The Potter's Skill:
The Perception and Construction of Workmanship in Eighteenth-Century British Culture

Research Proposal

Current historical scholarship dictates that, in the eighteenth century 'tacit knowledge' was part of a wider knowledge structure, namely 'useful knowledge', whose conception, establishment and distribution had significant consequences for the economy, industry and science. This project argues that tacit knowledge was culturally contentious in eighteenth-century Britain, resulting in a problematic dynamic[1]. A closer examination of the understandings of tacit knowledge in industrial contexts is required, in order to uncover the nature of this dynamic.

For the economic historian Joel Mokyr, Europe's key industrial advantage lay in its ability to reduce access costs to 'useful knowledge' through more effective methods of knowledge verification and distribution[2]. This ability allowed it to develop the technological changes necessary for economic growth[3]. Mokyr, defines the concept of useful knowledge as knowledge of natural phenomena that lend themselves to manipulation[4]. The use of scientific principles in technological applications had important economic consequences.

The term useful knowledge has comparable, yet distinct, connotations for historians of science. The expression is closely linked to the work of Francis Bacon in the seventeenth century. In *Novum organum* (1620), Bacon argued that natural philosophy should be directed towards achieving improvements in the well-being of humanity[5]. Useful knowledge involved the practical exploitation of nature's

[1] I define tacit knowledge as, that knowledge which appears unconscious, must be learned through doing and is difficult to articulate through language. As J.R. Harris suggests, it is the "knack" of doing. Harris argues that, 'The resulting almost unanalysable pieces of expertise constituted the 'knack' of a trade, and the essence of a 'knack' is its difficulty of communication'. J. R. Harris, 'Skills, Coal and British Industry in the Eighteenth Century', *History*, 61 (1976), p. 182.

[2] Joel Mokyr, 'The Intellectual Origins of Modern Economic Growth', *The Journal of Economic History*, 65:2 (2005), p. 295. For other arguments concerning Europe's key industrial advantage see Kenneth Pomeranz, *The Great Divergence: Europe, China and the Making of the Modern World Economy* (Princeton, NJ, 2000); C.A. Bayly, *The Birth of the Modern World 1780-1914* (Oxford, 2004).

[3] A common argument is that Europe's labour prices were higher and therefore they targeted their technological innovations towards labour saving devices, which led to real transformations. See Pomeranz, *The Great Divergence*, p. 49.

[4] Joel Mokyr, *Gifts of Athena: Historical Origins of the Knowledge Economy* (Princeton, NJ, 2002), p. 3. Also, see Maxine Berg, 'The Genesis of "Useful Knowledge", *History of Science*, xlv (2007), pp. 1-11.

[5] Peter Dear, *Revolutionising the Sciences: European Knowledge and Its Ambitions, 1500-1700* (Houndsmill, 2001), p. 58.

capacities[6]. In the period between the early sixteenth century and the late eighteenth century Bacon also significantly influenced a European-wide change in the methods of establishing and verifying knowledge. Between 1500 and 1800, the Aristotelian model of deductive reasoning was slowly replaced by the inductive method championed by Bacon [7]. The inductive method, reasoning based on specifics to build a general rule, privileged experiment as the means of creating initial data. Counting, classifying and cataloguing increasingly became the tools by which data was collated and organised[8]. Economic historians, such as Mokyr, argue that the seventeenth-century 'scientific revolution' was important not for the inventions it forged, but rather for these new means of verifying knowledge which reduced industry's access costs to scientific knowledge[9]. In the realm of ceramics, Josiah Wedgwood worked through experiments systematically, tabulating his results, to codify the new knowledge he constructed[10]. The systematic creation of knowledge made it easier for others to understand and use, thus wider knowledge production accelerated.

Access costs were further reduced by the creation of new mediums and institutions that distributed useful knowledge more effectively. Mokyr argues that technological stagnation occurred when those who knew things ('savants'), such as natural philosophers, could not communicate effectively with those who made things ('fabricants'), such as entrepreneurs[11]. In the eighteenth century, Europe benefited from an easing of social interaction: new institutions, a culture of politeness, and an emphasis on gentlemanly virtues, eased the communication of new ideas and knowledge. The dissemination of new ideas to those who made things led to technological expansion.

By the 1760s the social gap between natural philosophers and entrepreneurs closed significantly as a new scientific culture emerged, actualizing a significant shift in technological development. Margaret Jacob's concept of scientific culture highlights the new methods of distributing knowledge, including courses given by travelling lecturers, textbooks, handbooks, private academies and voluntary

[6] Dear, *Revolutionising the Sciences*, p. 53.
[7] Ibid., p. 61.
[8] Ibid., p. 62.
[9] For more on debates about the 'scientific revolution' see, Dear, *Revolutionizing the Sciences*; Margaret J. Osler, 'The Canonical Imperative: Rethinking the Scientific Revolution', in Peter Dear, (ed.), *Rethinking the Scientific Revolution* (Cambridge, 2000), pp. 3-22; Steven Shapin, *The Scientific Revolution* (Chicago, 1995).
[10] Robin Reilly, *Josiah Wedgwood 1730-1795* (London, 1992), p. 151.
[11] Mokyr, 'The Intellectual Origins', p. 309.

societies[12]. These new arenas provided the cultural space necessary for natural philosophers and entrepreneurs to communicate and disseminate knowledge. They benefited from printed formats that used standardised language and technical illustrations, further encouraging the codification of knowledge. Entrepreneurs then applied their newly acquired knowledge to the industries in which they worked[13].

In terms of the distribution of scientific knowledge, Mokyr's contention holds true. Britain successfully created institutions and mediums through which scientific knowledge was established and distributed. However, this project argues that the successful establishment and distribution of useful knowledge in industrial contexts needs closer analysis. I contend that on closer examination, tacit knowledge was, for a variety of reasons, central to this success.

Useful knowledge, the knowledge needed to manipulate natural phenomenon, became technical knowledge in industrial contexts. How were new forms of technical knowledge, as opposed to purely scientific knowledge, established and distributed? This question takes us into an academic field, defined by the work of J.R. Harris, Stephan Epstein, Liliane Hilaire-Perez, Chris Evans and Göran Rydén[14]. In the early modern period the transferral of technical knowledge undoubtedly faced certain difficulties. Epstein argues that the spatial transfer of technical knowledge occurred through publicly available texts, patents and migrating individuals in the pre-modern period[15]. Epstein, however, goes on to stipulate that, 'In practice, published, "disembodied" technical knowledge did not disseminate well'.[16] He argues that the problem lay with the texts used, 'Pre-modern technical writers seldom practiced what they described, and so typically overestimated the role

[12] Margaret C. Jacob, *Scientific Culture and the Making of the Industrial West* (New York and Oxford, 1997), p. 110. Kenneth Pomeranz agrees that the development of a 'scientific culture' was important to the spread of technological knowledge, however he argues that more research is needed to determine how unique this was. Pomeranz, *The Great Divergence*, p. 43.

[13] Entrepreneurs not only gained knowledge from natural philosophers, they also accumulated new knowledge about nature from the daily, physical work carried out by their workers and themselves.

[14] J.R. Harris, *Industrial Espionage and Technology Transfer: Britain and France in the Eighteenth Century* (Aldershot and Brookfield, 1998); Harris, 'Skills, Coal and British Industry', pp. 167-182; Chris Evans and Göran Rydén, 'Kinship and the Transmission of Skills: Bar Iron Production in Britain and Sweden, 1500-1800', in Maxine Berg and Kristine Bruland (eds), *Technological Revolutions in Europe: Historical Perspectives* (Cheltenham and Northampton, MA 1998), pp. 188-205; Göran Rydén, 'Skill and Technical Change in the Swedish Iron Industry, 1750-1850', *Technology and Culture*, 39:3 (1998), p. 383-407; Liliane Hilaire-Pérez and Catherine Verna, 'Dissemination of Technical Knowledge in the Middle Ages and the Early Modern Era: New Approaches and Methodological Issues', *Technology and Culture*, 47:3 (2006), pp. 536-565; Stephan R. Epstein, 'Transferring Technical Knowledge and Innovating in Europe, c. 1200-1800, *Working Papers on the Nature of Evidence Series*, 01:05 (2005), pp. 1-40.

[15] Epstein defines the pre-modern period as 1200-1800. See Stephan R. Epstein, 'Transferring Technical Knowledge', pp. 1-40.

[16] Ibid., p. 21.

played by explicit, propositional knowledge in craft and engineering practice'.[17] Tacit knowledge, the significant component of craft and engineering practices, was missing from these texts.

I agree with Epstein's contention that tacit knowledge, particularly its transfer, is the key problem in the formation and development of pre-modern technical knowledge. Simon Valerani's work on Christopher Wren's roof designs confirms the validity of this claim[18]. Valerani argues that Wren gained the necessary knowledge to create innovative roof designs from direct experience with Italian architecture rather than reading treatises[19]. The example of Wren again demonstrates how technical knowledge in the early modern period was created from overlapping information and experiences, largely tacit in nature, which made for difficult transferral. Mokyr agrees that in the early modern period, 'much of the knowledge that counted was not written down or depicted in the increasingly detailed and sophisticated drawings of the age, but embodied in implicit forms we would call "skills", "dexterity", and other synonyms for what is known as tacit knowledge.'[20] Michael Polanyi concurs in, *The Tacit Dimension*, 'in general, an explicit integration cannot replace its tacit counterpart.' [21] If embodied, tacit knowledge was the problematic aspect of transferring technical knowledge in the early modern period, how did the situation change in the eighteenth century to allow for the reduced access costs and subsequent technological developments that Mokyr outlines?

The eighteenth century represents a contentious period for tacit knowledge. Mokyr argues that formerly tacit knowledge was increasingly articulated and transferred through sophisticated technical language and visual images[22]. I disagree with Mokyr's contention; I argue that although increasing attempts were made to articulate tacit knowledge through texts and images, they did not successfully communicate the knowledge. As Mokyr himself stipulates in his *Gifts of Athena*, 'Printed and written texts were probably complements to rather than substitutes for

[17] Ibid.
[18] Simon Valerani, 'The Roofs of Wren and Jones: A Seventeenth-Century Migration of Technical Knowledge from Italy to England', *LSE Working Papers Series*, (2006), p. 1. Also see, Chandra Mukerji, 'Tacit Knowledge and Classical Technique in Seventeenth-Century France: Hydraulic Cement as a Living Practice Among Masons and Military Engineers', *Technology and Culture*, 47:4 (2006), pp. 713-733.
[19] Valerani, 'The Roofs of Wren and Jones', p. 8.
[20] Mokyr, 'The Intellectual Origins', p. 297.
[21] Michael Polanyi, *The Tacit Dimenstion* (Gloucester, MA, 1983), p. 20. Here, Polanyi is referring to the difference between inherent, experienced knowledge of an object, for example the body and a theoretical knowledge of that same object. He argues that the theoretical can not replace the tacit understanding.
[22] Mokyr, 'The Intellectual Origins', p. 298.

personal contact and artefacts in the transfer of useful knowledge.'[23] Furthermore, Harris demonstrates that tacit knowledge was persistently difficult to articulate in the eighteenth century[24], yet remained of great significance to production processes[25]. This thesis tackles tacit knowledge in the eighteenth century by asking; what was the cultural significance of the difficulty of articulation that Harris outlines? I contend that the inarticulate nature of tacit knowledge conflicted with contemporaries' eager desire to codify all forms of knowledge, creating an uneasy position for embodied intelligence. Tacit knowledge was also contentious for deeper cultural reasons. I argue that the fluctuating nature of the sensory order in the eighteenth century, particularly the changing emphasis towards the visual, problematized the 'unseen' nature of tacit knowledge[26]. Furthermore, the ambiguous position of the 'body' also affected the ways in which bodily knowledge was perceived.

This study argues that 'skill' and 'workmanship' were the cultural constructions used to delineate and understand tacit knowledge in this period; therefore it is these concepts that need examination. In her recent work 'The Body of the Artisan', Pamela Smith used the term 'craft knowledge' to discuss artisanal epistemology, but this term is highly anachronistic[27]. The literature emanating from the Arts and Crafts movement of the nineteenth century has overshadowed how we now understand the skills of those who produced objects in the past. The nineteenth-century debates shaped the conceptualisation of decorative arts skills into the singular phenomenon of 'craftsmanship', a concept that linked the happiness and satisfaction of workers to their skills[28]. Craftsmanship is not used in any of the

[23] Mokyr, *Gifts of Athena*, p. 57.
[24] Or, it simply didn't need to be articulated, as other strategies of transmission existed. Harris, 'Skills, Coal and British Industry', p. 179.
[25] Harris, 'Skills, Coal and British Industry', p. 175.
[26] See, Barbara Maria Stafford, *Body Criticism: Imaging the Unseen in Enlightenment Art and Medicine* (Cambridge, MA, 1994).
[27] See Pamela H. Smith, *The Body of the Artisan. Art and Experience in the Scientific Revolution* (Chicago and London, 2004).
[28] See, Mary Greenstead (ed.), *An Anthology of the Arts and Crafts Movement: Writings by Ashbee, Lethaby. Gimson and Their Contemporaries* (Aldershot and Burlington, VT, 2005). The influence of this Arts and Craft Movement conception of 'craftsmanship' is evidenced by its inclusion in a recent book by sociologist, Richard Sennett. He argues that, 'An embracing definition of craftsmanship would be: doing something well for its own sake.' See Richard Sennett, The Culture of the New Capitalism, (New Haven and London, 2006), p. 104. He goes on to argue that doing something well for its own sake allows a certain level of satisfaction. Sennett's argument is problematic because it propagates the Arts and Craft myth that to enjoy the satisfaction of doing something well you must produce the object or process from start to finish and you must control the outcome throughout. I argue that the dominance of these notions of satisfaction have skewed our examination of skills and work. The cultural aspects of work have been constantly overshadowed by the political and social. See footnote 45.

significant texts of the eighteenth-century period[29]. As Harris argues, 'the essence of a craft is its dependence on a precarious combination of manipulative skill embodying a physical training and a judgement requiring both experience and intelligence.'[30] This project uses the eighteenth-century terms that defined this essence; firstly it examines contemporary definitions. David Pye defines workmanship as, 'the application of technique to making, by the exercise of care, judgement, and dexterity'[31]. Workmanship is the realisation of a certain design. Good workmanship will improve upon design, whilst bad workmanship 'thwarts the designer's intention'[32]. Moreover, as Chris Evans argues, skill is something more, it is something created and evaluated by the workers themselves, a 'cultural formation'[33]. A worker not only needed to possess skill, but more importantly he/she had to be *seen* to possess skill. The recognition of an individual's skill by others allowed that individual to accumulate power in the production process[34]. Eighteenth-century texts use terms such as skill and workmanship to refer to the work carried out by individuals to produce objects from materials. Therefore this thesis understands workmanship and skill as the concepts eighteenth-century British culture assigned to the successful application of tacit knowledge. I question the distance between, the application of embodied, tacit knowledge, and how that application was understood culturally, through the constructions of skill and workmanship. This study goes beyond the work of Rydén and Evans to assess how skills were valued and perceived both inside and outside of the workplace[35]. It explores workmanship as it was experienced by those who possessed it, represented it and perceived it.

This project uses the 'potter', a worker who used tacit knowledge as his/her skill base, as a point on which different attitudes to workmanship converged. His ability to apply that knowledge successfully resulted in good workmanship or skill, as verified by other workers and contemporaries. My project will firstly assess the wider knowledge structures from which the potter's skills were formed, before analysing the potter's own experience of that skill. My study will then analyse

[29] This statement is based on a search conducted using Eighteenth Century Collections Online which holds approximately 138,000 eighteenth-century texts. These texts make up around half of all publications of the eighteenth century, and cover all the significant surviving texts of the period. Thanks to Richard Parker, Librarian at the University of Warwick for this information.
[30] Harris, 'Skills, Coal and British Industry', p. 182.
[31] David Pye, *The Nature and Art of Workmanship* (Cambridge, 1995), p. 51.
[32] Pye, *The Nature and Art of Workmanship*, p. 51.
[33] As cited in Rydén, 'Skill and Technical Change', p. 387.
[34] Ibid., p. 402.
[35] See Ibid., pp. 383-407; Evans and Rydén, 'Kinship and the Transmission of Skills', pp. 188-205.

consumers' sensual experiences of workmanship before examining how contemporaries represented potters' skills in visual and written depictions. It will use these different perceptions and representations to reconstruct how notions of workmanship and skill were formed.

The project uses the definition of the potter, found in the 1747 edition of the *London Tradesman:*

> 'There are several Sorts of Workmen in a Pothouse; the Labourers who work and prepare the Clay, according to the Direction of the Overseer, or Master of the Work; those who attend the Mill and Furnace in the Preparation of the Colours; the Potter who forms and fashions the Work for burning; and the Drawers, who lay on the Colours. The last is the most ingenious Tradesman, and requires the Painter's Genius.'[36]

In this definition the 'potter' lies between the manual work of the labourers and the 'Painter's Genius' possessed by the drawers. The potter is responsible for creating the form and shape of ceramic objects, using his 'Finger and Thumb'. I argue that this role, which explicitly uses embodied, physical knowledge, takes us closest to the tacit knowledge this project is exploring.

This thesis investigates potters working primarily in the earthenware industry in Britain in the eighteenth century. I have chosen the earthenware industry as opposed to the porcelain industry because earthenware potters continued to use embodied skills such as throwing, press-moulding and lathe-turning to create the form and texture of wares until the end of the period[37]. The continuation of these skills in the earthenware industry guarantees a more fertile ground for the study of embodied, tacit knowledge[38]. In this project I am interested in the production process up until the point of decoration. The study of decorators would take my study into the debates regarding, painters and artists, and away from the bodily skills and

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[36] R. Campbell, *The London Tradesman, Being a Compendious View of All the Trades, Professions, Arts, Both Liberal and Mechanic, Now Practised in the Cities of London and Westminster* (London, 1747), p. 187.

[37] Due to the high demand for intricate rococo capriccio designs and figure ornaments in the porcelain industry moulds and casts were used to a far greater extent. For more see Hilary Young, 'Design and Workshop Practice I: Shaping the Porcelain', in Hilary Young, *English Porcelain 1745-95: Its Makers, Design, Marketing and Consumption* (London, 1999), pp. 94-126.

[38] For more on the continued use of throwing and lathe-turning in the earthenware industries see, Aileen Dawson, 'The Growth of the Staffordshire Ceramic Industry', in Ian Freestone and David Gaimster (eds), *Pottery in the Making: World Ceramic Traditions* (London, 1997), pp. 200-205.

relationships to nature which are the focus of my interest. This thesis deals with form, not decoration.

Having defined the specifics of this study, I will now consider various models that I have found useful in broadly rethinking the concept workmanship and the perception and value that its tacit nature encountered. These models provide important themes requiring wider consideration throughout the development of the thesis. Firstly, we must recognise that workers' experience of their own knowledge shaped how others perceived that knowledge. Pamela Smith has argued that, 'for artisans, experience and the production of things were bound up with their own bodies'[39]. Similarly, potters related to the materials they manipulated through bodies. The process of learning through physical experience defined their knowledge as tacit. Their relationship with their body was highly significant in constructing their conception of their own skill. This project questions how potters' used their bodies to gain knowledge. It also asks how perceptions of the body generally affected perceptions of bodily knowledge. Smith stipulates that artisans, 'articulated in their writings and in their works of art a view that certainty is located in matter and nature and that knowledge can be gained by observing and experiencing – often by bodily struggle – the particularity of nature.'[40] In Smith's model the 'artisan' trusts corporeal experience as the primary means of verifying knowledge[41]. Similarly George Lakoff and Mark Johnson have argued that physical experience plays an important role in characterizing our understanding. They argue that, 'metaphor plays an essential role in characterizing the structure of the experience', whilst, 'the concepts that occur in metaphorical definitions are those that correspond to natural kinds of experience'[42]. The existence of an artisanal epistemology based on the bodily experience of nature is highly relevant to potters. Through their daily, physical interaction with nature they experienced what was and was not possible in terms of their skills and the creation of ceramic products. This thesis will focus on discourses of 'the possible' and 'the impossible', entered into by potters with particular reference to their corporeal experience of working, in order to deconstruct the skills and tacit knowledge within their workmanship.

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[39] Pamela H. Smith, *The Body of the Artisan: Art and Experience in the Scientific Revolution* (Chicago and London, 2004), p. 6.
[40] Ibid.
[41] The term 'artisan' is problematic in Smith's work as she fails to clearly define it.
[42] George Lakoff and Mark Johnson, *Metaphors We Live By* (Chicago and London, 2003), p. 118.

Similarly, work by Liliane Hilaire-Perez and Catherine Verna demonstrates the importance of ambiguity in building skills[43]. For example, for William Blakey's customers, exploring the ambiguity inherent in objects was crucial in constructing knowledge. William Blakey made trusses for hernias that had to be fitted by the customers themselves. Once the truss was fitted the consumer had to contend with numerous problems. The trusses would quickly corrode due to sweat resulting in breakages. Literature was produced to advice consumers on how to temporarily fix the trusses. In the space between the advice provided by the literature and the truss itself, consumers had to create knowledge through a process of trial, error and essentially, experience. Likewise, potters learned through exploring the ambiguities inherent in the materials and constantly changing circumstances in which they worked. To achieve standardised products potter's had to use their skills to remove any inherent ambiguities created by these changing conditions. The influence of The Arts and Crafts Movement, as previously discussed, was highly influential in constructing our current negative attitudes to skill and standardisation. In light of this paradigm, this thesis will re-evaluate the particular skills demanded by increased standardisation.

Finally, Steven Shapin's work, exploring the role of the technician in seventeenth-century experimental science, opens questions concerning the legitimacy, credibility and invisibility of certain characters in the knowledge production process. He asks, 'How were skill and knowledgeability distributed between different actors and how, indeed, were the respective categories recognised and valued?'[44] Shapin assessed the role of technicians, whom he defined as persons working towards the production of scientific knowledge, employed to use their labour on the employer's demand. Shapin argues that these figures remained invisible in the authorship of knowledge they participated in making due to their lack of credibility. Potters were not actors in an explicit knowledge production environment, yet their work and experience contributed to the knowledge accumulated within the industry. Shapin found that the technicians were invisible in three ways; they do not appear in the work of historians and sociologists of science,

[43] Hilaire-Pérez and Verna, 'Dissemination of Technical Knowledge', pp. 536-565; L. Hilaire Perez and C. Verna, 'Cross-Trade Skills and Business Strategies: Personal Itineraries Between Medicine and Metallurgy in Middle Ages and Early Modern Europe, *Paper at the Useful Knowledge Conference*.

[44] Steven Shapin, *A Social History of Truth: Civility and Science in Seventeenth-Century England* (Chicago and London, 1994), p. 359. Similarly Göran Rydén argues that, 'Knowledge and skill are both closely connected to the authority structure of the production process.' See Rydén, 'Skill and Technical Change', p. 386.

in documentary evidence, or as collaborative authors in scientific knowledge. Although acting in very different circumstances similar questions can be asked of potters. Workers in pottery manufactories are not considered by cultural, economic or curatorial historians and they rarely use their own voice in documentary evidence[45]. Shapin asserts that, 'the knowledge-skill distinction is a particular version of such pervasive cultural divides as theory-practice, contemplation-action, and head-hand.'[46] This thesis examines the truth of these dichotomies for potters. It explores why artisans and workers such as potters are invisible in current scholarship regarding knowledge production whilst simultaneously questioning their invisibility amongst eighteenth-century contemporaries.

This thesis deconstructs the concepts of skill and workmanship as they operated in eighteenth-century British culture. We will see contemporaries sensing workmanship through the objects they held, perceiving workmanship through the industrial tours they embarked upon, presenting workmanship in visual and written depictions, and for the potters' themselves, experiencing workmanship. This study contends that the wider cultural value of tacit knowledge, witnessed through the concepts of skill and workmanship, had a recognisable impact on its use and development in industrial contexts. In recognising this impact, I ask whether or not we need to re-evaluate of Mokyr's useful knowledge framework?

[45] Pottery workers have been considered by social historians, particularly in the 1960s and 1970s. Yet, the workers discussed tended to be nineteenth century potters. Moreover, the skills and knowledge of those workers, and more specifically eighteenth-century workers, have not been considered. Workers were considered in Marxian terms with regards to wages and the machinery question. See John Rule, *The Labouring Classes in Early Industrial England 1750-1850* (London and New York, 1986); Royden Harrison and Jonathan Zeitlin (eds), *Divisions of Labour: Skilled Workers and Technological Change in Nineteenth-Century England* (Sussex and Chicago, 1985); E.J. Hobsbawm, *Labouring Men: Studies in the History of Labour* (London, 1964); Raphael Samuel, 'Workshop of the World: Steam Power and Hand Technology in Mid-Victorian Britain', *History Workshop*, 3 (1976), pp. 6-72.
[46] Shapin, *A Social History of Truth*, p. 361.

Chapter Plans

Each chapter explores a different 'arena' vital to the construction of the concepts of workmanship and skill. During the thesis each arena adds a different layer to slowly construct the complex cultural understandings of tacit knowledge. The project highlights how the codification of knowledge, the changing sensory order, and emerging concepts of the body, affected cultural perceptions of tacit knowledge.

The first half of the thesis concentrates on the potters themselves and the knowledge they possessed. Chapter one examines the wider knowledge structures from which the potter's skills were formed. It questions the juxtaposition of tacit knowledge and the increased codification of knowledge in the eighteenth century. The second and third chapters probe the potter's experience of their own skill. These chapters study the language potters used to discuss and define their own knowledge, they also question, the importance of conceptions of the 'body' in perceptions of bodily knowledge.

The second half of the thesis examines sites where pottery workers and their tacit knowledge were perceived and represented, to assess the distance between potters' and contemporaries' perceptions of skill. It then uses these perceptions to analyse how the concepts of skill and workmanship were formed. Chapter four scrutinizes the impact of the changing sensory order experienced in the eighteenth century. It queries how the changing order affected how contemporaries experienced objects and how that experience then shaped contemporaries construction of workmanship and skill. Chapter five uses visual and textual depictions of potters work and pottery manufacturing to explore the different versions of potters and potters' skills that were presented to contemporaries. Chapter six uses accounts of factory visits written by travellers to explore how these depictions were received. These chapters will analyse the cultural understanding of skill and workmanship by scrutinizing their reflections in depictions and perceptions. By recognising and exploring complexity and ambiguity of tacit knowledge, this project will gain a clearer understanding of its contentious cultural value.

Chapter One – Constituting Workmanship

Purpose of the chapter

This chapter situates the potter's skill within the wider knowledge structures that existed in Britain in the long eighteenth century. It asks, what were the different factors which contributed to the constitution of a potter's skill? What objects would have influenced them? What skills did eighteenth-century potters need to possess to take part in the production process? What knowledge formed those skills?

Taking into account the nature of ceramic knowledge in this period, this chapter will assess how a potter's skill was constituted in a global context. This section pairs down the ceramic production process to the analyse skills used specifically in the role of the 'potter'. To define the skills required in the role of the potter it analyses apprenticeship records and the working regimes of different potteries. It analyses potteries, as sites of knowledge production, and examines the role of the potter in that knowledge production process.

Theoretical framework

This chapter engages with global history discussions concerning the role of skill and knowledge in the global economy. This chapter investigates how, in the ceramics industry, even very local knowledge was constituted through an interaction with a variety of global inputs.

Source base

This chapter will examine the different factors that influenced the potter's skill by analysing apprenticeship records, correspondents between managers, the influence of the master potters and the use of foreign collections as outlined by factory inventories.

National Archives, Kew, London
Country Apprentice Registers, for example, 1716-1760, North Staffordshire 1R/1/41-54

Derby Local Studies Library, Derby
Joseph Lygo and William Duesbury correspondents, featuring discussions regarding expectations of the workers

Keele University Library
Experiment Book and Potters Instructions, 1780, 26/19114

Sample Bibliography

J. R. Harris; Kristine Bruland; Chris Evans; Lorna Weatherill; Göran Rydén; Liliane Hilaire-Perez; Catherine Verna; R. Bin Wong; William Gervase Clarence Smith; Prasannan Parthasarathi; David. S. Landes; Simon Schaffer; Maxine Berg; Patrick O'Brien; A.G. Hopkins; Kenneth Pomeranz; C.A. Bayly; Dipesh Chakrabarty; Arjun Appadurai.

Chapter Two – Experiencing Workmanship, Part One

Purpose of the chapter

This chapter will examine the categories of analysis twentieth-century potters used to reflect upon their own skills and to articulate their experience of their own skills. It will ask, in what terms do twentieth-century potters reflect upon their working experience? How do these potters articulate their experience of their own skills? How do they discuss the learning processes that allowed them to acquire their skills?

Theoretical framework

As a non-ceramicist, I will use the reflections made in the oral narratives of twentieth-century potters to build a framework with which to examine the experiences of eighteenth-century potters. I will approach the oral history sources using the framework offered by Paul Thompson.

Source base

Worcester Porcelain Museum, Worcester
In January 2007 the Worcester Porcelain Museum launched 'The Workers' Story' project. It aims to record oral history narratives of workers at the Worcester factory in the twentieth century. Using audio equipment, the project will use interviews to record the experiences and memories of workers. I am involved in transcribing the oral history recordings for the project and therefore will be allowed early access to the archive.
British Library, London
Neil Brownsword created a number of films of potters working in the Staffordshire factories in the twentieth century as part of his PhD thesis. These films and the thesis are accessible at the British Library and online http://www.media.uwe.ac.uk/nevac/wedgwood.htm.
Derby Local Studies Library, Derby
Newspaper cuttings from the twentieth century illustrating the ceramic production processes. The archive also includes articles where workers are asked to express their views about their working experience.

Sample Bibliography

Paul Thompson, *The Voice of the Past: Oral History* (Oxford, 1978); Bernard Leach, *A Potter's Book* (London, 1940); Elisabeth Cameron and Philippa Lewis, *Potters on Pottery* (London, 1976).

Further Suggestions

Chapter two's emphasis on twentieth-century working identities could benefit from supervisory input from Selina Todd.

Chapter Three – Experiencing Workmanship, Part Two

Purpose of the chapter

Using the analytical categories created by the previous chapter I will explore how eighteenth-century potters' reflected upon their skills and experience. It argues that the construction of the concept of 'workmanship' was dependent upon how workers categorised and valued their experience. Did they understand their experience in terms of dexterity and judgement? What strategies did they use to learn new techniques? How did they relate to the tacit aspects of their knowledge?

This chapter will to tackle the problem of the 'body' in bodily knowledge. Was potters' experience of their own skill facilitated and shaped through their bodies? Is the relationship between body and skill important? What part did 'touch' play in their work?

Theoretical framework

It focuses on questions such as their bodies, their skills, and their ideas of nature. It looks at the value systems workers used to define different skills and the power bases those values created.

Source base

Stoke-on-Trent City Archives and The Potteries Museum, Stoke-on-Trent, Staffordshire
Enoch Wood papers. In the early nineteenth century Enoch Wood reflected upon his life as a potter. His family helped him write this record and also included the reflections of other workers. In total the papers include the reflections of Enoch Wood, Aaron Wood, John Fletcher, Carless Simpson, Thomas Greatbatch, Ralph Leigh and Richard Lawton.
Sevres Porcelain Potters Book – Profiling each of the potter's who worked at the factory will be used to provide an illuminating point of comparison.

Sample Bibliography

Pamela Smith, *The Body of the Artisan* (Chicago, 2005); George Lakoff and Mark Johnson, *Metaphors We Live By* (Chicago and London, 2003); George Lakoff and Mark Johnson, *Philosophy in the Flesh: The Embodied Mind and Its Challenge to Western Thought* (New York, 1999); Giles Fauconnier and Mark Turner, *The Way We Think* (New York, 2003).

Further Suggestions

I plan to apply for funding from the ASSEC (American Study and Student Exchanges Committee) as Chapter 3 would greatly benefit from input from Prof. Bruce Moran at the University of Nevada, Reno. This funding would allow me a short visit to America to have a series of supervisions. The next applicable deadline for funding is 31 August 2007.

Chapter Four – Sensing Workmanship

Purpose of the chapter

Over the eighteenth century the sensual experience of ceramic objects changed as the products of the ceramics industry developed in new ways. This chapter argues that contemporaries principally experienced the skills of potters through the objects they encountered. It was in this arena of interaction that the contemporary concept of workmanship was predominantly constructed.

Theoretical framework

This chapter builds upon the work of Jules D. Prown, Leora Auslander and Marcia Pointon by intertwining recent developments in the anthropology of the senses with material culture theoretical frameworks.

Methodology

The project will handle a sample of pieces from the eighteenth-century collections of a variety of institutions. The sample will consist of a variety of objects produced across a period of time. The sample will then be analysed in terms of texture, delicacy, weight and technical proficiency. I will then use these categories to chart the changing nature of the products over time. This analysis will be used to assess both how workmanship changed and also how consumers' experience of workmanship would have changed through their interaction with these different products. This landscape of sensual experience will then be cross-referenced with contemporary commentaries found in advertisements, correspondents and literary sources.

Source base

Object handling sessions at the following institutions;
Victoria and Albert Museum, London – Planned for the autumn term 2007.
Fitzwilliam Museum, Cambridge – April 2007.
Birmingham Museum and Art Gallery – June 2007.
Tba - The Potteries Museum; The Wedgwood Museum

Sample Bibliography

Jules D. Prown; Marcia Pointon; Susan Stewart; Leora Auslander; George Lakoff; Mark Johnson; Constance Classen; David Howes; Elizabeth Edwards; Sven Ouzman; Kathryn Linn Geurts.

Further Suggestions

During the course of my PhD I plan to apply for the Wisconsin-Madison exchange programme. Chapters Four, Five and Six would greatly benefit from input from Ann Smart Martin, and from spending a year in the History of Art department there. The next applicable deadline for funding is February 2008.

Chapter Five – Representing Workmanship

Purpose of the chapter

Using visual and written representation, it will examine how the potter's skills and work was presented by other contemporaries

Theoretical framework

This chapter will build on the work on images in the *Encyclopédie*, carried out by William H. Sewell Jr. He marks five major changes in the representation of work in the eighteenth century. Firstly, how the images become dominated by tools, not people. Secondly, the increase in the space within which work is carried out. Thirdly, the *flow* of the production process is no longer emphasised. Fourthly, the human figures that are included are increasingly anonymous and finally, there is a complete lack of communication between the figures. This chapter will use this model and apply it to the English example.

Source base

Visual Sources

- Penny Magazine, 1849 – 'Porcelain Manufactory'
- 'The Process of Making China illustrated with Twelve Engravings, Descriptive of The Works of The Royal Manufactory, Worcester For The Information of Youth'.

Written Sources

- 'Art and History of the Potting Business', 1846
- 'The Life & Death of a Working Potter', 1865
- Malachy Postlethwayt
- Joseph Mayer, 'A synopsis of the history of the manufacture of earthenware', 1842
- John Guy, 'Miscellaneous selections: or the rudiments of useful', 1796
- 'A New Universal History of Arts and Sciences', 1759
- R. Campbell, 'The London Tradesman', 1757

Sample Bibliography

Barbara Maria Stafford; William H. Sewell Jr.; Larry Stewart; Simon Schaffer; Anson Rabinbach; Anne Puetz; John Hatcher.

Further Suggestions

During the course of my PhD I plan to apply for the Wisconsin-Madison exchange programme. Chapters Four, Five and Six would greatly benefit from input from Ann Smart Martin, and from spending a year in the History of Art department there. The next applicable deadline for funding is February 2008.

Chapter Six – Perceiving Workmanship

Purpose of the chapter

How did contemporaries view the potters' skill? This chapter will investigate the perceptions of potters' skills that contemporaries gathered from viewing them at work in their workshops.

Theoretical framework

It will examine the diaries in terms of spectacle, agency and empathy.

Source base

This chapter will analyse the travel diaries completed by various parties on industrial tours. These parties include;

- R. R. Angerstein - *Illustrated Travel Diary 1753-55* (London, 2001).
- B. Faujas de Saint-Ford - *A Journal through England and Scotland to the Hebrides in 1776,* Trans & Ed. By A. Geike (Glasgow, 1907).
- Marchant de la Houliere – Paris Archives Nationales, F 12 1300, F 14 4261, 1775.
- La Rouchefoucauld – in Norman Scarfe, *Innocent Espionage: The La Rouchefoucauld Brothers Tour of England in 1785* (Woodbridge, 1995).
- Magnus Lyngberg, *A Danish Industrial Spy* – (Keele University, The Wedgwood Manuscripts, Etruria and Liverpool, E 397 28404, Friday 16 July, 1790.)
- Svedenstierna, Eric. T., *Svedenstierna's Tour, great Britain 1802-03: The Diary of an Industrial Spy* (Newton Abbot, 1973).
- Simond, Louis, *An American in Regency England. The Journal of a Tour in 1810-1811* (London, 1968).
- Thoresby, Ralph, *The Diary of Ralph Thoresby, F.R.S* (1830).
- Mrs Philip Libbe Powys – in Emily J. Climenson (ed.), *Passages from the Diaries of Mrs Philip Libbe Powys 1756-1808 of Hardwick House* (Oxon, 1899).

Sample Bibliography

Giorgio Riello and Patrick O'Brien, 'Reconstructing the Industrial Revolution: Analyses, Perceptions and Conceptions of Britain's Precocious Transition to Europe's First Industrial Society', *LSE Working Paper*, 84:04 (2004), pp. 1-52.

Further Suggestions

During the course of my PhD I plan to apply for the Wisconsin-Madison exchange programme. Chapters Four, Five and Six would greatly benefit from input from Ann Smart Martin, and from spending a year in the History of Art department there. The next applicable deadline for funding is February 2008.