Summary

The personal transfer of knowledge on the shop floor has been an important theme in the writings of historians. However, we still do not know exactly which factors were important for the circulation of technical knowledge in the Late Medieval and Early Modern Period. Historians for example pointed out to the influence of the craft guilds, but exactly this is debated in many recent studies. Also other institutions could have influenced the circulation of knowledge, such as the city government who had the right to moderate the entrance of the guilds and orphanages who made agreements for the children in their care. The focus of this book is therefore on the circumstances in which the development of the knowledge circulation took place. The main questions are: Which instruments were used to influence the circumstances in which knowledge circulated? What was the result of the formal legislation and the encouragement or disencouragement policy? How circulated knowledge, verbally and non-verbally?

The first question concerns the formal legislation and other instruments which could be used to influence the knowledge circulation by for example the city government, guilds, craftsmen and their apprentices. The consequence of using these instruments is taken into account by means of the second question. The final question does not only include the so-called verbal transfer of knowledge, because technical knowledge could also circulate by means of visual media, such as technical treatises, models, pictures, designs, finished-products and patterns. Unfortunately, it is not possible to take into account the finished-products of craftsmen, because this would ask for an art historical or archeological expertise.

The broad research theme makes it necessary to carry out a case study in which two cities in Holland and three professions are been researched. These are the cities Rotterdam and Haarlem which witnessed in the years 1400-1720 a dissimilar economic development. The three professions are cooping, silver and gold smiting, and textile dying. The various differentiations between both cities and the three professions results in interesting comparisons. The underlying concept which is used in this research is the by Liliane Hilaire-Pérez and Catherina Verna described ‘circulation of knowledge’. They stress that information was not only transferred from developed areas to less developed areas. A main feature of their vision is their emphasis on various circulation media, such as tools, books and designs. According to them knowledge was not only transferred verbally, but also non-verbally. They describe ‘circulation’ as all movements, all exchanges and the total transfer of knowledge within the technical domain.
In this research comes forward that various institutions did possess instruments by which they could influence the circumstances in which knowledge circulated. These institutions are the shop floor, organizations of craftsmen, the local city government, various local institutions such as orphanages and facilities for the poor, the ‘Staten van Holland’, the ‘Staten-Generaal’ and the Landlord. These last three institutions seem to have hardly been interested in influencing the circulation of knowledge in the period 1400-1720. Most of the legislation on the apprenticeship was made by the various local organizations. In the past especially the councils of the guilds were attributed an influential role, because in the legislation of the guilds were always stipulations added on the apprenticeship. We have seen that the assumption that someone who did not become a council member did not possess any influence is not correct. Newcomers or Catholics did not become excluded after the Dutch Reformation. Even at the end of the seventeenth and beginning of the eighteenth century the examined guild councils of Haarlem and Rotterdam were more ‘democratic’ than ‘oligarchic’.

The legislation of the guilds was not increasingly used to make entrance to the guild for strangers more difficult. Of course not everyone could become a master since there were various entrance demands, but newworkers were never excluded. The legislation of the guilds was also not directly used to promote the circulation of knowledge. In both examined guilds of the coopers the number of new masters, journeymen and apprentices was more influenced by the market forces than by a change in the entrance or registration fees. In some cases a guild tried to influence the knowledge circulation, but we can conclude that this right was hardly used. On many topics never stipulations were drawn up, such as how a master could transfer his craft or which tuition fee he could asked from his apprentice. The guilds did not make stipulations to stop the sale of tools or subcontracting. They also had little to no role as initiators of learning contracts.

These learning contracts were mostly an instrument of the guardians/parents, the masters, the local orphanage and institutions for the poor. The fast majority of these agreements were made verbally. So, when a master and the parents (or guardians) of an apprentice made up a notary contract, they did not want to risk a cancelation of their agreements. When one of the both sides did not keep their agreement, the injured party could always point out to a formal contract. The fact that they did go to the notary means that both sides did believe in the regulating role of the guild. Also the board members of orphanages and poor institutions used the learning contract as an instrument for ‘their children.’

The city councils themselves also possessed various instruments by which they could influence the coming or leaving of craftsmen, but they hardly used them. Craftsmen decided mostly by themselves whether they wanted to establish themselves in one of Holland’s cities.

The city councils used the instruments they possessed foremost to increase the local textile industry. An interesting exception was the role of Haarlem’s city government at the end of the seventeenth century and beginning of the eighteenth century. The burgomasters used the right to moderate the entrance of the guilds very often. They gave many craftsmen and merchants permission to enter this guild. This was not the case for other guilds in Haarlem.

This research has also revealed interesting aspects of the contents of a craft education. A craft education could first of all be obtained on the shop floor. You can for example think about the transfer from master to apprentice, but this is not the whole story. A master could learn certain skills from a journeyman and a journeyman did not have to be less skilled than his employer. A factor which cannot be forgotten is the fact that not every master was just the head of a small workshop with one or two journeymen and apprentices. In the three examined guilds a system of subcontracting existed in the seventeenth century. The could possibly have led to knowledge circulation. Sometimes masters even made products for others by which the boarders of the city were crossed. However, a craft education was not only restricted to the personal transfer on the shop floor. This research has revealed that particularly in the seventeenth century the possibilities of gaining written knowledge increased. An important factor which enables craftsmen to amplify their knowledge outside the sphere of influence of the guild was literacy. Literacy could fulfill per profession a different function. Learning how to read, write, count (and draw) could be a smart investments when someone wanted to start his own workshop. In the course of the seventeenth century even a new marketing technique developed by which a broader consumer group could be attracted, by means of advertising in newspapers.

We can conclude that in the chosen period the most influential institute was the shop floor where apprentices, journeymen and in some cases also masters worked together to gain enough income. By means of formal and informal codetermination the master could influence the new legislation of his guild. Masters also made their own agreements with apprentices and journeymen about the learning or working period, the fees, the transferred skills and other aspects of knowledge circulation. The masters were always free to decide which person they wanted to employ. The guilds did not influence this by means of their legislation.

Using the approach of Hilaire-Perez and Verna in this study could be demonstrated that the circulation of knowledge was not just a simple story in which information was only transferred from master to apprentice on the shop floor. A craft education involves a wide range of opportunities to acquire new knowledge. This education lasted an entire carrier and did not end when the formal apprenticeship of the guild was over.