

Khrystyna McPeake

Building Crafts in the Built Environment

In a world where the trite, the banal, the cliché and the commonplace are so dominant a part of our lives, we need ever more to cherish and to preserve and celebrate the beauty, the solemnity and the harmony we inherit from the past. (HRH The Prince of Wales, 'Education for the Future' speech, 2002)

The architectural world has undergone a dramatic and unprecedented process of separation from the world of craft in the twentieth century. This marks an end to many centuries of consistent use of building crafts. The timeless principles used by generations of craftsmen and builders have entered an era of decline, especially where new built stock is concerned. The language of traditional architecture, dictated by balancing significance of form and its physical expression is now taught at only a few schools (Critchlow and Azzam 1997: 5). The blight of globalisation has been eroding tradition in construction as well as in the implementation of cultural and social identities. The seriousness of the threat posed by globalisation emerged in the late 1970s (Poppi 2008: 4). At around the same time, many commentators and ordinary people voiced concern about the wholesale destruction of historic buildings, and indeed entire neighbourhoods, carried out by voracious planners. Covent Garden Market, one of the most vibrant quarters of central London, only managed to withstand monstrous redevelopment plans because a fierce and skilful campaign of resistance was organised by many highly motivated and influential people. Today society is still struggling with the consequences of post-war planning decisions, which left behind disintegrated communities, lifeless town centres and out of scale unsustainable developments.

Traditional building crafts are an essential part of the restoration and preservation of our built heritage and also provide a valuable social element. This paper addresses the importance of building crafts as well as the issues concerning the decline of traditional skills. Understanding the value of building crafts in the built environment and their role in thriving communities enables their continuation. Another aspect of the discussion is the relationship of building skills to nature, beauty and spirituality.

The revival and continuation of traditional building crafts is vital for the repair, maintenance and preservation of the five million pre-1919 buildings that survive in England, including approximately 500,000 listed as being of historic or architectural interest (English Heritage 2006: 4). Traditional building skills passed down from generation to generation for thousands of years, are now facing oblivion (National Heritage Training Group [NHTG]: 2005: 3). The most ancient traditional building trade – brickmaking – dates back to the 13th millennium BCE (Clegg 2008: 41). However, the future of this craft, along with thatching, flint-knapping and stone slating is uncertain (NHTG 2005: 22). The introduction of non-local materials on a large scale in pursuit of profit has much to do with the decline of traditional building methods. This, in turn, puts traditional crafts under more serious threat than at any time in history (HRH The Prince of Wales 2004: viii).

The *Sustaining Our Living Heritage* report by the Heritage Lottery Fund (NHTG 2005: 18) identified severe craft skills shortages: only around 900 thatchers, about 50 firms working on cob and earth buildings, fewer than 300 professional dry-stone wallers and around 600 stone slate roofers were in active occupation in England at the time of the report. The demand for skilled craftsmen in the heritage sector is outstripping supply; in 2005, it was estimated that 6,590 craftspeople would be needed to solve the skills shortage in the UK in 12 months (p. 13). The future of historic buildings depends on the availability of skilled craftsmen as maintenance requires great care and understanding of the original materials of construction. The nature of this work requires a distinct mental attitude due to the sensitive manner in which the work is carried out. Currently the nation's best buildings have to wait to be repaired or maintained not just due to funding issues, but mainly because of the shortage of skilled workers, making them vulnerable to loss or increased cost due to further deterioration caused by delay. One of the results of the *Sustaining Our Living Heritage* report was the creation of the NHTG to specifically address traditional building craft skills issues. This, in turn, served as a starting point for the promotion of

heritage skills in education and the building industry. The Prince's Foundation for Building Community (PFBC) is one of the institutions running programmes dedicated to traditional building skills (see Figures 1 to 3).



Figures 1 to 3 Summer School 2012 and 2013, Prince's Foundation for Building Community.

The main aim of the Building Skill in Craft programme run by PFBC is to strengthen the frail relationship between architect and craftsman. It is well known that some of the most famous and talented architects, namely Andrea Palladio, were first of all skilled craftsmen. Modern professional requirements do not demand knowledge of timeless principles, many of which were integral to the creation of our most beloved historic buildings. These rules, frequently mentioned in the lectures of classical architects and traditional art academicians, are governed by the relationship of beauty and humanity. Henry Rambold, a tutor at the PFBC Summer School, who has forty years of experience as a stone mason, believes that 'Trainees learn to be more confident about performing their work, but also, crucially, more confident about knowing when to hold back because they might be causing damage' (NHTG 2013).

Another aspect of the building crafts is the link between beauty, human creativity and wellbeing (see Figures 4 and 5). Professor Keith Critchlow commenced his recent lecture at the Prince's School of Traditional Arts describing the compass as a sacred instrument with the following statement: 'the point, although intangible, represents a relationship between the real world and the other world' (Critchlow 2013). Miniatures from the Middle Ages often depict God with compass in hand describing a circle on the primordial chaos, represented as the mouth of a dragon (Hani 2007 [1975]: 49). God as

a creator is called *dator formarum* (giver of form), which carries a philosophical sense that transcends material form. The perennial philosophy holds that sacred geometry is a God-given tool bestowing beauty and divine order. Critchlow (2013) states that:

Geometry is universal – it does not belong to any religion. Geometry itself is sacred and was inherited by craftsmen who learned by doing.

This knowledge, passed on from generation to generation, provides a sense of timelessness and belonging to one's surroundings. Conversely, today's brutalist architecture and planning alienate human creativity – with predictable social consequences.

Hani (2007[1975]: 46) perceives architectural skill as

the application of the physical and mathematical laws pre-existing man in nature, which necessarily regulate both the arrangement of materials in a building and the general form of the latter. ... Man can no more neglect these laws than he can the laws of vegetation if he is to cultivate the earth. The human architect does nothing but rediscover or, in the Platonic sense, 'remember' these laws so as to submit to them.



Figure 4 Pattern by Ahmad Angwi, Prince's School of Traditional Arts.

It is believed by the Native Americans that when one enters one's home, one enters one's heart (Critchlow 2013). The relationship between the house and the inhabitant is often regarded as sacred. Hence such cultural idioms as 'an Englishman's home is his castle'. According to Hani (2007[1975]: 36) the house is a symbol of the universe, which is the primordial House of Man; by building the house, the man reproduces or imitates the creation of the world. Creation in this case can legitimately be conceived as a building. The experience of creating something new or uncovering some hidden beauty is one of the most intense joys that the human mind can experience (Huntley 1970: viii). It appears to justify the familiar aphorism 'beauty lies in the eye of the beholder'.

Building crafts and sustainability

By the early 1980s, issues of sustainability became a matter of public concern, with growing awareness about conservation of world resources and, at the dawn of the millennium, sustainability became an essential part of government policy. Increasingly, councils, charities and businesses are taking account of this issue. And yet, in many cases these worthy objectives are mere box-ticking exercises. HRH The Prince of Wales in his address at the University of Essex seminar (2001) identified the primary objectives of sustainability as those which 'include making the best possible use of natural and regenerative process, of local resources and of human ingenuity and teamwork'. It is this process of human creativity that lies at the heart of community life. Once the

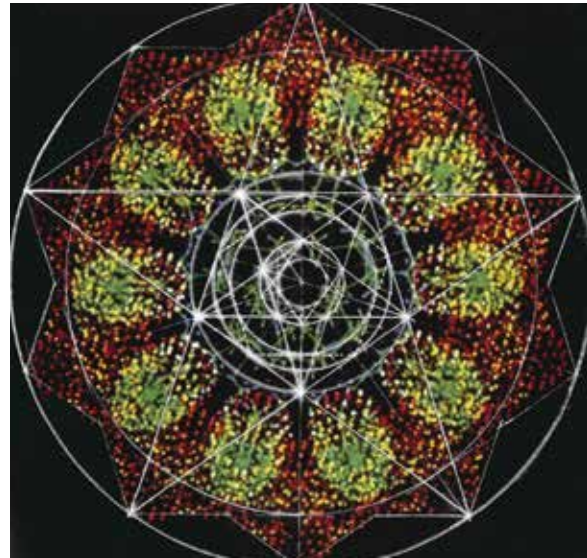


Figure 5 Tenfold symmetry of the DNA's horizontal section. © Keith Critchlow.

wide-reaching effects of the building crafts are proven, it may be possible to identify and reverse a whole raft of other unsustainable processes, e.g. excessive reliance on landfill, fossil fuel and 'food miles'. Three things have been crucial in shaping the man-made environment – natural resources, people and skills; it is through the careful and balanced approach in combining all three that sustainability objectives are achieved (NHTG 2005: 17).

Another possibility for cultivating fertile ground for the building crafts is the housing market. Is it possible that the pressing issue of housing in the UK could be addressed with the use of local craftsmen and local materials? Currently the market is dominated by developments relying on pre-packed construction methods. These methods have very little relevance to local communities and the surrounding environment. There is a recognition of the need for smaller scale, community-supported developments, which can be a long-term solution to the problem of housing. Morel et al. (2001) state that the energy used in building can be reduced by up to 53 per cent by adopting local materials with further energy savings in transportation of up to 78 per cent. However, adoption of local materials in developed countries can be hindered by the loss of traditional building crafts and a lack of appropriate building standards. Again, economics is the key. No doubt taking a traditional approach would be more costly in the short term, but factoring in local employment, reduced crime levels and increased well-being are the foundations of healthy economies which attract inward investment.

Court (1954: 9) lists the decline of the system of apprenticeship throughout the twentieth century as one of the reasons for the increase in population. This system acted as a restraint upon early marriage whereas the new cotton and coal industries provided possibilities of full earning at an early age, which was a factor in the rapid growth of the population. Current pressure on housing is produced by population growth, which in turn is the result of an increased birth rate and immigration. The relationship between food supply, population and building crafts is a significant one. Manual production, the core element of building crafts, has a high monetary value in western society, but it is the means of basic subsistence in many developing countries. The ethics of how a society values the craftsman's work determines its lifestyles and incomes. It is to be hoped that with increasing competition for resources there will be a shift towards the use of locally sourced materials and labour.

There are various incentives in place to encourage the use of traditional building materials: Oakley (2011: 243) provides an example of a 'park and ride' reception erected by Purbeck District Council at Corfe Castle in Dorset, which has benefited greatly from the use of local materials and, as a result, is both in keeping with the local character and far more sustainable than the conventional alternative. It is also in keeping with the Dorset Area of National Beauty (AONB) management plan. Developments within national parks, conservation areas and AONBs are all subject to rigorous conservation policies specifying the appropriate design and materials.

Traditional building crafts have a role to play in delivering housing that is both sustainable and affordable. Prince Charles has been a longstanding champion of traditional building in the UK and worldwide: 'since Nature's goods and services are essentially free, sustainable techniques are particularly relevant to poor communities who simply cannot afford to purchase much in the way of inputs or to access the latest technologies' (HRH The Prince of Wales 2001). The need to identify, safeguard and enable access to sources of traditional building materials on a sustainable basis while providing continuous training in traditional building crafts could provide welcome relief to existing housing pressures. In order to be truly sustainable, the local community must be brought into the equation. All the indications are that if this can be done successfully the benefits will be manifold. If local government bureaucracies are blind to these ongoing benefits then it is an

argument for a different paradigm to be used when drafting local plans.

The wider implications of building crafts invite an analogy between ecology and the economics of craftsmanship. A particularly good example would be the medieval woodland management system which provided great benefits for ordinary folk: furniture, building materials, firewood, foraged food and fodder for animals, as well as being an invaluable asset of the unsurpassed English countryside.

Building crafts: Gender

Another aspect that needs to be taken into account is the role of women in the building crafts. In the English countryside, outside the control of town corporations, female wage earners were to be found in the building trades as far back as the fourteenth century, although carpentry and thatching invariably remained male. One revolutionary law became the single most important factor in the transformation of local trade company practice in towns and counties across Britain – the Statute of Artificers of 1562–3, regulated through Justices of the Peace (JPs) (Clarke and Wall 2006: 37). It set the framework for wage assessment and, crucially, it was not gender specific but referred to apprentices as 'persons' and to 'boys and girls', 'masters and mistresses' (Statute 5, Elizabeth I c IV and c XVII, cited in Clarke and Wall 2006: 37). As a result, a third of parish apprentices were girls, who were apprenticed in over fifty occupations, including as bricklayers, carpenters, joiners and shipwrights.

The early nineteenth-century transition from feudalism to capitalism altered relations in such a way that women were excluded to a far greater extent than before. The repeal of the Statute of Artificers in 1814 effectively deregulated the relationship between master and apprentice, eroding the access to the trades that women had previously enjoyed. Early trade unions denied women the status of artisan and viewed 'skill' as an essentially masculine quality. By the 1840s, women's access to jobs had been severely restricted with breadwinner status being exclusively associated with the married male worker; the continued discrimination of women went hand in hand with prevailing 'patriarchal control of the productive resources'.

According to Simonton (1999: 34, cited in Clarke and Wall 2001: 36):

Apprenticeship was a period when the role of the male apprentice moved from lad to man; it was a transitional period that meant far more than 'learning a skill'. The close identification of apprenticeship with sexual development helps to identify the role of the institution in defining masculinity and conversely femininity and in excluding females from the system.

Similarly, Court points out that despite the growing power of the trade unions resulting in the substantial advances in wages and large reductions of working hours, women's access to employment in construction remained restricted (Court 1954: 250). Their exclusion was due to a closed guild system, which ensured that the transfer of property and power remained within a privileged group (Sheridan 1992: 52, cited in Clarke and Wall 2001: 36). The formation of 'non-exclusive unions of non-society men' by the General Union of Carpenters and Joiners, the Friendly Society of Bricklayers and the Operative

Stonemasons in the 1820s and 1830s further confined apprenticeship to men. Such restrictions in the building industry were eventually relaxed out of necessity due to severe labour shortages caused by the First World War. Even then, trade unions continued to deny women access to skilled or highly paid work.

During the Second World War, there was once again a need for women to contribute (see Figures 6 and 7). Under the terms issued by the National Joint Council for the Building Industry in 1941, women's participation was limited by the trade unions, and their wages specified as 20 per cent less than that of men. Despite attempts to introduce equal pay, the wage discrepancy remained, with women often paid just over half of men's rates. Although discrepancies in pay have lessened, Britain continues to have a poor record of women's involvement in the building trades.



The war-time building industry: Women working as bricklayers and boat builders in the Second World War. Figure 6 Imperial War Museum Photograph Archive. © Crown Copyright. IWM <http://www.iwm.org.uk/collections/item/object/205202941>

Figure 7 Imperial War Museum Photograph Archive. © Crown Copyright. IWM <http://www.iwm.org.uk/collections/item/object/205195967>

Building crafts worldwide

There is currently a renaissance in traditional building taking place worldwide, including sites of natural disaster and war zones. One such remarkable programme is underway in war-torn Afghanistan. The Turquoise Mountain Foundation, created by Rory Stewart, has been working since 2005 to save the Murad Khane quarter, an ancient part of Kabul, which has been threatened by the demolition of whole swathes of traditional Afghan mud architecture to make room for modern glass-and-concrete buildings. Stewart believes that traditional arts and crafts will disappear if those skills and an appreciation for them are not passed onto future generations. This work requires considerable dedication and involves working closely and consistently with the locals over a period of time with the aim of helping a troubled nation reconnect with its cultural heritage (Kvinta nd).

Unlike some charities, which might run short training courses, the Turquoise Mountain Foundation is embedded deeply in the lives of the locals (see Figure 8). The restoration was just the beginning, soon initiatives were

underway which involved anything from training craftsmen, to manufacturing products to sell, to teaching the shopkeepers to read and write. Within two years, the charity was employing 350 local people, the majority of whom had not completed secondary education.

Then, in 2006, Turquoise Mountain established the Institute for Afghan Arts & Architecture in Kabul, which is now a successful and highly popular national higher education institute. It is located in the newly restored buildings of Murad Khane – the heart of Kabul old city. The one crucial element that held this project together is the faith of a handful of loyal supporters and chance benefactors. Once a beautiful vision – the Turquoise Mountain Foundation is now a thriving artery, which feeds the heart of Afghanistan’s old capital.

Meanwhile, on the opposite side of the globe, a hurricane-ravaged city was faced with the choice of whether to reconstruct its historic buildings or settle for the cheaper modern alternatives. One factor against the decision to preserve and restore the rich heritage of New Orleans was a severe lack of traditional building skills. It was in response to this that HRH The Prince of Wales created the Rebuilding Communities Apprentice Programme. This programme is structured to serve as an educational resource as well as a boost to the local job market. The Prince’s Foundation for Building Community, which runs the programme, is committed to reintroducing traditional building crafts, which will enable long-term preservation of the unique character of New Orleans. The apprenticeships also provide the opportunity for locals to master a trade, thereby becoming economically self-sufficient as well as assisting the recovery and regeneration of their own community (see Figure 9).



Figure 8 A student at the Turquoise Mountain Foundation using traditional wood carving technique.



Figure 9 Craft apprentices in New Orleans, The Prince’s Foundation for Building Community.

Founded in 2001, the International Network for Traditional Building, Architecture and Urbanism (INTBAU) is dedicated to the support of traditional building, the maintenance of local character and the creation of better places to live. INTBAU involves a wide range of activities and comprises a worldwide network of affiliated charities. Its educational programmes advocate the use of traditional building methods and provide training for people who want to work in the heritage sector and need hands-on experience. One of the courses (which is run in an old Saxon settlement in Romania) provides training for people who want to work in the heritage sector and need hands-on experience.

Social and economic value of building crafts

No one enjoys his work if he is a cog in a machine. (Christopher Alexander 1977: 399)

Many sacrifices were made to achieve the highly efficient industrialised society of the twentieth century. The social order prior to the Second World War was organised by trade, in many circumstances as self-governing guilds with an intricate system of support for the workers. These have been destroyed by large-scale centralisation, or somewhat facetiously referred to as ‘the nanny state’, and charged with adversely affecting Britain’s manufacturing base and competitiveness generally. In some countries, criminal tactics were used to destroy self-governing working groups, for example, around eight million Ukrainians were starved to death on the orders of the Soviet leadership in order to achieve collectivism and industrialisation. The dynamics of economic change, which happened spontaneously in Britain, and which were characterised by swift urban growth between 1780 and 1820, radically affected both the nature and location of employment and industry: prior to the Reform Bill of 1832, which gave parliamentary representation to many towns for the first time, much industry was located in rural areas (Court 1954: 42).

Although the system of guilds in the nineteenth century afforded relative protection and advantages to its members, it excluded women from employment in skilled building crafts. Gradually, small-scale self-governing groups were replaced by enormous trade unions. This order, according to Alexander, is damaging to the harmonious existence of the individual who ‘enjoys his work when he understands the whole and when he is responsible for the quality of the whole’ (Alexander 1977: 399). Recent legislation in favour of decentralisation of government and the introduction of the Localism Bill is perhaps a conscious effort by society to revive a sense of responsibility and accountability by local people and to recover a fundamentally more intelligent way of working. The understanding and ability to adapt to new laws as well as examine fundamental values, constitutes the success of society, and in the utmost egalitarian way, benefitting not only all strata of society but generations as yet unborn. In Court’s view ‘the modesty of Great Britain’s natural resources, which were indicated by the term ‘land’, might be overcome by a judicious commercial policy’ (Court 1954: 15). The recognition of Britain’s rich heritage and the associated need to maintain the skilled workforce to preserve and enhance it is a key

feature to the future prosperity of the nation and an inspiration to people worldwide.

During the last decade, a shortage of skilled craftspeople has highlighted the need for strong action to prevent further erosion of the skills base (NHTG 2005: 3). At a recent English Heritage centenary celebration, HRH The Prince of Wales shared his view: ‘I regard heritage as very much a living thing – after all, what it represents and enshrines is the accumulated skill, devotion, craftsmanship and creativity of countless men and women who have gone before us’ (HRH The Prince of Wales 2013). Rory Stewart, creator of the Turquoise Mountain Foundation, believes that it takes subtlety and acuity to understand that the preservation of the past is the key to building a balanced and meaningful future. While restoring buildings and ‘monumentalising’ history for the benefit of future generations might be a distant goal, the creation of much needed jobs is a highly significant and welcome improvement in the present (Kvinta n.d.).

Azzam (2008: 106) states:

‘Craftsmanship should be understood as a process and not a product. It is a process that includes social, economic, cultural and technical dimensions, as well as a spiritual dimension, all of which bind different aspects of the community together. The work of the craftsman cannot be separated from the other aspects of his life and the life of his community.’

The ethical impact of modern materialism on human labour has been much explored in recent years, with one of the outcomes being the view that heavy reliance on industrial mechanisation and mass production is destructive to customs and culture, with the consequent social disintegration being a recognised factor in the declining mental health of urban populations (Freeman 1984: 49). It is conceivable that moving to reintroduce a built environment on a human scale would go a long way toward alleviating such alienation.

Distrust for materialism arising from the cold logic of industrial production has a long history. John Ruskin, in accordance with Thomas Carlyle’s statement that ‘economics is the dismal science’, went on to detail how the operations of the marketplace are antithetical to the prosperity of what he called ‘the good workman’, that is, one that embodied the virtues of skill, care and understanding and from the employment of whom arises building of lasting

aesthetic value. In his view the mechanism of demand and supply favoured the cheapest workman in the short term rather than the one who would prove to be of greatest value to society in the long term. These ideas were then incorporated into William Morris' thinking, and subsequently that of the Arts and Crafts Movement. Whilst modern iconic buildings are undoubtedly impressive, it is frequently those created according to traditional methods which convey a feeling of being an extension of the environment in which they find themselves and around which we feel most at home.

Joachim Tantau, a recent graduate of the Prince's School of Traditional Arts (PSTA) explains the thought process behind his graduation piece – a fountain-pavilion with a Muqarnas-dome:

'Looking at different traditions and taking inspiration from many sources is a way for me to understand what traditional building is about: They are different only in a superficial manner. On a higher level,

they all manifest the same principles: Nature in her *manner of operation*, as Thomas Aquinas says.'

Joachim now works for the PSTA Open Reach programme travelling to schools across the UK and sharing his knowledge and skills with pupils. It is hoped that by the time these children reach adulthood, society will have embraced the building crafts as a desirable occupation. A dedicated and growing group of individuals and organisations continues to support the revival of apprenticeships and training in building crafts. The National Heritage Training Group (NHTG) has produced the first ever Skills Needs Analysis research in 2005. Since then efforts have been made to attract young people, women, under-represented groups and adult career changers to the building industry. The work of NHTG, The Prince's Foundation for Building Community, The Turquoise Mountain Foundation and other conservation and building crafts training bodies are working to change public perceptions and stereotypical thinking.



Figure 10 Prince Charles at the Prince's School of Traditional Arts for Building presenting Joachim Tantau with his Master's Award, July 2013.

It is often the case that even a short involvement with building crafts, like many other types of craft, has a positive effect on self-esteem, accompanied by comradeship and unavoidable smiles, which are the common feature in the photos of the craftsmen reproduced in this paper. 'There is no doubt that skill, pride and quality of work contribute to psychological well-being and motivation' (HRH The Prince of Wales 2013).

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