any means is pleasing to God. The Ṣūfī orders are therefore also banned in Saudi Arabia, and the Saudi state spends a great deal of money to undermine the influence of the Ṣūfī orders throughout the Islamic world. Some of these orders have moved their centres to Western countries, notably England and the United States. The internal Ṣūfī debate on how this twofold challenge of Western rationalism and Islamic fundamentalism should be met has only just begun.

BIBLIOGRAPHY

Frederick de Jong and Bernd Radtke, *Islamic mysticism contested. Thirteen centuries of controversies and polemics*, Leiden 1999; Bernd Radtke, *Neue kritische Gänge*, Utrecht 2005, esp. chapter 4; Elizabeth Sirriyeh, *Sufis and anti-Sufis. The defence, rethinking and rejection of Sufism in the modern world*, Richmond, Surrey 1999.

BERND RADTKE

Artisans (pre-1500)

The term **artisan** in this entry refers to a skilled craftsman or craftswoman who exercised a specialised manufacturing technique, as opposed to the unskilled labourer, in mediaeval Islamic societies. As a specialised group within the labour force, artisans were responsible for building and manufacturing items for everyday use as well as luxury items destined for local consumption or export. Understanding the organisation of the manufacturing sector and measuring its performance, providing data about the patterns of manufacturing, division of labour and specialisation, as well as the social organisation of artisanal labour are essential to understanding the economic performance of mediaeval Islamic society, both with regard to its social cohesion and its material culture. The focus here is therefore on the economic and legal environment of artisans' labour, its organisation, transmission of techniques, and the role the manufacturing sector played in the history of labour in the mediaeval Islamic world, from the Iberian Peninsula to Central Asia.

As an economic sector, manufacturing and the artisanal component of the urban labour force as a whole depended for their performance on two other sectors, agriculture and mining for raw materials, and services, for integration and diffusion of finished items. Very early during the process of urbanisation the manufacturing sector exhibited a high degree of division of labour and specialisation (Shatzmiller, *Labour*). As a result we can trace a link between the manufacturing sector, the growth of urban settlements, and the expansion of export industries.

The expansion of the manufacturing sector had other consequences as well. It stimulated an intensive exploitation of natural resources, particularly in mining and minting, to a higher degree than that found in other contemporary mediaeval economies. It also stimulated the development of trading techniques and trade organisation, and contributed to inventing and using financial and credit instruments, through flexible system of output, payment, and delivery. These features highlight its integrative role in the economy. The high level of division of labour in the manufacturing sector by the tenth century indicates that the cities had a sufficient supply of manpower, despite evidence (both archeological and literary) of a major demographic decline in the Mediterranean and Mesopotamian regions during the first two centuries of the Muslim era.

The quantification of trade names, carried out over two chronological periods, first the eighth to eleventh centuries and second the twelfth to fifteenth, has shown that the number of occupations in each type of trade hardly changed over time. Normally growing demand for better or more items would lead to technological innovation and more productivity. Why this did not happen remains unclear; it may be due to the lack of more sophisticated consumers, a lack of sophisticated products, or low standards of living, i.e., income. Maybe a combination of external and internal factors should be taken into account. As the effects of the Black Death on Egypt's cities are becoming clearer (Sabra), there is reason to suspect that the size of the labour force in the manufacturing sector declined throughout the Eastern Mediterranean and North Africa. In the thirteenth century the situation in Iran, Iraq, and Syria must have been exacerbated by the Mongol invasion. At the same time, the lack of development in the manufacturing/artisanal sector could also have been due to the lack of technical innovation or market specialisation. The question of the artisans' standards of living and wages, usually key indicators on the prosperity of mediaeval Islamic society remains equally elusive. (Limited data on these issues may be found in Ashtor and Sabra.)

Using primary sources—Arabic literary texts, legal and juridical documents, and professional manuals from the mediaeval period (eighth to fifteenth centuries) from the regions surrounding the Mediterranean, Muslim Spain, North Africa, the Middle East and part of Central Asia—it is possible to classify artisans according to the raw materials they used and the techniques they applied to them. (A survey of techniques in the Islamic physical environment is provided by al-Hassan and Hill.) A list of trade names and occupations compiled from these primary sources contains 598 individual trade names, a much higher number than that of occupations registered for the Roman period or for contemporary Europe. A quantitative analysis of these trade names according to types, using a combination of both raw material and technique criteria, showed that the labour force and the specialised artisanal occupations in the manufacturing sector were divided into industries such as construction, ceramics, food, ivory, leather, metal, paper, textile, wicker, and wood. The quantification provided the statistical dimensions for each type within the manufacturing sector, as well as the degree of division of labour and specialisation within each (Shatzmiller, *Labour*, 101–68, tables 5.1 and 5.4, and figures 5.1 and 5.3).

The artisans in the textile industry exhibited the largest division of labour and occupied the largest share of the labour force in the cities, somewhere between 18 percent and 21 percent, and thus were the most specialised group in the entire skilled labour force. Manufacturers and processors of food items occupied a similar share, without being qualified as artisans with a specific expertise on the basis of the tools and techniques they employed. Artisans in the metal, leather, and construction industries occupied a similar share of the labour force, between 8 percent and 16 percent each, while the makers of wooden items, pottery, paper, ivory, wicker, and processors of chemical substances, each occupied a smaller share, between 1 percent and 6 percent, of the manufacturing labour force. The expertise, artisanal specialisation, and division

Type	Number of Unique Occupations (Cases)	
	8th-11th Century	12th-15th Century
Chemical	16 (29)	11 (26)
Construction	50 (64)	39 (58)
Food Processing	88 (156)	86 (170)
Glass	13 (20)	8 (13)
Leather	39 (72)	38 (64)
Metal	68 (111)	63 (100)
Paper	4 (8)	3 (9)
Pottery	17 (26)	9 (10)
Textile	80 (128)	90 (145)
Wicker	20 (26)	17 (22)
Wood	32 (50)	35 (53)
General	5 (6)	7 (9)

Table 1. Manufacturing Sector. Number of Unique Occupations (Cases) According to Type, 8th–11th and 12th–15th Centuries (Maya Shatzmiller, *Labour in the Medieval Islamic World*, Leiden 1994, 201).

of labour was shown by the trade names and occupations and by the raw materials used. In the textile industry artisans such as spinners, weavers, fullers, carders, dyers, and cloth beaters were specialised according to the fibers used, while others were distinguished according to their specific functions, such as button maker, lace maker, maker of turbans, makers of skirts, furriers, embroiders, makers of strings and ropes, tassels, and ribbons. Some specialised in making large items, such as tents, carpets, curtains, cushions, beddings, while the expertise of others lay in the techniques used, for example, the dyers of cotton, wool, silk and linen threads and cloth. At the other end of the spectrum, the makers of chemical substances, who were the smallest group in terms of their share of the labour force, were specialists, too. Their products held a key position in many industries, being necessary in the fabrication of all, even the most common, items. They included distillers and extractors of essentials oils, varnishes, organic and inorganic pigments and medicinal drugs, makers of ink, lime, distilled oils and fats, herbalists, pharmacists, and distillers of petroleum, glues, dyes, paints, drugs perfumes, metals, and minerals.

None of the available evidence confirms the existence of mediaeval Islamic professional guilds for the artisanal labour force, which must therefore have been organised in alternative ways. The notion of an artisanal "esprit de corps" seems to emerge from *futuwwa* treatises, but the concept of *futuwwa* itself—in the sense of

corporate groups of workers—remains ill-understood. Similarly, it is conceivable that Ṣūfī brotherhoods also formed organisational frameworks for labour(ers). More concretely, it is clear that royal workshops were set up, that there was a commercial output system, and that the legal system provided an institutional framework.

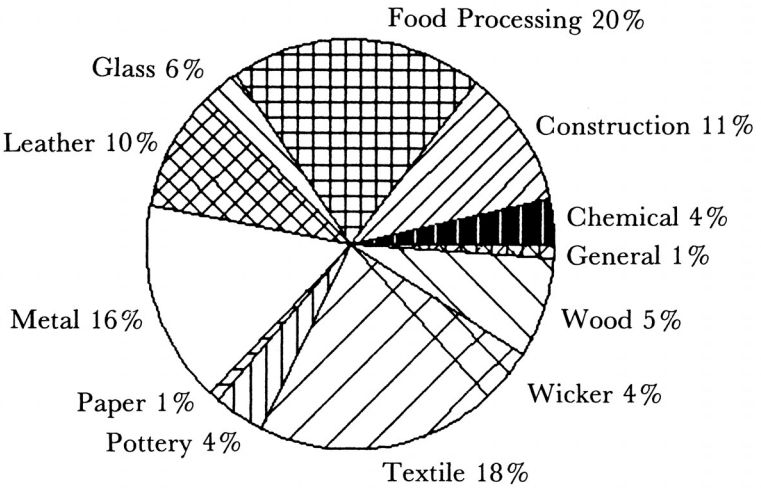
The textile industry was the only artisanal type to suggest that organisational structures may have contributed to increased efficiency in manufacturing. In this industry, out putters and tax collectors played the role of commercial agents, ordering specific amounts of threads, woven cloth, or finished items, providing the raw material for spinners, embroiders, and weavers, hiring them for a specific job and paying for it, collecting the finished items when ready and selling the product to customers.

The textile industry was also the only one which developed state-organised workshops, the *ṭirāz*, where luxury textiles were made for distribution to dignitaries as gifts. Artisans there were closely supervised because of the luxurious raw materials used. It was also the textile industry that exhibited the most extreme gender-based division of labour, women dominating the spinning, embroidery, and dyeing of silk techniques. This structure gave the large, home-based female labour force a monopolistic power over the entire manufacturing process. While female artisans worked from home, male artisanal workshops were always in the public domain and tended to be concentrated in the local urban markets. Shops were concentrated in fixed locations in commercial quarters, thus providing another element of stability to labour organisation.

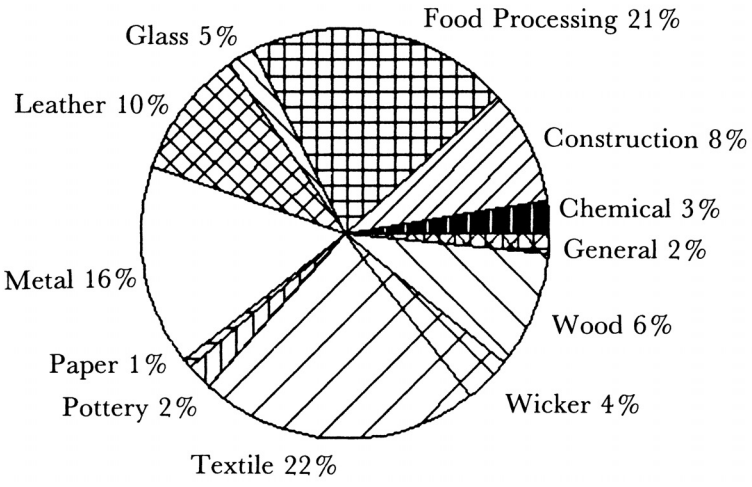
Artisanal labour was regulated through four main legal provisions which were discussed in detail in the legal manuals: partnership, *sharīka*, hire, *ijāra*, hire of a specific manufacturing skill, *istiṣnāʿ*, and the responsibility of artisans over the raw material entrusted to them to work on, *taḍmīn al-ṣunnāʿ*. The hierarchy of master and apprentices is not specified by law, but the hiring of unskilled labour is. Standard norms of products were not specified, though the conduct of artisans, and quality standards for manufactured items were imposed with various degrees of success by the office of the legally trained market supervisor, the *muḥtasib*. In Islamic law, the labour partnership is reserved exclusively for artisans in an urban setting, and its exclusiveness indicates the concept that partnership agreements facilitated increased efficiency in the manufacturing process, by limiting costs and increasing output. As Udovitch makes clear in his study *Partnership and Profit*, artisanal labour is envisioned as a manufacturing skill and under this legal provision described in Ḥanafī law as a partnership of "bodies, because their craft is their capital." The partnership is not limited to two artisans practising the same skill but also applies to artisans who each practice a different trade, and rules are devised for the distribution of profit and loss. Manifestly, labour partnership met the legal criteria for equity and equality as well as those of viability and benefit.

The question of apprenticeship in mediaeval Islam remains glaringly unexplored given the size and significance of the manufacturing sector and the elaborate European system. In mediaeval Europe, apprenticeship was regulated by the professional guilds, which determined the duration of the apprenticeship, the kind of instruction to be received, the duties of the apprentice, and his remuneration.

Distribution of Occupations in Manufacturing Sector
Percentage of Total Manufacturing Occupations
According to Type
8th-11th, 12-15th Centuries



8th-11th



12th-15th

Table 2. Distribution of Occupations in Manufacturing Sector (Maya Shatzmiller, *Labour in the Medieval Islamic World*, Leiden 1994, 215).

None of these issues are explicitly articulated in Islamic law, neither are the legal provisions for apprenticeship, nor the legal status of the apprentice as an employee. The reason for the lacunae may well be the fact that in all legal schools, except the Mālikī, a boy can be put to work before puberty if he is able, and the power of the father-*walī* in relation to his minor son includes the right to hire him out, so no independent contract is required. Once a young adult is capable of earning a living *(qādir ʿalā l-kasb)* the parents have the right to force him to work. Since hiring is a purely consensual contract, like sale, the parties were not required to have reached the age of majority and an oral agreement was deemed sufficient. When he becomes major, the youth has the right to end the contract under which his services had been hired out. The only contract model preserved so far is one prepared for a mother for hiring her son out as an apprentice to an artisan (al-Ṭulayṭulī, *al-Muqniʿ*).

The power to hire out one's child does not include the hiring out of a girl. The *Geniza* documents confirm that teaching a son a trade involved a payment made by the parents to the master, although so far only one example, a contract signed in 1027 C.E. in Fusṭāṭ, has surfaced. In it, a father hired out his son to a weaver for four months, in return for a monthly payment of 15 *dirham* which would then be changed to the regular wages of a workman, both father and son making legally binding stipulations.

The existence of a professional hierarchy in artisanal labour, from masters *(muʿallims)* down to apprentices *(ʿummāl*s and *mutaʿallims)* is confirmed by the technical manuals, while art historians maintain that a master-pupil atelier was the basic and permanent structure, involving three generations. Sons frequently took over the trade from their father as the title *muʿallim* became hereditary. There was no control over the number of artisans who entered the trade through the apprenticeship process, as in Europe, and masters were only limited in the number of apprentices they could hire by the size of their clientele. Beyond apprenticeship to a master rare mention of professional schools occur, but those were meant for scribes or musicians and involved oral instruction and personal mentoring.

Other forms of transmission of techniques involve written texts, which would later become a genuine Islamic genre, a deposit of professional knowledge and expertise, accumulated over generations and across regions. The professional manual originated in several different social and intellectual milieus. One was the *adab* model which emerged from within the ʿAbbāsid court administration. It produced the secretaries' manual, and also included calligraphy manuals and financial manuals, *kutub al-amwāl*. A manual for Qurʾān recitation combined orally transmitted texts passed from reader to reader, and a written chart of the variant readings. Another genre developed within the legal milieu, among functionaries working in the religious-administrative field, who were linked to the state administration, such as *qāḍī*s, notaries, *muḥtasib*s, etc. In the very early stages these manuals took the form of either a collection of *ḥadīth*s or of questions-and-answers best described as Responsa. Certain regions produced more manuals than others: The manuals for teachers, Yaḥyā b. ʿUmar's *ḥisba* manual entitled *Aḥkām al-sūq*, and the manual for brokers *(samāsira)* were all written in Ifrīqiyya during the third/ninth century. Yet another genre, the proper artisanal

technical manual for the manufacturing trades appeared among the master artisans and literate craftsmen, and survived in large numbers in manuscript form. In fact almost every trade, from cooking to *qanāt* digging, ink making, construction, bookbinding, minting, and the making of soap, drugs, and arms making left a manual. Their scope ranges from highly technical manual, with no literary sections, to those with mostly literary sections and very few technical ones. The court remained a focal point for the production of technical manuals, including one on book making written by the ruler of what is now Tunisia, Tamīm b. al-Muʿizz b. Bādīs (r. 454–501/1062–1108), who had learned the craft from his father.

Agricultural manuals were composed for the Taifa rulers in Muslim Spain (fifth/eleventh century), and an arms manufacturing manual was composed for Ṣalāḥ al-Dīn b. Ayyūb (Saladin, d. 589/1193); a minting manual was composed for the Marīnid rulers of eight/fourteenth-century Morocco and warfare manuals were written for the Mamluk *amīr*s. Manuals for applied sciences, such as astronomy, medicine, and mechanical devices make up yet another group of professional manuals, while at the other extreme were those manuals written in rhymed prose to facilitate their memorising through recitation and a defined order of movements. One such manual was a water carriers' manual from Persia which repeats the chain of the water carriers, the parts of the rope and the pail in a rhythmic manner.

Despite the number of technical manuals which existed, one should not assume that literacy was common among artisans or that they preferred to learn their trade through textual transmission. Techniques were also transmitted through ethnic groups and through the movement of people. Thus Coptic artisans only transmitted the techniques of ivory carving within their own community. Polychromatic incrustation and mosaic in any material, in both the Middle East and in Spain, were a monopoly of Christian artisans, either local or foreign. Islamic metal work produced in Syria in the seventh/mid-thirteenth century under the Ayyūbids contains many Christian symbols and details from Christ's life, an indication not only that the artisans were Christians but also that these motifs were tolerated. Jews dominated certain branches of the textile industry such as silk dyeing; they also dominated the spheres of medicinal herbs, metals, and glass. In the Pakistani part of Baluchistan, the *moqani* (*muqannī*, the excavators of the *qanāt*s) were all Afghans of the Ghilzai tribe who monopolised the techniques of *qanāt* digging, while the *qanāt* diggers of Southern Morocco came from the Todgha group of oases (possibly Jews), the valleys of Dra (Darʿa) and the Tafilalet Atlas. Such ethnic transmission of techniques perpetuated the ethnic division of labour and helped to maintain the monopoly of certain groups over certain manufacturing techniques. Finally the migration of artisans, sometimes to found a new capital city, sometimes by invitation, but mostly through forced migration, was a powerful tool in the transmission of techniques. The appearance of Persian *qanāt* in Muslim Spain and Morocco and the artisans settled in Central Asia by the Mongols are noteworthy examples.

Manufacturing techniques were also transmitted by copying items arriving through trading. The techniques of bronze casting permitted artisans to produce numerous copies and high standards of

ceramic production that permitted other artisans to reproduce the figurines either in separate parts which were later joined, which was the original method, or in one single piece.

Several aspects of artisans prior to 1600 C.E. deserve more scholarly attention. The ongoing debate about demographic developments, for example, affects our understanding of artisans, and the supply of manpower. With regard to the legal aspects, more research is needed on the concept of apprenticeship in mediaeval Islam, so that we can also chart continuities and changes in later periods.

Bibliography

Eliyahu Ashtor, *Histoire des prix et des salaires dans l'Orient médiéval*, Paris 1969; S. D. Goitein, *A Mediterranean society*, vol. 1 *Economic foundations*, Berkeley and Los Angeles 1967; Ahmad Y. al-Hassan and Donald R. Hill, *Islamic technology. An illustrated history*, Cambridge 1986; Y. Linant de Bellefonds, *Traité de droit musulman comparé*, vol. 3 Paris-La Hay 1973; A. L. Mayer, *Islamic woodcarvers and their work*, Geneva 1959; Mohamed Mokri, Un traité persan relatif à la corporation prolétaire des porteurs d'eau musulmans, *REI* 45 (1977), 131–76; Michael G. Morony (ed.), *Production and the exploitation of resources*, Aldershot 2002; Michael G. Morony (ed.), *Manufacturing and labour*, Aldershot 2003; Adam Sabra, *Poverty and charity in medieval Islam. Mamluk Egypt, 1250–1517*, Cambridge 2000; Maya Shatzmiller, *Labour in the medieval Islamic world*, Leiden 1994; Maya Shatzmiller, *Her day in court. Women's property rights in fifteenth-century Granada*, Cambridge, Mass. 2007; Aḥmad b. Mughīṭ al-Ṭulayṭulī, *al-Muqniʿ fī ʿilm al-šurūṭ*, introd. and ed. by Francisco Javier Aguirre Sádaba, Madrid 1994; Abraham L. Udovitch, Labour partnership in early Islamic law, *JESHO* 10 (1967), 64–80; Abraham L. Udovitch, *Partnership and profit in medieval Islam*, Princeton 1970. For a list of relevant primary sources, see Shatzmiller, *Labour*, 71–82.

Maya Shatzmiller

Ashraf Jahāngīr al-Simnānī

Mīr Sayyid **Ashraf Jahāngīr** (d. 807/1405) was born in Simnān (in Khurāsān) in the last quarter of the seventh/thirteenth century. Various biographical accounts and hagiographies disagree about his dates. His father, Sayyid Muḥammad Ibrāhīm, held the principality of Simnān, and was succeeded in that position by Ashraf Jahāngīr. The latter's mother, Khadīja, was a granddaughter of the famous Turkish saint Khwāja Aḥmad Atā Yasāwī (d. 562/1166–7). Ashraf Jahāngīr was a *ḥāfiẓ* (one who has memorised the entire Qurʾān, in its seven readings), and he completed his education at the age of fourteen. At the age of twenty-three he left the principality to his brother Muḥammad and cultivated an interest in mysticism. He was friendly with another important mystic from Simnān, ʿAlā al-Dawla al-Simnānī (d. 736/1336), but was never impressed with his theory, which was elaborated later as *waḥdat al-shuhūd* (oneness of witness) by the Indian Naqshbandī Shaykh Aḥmad Sirhindī (d. 1034/1624–5), known posthumously as the "renovator" *(mujaddid)* of Islam in the second Islamic millenium. The famous exponent of *waḥdat al-wujūd* (oneness of being), as propounded—without using the term—by the great mystic of Andalusian origin Ibn ʿArabī (d. 637/1240), was, at that time, Shaykh ʿAbd al-Razzāq Kamāl al-Dīn al-Kāshānī (d. 730/1329–30). Ashraf Jahāngīr left for Kāshān and studied the works of Ibn ʿArabī and al-Kāshānī's own *Iṣṭilāḥāt al-ṣūfiyya* ("Technical terms of the Ṣūfīs") from this great master.

After leaving Kāshān, Ashraf Jahāngīr began his travels to meet the great Ṣūfī masters, and Mīr Sayyid ʿAlī Hamadānī (d. 786/1385), a Persian Ṣūfī of the Kubrāvī