking both with Cartesian traditions premised on separation of person and world, and with phenomenological traditions premised on the primacy of engagement, we have sought instead to show how the skill of masonry inheres in the negotiation of detached and engaged dispositions. In the process of cutting, masons move in and out of different relationships with the stones they work, in the context of broader fields of unfolding relations. In this process, detachment and engagement take different forms, such that disconnection in one sense may enable connection in another. Skilled practices that engage hand, body and material, are understood to require concentration, produced through a severing of social relations. Conversely, when cutting produces over-absorption, masons detach from the process and regain perspective, in part through engaging in relations with others in the yard. Thus, in the process of cutting and fixing stone, various forms detachment and engagement are mutually implicated. Acts of disconnection, severing, and distancing create new entities, and reconfigure the relationships between these. By the same token, relations of engagement entail the drawing together of people and things, sometimes dissolving the distinction between them. As analytic terms, detachment and engagement highlight relational forms with different trajectories, respectively describing those that separate and those that conjoin. The moment of completion is then the point at which a division between person and object is definitively enacted. The mason is separated as a subjective individual, distinct from the stone, now objectified as masonry. Both are now related in various ways, but as self-evidently distinct from one another. While stones retain the mason's mark, the mason feels an emotional attachment and sees his work as part of a legacy.

Our argument about the mutually implicated nature of detachment and engagement emerges via our own detached engagements with craft, but we hope it offers wider insights for understandings of skilled practice, and indeed sociality. We have argued that in the course of cutting stone there are various ways in which materials are personified and persons materialized. Skilled practice entails actions that do not neatly separate into person and thing, subject and object. These processes involve conjunctions of people, things, and tools in activities that are always fluid,

sometimes unstable, and often unpredictable. When people and things are caught up in interactions that combine them in shifting configurations, a subject/object division is produced as a precarious and processual achievement, regulated by the rules of cutting stone. Detachment and engagement do not therefore designate a relative distance from 'lived reality' (cf. Willerslev 2007). We suggest, to the contrary, that both forms of relation are integral to the realities people negotiate, construct, and experience.

Acknowledgements

This research was supported by a British Academy Small Grant (Ref. SG100577) and by a British Academy/Leverhulme Trust Small Grant (SG122587). We are grateful to Historic Scotland for granting permission for the research. We would like to express our sincere thanks to the Glasgow Cathedral Monument Conservation Unit: Johnnie Clark, Scott Clark, Dave Kerr, Fraser Maxwell, James McGurk, Joseph McKee, Erik Ramsey, Jamie Rose and Joseph Ward. They shared their thoughts, expertise and working environment with us, and without their generosity and interest the project would not have been possible. We also wish to acknowledge those members of the Conservation and Maintenance Group and the Cultural Resource Team who participated in interviews. The paper benefitted greatly from comments and suggestions from anonymous peer reviewers, and from editorial guidance from Mathew Engelke and subsequently Matei Candea. The central arguments emerged in critical dialogue with a range of other scholars as part of an ESRC funded project on 'detachment' (RF170053). Thanks to Chantal Conneller, Tony Crook, Martin Holbraad, Stuart Jeffrey, Petra Tjitske Kalshoven, Alan Kilbride, Sharon Macdonald, Adam Reed, and Marilyn Strathern for their comments on earlier versions of this paper.

Note

1. Both authors were involved in participant observation with the masons during 2010. Research focused on their work on the Cathedral itself and in the Monument Conservation Unit Yard where the masons cut new indents of stone. Close observations were made of their working practices, and whilst apprenticeship was not part of our research, we were encouraged to participate in a number of activities, including handling the tools and basic cutting. A great deal of 'directed conversation' took place in the context of the participant observation, and qualitative interviews, as well as building tours, were recorded with each of the masons later on in the research process.

References

- ADAMSON, G. (ed.) 2010. *The craft reader*. Oxford: Berg.
- ADAMSON, G. 2010. Introduction. In *The Craft Reader* (ed.) G. Adamson. Pp1-8. Oxford: Berg.
- ANDERSON, A. 2001. *The powers of distance: cosmopolitanism and the cultivation of detachment*. Princeton: University Press.
- APPLEBAUM, H. 1999. *Construction Workers, USA*, Westport, USA, Greenwood Press.
- BERNSTEIN, N.A. 1996. On dexterity and its development. In *Dexterity and its development* (eds) M.L. Latash & M.T. Turvey, 3-237. Mahwah, N.J.: Lawrence Erlbaum Associates.
- BOAS, F. 1955 [1927]. *Primitive art*. New York: Dover.
- BRAVERMAN, H. 1974. *Labor and monopoly capital: the degradation of work in the twentieth century*. New York: Monthly Review Press.
- CANDEA, M. 2010. 'I fell in love with Carlos the Meerkat': engagement and detachment in human-animal relations. *American Ethnologist* **37**, 241-58.
- CHICK, G.E. & J.M. Roberts 1987. Lathe craft: a study in 'part' appreciation. *Human Organization* **46**, 305-17.
- CONNELLER, C. 2011. *An archaeology of materials: substantial transformations in early Prehistoric Europe*. London: Routledge.
- DASTON, L. & P. GALISON 2007. *Objectivity*. Brooklyn, N.Y.: Zone.
- DOBRES, M.-A. 2000. *Technology and social agency*. Oxford: Blackwell
- DORMER, P. 1997. The challenge of technology. In *The culture of craft* (ed.) P. Dormer, 101-103 Manchester and New York: Manchester University Press.
- GREENHALGH, P. 1997a. The progress of Captain Ludd. In *The culture of craft* (ed.) P. Dormer, 104-115-3. Manchester: Manchester University Press.
- 1997. The history of craft. In *The culture of craft* (ed.) P. Dormer, 20-53. Manchester and New York: Manchester University Press.
- GRASSENI, C. 2007. Introduction: skilled visions: between apprenticeship and standards. In *Skilled visions: between apprenticeship and standards* (ed.) C. Grasseni. Oxford: Berghahn.
- HARVEY, P. & S. VENKATESAN 2010. Faith, reason and the ethic of craftsmanship: creating contingently stable worlds. In *The social after Gabriel Tarde: debates and assessments* (ed.) M. Candea, 130-43. London: Routledge.
- HASSARD, F. 2009. Intangible heritage in the United Kingdom: the dark side of enlightenment. In *Intangible heritage* (eds) L. Smith & N. Akagawa, 270-88. London: Routledge.
- HEARN, J. 2003. Big city: civic symbolism and Scottish nationalism. *Scottish Affairs* 42: 57-82.
- HERZFELD, M. 2004. *The body impolitic: artisans and artifice in the global hierarchy of value*. Chicago: University Press.

INGOLD, T. 2000. *The perception of the environment: essays in livelihood, dwelling and skill*. London: Routledge.

——— 2007. Materials against materiality. *Archaeological Dialogues* **14**, 1-16.

JONES, S. And T. YARROW. 2013. Crafting Authenticity: an ethnography of conservation practice. *Journal of Material Culture* 18: 1 pp3-26

KALSHOVEN, P.T. 2012. *Crafting 'the Indian': knowledge and desire in Indianist reenactment*. Oxford: Berghahn.

KELLER, C.M. & J.D. KELLER 1996. *Cognition and tool use: the blacksmith at work*. Cambridge: University Press.

KONDO, D. 1990. *Crafting selves: power, gender and discourses of identity in a Japanese workplace*. Chicago: University Press.

LANCY, D. 1980. Becoming a blacksmith in Gbarngasukwelle. *Anthropology and Education Quarterly* **11**, 266-74.

LAVE, J. 1993. The practice of learning. In *Understanding practice: perspectives on activity and context* (eds) S. Chaikiln & J. Lave, 3-32. Cambridge: University Press.

——— & E. WENGER 1991. *Situated learning: legitimate peripheral participation*. Cambridge: University Press.

LEACH, J. 2007. Creativity, subjectivity and the dynamics of possessive individualism. In *Creativity and cultural improvisation* (eds) E. Hallam & T. Ingold, 99-116. Oxford: Berg.

MACCARTHY, F. 1994. *William Morris: a life for our time*. London: Faber & Faber.

MARCHAND, T.H.J. 2009. *The masons of Djenné*. Bloomington: Indiana University Press.

——— 2010. Embodied cognition and communication: studies with British fine woodworkers. *Journal of the Royal Anthropological Institute* (N.S.) Special Issue: Making knowledge (ed.) T.H.J. Marchand, S100-20.

MARX, K. 1970 [1887]. *Capital*. Moscow: Progress.

MERLEAU-PONTY, M. 2000 [1968]. *The visible and the invisible*. Evanston, Ill.: Northwestern University Press.

MIELE, C. 2005. Conservation and the enemies of progress? In *From William Morris: building conservation and the arts and crafts cult of authenticity, 1877-1939* (ed.) C. Miele, 1-29. New Haven: Yale University Press.

MILLER, D. 1987. *Material culture and mass consumption*. Oxford: Basil Blackwell.

O'CONNOR, E. 2005. Embodied knowledge: the experience of meaning and the struggle towards proficiency in glassblowing. *Ethnography* **6**, 183-204.

O'NEALE, L.M. 1932. *Yurok-Karok basket weavers*. Berkeley: University of California Press.

PORTISCH, A.O. 2010. The craft of Skilful Learning: Kazakh women's everyday craft practices in western Mongolia. *Journal of the Royal Anthropological Institute* (N.S.) Special Issue: Making knowledge (ed.) T.H.J. Marchand, S62-79.

PYE, D. 1968. *The nature and art of workmanship*. London: Studio Vista.

The final, definitive version of this paper has been published in *Journal of the Royal Anthropological Institute*, 20, 2014, pp. 256-275. by Royal Anthropological Institute, All rights reserved.

The final version is available at <http://onlinelibrary.wiley.com/doi/10.1111/1467-9655.12103/abstract>

RUSKIN, J. 1867 [1851-1853]. *The stones of Venice. Volume 2: The Sea Stories*. London: Smith, Eldon and Co. .

SENNETT, R. 2009. *The craftsman*. St Ives: Penguin.

SIMONDEN, G. 2010. 'The genesis of the technical object: the process of concretisation', From *Du mode d'existence des objets techniques*. In *The craft reader* (ed.) G. Adamson, 354-71. New York: Berg.

STRATHERN, M. 1995. Cutting The Network. 1995 *Journal of the Royal Anthropological Institute*. 2: 517-535.

THIEL, D. 2007. Class in construction: London building workers, dirty work and physical cultures. *The British Journal of Sociology* **58**, 227-51.

TURNBALL, D. 1993. The ad hoc collective work of building Gothic cathedrals with templates, string, and geometry. *Science, Technology, & Human Values* **18**, 315-40.

UNESCO 2003. Convention for the Safeguarding of Intangible Cultural Heritage.

VENKATESAN, S. 2009. Rethinking agency: persons and things in the heterotopia of 'traditional Indian craft' 15:1 pp78-95

WILLERSLEV, R. 2007. *Soul hunters: hunting, animism and personhood among the Siberian Yukaghirs*. Berkeley: University of California Press.