Conclusion: Apprenticeship in Europe – A Survey

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The previous chapters have discussed local and national apprenticeship arrangements. In many places, the authors of these chapters highlighted local or national peculiarities. For good reasons, because in many areas the variation is striking at first sight. Still, reading the chapters together suggests that there was, nonetheless, something of a template for apprenticeship in Europe that applied in most places and could therefore be seen as the model on which individuals and organisations built their own specific set of rules and practices. In the following pages we seek to establish the outlines of that template.[1]

Firstly, and perhaps most importantly, all European countries had a system of regulated apprenticeships. By regulated we mean that it was embedded in established rules and in institutions that applied and monitored the application of those rules. Some of the rules were consolidated in laws and other formal regulations, others were, perhaps, more conventions. Apprentices everywhere possessed a recognised status in the eyes of the community and the state. Their agreement with their master distinguished them from other servants and employees. Completing training meant acquiring some form of rights in the labour market: apprenticeship combined an element of licensing or certification with the transmission of human capital. Such a system does not seem to have existed in other parts of the world.

The European apprenticeship system was already long in existence by the start of the seventeenth century and we must therefore assume that it was a medieval 'invention'. Under this system very impressive numbers of youngsters were trained and educated. For England, between 11% and 14% of male teenagers were apprentices, in the Dutch Republic every year an estimated 13,800 youngsters started their apprenticeship, and apprentices made up around 4% of the urban population. Paris in the mid-nineteenth century had around 19,000 apprentices and 1 in every 17 workers was an apprentice. Apprenticeship, in other words, was a major dimension of growing up in pre-modern Europe, and getting an

[1] Unless stated otherwise, all the data quoted in this Conclusion come from the preceding chapters and have not been referenced.

education. Remarkably, in many towns and cities local orphanages or poor-law providers ensured apprenticeships for their wards. Almost everywhere, apprentices started in their mid-teens. In Finland the legal minimum age for starting an apprenticeship was 14, but this also seems to have been the normal age in places where there was no legal constraint in place. By implication, during their late teens and early twenties youths of both sexes often lived outside their parental home – for domestic service, exceptionally for higher education, but in a great many cases to serve as an apprenticeship.

In many urban centres the number of apprentices was regulated. This happened, however, at the level of individual masters, not of the system as a whole, and masters in non-guilded trades and the countryside remained unaffected. Normally, guild masters would only be allowed to take on one or two youngsters at a time. This was a constraint on popular masters but not necessarily on the system as a whole, because most masters trained very few apprentices throughout their career, or none at all. The system, in other words, was never used to capacity; although it might have affected the quality of training if the best masters were limited in their capacity to accept new pupils. This suggests that these limitations were not only designed to limit the inflow of new skilled labourers.

Apprentices came from a wide range of backgrounds. Most importantly, the chapters in this book do not support the claim, still regularly made, that guilds managed to restrict access to their trade to the sons, daughters and sons-in-law of the established masters. Relatives of the established masters were a minority among apprentices almost everywhere. It may be surmised that this is a reflection of the registration process that ignored such apprenticeships, but in several places these kin apprenticeships were registered and these records show a significant but nonetheless limited percentage of kin. In Turin, in 1792, such apprenticeships varied between 5% and 27% of all apprenticeships, with only the local bakers showing a higher rate at 35%. Among the London apprentices whose fathers worked in industry, the great majority of youngsters were nonetheless trained in a different trade. Migration, on the other hand, was a common feature of apprenticeship. In places like London migrant apprentices were even a clear majority, but even when this was not the case, their numbers usually equalled those of the sons (and daughters) of masters in training.

Apprenticeships were usually open to non-kin, but such openness did not apply to females. In most places, the percentage of registered female apprentices remained well below 10%. In Venice, among around 6,000 apprenticeship contracts, less than 1% related to a female, and in London a similar percentage applied. This is one area where the family provided the main alternative, because there are

hints that the numerous skilled females in, for instance, the various textile trades, were trained informally. France and Turin provide the most significant exceptions to this pattern and this suggests that absolutism, by restricting guilds' agency over access, was beneficial for the gender balance in apprenticeship. This conclusion would require, however, a more systematic investigation before it can be accepted. Such an investigation will have to take into account that the volume of female apprenticeships remained small in places where guild restrictions were relaxed or even absent.

This brings us to the legal and organisational framework of apprenticeship. The state regulated apprenticeship in some countries, but by no means everywhere. In Venice such regulation went back to the fourteenth century. In England the famous Statute of Artificers was introduced in the sixteenth century and in France royal legislation of apprenticeship also started in the sixteenth century. Finland applied Swedish legislation. In the Low Countries and the Holy Roman Empire, on the other hand, national legislation, insofar as there was any, ignored apprenticeship and left it to local and regional authorities.

In many places this implied that craft guilds were a source of rules for urban apprenticeships, although by no means for all of them. Some trades were not incorporated, for example, nor was much work in manufacturing and services outside urban centres, although proto-industrial guilds did control some large-scale rural trades, especially in textiles. Setting the rules did not automatically mean that guilds also organised apprenticeships. Their involvement was most encompassing in the Holy Roman Empire, the Low Countries and England. In these countries apprenticeship contracts drawn up outside guild oversight were either unusual in guild-governed trades, as in the Low Countries and the German lands, or limited in scope, as in England. In France, Spain and the Italian peninsula on the other hand, apprenticeships were regulated by notarial contracts, which were usually still subject to guild approval. Formally, therefore, the guilds were only indirectly involved in the regulation and monitoring of apprenticeships in the Mediterranean countries. Nonetheless, guild apprenticeship provided the default model. Most of the chapters in this book demonstrate that guilds were not as deeply involved in apprenticeship as was previously assumed and that S. R. Epstein's claim that 'the primary purpose of craft guilds was to provide adequate skills training through formal apprenticeship' should therefore be considered an overstatement.[2] At the same time, the guild template remained the benchmark for apprenticeships everywhere.

[2] S. R. Epstein, 'Craft guilds, apprenticeship, and technological change in pre-industrial Europe', *Journal of Economic History* 53 (1998), 685.

If guilds were less important than historians once assumed, the civic institutions of Europe's towns and cities appear to have been consistently more important than has been recognised. Specific tribunals or legal processes existed in many of the main centres of training. These urban courts provided a solution to some of the major tensions that were generated by apprenticeship. It looks as if most apprentices lived with their masters and were therefore part of the master's household. The authority of the master, and the willingness of the apprentice to obey him (or her), was often explicitly confirmed in the contract. At the same time, a significant minority of apprentices, in the order of a quarter to a third, stayed with their own relatives. Clearly, this was only feasible for local youngsters. This arrangement of adolescents moving in with the master inevitably was the source of numerous conflicts, and urban institutions everywhere had to deal with such conflicts. The approach they took was rarely to reinforce the rights of masters over apprentices. Instead, urban courts offered arbitration, and exit if necessary.

That enforcement was in the hands of courts and city tribunals rather than guilds seems surprising if we think of apprenticeship as a system run under the supervision of the occupation to reproduce a closed professional grouping. However, it makes sense if instead we understand it as an exchange that was fundamentally structured by a legal contract. As one contract among the many made within these economies, it fell to the courts – more or less specialised – to hear and settle controversies. And as a contract drawn up between two parties who had starkly unequal voices within the guild, it made little sense for the apprentice and their family to look to the guild's officers for fair and equal treatment if they had a problem with their master. Finally, we must recognise that many contracts were not made within guilds, and for those individuals it was only ever general courts that could offer a source of recourse.

Even if guilds often did not regulate the details of individual apprenticeships, they often contributed to the production of the 'paper trail' that would help apprentices to demonstrate that they had completed their training. Perhaps most importantly, this happened by registering apprentices in ledgers maintained, and therefore implicitly also certified, by the guild. In Finland, France and the Dutch Republic apprentices received a formal document as proof of the completion of their training. In England they received the master's half of the indenture paper when they had finished. In Venice the *Giustizia Vecchia* kept records of all apprentices, whereas in the Southern Netherlands and in Madrid journeymen had to produce a trial piece to demonstrate their skills, and this was supplemented by guild registration. One way or another, the apprentice would be able to demonstrate completion of the training period.

Not all apprentices who started actually finished their apprenticeship. Although there was much variation, all systems seem to have lost a third or more of the initial crop of apprentices somewhere during the 2–7 years that an apprenticeship would take. Some apprentices died or ran away, others switched trade, but many also seem to have been satisfied with only partial training. What happened to those who left, we do not know. Likewise, there is at this point no obvious reason why German crafts seem to have been much better at retaining their apprentices than those of other countries.

One incentive for leaving or staying was probably financial. This is the area where we see the greatest amount of variation, not only between locations but also between individual crafts and even individual apprentices. Staying with the master usually implied payment for food and lodging. Sometimes this was compensated by the labour services that the apprentice was supplying to the business. Premiums would also depend on the master's reputation, as a craftsman or as a teacher. A minority of apprentices received wages, often increasing as he (or she) became more experienced. There is evidence of a trade-off between wages and the length of the apprenticeship. Long apprenticeships implied a greater labour contribution and could entail higher wages. Short apprenticeships, on the other hand, might require a higher premium.

Only a minority of apprentices who completed their training subsequently established themselves as independent masters in their own right. For England a figure of 40% is reported, but many apprentices left their unusually long (seven years) apprenticeship early so the percentage may have actually been significantly lower. For France the reported percentage is 20, in the Dutch Republic in the order of a third. This strongly suggests that it would be wrong to define the success of apprenticeship exclusively in terms of the attainment of master status. Parents and teenagers must have been aware that mastership was not the predetermined outcome of an apprenticeship. A future as journeyman must have been acceptable as well. Unfortunately, journeymen in pre-modern societies are a poorly known group.

In many European towns and countries the traditional apprenticeship system was under pressure during the eighteenth century. Apprenticeship became scarcer at the same time as alternatives were emerging, such as drawing academies. Around 1800, the fallout of the French Revolution created a huge shock to the apprenticeship system. The abolition of the guilds, in particular, seems to have opened up more training positions, while at the same time concerns were raised about the quality of training in this unregulated environment. Everywhere, however, the guild template of apprenticeship continued to be the standard against which

alternatives were measured. In a surprising number of places that template continued to be used as a format for shaping apprenticeships. In this sense, the particular pre-modern form of skills training remained relevant into the modern period. However, with the emergence of organised labour unions, apprenticeship acquired a new status in economic organisation, as the focus of a crucial debate in politics and political economy about efficiency and equity in labour markets. Political settlements over the support and status that was to be given to apprenticeship were made in different forms across Europe between expansive central states, employers' organisations and unions. While apprenticeship remained tied to entry to skilled labour in many parts of Europe, it acquired a new connection to formal educational institutions with the shift to adding part-time technical education alongside workshop practice. This constituted a fundamental reorganisation of apprenticeship as a mechanism for training. At the same time, the rise of large firms provided a new framework of incentives for workers, who might now seek long-lasting careers, and gave employers a fresh motivation for investing in training.

Two 'big ideas' have been launched in the literature about European apprenticeship, one about comparisons between Europe and Asia, the other about comparative advantages within Europe. The latter is the easier to deal with on the basis of the chapters in this volume.

Joel Mokyr and others have suggested that English apprenticeship created a workforce that was exceptionally well trained. This high level of skills education would be one of the reasons why England was home to the remarkable sequence of technological innovations that helped launch the Industrial Revolution. The role of craftsmen in the early Industrial Revolution has indeed been re-evaluated in the recent literature.[3] Contemporaries were much impressed by the quality of the English workforce, and their testimonies to this effect should be taken seriously.[4]

Our evidence suggests that England was exceptional in two areas, and those two areas alone: apprenticeship in England was governed by national legislation, creating a broad framework for skills education that applied throughout the country, and that legislation stipulated unusually long and uniform terms of apprenticeship. However, we should bear in

[3] R. C. Allen, *The British Industrial Revolution in Global Perspective* (Cambridge: Cambridge University Press, 2009), 265–66; M. C. Jacob, *The First Knowledge Economy: Human Capital and the European Economy, 1750–1850* (Cambridge: Cambridge University Press, 2014), 12.

[4] J. Humphries, 'English apprenticeship: A neglected factor in the first Industrial Revolution', in: P. A. David and M. Thomas (eds.), *The Economic Future in Historical Perspective* (Oxford: Oxford University Press, 2003), 73–102; J. Mokyr, *The Enlightened Economy: An Economic History of Britain, 1700–1850* (New Haven, CT: Yale University Press, 2009), ch. 6.

mind that the majority of English apprentices did not complete the seven years of training prescribed in the law. This was only necessary for those who became masters and were seeking full membership of the guild. Many continental guilds, moreover, expected additional training from prospective masters, either through a period of travel as was required in the German-speaking world, or through some other sort of post-apprenticeship experience. We have not been able to demonstrate unequivocally that English masters had gone through a longer period of training than their competitors on the continent, before they settled down and opened their own businesses.

The second argument has been articulated most comprehensively by Jan Luiten van Zanden, but was also proposed by Epstein.[5] These authors argue that guild apprenticeships gave early modern Europe a head start over other continents in the area of human capital. The ready supply of skilled labour diminished the skill premium in Europe, making its industries more competitive. Because most European youths were apprentices outside their parental household, they were also forced to become acquainted with new information and mindsets. This was especially true for mobile apprentices, who might be exposed to multiple ways of making certain objects. As a result, European industry became more innovative, even if many of these innovations occurred randomly, rather than as the result of systematic R&D. In the absence of equivalent studies of training in other regions of the world, this debate cannot be settled, but the chapters in this volume contribute to this debate by suggesting that it is the intersection of state and skill – particularly given recent evidence on the thinness of the rule of law in other regions – and the openness of labour markets that this then sustained that may have been a critical factor in Europe. In short, while apprenticeship could be an instrument of exclusion, in pre-modern Europe it was shaped into an institution of inclusion.

Three points stand out from this survey. First, if we consider who became apprentices in Europe then it is the scale, openness and breadth of training that stand out. Apprenticeship was a mechanism for social, geographic and occupational mobility across Europe. Family resources still mattered for a youth's future, to be sure, but the general effect of apprenticeship was to lubricate labour markets and ease spatial and social

[5] J. L. van Zanden, *The Long Road to the Industrial Revolution: The European Economy in a Global Perspective, 1000–1800* (Leiden: Brill, 2009), ch. 5; S. R. Epstein, 'Transferring technical knowledge and innovating in Europe, c. 1200–c. 1800', in: M. Prak and J. L. van Zanden (eds.), *Technology, Skills and the Pre-Modern Economy in the East and the West* (Leiden: Brill, 2013), 65–66.

mobility by providing a framework in which the risks involved were reduced.

Second, the operation of apprenticeship in the heartland of Europe's commercial and manufacturing sectors – its large cities – was rooted less in the guilds and more in urban and national provision of legal institutions that created a space to sustain contracts. Formal enforcement is only ever directly important to a minority of contracts of any kind; informal sanctions of reputation and private resolution will always be the first and easiest way to settle issues. But the law courts of the cities and the magistrates of the states of Europe sustained a rule of law for apprentices and masters that allowed exchanges to operate over a long duration and with the involvement of substantial financial and in-kind benefits. They were tied together by legal contracts; this allowed them to seek legal solutions.

Third, the long-term fortunes of apprenticeship look somewhat different to the traditional association of declining guilds with declining apprenticeship around 1800. Although only a few of the chapters cover the post-1800 period, we can see several commonalities in the evidence they present on this issue. Decline was not contingent on the abolition of guilds (where that occurred), but was a slower process. Removing guild regulations did allow apprenticeship to shift in structure in regulated trades – terms were adjusted, younger children entered places. But the fall in numbers reflected shifts in labour markets, particularly the growing size of firms and greater opportunities in expanding urban centres, and changing patterns of production that were a result of both the effect of new technologies and greater division of labour. Some of these processes had long been visible in the more developed parts of Europe.