Reed, Matt and Jones, Owain and Curry, Nigel R (2007). ***The Supply of, and Demand for, Skilled Labour for the Heritage and Rural Landscape Sector in Gloucestershire: A report for the National Heritage Academy (South West).*** **Technical Report. CCRI: University of Gloucestershire.**

The Supply Of, And Demand For, Skilled Labour For The Heritage And Rural Landscape Sector In Gloucestershire.

A Report For The National Heritage Academy (South West)

For more information on this report contact:

Dr Matt Reed Tel: 01242 71 4138 or email mreed@glos.ac.uk

This report was researched and written by:

Dr Matt Reed

Dr Owain Jones

Professor Nigel Curry

For more on the CCRI

www.ccri.ac.uk

or

contact – Chris Rayfield

Telephone: + 44 (0) 1242 714122
email: crayfield@glos.ac.uk

The Countryside and Community Research Institute
Dunholme Villa
Park Campus
Cheltenham
GL50 2RH
Gloucestershire

Table of Contents

List of Figures

List of Tables

1 Introduction

Britain is particularly fortunate to have a large stock of historic buildings and landscapes, which are held in high public esteem and continue to exercise a grip on many people's imaginations. This is reflected the popularity of visiting historic buildings and landscapes, watching TV programmes such as the BBC 'Restoration' and Channel 4's 'Grand Designs', the latter creating a range of spin-off programmes and publications. Many people are also participants in the preservation of these artefacts not just through volunteering their spare time, but also through living and working in them; with 4.41 million domestic homes and 550,000 commercial buildings having been built before 1919.

The construction industry is of tremendous, if rarely recognised, importance to the UK, employing in 2005 2.41 million people[1]. In general terms the hotspots for the construction industry are the Southeast of England, Greater London and the East of England[2] which had 38.4% of the industry in 2005 and is forecast to increase that share. Constructionskills provides a modelling and forecasting service that serves to inform the industry of demand and the likely impact that this will have on recruitment. Currently it is estimated that 87,600 people will have to be recruited into the sector annually to keep up with demand in between 2007-11[3]. Public sector projects – the re-building and refurbishment of schools, infrastructure projects, public buildings and not least the Olympics are seen as the major stimuli to growth in the sector. As can be seen from even this brief account, development in the national sector is highly regionally differentiated, focused on a particular range of projects and dynamics.

In the past decade at a strategic level the construction industry has undertaken significant initiatives to improve the skills levels in the industry and to provide opportunities of up-skilling and/or accreditation for those already working in the sector. Within that has been a growing recognition that a suite of skills, concerned largely with pre-1919 properties, are under threat. These craft skills are not the mainstay of new builds and are often reliant on the skills and knowledge of an older workforce. In 2005 it was estimated that 6,590 Craftspeople would be needed within the next 12 months, nationally, suggesting that the heritage skills sector needed to grow its existing estimated workforce by 7.6% to meet demand[4].

For the private citizen it has become something of a cliché in the past few years that ‘builders’ are generally unavailable and it is hard to find a reputable Craftsperson. Government initiatives to rectify this situation have made slow progress[5], in part because of the unwillingness of the industry to engage with them. In turn the search for information about Craftspeople by the private citizen has to rely on the public listings that are largely adverts which rarely give any indication as to the professional standards of the Craftsperson, their reputation or degree of skill. Some trade associations do provide listings for their members, but with some notable exceptions, it is quickly apparent that membership is largely by application rather than by qualification. In an age characterised by the internet and global communications, personal recommendation remains an important way of identifying Craftspeople.

1.1 Regional Context

It has been estimated that the South West regional construction industry will need to recruit 6,630 people a year to meet demand in the next four years, an employment growth of 7.3%[6]. The major opportunities in new-build will be in Bristol and other urban centres and it would appear from the forecasting that the demand for technical trades will grow faster than trades generally in the region. It has been estimated that 2,344 traditional building Craftspeople are based in the region, which represents just 3.7% of the national total[7].

The South West Region is largely rural in character, and has a wealth of historic buildings. It has 21.8% of Grade 1 and 24.2% of Grade II* listed buildings nationally, with 170 of those buildings being listed as being at risk.

Although it has three world heritage sites, the City of Bath represents the only major opportunity for the heritage skills sector, but the region does also have 32% of England's listed monuments and 15.5% of the national total of conservation areas. This is important not only in terms of the lived experience of the region's residents but it also represents a vital part of the tourist experience. In 2006 domestic tourism in the Region was worth £3.7 billion to the regional economy[8], whilst in 2005 international visitors brought £868 million to the region[9], in a regional economy of £80 billion in 2007[10].

The disparity between the estimated proportion of those working in the heritage skills sector and the proportion of the nation's listed buildings hardly needs underlining. Given the cultural and economic importance of these buildings it would appear that there is a major gap between the needs and demands for work on heritage building and the regional capacity to fulfil that need. A number of points of caution need to be inserted at this stage however as such figures can be misleading in a number of ways. Firstly, as is apparent from the discussion above many of the figures are estimates, derived from modelling and extrapolation from surveys, so these figures have to treated with some caution. There is also gap between needs and demand, a building may need a particular repair but that does not always translate into a demand being met by a specialist Craftsperson or any Craftsperson at all. Finally, it tells us nothing of the matching of skills to these specific needs or demands, particular crafts maybe in over supply whilst others are missing.

2 Objectives and Methodology

2.1 Objectives

The team decided to split the research into two stages, to facilitate reflection on each stage and to engage fully with the different demands of the research process.

2.1.1 Phase 1

This phase was the supply of, and demands for, Heritage skills within the County of Gloucestershire. The investigation into the supply side - the Skillholders and Craftspeople - had the following aims:

- Establish the scale of the Heritage sector in the County, including the number of business, the number of people employed in those businesses and their size.

- Investigate the level of skills held by the business principals, those of their staff, their attitudes towards recruitment and training.

On the demand side – those who own and manage Heritage properties – the following objectives were investigated:

- Establish the type and scale of the Stockholders in the County, including the general economic value of the Heritage properties to the County and the challenges facing those people managing them.

- Investigate the demand for heritage skills, how currently that is fulfilled, Stockholder thoughts and attitudes toward skills training in the sector.

2.1.2 Phase 2

The second phase of the research focused on the recruitment, training and educational opportunities for those working or seeking to work in the Heritage sector. This was divided into two streams of research

- To establish the barriers and opportunities facing those seeking to enter the Heritage skills sector either as school leavers or career changers, including those might face additional barriers.

- To investigate the current educational offer in the County, including the barrier and opportunities faced by those institutions and their experience of offering these courses.

2.2 The Sampling Frame

The team drew up two sampling frames as the basis for this research project, one of Stockholders and one of Craftspeople. These sampling frames were drawn from publicly available lists such as the yellow pages, as well as internet searches and consultations with some specialist periodicals. The list of Craftspeople attempted to identify from contact and basic business details those enterprises that were likely to be specializing in the heritage sector. Whilst the list of Stockholders started from those organisations that are dedicated to the protection of the historic buildings such as the National Trust, and then moved onto identify those in the public sector with such responsibility and then the more difficult task of private citizens.

Telephone interviews were then conducted with those selected as being of particular interest and who made themselves available. To facilitate this process the team produced two interview schedules that were used as aids to an informal discussion rather than as the strict guidelines. The advantage of this methodology is that in the hands of skilled practitioners it allows the speedy assessment of a subject area with minimal disruption to the subjects of the research. We could characterise it as a 'salami slice' of the sector, it should contain elements that are typical but it is not a representative in any formal sense.

2.3 Confidentiality

Almost of all of the Craftsperson interviews were conducted on the basis of the discussoin being confidential and anonymous. It was quickly apparent that participants were generally mistrustful of anything that was linked in their minds to the 'government' and sceptical about most efforts that might be aimed at assisting them. Part of this was poor experience of taking part in previous 'surveys' that werein reality veiled marketing exercises.

Participants were often not prepared to answer questions or in some instances made it apparent that the answers they gave were evasive. As will be discussed later this has important strategic consequences but more immediately has had an impact on the type and quality of data being presented here.

- Absence of snowballing data (one contact providing a reference to another), so that we have had to consistently cold-call contacts, making the research process more protracted.

- In some instances where there are only a few, or in some cases only one Craftsperson in the County with a particular skill, we have not presented the data they have provided us with about their business operations, although their opinions and experience of training are included.

- In others we are presenting more general data than actually collected to prevent specific businesses or individuals being identified.

3 The County of Gloucestershire

3.1 Context

As a County Gloucestershire is highly varied and is often reported on as a series of different constituencies, with some sharp differences between the rural economy of the County and some of its urban counterparts . Certainly the rural economy and its performance is of great importance to the overall economy of the County, as is the tourism economy in some of the districts in the County, and the knowledge economy in some of the urban areas. This rural/urban split is important as it conditions the development of the construction sector, as it does the economy of the County as a whole.

In line with the rest of the region, the County is well endowed with historic buildings, although they are not evenly distributed within the County (see table 1).

Table 1 - Distribution Of Listed Buildings Within The County

Local Authority	Grade 1	A	Grade II*	B	Grade II
Cheltenham	5		59		1072
Cotswold	105		213		4646
Forest of Dean	25		65		1380
Gloucester	35		48		372
Stroud	41		200	5	3008
Tewkesbury	48		112		1403
South Gloucestershire	44		119		1892
Gloucestershire	**303**		**816**	**5**	**13773**
Regional Totals	2014	3	5044	67	81973
% in Gloucestershire	15	0	16.2	7.5	16.8

(Source: English Heritage, Calculations CCRI)

3.2 Tourism And The Heritage Economy

The tourism economy is of considerable importance to the County, with those attractions based around a heritage site or with a significant landscape element, dominating the list of the most visited pay-for-entry sites in the County (see Table 2). These are of particular importance because unlike the major tourism counties such in the region such as Devon, the County does not have a significant seaside offer. These attractions do have the advantage that they are within a short travelling distance of large urban populations. All of them are reliant on heritage skills in order to maintain their distinctiveness.

Table 2 – Top Ten Pay for Entry Attractions in the County

Ranking	Attraction	No.of Visitors	Local Authority District.
1	Westonbirt Arboretum	285,605	Cotswolds
2	WWT Slimbridge	185,592	Stroud
3	Hidcote Manor Gardens	125,060	Cotswolds
4	Snowshill Manor	101,220	Cotswolds
5	Birdland	83,708	Cotswolds
6	Cotswold Farm Park	70,536	Cotswolds
7	Gloucestershire Warwickshire Railway	66,000	Tewkesbury
8	Batsford Arboretum	64,740	Cotswolds
9	Sudeley Castle	62,273	Tewkesbury
10	Chedworth Roman Villa	55,152	Cotswolds

(Source: Economic Impact of Tourism Report, Gloucestershire County Council 2006)

3.3 Economic Significance Of The Construction Industry

The Rural Economic Strategy for Gloucestershire makes the not unwarranted assumption that the construction industry is the same as the rest of the South West; which as can be seen in Table 3 it broadly is, although with some significant variations. In line with the sector in the region we can broadly assume that most 43% of businesses employ one person, 48% employ 2-9 people, 8% more than 10 and less than 49 people, and the remain 1% employ more than 50[11]. This implies that a sector that is characterised by a mass of micro and small businesses with a section that comprises of larger businesses, a situation that may well be mapped onto the type of contracts undertaken. This is further complicated by the likelihood that many of the micro-businesses work as subcontractors to the larger companies. The structure of the broader sector is important in understanding the forces shaping the sub-sector that is the subject of this report.

Table 3 – Number of People Employed In the Construction Industry, As a Percentage of the Workforce and By District in the County (2001)

Area	Number of People	% of workforce
England & Wales		7.37
South-West		7.87
Gloucestershire	17,400	7.32
Cheltenham	3330	5.89
Cotswolds	2720	8.96
Gloucester	3310	6.26
Forest of Dean	2350	9.33
Stroud	3390	8.63
Tewkesbury	2300	6.85

(Source: Employment in Gloucestershire Based on data from the 2001 Census of Population. Gloucestershire Labour Market Information Unit (GLMIU) and Chief Exec's Support Unit (CESU) April 2006)

Updating these figures to 2004 (GLMIU, 2006) suggests a considerable decline in this construction sector workforce in the first part of the decade (see table 4). As a proportion of the active workforce in the County, the construction sector comprised the following.

Table 4 – Number of People Employed In the Construction Industry, As a Percentage of the Workforce and By District in the County (2004)

Area	Number of People	% of workforce
England and Wales		3.5
South Westr		4.6
Gloucestershire		4.1
Cotswolds	1,400	3.7
Forest of Dean	1,300	5.5
Stroud	2,000	4.8
Tewkesbury	1,600	4.4
All urban		3.5
All rural		4.5

(Source: GLMIU (2006) citing Annual Business Inquiry 2004, adapted by CCRI)[12]

In general, self-employment in the County has recently grown. For example, in Tewkesbury District, the percentage of the male working population who were self employed, grew form 16.7% to 22.9% between 2005 and 2006 and this self employment is higher in rural districts than urban ones. All rural districts (apart from Stroud at 15%) have a self-employed male working population of 21% or greater of the total working population (GLMIU, 2006). In addition, the construction sector has a greater proportion of its workers who are self-employed in the County than in any other sector (approaching 30%, GLMIU, 2002) and self-employment in the County increases dramatically with age (PRISM, 2000)[13]. These data imply that the construction sector in the County is both getting smaller in terms of the total work force and is becoming increasingly self-employed, and by inference, ageing.

Coincident with the decline in employment in the construction sector and increasing move to self-employment, unemployment benefit claimants also increased in the County between 2005 and 2006.

Despite this short-term decline in employees in construction in the County, the County's Labour Economy Forecasting Model suggests a growth in jobs in the construction sector between 2005 and 2015 of just over 10% in the rural districts of the County (GLMIU, 2006). Full and part-time jobs are not distinguished in this model.

3.4 Heritage Skills Businesses In The County

As Table 5 below demonstrates some skills are in plentiful supply in the County and others are the lone example. We have striven to identify those who attempt to dedicate themselves to the Heritage sector although this boundary is often not distinct. As some informants describe themselves as being specialists in period property restoration or as having a preference for working with older buildings even when it is only a minority of their actual work.

We have identified 179 businesses as having a significant stake in the heritage skills sector; a figure that approximates to the 182 suggested the Conservation Directory[14]. The businesses we contacted employed in total 47 people, 42 of whom were engaged in craft skills and remainder administered the businesses. If that pattern was repeated across the sector in the County as a whole, approximately 500 Craftspeople would be employed and 60 people in administration in the heritage skills sector or just over 3% of the total construction workforce in the County.

Table 5 – Number Of Heritage Skills Businesses In The County

Craft/Service	Number of Businesses
Blacksmith/Metalworker	10
Building Conservators	8
Cabinet Maker	30
Carpenter/Joiner	14
Cast Iron Products	1
Drystone Waller	12
Interiors	1
Leaded Light Repairers	3
Leadworker	10
Lime Product Suppliers	4
Lime/Fibrous Plasterer	13
Roofing – Cotswolds Stone Slate	14
Stone Carving	1
Stone Mason	37
Thatcher	15
Wheelwright	1
Window Casement Maker	2
Woodcarver	4

(Source: The CCRI)

We would suggest this figure is treated with some caution as the some of the largest groups of businesses are those that can move easily into the mainstream construction sector (carpentry, masonry) and artisanal work such as cabinet making. The sector is dynamic with one enterprise ceasing trading during this short period of fieldwork and most businesses reporting a healthy supply of work.

3.5 Breakdown Of Heritage Skills In The County

During interviews with informants and background research we have produced notes on each craft, which each have their different needs and trajectories. These ‘thumbnails’ will be later complemented with an account of the skills and training needs of each skill.

3.5.1 Blacksmiths And Metal Workers

- We have identified 10 blacksmithing and metal working businesses in the County offering restoration work.

- These businesses range from sole-traders through to those employing up to 5 people.

- Conservation metalwork constitutes only part of their work.

- Old metal or metal produced in a way to match historic metal is in short supply.

3.5.2 Building Conservators

- We have identified 8 companies who offer a package of skills around building conservation, integrating the professional with the trades.

- These businesses range in size and scale of project they can undertake.

- These businesses are key actors in the sector; see the discussion below in Findings.

3.5.3 Cabinet Makers

- We have identified 30 cabinet makers in the County

- It is unclear how many are involved in conservation work, although it is assumed they hold a wide range of traditional or heritage skills.

3.5.4 Carpenter/Joiners

- We have identified 14 carpenters and joiners who may undertake conservation work.

- As with Cabinet Makers it is unclear how much conservation or heritage work they undertake at present.

3.5.5 Cast Iron Products

- We have identified one foundry producing cast iron items for the conservation market in the County.

3.5.6 Drystone Wallers

- There are 12 specialist drystone wallers in the County.

- The Yellowpages lists over 60 businesses offering this service as part of a wider package of skills.

- Most of these businesses are sole traders or micro-businesses.

As with several of the other crafts, Drystone walling has a core of specialists but there maybe up to 60 businesses offering this craft within a broader business. There is also a considerable group of pro-ams (see below) who are able to do some limited amount of stonewalling. This leads considerable frustration as tendering has become highly competitive, coupled with a feeling that a great deal of walling is sub-standard and therefore eroding confidence in the craft. These fears tend to come from those who hold either formal qualifications or have served an apprenticeship, rather than those without such qualifications. There is an apparent interaction with a training or leisure market for this craft skill that is having serious implications for those making the entirety of their living from the craft.

3.5.7 Hedge Layers

- We have not been able to identify any professional hedge layers in the County.

3.5.8 Leadwork And/Or Metal Roofing Specialist

- We have been able to identify approximately 10 leadwork/metal roofing specialist businesses in the County.
- Leadwork features on most roofs; largely as flashing and this means that most roofing contractors will offer some leadwork.
- Those who specialise in restoration leadwork are sceptical of the quality of leadwork offered by anyone other than a specialist.

One of the informants for the leadwork skill categorised the problems in this way – “when people look for a ‘roofer’ then someone turning up in a blue boiler suit would do. We don’t employ roofers we employ Craftspeople, we wouldn’t use one of those people in a boiler suit to carry the lead, but that is not the same through the trade. Often once the subby has been squeezed at the end of the contracting, it [the work] can be very poor and still passed off”.

Because there is little way on most contracts of differentiating between the skilled leadworkers and those offering the service, the specialists were sceptical of the other trades who work on roofs. The National Lead Contractors Association offers a guarantee but this is only suitable for very highly value contracts[15].

For some of the most established companies there is such a demand for their expertise that they are able to select tenders and clients will often wait for them, rather than engage someone else.

3.5.9 Lime/Fibrous Plasterers

- We have been able to identify 13 businesses who offer lime plastering amoungst their skill sets.
- Lime plastering businesses report a great deal of opportunity in the industry and nationwide opportunities.
- There are 4 lime plaster supply businesses in the County.

3.5.10 Roof – Cotswolds Slate Tiling

- We have identified 14 businesses offering Cotswolds Slate Tiling.
- Alongside this there are 6 suppliers of Cotswolds Slate.

3.5.11 Stone Carving

- We have identified 1 business specialising in Stone Carving
- This situation is complicated by several of the stonemasons and wood carvers offering stone lettering and by some sculptors offering a similar service

3.5.12 Steeplejacks

- We were not able to identify any steeplejacks based in the County.
- Three large steeplejacking/high access companies are based in Bristol, and offer a wide coverage throughout the West Country and beyond.

3.5.13 Stonemasons

- We have identified 35 stone masonry businesses operating in the County, covering both a full range of masonry services.
- These businesses range from those who specialise in restoration or historic masonry through to those who also undertake more general building work.
- Masons often also offer drystone walling or stone walling, alongside their other services.

3.5.14 Thatching

- Between 900-1000 Thatchers have been identified as working nationally[16].
- We have been able to identify 15 Thatchers working in the County, so possibly 10% of the national total of Thatchers.
- They identify themselves as working a range of materials, in a variety of styles and with range affliations to trades' bodies.
- Several larger Thatching companies based in Oxfordshire and Wiltshire advertise widely in the County, this prominent advertising and the support of websites may be positioning them advantageously within the market for thatching the County. (None of the Thatchers in the County yet run their own website).

Thatching appears to be a trade apart, in that it is largely involved with providing a service for private residences, and with long-time frames between thatches demand is spread in a unique manner. Thatching has traditionally been an occupation passed on through families, and retains a distinctly inform and vernacular pattern. Training is largely deemed to be passed on through applied training with a Master, who thatches in their own way to their own standards. There appears to be no shortage of Thatchers, with a high degree of competition. With a lack of formal qualification or accreditation reputation is considered to be very important.

3.5.15 Wheelwrights/Carriage-Makers

- We have identified 1 Wheelwright in the County.
- The contemporary Wheelwright not only constructs the wooden components of the wheel but has to be able to place the iron band around the wheel.
- Although there is a strong relationship with Carriage-making, wheels are often made for barrows and canons.
- Although the correct type of wood is available it is not often seasoned as required for this type of work.
- There is no shortage of wheelwrights and price competition is tight.

3.5.16 Window Casement Makers

- We have identified two businesses specialising in Window Casements
- There is an obvious overlap with the Carpenters/Joiners noted above.

3.5.17 Woodcarvers

- We have identified 4 woodcarvers working the County, their focus ranges from work from ecclesiastical through to maritime restoration.

- There is a clear overlap with the sculptural arts, with several Craftspeople focusing on this art form.

- These tend to be micro-businesses, as the scale of the business favours the lone Craftsperson.

- Given the specialist nature of the skill only a small amount of the work takes place in the County.

3.5.18 Flint Knappers or Wallers

- We have not been able to find any professional flint knappers or wallers in the County.

3.5.19 Wattle and Daub

- We have not been able to identify any wattle and daub specialists in the County.

3.6 Breakdown Of The Interview Data

As mentioned in the section on methodology this data represents a salami slice and it not representative of the sector in the County, it does however coincide with many of the patterns found in the national research.

3.6.1 Status Of The Business

There was a distinct split between sole traders and limited companies, with no partnerships, co-operatives or other joint ventures taking part in the research. We interviewed 9 sole traders and 6 limited companies.

3.6.2 Number Of Years The Business Established

The average length of time in business was 20 years in those interviewed, ranging from 8 to 36 years. There is a bifurcation between the sole traders and the limited companies, with the sole traders having been in business for much longer on average. Sole trader status is a highly flexible form of business and allows for sub-contracting to a range of other businesses. Limited companies, like businesses in the economy more generally, have a shorter life and may reflect wider opportunities in the construction industry more generally. Certainly the business principals interviewed identified the founding of their companies with the discovery of particular market opportunities, whilst the sole traders often spoke of a moment when they decided ‘to go out on their own’.

3.6.3 Business Turnover

There was a split in how this question was answered, with sole traders being very precise and some limited companies making it clear that they were not answering the question correctly, even with the assurance of confidentiality. None of the sole traders have an income outside of Band A (£20-100,000) and with most making it clear that they had a turnover of between £20 – 50,000 a year, including those with staff. All of the Limited Companies indicated band C (£200-500,000), even when other answers they gave suggested a turnover in excess of this, or when they had indicated that this answer was not accurate. Generally we judge that half of the limited companies did have turnover in Band C and the other half in excess of £500,000.

3.6.4 Percentage Of Work In The County

A range of factors influenced this answer, which were specific to the skill in question, the scale of the business and the home of the Craftsperson. Those sole traders who had a geographically specific skill – such as Drystone walling made most of their living within the vicinity of where they live. So this was largely in the County unless they lived in a border area. The limited companies tended to have about 50% of their business in the County, using local opportunities as the anchor to a business that searches across a much wider area for business. A third group were those skilled Craftspeople who happen to live in the County – all sole traders, either because of biographical accident or that their partner is employed in the area, but their craft can be practised anywhere and their work is drawn from at least the national market.

3.6.5 Profile Of Staff Employed

In our research aside from women employed by the larger businesses in an administrative capacity, the entire workforce in the heritage sector were men. The emphasis is on men who are at least in their forties, with several of the sole traders being toward the traditional retirement age, and in one case past it.

3.6.6 Materials

Generally there is a no reported problem with the supply of materials, most of which are available readily in the County or through well-established suppliers. The question of their correct use and application is a far more contentious matter.

3.6.7 How Do You Find Your Customers?

This question brought the greatest uniformity of replies, in that without exception the importance of word-of-mouth and reputation were emphasised. Customers found the respondents; business came to them and they generally only furnished the most basic of contact details. Several of the respondents made it clear that they were in a position to vet their clients.

This reply is slightly undermined by the websites - yell.com, yellow pages listings and specialist directory listings - used by the respondents in various combinations. We take their answers to mean that they did not have to actively seek work, rather sufficient work found them through this means.

3.6.8 Do You Have Any Subcontractors Or Other Businesses That You Work With Regularly?

This question revealed a complex pattern of interactions within the sector. Very few people had regular sub-contractors, although in the limited companies several of them had people who were actually sub-contractors but they counted them as staff.

The sole traders often had often sub-contracting relationships with larger businesses but they were unwilling to volunteer many details other than these are generally long-term relationships, where they provided a specific skill.

The answers to this question probably reflect on those given above, in that often the customer is not the general public but another person in the building trade.

3.6.9 Are You A Member Of Any Trade Body, Or Professional Organisation?

The answers to this question were highly varied, but all qualified it by attaching instrumental value to membership. Larger businesses tended to be affiliated to organisations that offered guarantees of their work, whilst the sole traders largely said that they saw little benefit in joining.

Amongst the sole traders there was a widespread disappointment that many organisations offered membership by subscription rather than by any actual assessment of the skills being offered or the quality of work being undertaken. Such bodies tended to offer a marketing tool they did not need but did not provide the accreditation that they hoped for.

Most of the principals from the limited companies took a different view of trades bodies and professional associations, viewing them as a resource of information and an affirmation of their skills status.

These differing opinions may reflect the resources that the different types of business have been able to dedicate to using such contacts rather than the actually utility of the associations themselves. It may also reflect a different approach to the strategic management of the enterprise between the two types of business.

3.6.10 Written Business Plans

The sole traders did not see any particular need for a business plan as they react to the situation. Whilst the limited companies spoke of business plans in the past tense, as devices that had initiated their companies and were now redundant. This should not confused however with a lack of active planning and the setting of strategic goals, rather it is a style of business management carried out by people working in a vernacular sector. Often the limited companies had a clear strategic vision, but one that was held in people rather than as a written plan.

3.7 Professionals

Although not a part of this focus on those providing heritage skills in the market place, a number of informants pointed to their centrality in allowing the skills to be deployed. Several Craftspeople noted a tension between those who wrote the specifications – the professionals such as architects and the knowledge that they held as working experts.

3.8 Volunteers and 'Pro-Ams'

There is certainly a role for volunteer labour in some of the skills identified above and also a particular niche being carved out by 'pro-ams'. These people have been described in a recent Demos report, as a new breed of amateurs:

> in the last two decades a new breed of amateur has emerged: the Pro-Am, amateurs who work to professional standards. … The Pro-Ams are knowledgeable, educated, committed and networked, by new technology[17].

In some skills the pro-ams are certainly making themselves felt, people who have a grounding in the skill but who do not draw a living from it or do it as purely a leisure activity. This points to the blurring of boundaries between skilled Craftspeople, knowledgeable amateurs and volunteers. In some areas, such as Drystone walling most noticeably, this blurring is taking place. Although it can have considerable benefits in diffusing a skill and making it less vulnerable to being lost, it can also dilute it and make it difficult for those making their living from it to do so.

3.9 Migrant Labour

As with the rest of the construction sector the shortage of labour has been often met with migrant labour. There are a small number of migrant workers engaged in the sector. All EU nationals are entitled to take up training places in the UK, as are those working in the construction industry with valid work permits. Sources report that there is a widespread uptake of on the job training with migrant workers but they are not aware of any instances in the heritage sector.

4 Stockholders

4.1 Interviews

13 interviews were conducted with Stockholders and 2 with related stakeholders

- 3 interviews with key English Heritage personnel,
- 7 with conservation and heritages officers in district councils and city, town and borough councils,
- 1 ecclesiastical stockholder,
- 1 building surveyor for the Duchy of Cornwall
- 1 member of the Gloucestershire branch of SPAB (Society for the Protection of Ancient Buildings).
- 2 with SPAB office and editor of the Conservation Directory

4.2 Overview

All respondents, not surprisingly, made the point that the availability of a suitable level and density of local heritage building skills was vital to their remit of care to the heritage fabric. Local provision was important to fulfil local vernaculars but also to fulfil other agenda that some Stockholders hold such as sustainable work procurement and supporting local economy.

There was an overwhelming consensus that, at present, there is a shortage of appropriately skilled heritage labour in Gloucestershire in order to maintain the heritage fabric in a favourable condition.

This shortage of appropriate skilled labour results in a number of consequences:

- Increased costs of heritage skilled labour as demand out strips supply.

- This results in buildings and landscapes not being maintained to the standards the Stockholders and stakeholder would hope and expect. Inappropriate work is being done on the heritage fabric as Stockholders are driven to employing under skilled labour. 'Some sub-standard work is being done', LA conservation officer.

- As work is expensive, less is being done by organisations such as English Heritage in the face of inevitable budget limits.

- Important work on some heritage fabric is delayed, as suitable labour cannot be found.

- Those responsible for procuring skilled heritage labour are spending more time to achieve the same results. They are getting by but it is getting harder to do so.

A small amount of work was done by 'in house teams'.

- Gloucester cathedral has five directly employed craftsmen lead by a Master Mason.

- The National Trust has small team of direct labour who might do work in Gloucestershire. None of these are based in Gloucestershire but are in adjoining counties.

- The Duchy of Cornwall uses a small amount of directly employed specialist labour (stone mason), but again this is not based in Gloucestershire but in Somerset

Companies that range from contactors who directly employ skilled labour, to small companies and sole traders who specialise carry out the vast majority of heritage skilled work.

4.3 Specific Issues

4.3.1 Nature Of Suppliers

One senior national trust officer said that the NT had good relationships with “a high number of small companies or sole traders who offer very good value for money” and who have appropriate levels of skill. However these are often employed on small jobs.

For larger jobs tenders are usually invited from a handful of specialist heritage contactors based in Gloucestershire, and contactors from further afield as the numbers in Gloucestershire are not sufficient.

Some respondents felt that larger companies have their advantages. They are increasing using site/project managers to oversee jobs. These can oversee the work of individual workers and sub-contractors. It is at the skilled labour level where the shortage is most acute. Where the company is a specialist conservation contractor their reputation is important in terms of repeat contracts and possible contracts with other procurers, so there is a vested interest which the site manger’s specific brief is to ensure. This ‘guarantee of quality’ might not be so secure for smaller companies who might be under great time/financial pressure.

Trusted one-man bands are very useful, but unknown/start up small companies can be a problem. As one NT officer said “I have not got time to stand over them and keep and eye on what they are doing”. Thus the forming of new relationships can be problematic.

4.3.2 Specific Skills

There was perceived to be a skills gap across the board of the heritage skills crafts. However a number of respondents pointed to the following specific areas:

- A shortage of good stone masons. (One officer reported that stone masons for Oxford were being used as a consequence).

- A shortage of appropriately skilled carpenters and joiners, in some instances specifically in relation to timber framed buildings. On conservation officer responsible for recent timber frame based restoration work felt uncertain that suppliers had the detailed knowledge required to source appropriate timber for matching repairs. Consequently companies from Bristol and Hereford are carrying out some Gloucestershire based timber framed work.

- Another concern was the lack of what were called ‘site skills’. People were ok working in workshops but found doing skilled work on site more challenging.

- A shortage of appropriately skilled architects was cited as a big problem. One respondent with experience of work on a number of projects pointed out that heritage craft and conservation training only forms a very small part of current architectural training - “seven minuets in seven years” as he put it. This means that on larger jobs that are architect led, the architects are often ‘useless’. Two heritage conservation officers who also felt that getting suitably skilled architects “was a major problem” supported this view. The corollary of this was that those architects who have specialised in this area are in great demand and can charge accordingly.

It was not the case that heritage skills were entirely absent from the County. Good quality stone masons, lime mortar specialists, and heritage skills contractors with multiple skills were identified. But these are in high demand and expensive.

For more specialist skills (e.g. historic wall paper conservation) the expectation was that suitable skills had to be sourced on a regional or even national level, and thus were not considered to be locally deficient per se.

4.4 Geographical Unevenness Within The County

There was considerable variation in experiences across the County. The conservation officer in Forest of Dean District Council said the situation was ‘horrendous’. They have a substantial ‘buildings at risk’ list. These and other aspects of the heritage fabric are not being satisfactorily maintained for a number of reasons:

- The socio-economic conditions of the district
- The unique nature of the heritage fabric (e.g. industrial heritage which cannot attract appropriate levels of funding)
- A marked shortage of appropriate skilled suppliers and labour force. The conservation officer was aware of one contractor who was ‘tearing his hair out’ trying to attract and retain suitably skilled staff.

In contrast the conservation officer of Cotswold district council was much more sanguine about the situation. She did not feel there was an overall shortage of suppliers. There was however some difficulties in procurers finding suppliers, and the Council have drafted a list of suppliers in a number of skills areas to address this. This practice itself uneven with other councils choosing not to issue any lists of suppliers as there are liability implications (see below).

4.5 A Worsening Or Improving Situation?

Although there was an overwhelming consensus that the levels of supply of suitably skilled heritage labour were inadequate, there were marked differences about the extent to which this was perceived to be worsening or improving.

Some respondents were adamant that there has been an overall decline in heritage building skills in the last 15 or 20 years. One observed that while understandings of the importance, processes and needs of heritage conservation have grown markedly over the last 20 years the ability to deliver it on the ground has diminished.

This decline was supported by claim of various respondents reported of being reliant on a dwindling number of regular suppliers. Within those suppliers, be they sole traders or larger contracting companies, there was also a perception that the skilled labour force was older rather than younger, and thus a further decline in skills can be anticipated.

In contrast, other respondents spoke of “a renaissance” in heritage building skills. One considered that this had developed since a low point in interest in the heritage fabric and its conservation in the 1960s. Another said that, ‘10 years ago if you asked people about hydraulic lime mortar no one knew what you were on about, now there are specialists out there who are doing this kind of thing’.

These very different understandings of the direction of heritage skills provision maybe explained in a number of ways.

It is clear that whether the situation is worsening or not, there is a skills gap, and some might be more exposed to this than others and exposed to it in differing ways. So might be more exposed to it due to location within the County. Some might be more exposed to it due to the nature of the heritage fabric in question.

Secondly it might depend on the level of knowledge and engagement of the skilled labour provision market itself. It seems to be the case that there *are* now more specialist companies who have set themselves up to deliver heritage services in areas such as lime mortar, stone masonry, carpentry and joinery and so on, and a number of ‘heritage contractors’ who deliver a conservation package. However this growth has not kept up with the growth in demand. In addition, at a more detailed level, the skills gap is evident in the difficulties these companies have in recruiting, training and retention of staff and the overall quality of work that they can therefore deliver. Some providers do deliver effectively but these might be difficult to access in terms of waiting time and in terms of cost. So it might be the case that a decline in skills provision is felt by those with tighter budgets or conflicting/complex agendas.

4.6 The Desire To Procure Locally

There was a general and strong desire to procure suitable heritage skilled work as locally as possibly.

The collective set of reasons for this were

- Possibly lower cost (less travel time, no need for accommodation costs)
- Lower environmental impact (e.g. carbon foot-print). This was particularly so for the public bodies such as local authorities and NT who will have specific environmental policy statements
- Good for community relations (NT, ecclesiastical bodies)
- Help local economy
- Build up local skills base
- Use labour familiar with local vernaculars (e.g. Cotswold stone roofing)
- Use labour with empathy to place and building/landscape (e.g. Gloucester Cathedral)

It needs to be recognised that local does not generally mean the County. It means in area centred on the site in question which will often cross the County boarder.

There are very varying degrees to the extent to which using local was prioritised against other demands.

- Sustainability was prioritised over local by some procurers. For example if a supplier could establish using more sustainable sources of materials they might be preferred over a more local provider.

- While there is an aim and willingness to use local labour *the need to get appropriately skilled labour would generally override the desire to employ locally*. Thus the search for the most locally appropriate supplier might often end up going outside the County and/or further afield until the nearest appropriate supplier was found.

Very specialised heritage skills, (e.g. stained glass conservation, heritage wallpaper conservation) may have to be sourced on a national scale.

Larger contracts might well entail spreading the 'invitation to tender' catchment area further in order to bring in enough suitably resourced companies. The lack of adequate provision means that contractors are being brought in from further a field (e.g. Bristol, Birmingham, Oxford, and Hereford).

In the case of the Duchy of Cornwall directly employed labour (stone mason) and trusted contractors are brought into the County to do work. (Some work is sourced locally).

4.7 Trust, Experience And Track Record

By far the most important criteria used in recruiting skilled heritage labour is trust and knowledge of the supplier's previous work. Long terms relationships are often established between suppliers and procurers. This is so even when the tendering process means that it is not certain who will end up doing the work, as tenders are often invited from a small number of very familiar companies. Trust and long term relationships can take a lot of the 'strain' of ensuring appropriately done work. One conservation officer said that if they know the work is to be carried out by a trusted and known contractor that will not spend so much time drawing up exact specifications and monitoring work.

One procurer made the point that he was in effect educating suppliers within long-term relationships. He said that one contractor was still too keen on using cement but that was being changed over time.

4.8 The Relationship Between Heritage Craft Skills And More General Building Skills

It was pointed out by a number of respondents that not only are specific heritage skills required but also more generic building skilled labour, such as plumbers and electricians, *who are empathic to heritage building*. These might not have or profess to have any specific heritage skills but they need to be able to work within the contact of heritage buildings in an appropriate way (e.g. routing pipe work and wiring - taking up floor boards with out damaging them).

Another point emerged in this respect is that specialist work is often done in relation more general work. For example on conservation officer said they might specify a window design and that be made satisfactorily, only to find the work around it, e.g. its fitting, is not so well done. In the end the quality of the work cannot be completely controlled by specification. The general skills and attitudes of suppliers need to be right.

A third point is that the conventional building sector is also experiencing skills shortages and that it is not just a heritage skills issues.

A fourth point is that, in the context of above, good money is to be made on new build sites for relatively skilled labour (which might not involve periods of training and specialist skills acquisition) and this draws potentially skilled labour away from heritage training.

4.9 The Consequences Of Affluence

The conservation officers for Cotswold and Tewksbury Council pointed to the relative affluence of their areas. This was generally regarded as a positive in that private owners have the resources to carry out appropriate levels of skilled work on their buildings. Indeed, this affluence, coupled with a new interest in traditional building culture has meant that some owners are commissioning appropriate restoration work on properties and landscapes (E.g. replacing plastic windows with traditional wooden windows). This of course helps support and develops local firms specialising in craft skills. However one senior National Trust building surveyor made the point that this was a problem for them in that it was pushing up the costs of heritage skills supply to the extent that some specialist suppliers were getting too expensive for them.

4.10 Information Flow

The research showed that people seeking sources of appropriate heritage skills suppliers are routinely contacting organisations such as local authorities, the National Trust and SPAB. A number of the councils, certain offices of the National Trust, and SBAB said the keeping of databases of suppliers, to which they can give the public access, is problematic in terms of data protection and public liability risk. Thus some simply do not give out lists of suppliers. There are ways around this. Some officers are happy to give ‘informal advice’. Some point procurers to the Conservation Register. Cotswold District Council does give out lists of suppliers but are careful to say ‘these are not recommendations’.

4.11 Heritage Materials Costs

Some respondents point out that the heritage skills gap needed to be seen in relation to heritage material gaps. Some materials such as Welsh slate (Cheltenham) suitable stone for Cotswold roofing are in short supply, and consequently expensive. This then exacerbates the skills shortage and skills cost inflation issue.

5 Education, Training and Recruitment

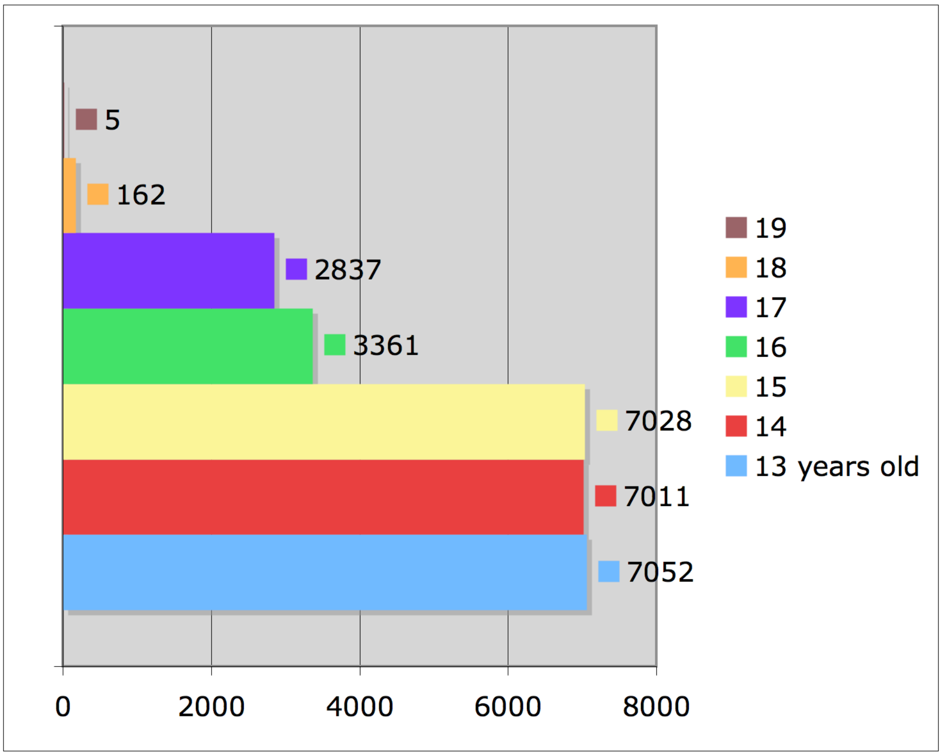
5.1 Context

In a global economy there is increasing evidence of the importance of high-level skills for both the national economy and the individuals working within it. Central government policy is being shaped by the findings of the Leitch report that argues that despite considerable progress in up-skilling the workforce and improving education and training for young people, the UK has only managed to 'run to stand still[18]. This had led government policy to focus on improving the skills across the workforce with a particular emphasis on those who have no formal qualifications and raising them to level 2 (GCSE level). At the same time the government is aiming to increase young people's involvement in training, with the goal of keeping almost all young people either in school or a training place until the age of 18. In 2006 77.5% of young people aged 17 were engaged with training, representing over 1.5 million young people in training, the aim is that by 2015 90% will be in training, which will leave the UK in the low 20's in international rankings[19]. Even this figure leaves a large number of young people who are not in training or in education, who may also be living with other forms of disadvantage. This policy drive to place a greater emphasis on skills and training is reflected in the wider construction industry's aim for the workforce and the needs of the Heritage sector in particular.

5.1.1 Number Of Young People In The County

This emphasis on training means that there are opportunities but also challenges, as young people become relatively scarce. As Figure 1 demonstrates nearly half of all of the young people in the County remain in school after the age of 16, aiming for 'A level' style qualifications and the opportunity of Higher Education. This means that the pool of young people available for training places is relatively small and those young people may not have found their experience of formal education to be easy or rewarding. For the Construction sector this pool is further reduced by the gender profile of the industry, in effect meaning that the tradition of pool of recruitment is only half of the figures in the chart.

Figure 1 Young People Aged Between 13-19 On The School Roll In Gloucestershire In 2007



(Source: Data Gloucestershire County Council, Graph CCRI)

5.1.2 NEETS In The County

Some young people for a variety of reasons fall through the system, and have become known by the acronym of NEETS (Not in Education, Employment or Training). It is generally presumed that these young people have up to this time had a successful school career, so as well as possessing few or any formal qualifications they are not gaining any training or skills, or engaging with the system that provides them. As figure 2 demonstrates the percentage of young people in the County is lower than any other in the region, but it still represents a considerable loss of opportunity for those young people (see section 5.6.5).

Figure 2 Percentage And Number Of 16 -18 Year Olds NEET By Local LSC Area [1]

	2006		Nov 2005		Nov 2004	
	Estimated NEET No.	**% NEET**	**Estimated NEET No.**	**% NEET**	**Estimated NEET No.**	**% NEET**
Bournemouth Dorset & Poole	1460	7.0%	1,336	6.5%	1,218	6.1%
Cornwall & Devon	3390	6.4%	2,895	5.3%	3,005	5.6%
Gloucestershire	*920*	*4.6%*	*1,221*	*5.9%*	*842*	*4.4%*
Somerset	760	4.8%	760	4.7%	708	4.1%
West of England	1850	5.9%	1,971	6.2%	1,961	6.4%
Wiltshire & Swindon	1320	6.8%	926	4.9%	953	5.3%
England	126,150	7.7%	129,992	7.7%	8,687	7.7%

(Source Connexions data, chart South West Observatory Skills and Learning Intelligence Module[20] 2007)

5.2 Skillholders' Experience Of Training

Often our attitudes towards education are informed and coloured by our own experience. As part of the survey of businesses we asked the principals interviewed not only about their staffs' experiences but also their own. It became very clear that although a sizeable group of those interviewed had undertaken a full apprenticeship, a large minority had but had seen a business opportunity. This meant that personal formal qualification varied from a full apprenticeship through to those who held no qualifications directly pertinent to their craft or skill. This difference was closely linked to the craft in question, in some the apprenticeship culture is still very strong (for example Masonry) and in others it is weak (Heritage Plastering). The emphasis on formal or informal of entry was reflected in the recruitment of staff and the importance placed on formal training on the job.

5.2.1 The Impact Of Apprenticeships

Of those business principals interviewed 9 had served a formal apprenticeship in the craft that they were currently practising, with the remainder having either taken an apprenticeship in an allied craft (4) or entered via experience after higher education (2). There was a strong relationship between the principal's experience of apprenticeship and their willingness to repeat that for another generation, with 6 having provided apprenticeships in the past. In parallel those who had entered the Heritage sector from an allied sector were not investing in formal qualifications for their staff, with none offering formal apprenticeships.

5.2.2 Apprenticeships In The 'Past' Tense

Apprenticeships were spoken of in the past tense, they were no longer being offered by the business principals. This was in part because many of those who might offer them were running their businesses as sole traders, scaling down their operations before retirements. Others who were not in that position were also highly critical of the young people they were 'being sent'. One person offered a simple explanation – 'I got tired of visits from the police, them damaging the property we were working on and our equipment'. All interviewees who had had apprentices commented on the cultural and behavioural gap between themselves and the young people who were available for apprenticeships. This was echoed by some who offered work experience for those taking under-graduate courses who commented that the emphasis on self-expression and autonomy ran counter to the discipline of working as a team in a business. They lacked the discipline necessary to excel and engaged with a craft skill where self-discipline is the key personal attribute.

This gap between those who work in the sector and the young people they are having presented to them for training seemed to be one of the biggest blocks to the formal offer of apprenticeships and an obvious threat to the transmission of skills.

5.2.3 Informal Training

Those who entered their craft from an allied skill had fewer qualms about training 'in-house' or on-the-job, this was coupled with a very different approach to recruitment. Frequently people would be recruited as labourers and then 'auditioned', if they demonstrated the aptitude and willingness to learn that were necessary they would be giving training and moved on from labouring. In this process the recruit could be a young person, or someone who is changing careers or entering from elsewhere in the construction industry. Often the only qualification they receive is experience with that company but this is often all that is necessary. In this manner those who recruited informally through this system did not complain about their 'trainees' rather they more often spoke of their excitement about their abilities and potential.

5.3 Recent Training?

This was met with a blank apart from the exceptions discussed below; very little investment was made in either the on-going development of business principals as managers or their staff.

5.3.1 Health And Safety

Very few people were interested in on-going training or continuing professional development other than for those who worked on site particularly health and safety certification. This was often re-enforced, as it was the **only** certification that was insisted on by those employing companies on a sub-contracting basis.

5.3.2 Learned Societies And Controversy

Although not training in a formal sense or even continuing professional development, several of the business principals pointed to the importance of their trade associations in fostering and facilitating debates, often around aspects of the craft that are controversial – at least within the craft. This was strongly associated with crafts where the business principal had a high level of formal education and/or where a strong knowledge of restoration in more general terms was necessary.

5.4 Staff Skills And Experience

All the business principals were eager to stress the skills and experience of their staff that are obviously the lifeblood of their businesses. At the same time this did not mean that their staff were formally qualified, or that they were seeking certification of their skills.

5.4.1 'Time-Served' Staff

In parallel to the tendency of those who have served apprenticeships to seek to train apprentices they also tended to seek to employ those who had served an apprenticeship. This meant that they would face challenges of finding suitably qualified staff and equally retaining those staff, one business principal confessed he hoped to retain qualified staff 'for a couple of years'.

5.4.2 Informally Qualified Staff

Although many of the informally qualified staff had gained their skills and experience within the company they worked for, some skill staff transferred between businesses on the basis of their experience. A period of years with a major heritage skills company was enough to qualify someone and ensure that they could transfer between competitors. It was unclear whether there was any element of 'poaching' in this form of recruitment, with skills and knowledge being sought aggressively, or whether this was a normal circulation of staff.

5.4.3 The Desire to Train

Despite the seeming negative reactions to the apprentices and difficulties with practical aspects of training, many principals particularly those who had served apprenticeships were keen to be involved in training, not only in work-based training but also in colleges.

5.4.4 Appropriate Apprentices

Many of the older Craftspeople whenever an apprentice or trainee was mentioned assumed a young person, in particular citing the irregular hours they worked and mature judgement required for their craft.

5.4.5 Being Asked

Almost all of those taking part in the survey had no on-going contact with education providers they did not have recent or relevant contacts to engage with providing a training place. This represents a considerable failure of communication between the local FE colleges and this section of the industry.

5.4.6 Being A Trainer

Overwhelmingly those interviewed were confident in their own ability to train others to take part in their skill. On several occasions this had led to them being offered the opportunity to train, this foundered as often these were the very short courses they objected to as diluting the skills base of their craft, or it was not possible to reconcile the demands of the course with running a business. There was a high willingness to be involved in training, which represents a mixture of 'feeling the need to pay your dues' and a concern for the future of the craft skills.

5.5 Stockholders' View of Training

The view of Stockholders in many instances was similar to that of skill holders, particularly around the importance of culture to conservation and craft skills.

5.5.1 Training And Membership Of Professional Bodies

Whether a company or sole trader has appropriate training and/or is a member of a professional body is not as important as their track record. They can be important when a contractor is first establishing a relationship with a client such as English Heritage. Proof of training and Memberships of Professional Bodies can be seen as the 'icing on the cake' of supplier credibility as one EH officer put it. However, on the other hand quite often procurers of labour do not bother to ask to see proof of training or membership. In addition, as current training is seen to be inadequate by many procurers they are not likely to set much store by it.

5.5.2 Cultural Contexts (And Training)

A number of respondents felt that current cultural trends were important factor in the skills gap. One respondent talked of our 'throw away attitude' and a lack of interest in 'concepts of repair', another of what he called 'our microwave culture'.

There was also a concern about culture attitudes amongst young people, which might militate against their successful training in and procurement of suitable heritage skills. One talked of the reluctance of young people to get involved in long terms skills acquisition, and a desire for 'instant gratification'.

5.6 Stockholder Views On Training, Recruiting And Retaining Staff

This was seen as a major problem for the suppliers and by those who employ them.

Courses are inappropriate and/or poor. For example in the stone masonry NVQ a tolerance of 2mm a metre is allowed in practical work. This means that training is at a level of accuracy not acceptable to a least one contractor and procurer of heritage skilled work.

In reality newly skilled labour has to be trained on the job, and this put excessive demands on the existing skilled labour and contract managers.

School leavers are recruited. In one example they work for a year as general labourers then gradate to train in a specialism if they are deemed suitable. However a high number drop out or are not deemed suitable to take up specialist training.

Having invested time, money and resources training skilled labour there is a great risk that these staff will move on given the overall shortage of skilled labour. Thus the contractors are undertaking the risk and cost of delivering appropriate training which quite possibly should be the responsibly of the state or wider building industry heritage sectors.

The decline of apprenticeships was seen to be a contributing factor to the skills gap, along with inappropriate or just poor college courses.

Training on the job was seen as crucial, and more important than course based training. But a mixture of the two was seen as an ideal model.

Some procurers (notably English Heritage) are when possible, encouraging contractors to build training into larger contracts. (I.e. tenders which show an element of skills training on the job might be accepted over slightly lower bids without training).

5.7 Recruitment

There are a number of pathways that anyone might take to enter the Heritage skills Sector, some are easier than others and require less initiative on the part of those who are following them. We have mapped out three pathways, with the barriers and opportunities that are to be found along them.

5.7.1 The 'Direct Route' For Young People 14-19

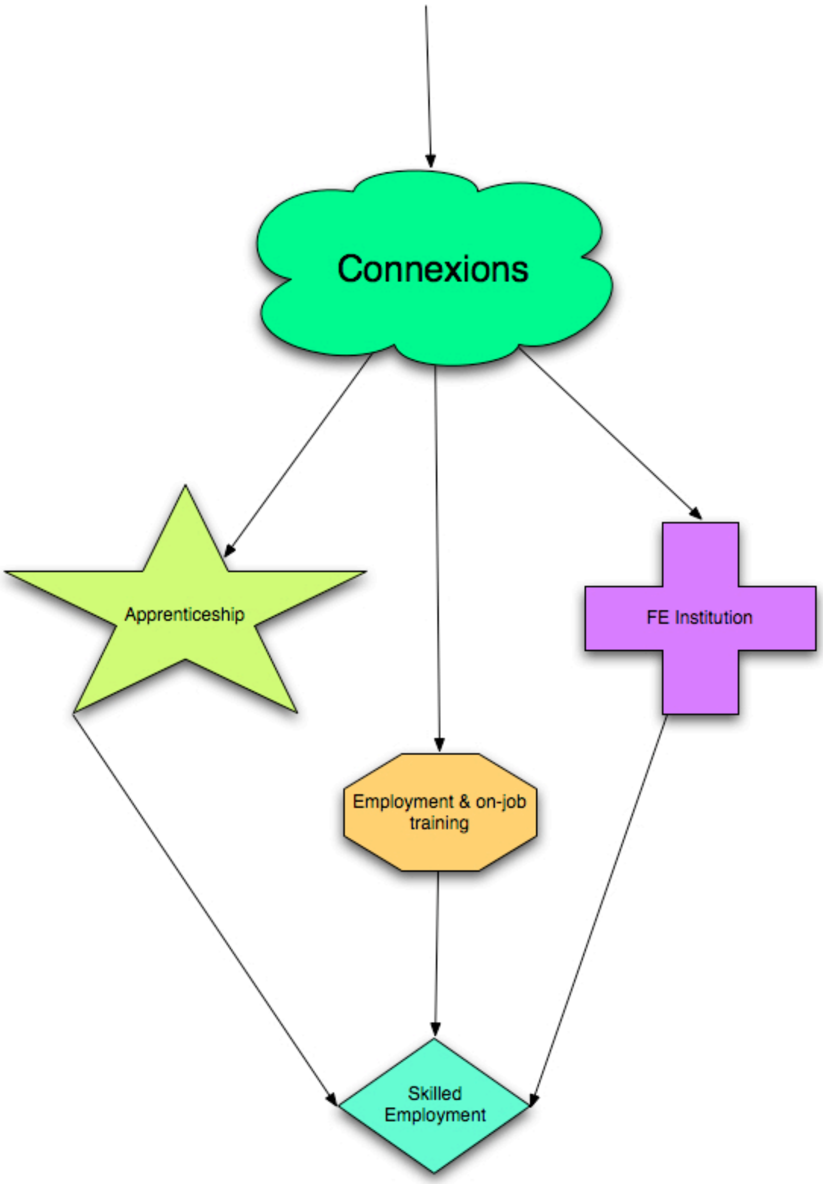
As shown in Figure 1 (below) the route for young people is the most direct and perhaps the most straightforward at first glance. The Connexions[21] service is responsible for providing careers advice for young people as well as providing more general support for their emotional and social well-being. Young people engage with the service via a series of self-completion questionnaires, which allow the Connexions workers to target their service on those in greatest need. Connexions workers work in the school but are not based in them, so provide an independent service, when asked if every young person would received careers guidance our informant replied 'the school would like that'. The Connexions service in needing to provide support on a holistic basis for young people do not necessarily have the opportunity to offer everyone careers advice.

Recent polling conducted by the recruitment consultancy Harvey Nash revealed through polling young workers aged between 18-30 that 11% had received no formal careers advice whilst at school and 48% of those who did receive it found it 'confusing and unhelpful'[22]. Just under two thirds (62%) of young people reported that had not decided on a career when they left school. To gain careers information and advice 72% would turn to friends, and 52% on-line jobs sites and only 20% formal careers advice. Although a national survey and includes those who left school some time ago, the polling was conducted by a high-quality polling organisation (Yougov). The government has recognised the situation under the auspices of the 'Every Child Matters' bill, from April 2008 greater emphasis will be placed on providing careers advice.

It would appear that the advice of peers supplemented by on-line sources is of great importance for guiding young people. These on-line resources often provide excellent careers guidance and do direct young people to heritage craft skills – although these have to have established courses. Also these more general website may not cater for those seeking heritage skills for example the Learndirect site, will direct an enquiry for a masonry course to

Cornwall College from a Cheltenham postal code and the bConstructive site does not cover Thatching.

Figure 3 – Pathway For Young People Into The Heritage Skills Sector



(Source CCRI)

Therefore a young person wanting to enter the Heritage skills sector would need to find a course outside of the area, or take a course in the main construction industry and then hope to find a job in the Heritage skills sector at a later date.

The situation for young people seeking employment is actually very difficult, one experienced connexions worker said that in their opinion ‘it has never been harder for a young person to get a meaningful job’. Young people between 16-18 face a number of problems as competition for apprenticeships is fierce, with employers reluctant to deal with the Health and Safety, Insurance and mobility restrictions that face that age group in particular. Machinery often has to have a higher level of safety features for under 18’s and under-18s in rural areas often face problems in travelling to and from work. Added to this is a reported tendency amongst employers in general to see young people as the last people in and so the first people out if any difficulties are faced by the business.

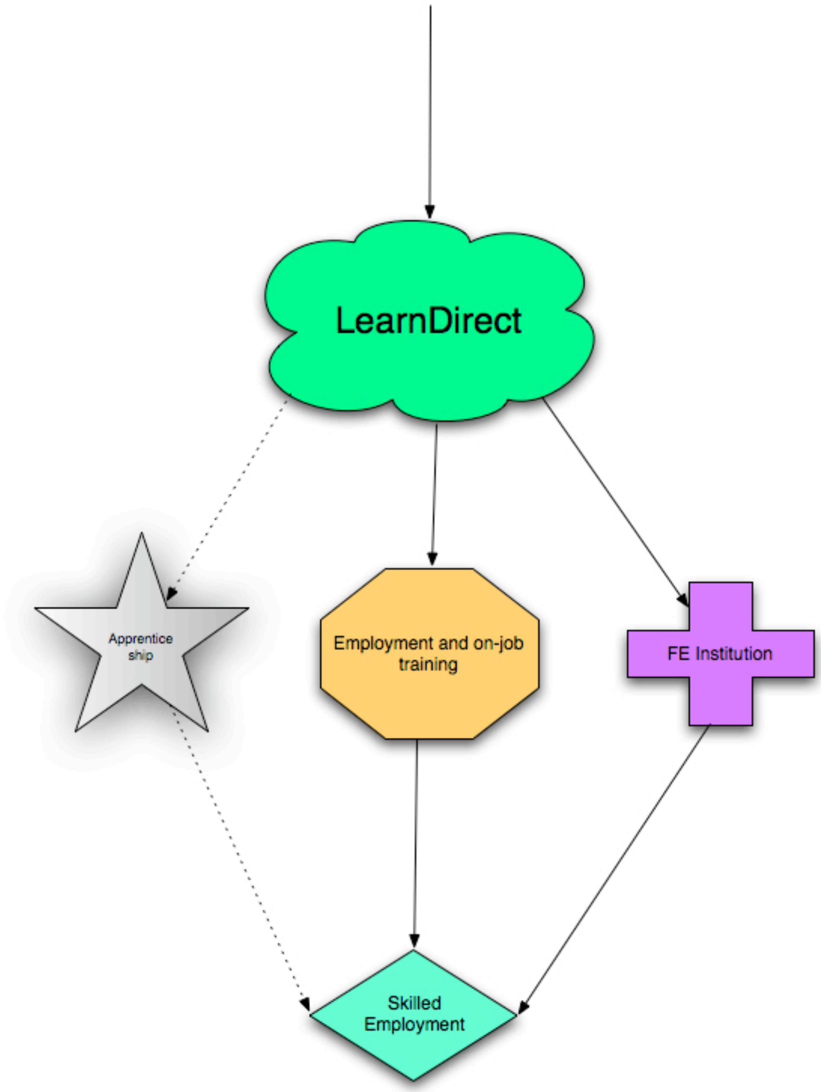
The barriers that young people face approaching the sector directly are firstly that of information – finding out about heritage skills and secondly – gaining local access to appropriate training. With a shortage of apprenticeships, even those young people who want to enter the sector will find it difficult.

5.7.2 Adult Entrants To The Sector

Changing careers or have a portfolio of skills is supposed to be a defining feature of our society, that does not necessarily mean that institutional arrangements currently reflect that. For those who want to enter the Heritage skills sector from within the mainstream of the Construction industry the most direct route would be to seek out a job or to start working the in the sector. It is this route that about half of our interviewees took, by-passing formal training in the craft skills. Alternatively they could seek training at a local college, although again skills provision within the County is the same as for younger people.

Gaining careers advice for those out of school has become co-ordinated through LearnDirect[23], which offers individual advice via a telephone and internet based service. As part of this service they offer a range of Job Profiles which describe the role in some detail, including qualifications, likely rates of pay and provide the opportunity to discover local courses. As the major publicly funded brokerage for adults seeking training or to improve their career propects this portal is of central importance. Alongside LearnDirect are some projects for those not well represented in the Construction sector and a range of private provision for careers advice.

Figure 4 – Pathway For Adults Into Heritage Skills Sector



(Source CCRI)

Recently the government has announced that the previous restriction on apprenticeships that the trainee had to be younger than 25, the plan is for 30,000 of the target of 400,000 places to be reserved for those over 25[24]. This could be a major opportunity for those entering the Heritage skills sector, if apprenticeships are offered by employers. As with those leaving school one of the most direct routes into employment in the Heritage skills sector is to gain employment and train on the job.

The barriers for entry for adults differ from those of young people as they have access to a good range of support on an individual basis. Yet awareness of the Heritage skills and the opportunities it has may be low, as the focus is on the mainstream of the construction industry and the availability of courses will determine the options available to those entering sector. Gaining formal qualification is the most difficult way of entering the sector, whilst the informal route of employment and on the job training is the most accessable.

5.7.3 Those Under-Represented In The Heritage Skills Sector

Those groups of people under-represented in the Heritage skills sector reflect the traditions within the wider construction industry and broader social trends in our society. Throughout the Construction industry women are under-represented, as they are in science, engineering and Information Technology, this represents the traditional view of these sectors being man's work, but also active discrimination. Another group who are under-represented in the Heritage skills sector are young people labeld under the acronym of NEETS (Not in Employment, Education or Training). These young people have fallen through the provision of services for them and are unemployed, with very few prospects.

5.7.4 Women In The Heritage Skills Sector

The only women working in the Heritage skills enteprises in our interviews worked in an administrative capacity, although perhaps tellingly in the stakeholders they were better represented. There are a number of initiatives and projects to promote women, for example 'Know Your Place'[25] in the Construction industry generally but none specifically for the Heritage skills sector. The networking and support of an organisation such as the National

Association of Women in Construction (NAWIC) could be of considerable assistance in supporting women in the Heritage Sector.

There is an obvious challenge in reaching anything like a gender balance in the Heritage skills sector, but there are a number of crafts that have a cross over with the figurative and material arts which might act as a bridge for women into the sector.

5.7.5 Not In Employment, Education Or Training

In figure 2 above we provide the bold figures for young people who are NEET, and these figures need some careful exploration or as a Connexions worker commented 'they are only as good as the minute [they] were made'. Firstly the figure includes young mothers with babies and infant children, young people with learning difficulties who are unable to take part in paid employment, those young people with chronic health problems and those facing acute familial problems. Outside of these groups, the figure will be dynamic as young people move between jobs, or between training courses. Some of these young people will not be making themselves available for work; others will be quite 'biddable' once given direction. The headlines about NEETs are just that, the reality is more complex and dynamic.

5.8 Outside Of The Academy

The Youth Service has a 'wilderness' area that they manage on a regular basis, providing young people with particular needs the opportunity for personal development through practical tasks. In the past this has included Hedge Laying as part of the management of the area. Although not a regular part of their activities, they do see a gap for further training and knowledge for their staff.

5.9 Educational And Training Offer In The County

Current provision in post-16 education is very meagre at present in effect it is non-existent, although there are initiatives underway to change this situation. If Woodchester is taken out of the picture the Further and Higher education colleges in Gloucestershire do not offer any courses fully focused on Heritage skills or aspects thereof. There is an offer for Dry stone Walling and some metal-working, although these are often outside of FE colleges, or part of a broader course.

Three colleges do focus heavily on construction trades - Forest of Dean, Stroud, and Gloscat. Although at present they do not offer a heritage stream they are making progress towards making a co-ordinated offer of heritage training. The colleges see that the provision of generic construction skills as their first duty, this is in demand by construction industry, and there is a ready market among students. Heritage skill training can come after that initial training, either through further formal education or as Continuing Professional Development. They do not seem to see heritage skills training courses running in parallel to more generic construction skills courses.

There are considerable barriers for FE colleges approaching the teaching of Heritage skills. There is a major issue with the provision of suitably experienced and trained trainers and assessors. As one construction curriculum manager put it, ‘it is a vicious circle or catch 22’, the skills gap means there are not the trainers around to begin to fill the gap. This is to the extent that one college (Stroud) began to train two existing staff with a view to establishing heritage training provision, but had to withdraw them halfway through as this was affecting existing provision.

Gloscat has acquired the control of a listed building as a site for practical training elements of new heritage courses, and is also developing a partnership with Woodchester to the same end. The aim is to offer courses across the range of heritage skills under the umbrella of the National Heritage Academy (South West). There was some confusion as to the current role of the Academy, by those outside of it and although there was generally high awareness of it.

Most of the colleges found that there was a very low awareness of Heritage skills from students and school leavers, there are experiencing a high level of demand from the Heritage skills industry. All of the colleges perceive that there is both a skills gap and a demand for more training, they are however not all finding it easy to meet that need.

Entry for students into the sector is difficult by the generally opaque quality of the information offered. College websites are not necessarily easy to navigate, relying on students either have the precise search terms or previous knowledge that the course exists. There is also some uncertainty within colleges as to what the other colleges in the County precisely offer to students, suggesting that signpost is not a crisp as it might be. Nationally the picture for higher level courses – NVQ 4 or Degree – is that the limited number of courses available focus on heritage management and do not focus on the practical aspects of restoration and maintenance.

6 Findings

6.1 Trust

It may be a more general problem in our society, but low levels of trust were certainly evident in many of the interviews undertaken for this research. People were often sceptical of the ability of representative or governmental organisations to actually make changes, to understand their situation and to act in good faith. A certain degree of scepticism in business dealings is obviously prudent but too much can be corrosive, and it would appear from these interviews with Craftspeople that it tends towards the corrosive.

6.2 The Skills Gap

The skills gap which is evident in the rest of the Country is present in the County. This gap does not so much put the important heritage fabric of the County under immediate threat, but rather, limits its upkeep, development and potential. This is both in terms of duty of care but also in terms of maximising the cultural, social, educational and economic potential of the heritage fabric of the County.

6.3 The Value Of Scarcity

Two forms of scarcity were evident from the interviews with the Craftspeople – absolute scarcity of the skill and a service that only they could provide. As one informant commented “there are too many people and we are all having to drop our prices” scarcity has a value and all of those who took part in the research realised that it was a key part of their business. In an informal sector one way of creating distinction for your business is to argue that the others have it wrong. Restricting the diffusion of craft knowledge and creating controversy about its correct application are two rational business tactics in a small and vernacular sector.

6.4 Unclear Boundaries

It has been suggested that some heritage work is undertaken by general builders, given that the proportion of pre-1919 housing stock in particular, it would be more accurate to say that only a small amount of work is undertaken by specialists, with most private homes continuing to develop a haphazard style. Outside of the core contractors, many specialists also undertake new builds and maintenance to make a living. From a national perspective work on heritage buildings undertaken by specialists is actually the minority of work undertaken on the heritage stock.

6.5 Status

Several of our informants on the supply side complained about their status, of how terms such as ‘roofer’ devalued their skills, or that the provision of short-training courses undermined the skills base of the craft. Several emphasised the rates of pay that they were able to offer their employees, to point to the dis-juncture between the economic reality and the social perception. This was a more general complaint than the more common one that the importance of the construction industry is not widely recognised. There were three targets:

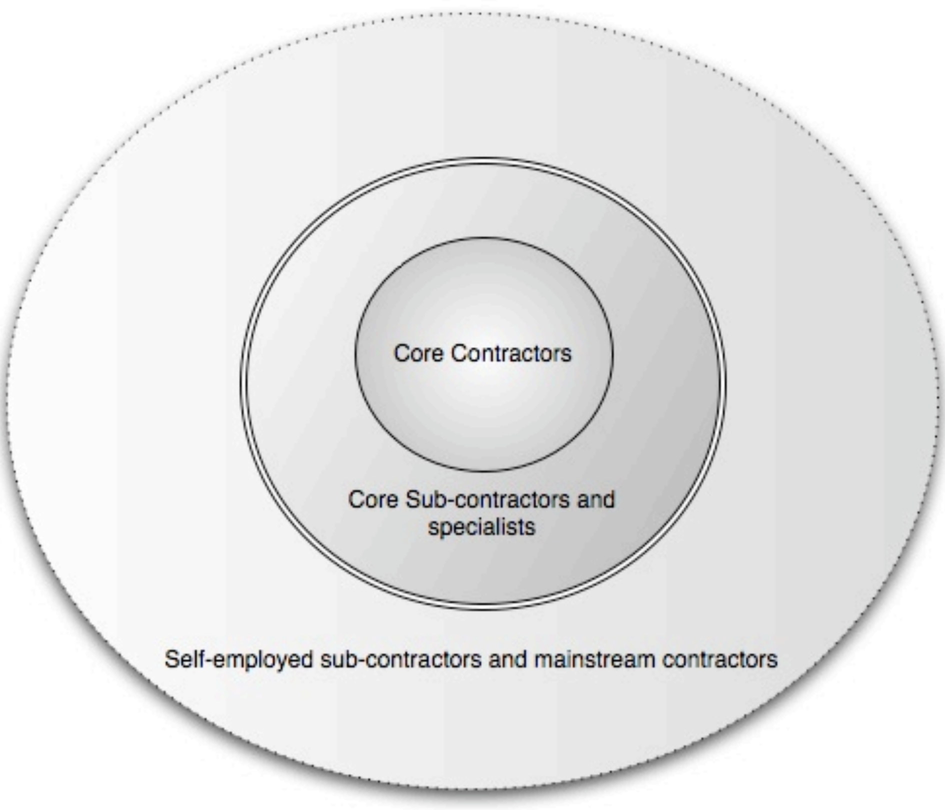
- Within the industry:
    - Others in the construction industry who were far less skilled tendering for work they are not skilled to conduct.
    - Technical specialists drawing up generic plans, and/or through the subcontract process watering down specifications, implicitly in both cases not recognising craft knowledge and expertise.
- Clients:
    - Not being prepared to pay for work that was of the highest quality and using price as the only metric.
    - Some of the institutional clients dictating specifications without consultation with the Craftspeople.
- Society more broadly:

- Lack of recognition of the dedication and discipline to be a Craftsperson.

6.6 Circuits Of 'Excellence'

Within the sector there are well-established circuits of excellence, particularly between public and civic sector institutions and a small number of companies who have specialised in the heritage skills – those termed building conservators above. These companies are obviously highly skilled and trusted, often gaining priority and recommendation from institutional actors, which in turn provides credibility for those firms with private Stockholders. This creates a virtuous circle of capable and skilled business undertaking the most important institutional work; it does however have long-term consequences for the sector.

Figure 5 – The Relationships Between Businesses And Clients In The Heritage Skills Sector



(Source CCRI)

These companies have a stock of knowledge and a roster of Craftspeople that represents the institutionalised expertise in the sector, akin to the older concept of a craft studio or a contemporary architectural practice. The specialist companies in turn will employ or partner with smaller companies or individual specialists. Several of the core contractors represent in effect an alliance between construction management professionals and a team of Craftspeople who are either employees or sub-contractors who work for the company most of the time (see diagram).

Outside of this central circuit are a population of sole-traders and sub-contractors who pick up the less prime contracts and work in for smaller private clients. Although some of them would like to specialise they are often competing against non-specialist companies and make only part of their income from heritage work. In this area are a small number of Craftspeople who have a regular suppy of small contracts from institutional actors, but not sufficient to allow them to grow their businesses.

Opportunity to become a core contractor is not spread evenly across the skills. For example Thatchers work mostly for private individuals and the timeframes for their services are very long, meaning that they do not get the opportunity to grow their businesses or adopt the second tactic of the core contractors. Equally, specialists such as Drystone wallers, do not have the opportunity to package their skills with those of others meaning that it is a largely a sector constituted of sole-traders or very small teams.

6.7 The ‘Push’ Towards Informality

What we might characterise as the ‘path of least resistance’ in the recruitment of people into the Heritage skills sector is towards informal training. This has become a process that re-enforces itself, formal qualifications are not required to win contracts, therefore employers do not invest in them, therefore employees struggle to see their value and in turn Stockholders find it hard to get fully qualified people. This picture is far from uniform, for example Stone masonry remains full of people who have served apprenticeships, but it is not universal even in this sector.

Heritage skills have almost by definition always been vernacular – passed on by example and informal tuition, with a lot of the craft skill being developed by experience rather than codified learning. The danger of these skills disappearing as people retire and the numbers of people involved dwindles has been the subject of several recent reports. However unless it joins other sectors in adopting more formal qualification, and allowing those qualifications to be recognised within Higher Education is risks losing its purchase on people looking for careers.

6.8 Lack Of Awareness

As is apparent from the discussion of careers information, particularly to young people in school, awareness of career options is very low and so less well know occupations such as the Heritage skills are going to experience very low levels of awareness. Again this is self perpetuating situation, where because awareness is low courses are not offered, as courses as not offered people cannot take them and so awareness is low and round it goes again. With centralised careers advice systems such as LearnDirect courses are 'marketed' directly and nationally to those who are interested.

More broadly it appears that young people are not given the opportuntity to sample, either through work experience or through trips with their school or youth groups, heritage skills. This combines with the informality of the sector to prevent a wider awareness of the management and intellectual challenges in restoring and maintaining Heritage buildings. Insitutions that champion the Heritage skills as a sector that a good and rewarding living can be made from are needed to raise awareness of the sector.

6.9 Aiming Too Low

If the wider construction industry suffers from not being able to recruit the most able students this is compounded in the Heritage skills sector by there being very few formal entry points into the sector for those who have chosen an academic route through school, which a near majority of young people now do. A number of business principals in the research held degrees or HNDs in subjects that were un-related to the sector and had found their way into it by chance and interest. Whilst there is rightly a focus on providing opportunity those who have not had the best education opportunities, there also needs to be a route that matches those who have done well in education and want to enter the sector.

7 Recommendations

7.1 The Opportunity For Gloucestershire

It is apparent that the County of Gloucestershire has a specific and important opportunity to become a major player in the provision of training in Heritage skills. We base that assessment on existing Craftspeople and businesses currently working in the sector, the heritage stock in the County, the education providers in the County and access of all of those based in the County to England, Wales and continental Europe.

If the County is to establish the leadership necessary for it to achieve this goal of being a centre of excellence in the provision of Heritage skills training it will need to develop a series of active partnerships and networks to realise the cultural and business change necessary to underpin a training infrastructure. Many of these partnerships are in line with national government policy, as well as the long-term interests of all parties, but they do require short-term resolve and a willingness to embrace change.

Part of grasping this opportunity will be to respond to, and work with, broader trends in the economy to maximise the opportunities available to the Heritage sector and in doing so develop it beyond its present situation. In order for this to take place all the major stakeholders need to share a vision of what is possible and also how that can be achieved.

7.2 Strategic Opportunities

The Heritage sector is highly diverse but unified around a particular focus on older buildings and the techniques required to maintain them. In the past these skills were passed on through an apprenticeship system, and also through the vernacular skills of local builders. In line with changes in the wider economy these skills are declining, as are the social structure that maintained them. In order for these skills to persist they need to enter a more formal arena, where skills are certified and knowledge is constantly updated. This will present a challenge for many for whom the informality of the Heritage sector has offered a business opportunity and qualifications have often attracted a low premium. In the long term this situation is unsustainable, the skills are not and will not be transmitted, the level of craft skill and knowledge will be diluted and those footing the bill, often ultimately the taxpayer, will lose patience, as many of our shared cultural treasures will be placed at risk. For this to change a programme needs to be initiated whereby in return for investment people are rewarded and the virtues of formality are realised.

7.2.1 Building Trust

Trust is something is obviously more easily lost than gained but there a few measures that can be taken to build trust locally in the sector. The most obvious one would be the County to take the decision to invest in the sector, and to see that commitment through in a way that incorporates as many Craftspeople as possible. Although the contemporary style of institutions is for them to be ‘virtual’, it is of central importance that it has highly visible project workers who can be the ‘face’ of any institution; they will build trust towards the institution and between people.

7.2.2 Training Agreements

A large proportion of the Heritage sector is currently funded either directly or indirectly from the public purse. Already the Heritage Lottery Fund is looking for all of its grants to have a training element, it is beholden on Stockholders to insist on contractors who either already have trained and qualified staff or can demonstrate a programme of such training being in place. Many Stockholders view their buildings and their requirements as being the gold standard, this needs to be re-enforced by training being a central component of letting contracts. We suggest that as a part of this broader partnership within the County, Stockholders undertake to require training and that when providing lists or recommendation training is a central qualifying criterion.

7.2.3 Offering Appropriate Courses

The *quid pro quo* of demanding training is that the local training providers involve and include local businesses in the development of their educational offer. Education needs in this sector to reflect the needs of the business clients rather than the educational market place. Government policy and academic studies have noted repeatedly the episodic and loose connection between FE colleges and industry. With Government promising to make this a focus of judging success in this area, the providers in the County should be at the forefront of connecting with the sector.

7.2.4 Brokerage

The sheer complexity of the educational sector and government initiatives makes it very difficult for businesses to understand and access policies that are appropriate to their needs. What is required is sustained brokerage between the colleges, businesses, Stockholders and the wider community to ensure that top quality skills are available to maintain our cultural heritage. This brokerage needs to be impartial and focused on excellence to be trusted by all involved, as they navigate the complexities of policy and institutions to tailor solutions. Such a position could be the hub of bringing together business, Stockholders and educational providers. It also needs to have a long term plan to ensure that it transcends the episodic engagement associated with the 'pots of money' that have been the hallmark of previous schemes.

7.2.5 Education – NVQs Through To A New Degree Programme

All those taking part in the research have emphasised how the heritage sector differs from the construction industry – with a far greater emphasis on individual autonomy, understanding and interpretation of material and their context. Equally, it is apparent that it is difficult to recruit suitable people, as many who might in the past have considered an apprenticeship are channelled towards higher education. As is apparent from the research many in the Heritage skills sector can command an income similar to the graduate salary. We suggest that as well as NVQ style qualifications, within the County degree level qualifications – a foundation degree programme and a postgraduate certificate - are investigated. These would provide students with practical skills, the historical and artistic knowledge and business management training necessary for the sector. Partnerships within the County could provide work placements, expert practitioner input and eventually possible employment for the graduates, further adding to the skills base in the County.

7.2.6 Widening The Net Of Recruitment

As is apparent recruiting of not just skilled staff but people with the right attitudes and dispositions has been a key problem at the heart of maintaining skills levels. Three areas should be investigated enhance recruitment into the sector:

7.2.6.1 Career Changers (Over 25)

With the new Government initiatives this may prove to be new possibility for apprenticeships, but those who have a few more years' maturity and have chosen as adults this sector could be the ideal recruits the sector needs.

7.2.6.2 Girls And Women

For many years the sector has already halved the pool of talent it has drawn from, with women representing only 10% of the construction workforce a huge strategic opportunity is available for the Heritage sector. Working closely with other projects encouraging girls and women to become involved in the Construction industry should be a priority.

7.2.6.3 Those With Arts Backgrounds

Those people who have already trained or worked in the various arts disciplines are already represented in the sector, with several Craftspeople talking about the opportunity of greater self-expression attracting them to their craft and at the same time some people moving into the arts from the sector. Many of those who work in the arts have already been trained in the history and aesthetic context of Heritage buildings, so they could be ideal recruits into the sector.

7.2.7 The Climate Change Agenda

It is already clear that the Climate Change Agenda will dominate government policy throughout the rest of this century. The Heritage Sector needs to respond to this policy shift and may be in an ideal position to do so. Much of the methods and materials involved in historic buildings come from a time before the economy was based on oil and all of the buildings represent reserves of embodied carbon. Heritage skills and materials may have a striking relevance to a ‘greenhouse economy’. This combination of looking forward in association with traditional skills may provide the sector with a plethora of new opportunities and should be a priority for research. Again partnerships within the County may offer the opportunity to establish clear leadership.

7.2.8 Increased Status

The Craftspeople who took part in this research were justly proud of their skills and the contribution that they make to the heritage of the Country. Many of them felt that their contributions were not recognised widely enough, that they shared a low level of prestige and respect with the rest of the construction industry. Many of the recommendations in this report are designed to change this situation. Low status hampers recruitment; it also lowers expectations about the rewards, standards and operation of the sector. All of those involved in the sector should aim to raise the prestige and public profile of the sector, as well as their craft and/or project whenever possible.

7.3 Short-Term Opportunities

There are a number of relatively short-term actions that can be taken to galvanise the sector in the County, either as part of institution building or in preparation for it. All of these initiatives require an organisation and preferably a team of people to front them. These measures do not require particularly sophisticated techniques but have to be based on being consistent and carefully thought through.

7.3.1 Making Contact

As mentioned above the channels of communication need to be enhanced between all of those involved in the sector in the County. No single channel of communication will be sufficient alone, but a range is likely to be effective. A central County list of those in the sector would be an ideal starting point, augmented with contact details of businesses, educational providers and individual Craftspeople. This could be the basis of a quarterly newsletter, about training opportunities, major projects and individual profiles. Ideally this would link to a website that could develop these themes more thoroughly and could also serve to advertise those businesses that are involved in training and developing the sector in the County, this sort of central advertising would be providing an important resource for the public. Such a site could also offer on-line forums and email newsletters as well as more frequent information. If at all possible this contact should be backed up with opportunities for people to meet face to face, either through structured visits or other events.

7.3.2 Raising The Profile

As part of raising the status of the sector, it needs to adopt a profile that distinguishes in part from the rest of the construction sector but also demonstrates the skills and integrity in the sector. At a local level it requires the events and activities of the sector to be in the press. We suggest that annual competitions and awards are instituted; these could cover innovation in business and/or best student. This could be complemented by a public listing service of those who are taking part in the initiative, allowing them to be seen as having a public role in the area and in return being recognised for it.

7.3.3 Open Days And Exhibitions

As part of raising the profile of the Heritage skills sector, a co-ordinated programme of open days and craft exhibitions would allow those interested in the sector to see first hand demonstrations of the skills and talk to Craftspeople. If these were centrally co-ordinated it would allow a range of skills, across the County to be demonstrated and for publicity to be arranged. Several contacts have spoken about the importance of demonstrations in not just raising awareness but establishing a wide range of contacts in education and training.

8 Footnotes & references

[1] www.constructionskills.net.
[2] 'Blueprint for Construction Skills 2007-2011' page 3
[3] ibid page 2
[4] 'Traditional Building Craft Skills: Assessing the Need, Meeting the Challenge' page 11. Calculations CCRI's own.
[5] http://www.trustmark.org.uk/
[6] 'Blueprint' ibid page 4
7 'Assessing the need' page 82
8 'United Kingdom Tourism Survey 2006…. A regional perspective: The Southwest' Visit Britain 2007
9 'Overseas Tourism in the UK 2005' www.swtourism.co.uk/
10 Whittard, D (eds) South West Regional Economic Profile April 2007. SWRDA.
[11] The Rural Economic Strategy for Gloucestershire 2007-2015 (Revised 2006).
[12] Gloucestershire Labour Market Information Unit (2006) *Rural Economy of Gloucestershire Update, 2006* November
[13] Gloucestershire Labour Market Information Unit (2002) *The Rural Economy of Gloucestershire*. A report on the health of the rural economy of Gloucestershire, on behalf of the Countryside Agency, May.
[14] Figure provided by www.conservationdirectory.com
[15] http://www.lca.gb.com/main.html
[16] Bilbrough and Croft 2003:218
[17] 'The Pro-Am Revolution: How enthusiasts are changing our economy and society' (2004) Leadbetter and Miller, Demos page 12
[18] The Leitch Skills Review 'Prosperity for all in the global economy – world class skills' HM Government Dec 2006
[19]http://www.dfes.gov.uk/14-19/index.cfm?sid=42&pid=354&ctype=TEXT&ptype=Single
[20] www.swslim.org.uk/documents/targets/psa-neets-aug07.xls
[21] see www.connexionsglos.co.uk/
[22] 'Failing Careers advice compounding UK skills gap, warns Harvey Nash'
http://213.86.226.153/uk/mediacentre/press_releases_executive/failing_careers_advice_compoun.htm
[23] see www.learndirect.co.uk
[24] http://education.guardian.co.uk/further/story/0,,2212174,00.html
[25] see http://www.knowyourplace.org.uk/, http://www.nawic.co.uk/ and http://www.wamt.org/splash represent women in the construction industry and trades