

Production Organization and Forms of Labour in Early Capitalism

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Abstract— This article lays down the Changing Organization of Production and Forms of Labour from 15th to 19th century. It looks at how production organization, level and nature of production, technology, productivity, welfare and exploitation of labour can drastically differ between various production organizations and in different historical settings. In this paper, we have outlined a series of production systems over a roughly five century period. All these systems have developed in response to the needs of the society. The artisanal system under feudalism, the system of guilds, the putting-out system all evolved in response to the initial capitalist system. The manufactory and later the factory met the requirement of a developed capitalism. Thus, the factory represented the main form of production organization under developed capitalism in the nineteenth century.

Index Terms—guild, putting-out system, capitalism, forms of labour.

INTRODUCTION:

This article lays down the Changing Organization of Production and Forms of Labour from 15th to 19th century. It basically looks at how production organization, level and nature of production, technology, productivity, welfare and exploitation of labour can drastically differ between various production organizations and in different historical contexts. It discusses early models of production organization and various forms of labour in an international context. We discuss these issues with regard to a transitional period in Western Europe when feudalism was declining and early forms of capitalist organizations were taking shape. During the middle Ages, there was feudalism in much of Europe. Feudalism largely worked through customs and traditions. The main economic institution of feudalism was the manor (estate). Each manor had their own customs that governed the people rather than any laws. The whole feudal organization was based on a system of mutual obligations and services up and down the feudal hierarchy. In the hierarchy, at the lowermost rungs, the serfs or peasants were situated who were protected by the lord of the manor, who was protected by his lord or a higher overlord. At the top of this hierarchical structure was the king. The lord protected their people. The Catholic Church had a major influence on people's life. Church was also the largest owner of land. The ruling classes and the religious lords were the most powerful who owned and controlled most of the land.

ARTISANAL PRODUCTION:

The feudal economy in the early stages was basically a rural economy dominated by rural population. Their primary activity was to produce agricultural goods and rear cattle for subsistence requirements. Each feudal estate consisted of the lord's demesne (personal land of the lord) and peasants' land which were a number of villages ultimately belonging to the lord. Rural population lived an isolated economic life and they rarely engaged in exchange. The requirements of the feudal lord and his family, and the needs of the numerous household living on it were at first satisfied by the produce of the land. Mutual exchange of goods was common within the society. Only a small percentage of agricultural goods were exchanged in the market.

The peasantry was mostly occupied in agricultural labour but along with that they also engaged in domestic handicrafts as supplementary activities where they used their own raw materials such as cotton or leather etc. These activities included spinning, weaving, making footwear, making farm implements, making and repairing weapons and hunting equipment, and constructing houses. The large estates had a sufficient quantity of the household serfs who specialized in these activities.

Most of these feudal societies were closed and external trade was relatively little. The few imported products without which it was impossible to manage, as for example, salt and articles of iron, were initially supplied to the villagers by wandering traders. As a whole feudalism was based on agricultural production and associated domestic handicrafts industries.

In the manorial handicraft industry, the producer (the master craftsman) was also the seller of his produce. The manorial craftsman was also generally a farmer. The administrative Officers appointed in a noble house made sure that there were craftsmen of all kinds in their district, particularly smiths, carpenters, wheelwrights or workers in leather, which were essential for military purposes and peace-time needs of the villages of any farming district. These men worked from their work sheds attached to their houses in the villages. They would live partly from the food they could raise on a small holding and partly by making tools and arms etc. Exchange within villages and between the villages grew with the growth of population.

GUILD SYSTEM IN EUROPE:

In addition to rural manors, feudal Europe also had many towns and cities, which basically engaged in production of manufacturing goods. These goods were mostly sold to manors in rural areas and only sometimes traded in long-distance commerce. The dominant

economic institutions in the cities were the guilds – craft and trade associations. Production of industrial goods in the towns was organized through guild system.

Guilds were professional associations of artisans or merchants who controlled the practice of their craft in a particular town. The craft guild was a formal association of specialized artisans who were backed by superior political sanction. They often depended on grants of letters of patent by a monarch or other authority to enforce the flow of trade to their self-employed members, and to retain ownership of tools and the supply of materials. The guild was made up by experienced experts who were called master craftsmen. Before a new employee could rise to the level of mastery, he had to go through a schooling period during which he was first called an apprentice. After this period, he could rise to the level of journeyman. Apprentices and journeymen came under jurisdiction of the guilds.

These craft guilds were the buyers of raw materials, seller of its products and were responsible for quality standards. It also served as a bargaining unit in narrow markets in which merchants/ agents held market power. It also operated as a political and administrative unit that protected its members from expropriation by opportunistic urban elite. If anyone wanted to produce any good, he had to join a guild. In these guilds, the craftsman owned the workshop, tools and raw materials and functioned as an independent, small-scale entrepreneur. Craftsman sold their goods wholesale to merchants, who in turn transported and resold them.

The merchants were the richest section of people living in the towns. Trading activity developed in the towns under feudalism. There were basically two types of guilds in the towns, Merchant guilds and Craft guilds. Merchant guilds in the feudal period existed almost everywhere in the towns. The basic engagement of the merchant guilds was to have a control over trade, outcompete outside merchants, the regulation of weights and measures, and the defense of merchants' rights from the infringements of the feudal lords.

Guilds were not only involved in manufacturing or dealing with economic problems but were also involved with social and religious questions. They guided and regulated all aspects of an individual's life (social, political and economic) who was the member of the guild. The guilds also maintained funds in order to support infirm or elderly members, as well as widows and orphans of guild members, funeral benefits and allowance for those needing to travel to find work.

PUTTING-OUT SYSTEM:

Around 16th century, expanding trade and commerce led to the increased demand for manufactured goods which created the need for reliability of supply of goods. As a result, the merchant-capitalist increasingly took control of the production process. In the earliest period of the putting-out system, the merchant capitalist would provide an independent craftsman with raw materials and pay them a fee to work the materials into finished products, although the work was done in homes or independent workshops.

The merchants had much wider contacts with suppliers of raw materials such as wool, cotton, silk or metals. For selling of the finished products the merchants commanded even wider areas. As the trade expanded, often the craftsmen became partially or fully dependent on the merchants who not only 'put out' his raw materials but also lent their credit and in this way could impose conditions. Expansion of export industries and growth of putting out system led to the expansion of industries in the rural areas. In 16th century the putting out system and variants of this system which linked the craftsmen to the capitalists spread to many branches of production: mining, metallurgy, the manufacture of small articles of metal, wood, textiles, printing and papermaking [1], pp. 469). This system used guild labour and free labour together. In general, rougher work was done in the countryside and the finishing in the towns.

In the later period of the putting-out system, the merchant-capitalists owned the tools and machinery and often the building in which the production took place [5], pp. 36). The merchant-capitalists hired worker to use these tools and furnished them with the raw materials and took the finished products. Guilds which usually controlled the production in the early period now became dependent on merchant-capitalist for raw materials and selling of their product. They could not oppose the merchant-capitalists and whenever they tried, the latter took on non-guildsmen, especially people from rural areas [1] pp. 470. The growth of the putting-out system involved important displacements of industries into regions where guild restrictions did not exist such as in the rural areas. English woolen industry and the Italian silk industry are examples of this.

MANUFACTORIES:

The word 'manufactory' is used for tiny outfits where concentration of artisanal type of labour took place. Here production of goods was based on hand labour such as in textiles. The division of labour in these organizations was through skill specialization which was developed to increase gains. The manufactory basically took two forms:

- 1) The association in one workshop of workers of different specialties, linked by the consecutive performance of all operations in making a relatively complex product. These manufactories were heterogeneous.
- 2) The association in one workshop of artisans of the same specialty and the subsequent breakdown of identical jobs into more detailed operations to be done by individual workers. These were serial manufactories. Here the manufactory personnel consisted of partial workers who performed operations using specialized handicraft tools. This deeper division of labour resulted in greater labour productivity and in the increasing production of relative surplus value.

When special knowledge and technical ability were required, the entrepreneurs organized the various processes of production under one roof and created a factory. A famous example from early 16th century England was John Winchcombe's factory at Newbury, with 200 women carders, 150 children pickers, 200 girl spinners, 200 weavers and 200 boys at the spools, 80 teasers, 50 shearers, 40 dyers and 20 fullers [3], p. 471). As Braudel says: "Manufactories always employed, besides their concentrated labour-force, out-workers in the town or the nearby countryside, all working at home. So manufactories were really at the same time a centre for the putting-out system" [3], pp329-330).

Manufactory was the main center for the cottage industries. It was the place where the final good was produced, which was almost half of the entire work process. Final product along with a certain number of final operations were produced in the central building. These units were later increased in size and were called factories. Gradually certain processes such as weaving and combing were concentrated in one place and slowly a manufactory was born.

But the manufactory based on manual labour could not restructure all artisanal production which prevailed at that time. It helped to expand domestic and international markets but could not fulfill increased demand for goods. Manufacturing industry remained a very minority activity and manufactories did not displace the putting-out system to any large extent. However, they were models of instruments of technical progress and created conditions for transition by simplifying work operations, updated tools and trained workers in various specialties. Franklin Mendel used the term 'proto industrialization' for this type of production system. This, according to him, was the first phase of industrialization when a large number of under-employed people from the rural areas moved beyond their immediate regions in search of employment. Such large labour migration undermined the authority of the guilds to control labour thereby opening the way for wider industrial growth. This process of labour movement also weakened the rural institutions like the manorial system and inheritance patterns which had kept a check on the growth of population. This resulted in the increase of population creating a large labour reserve for the upcoming industries.

To summarize, the manufactory meant an organization with a division of labour which was bigger than the craft industry. It had clear functional division between the organization of production on the one hand and the execution of the job on the other. It was different from the putting out system as it was geographically centralized. In contrast to the crafts and putting-out systems, the manufactory system shows for the first time a separation between the home and the place of work, at least for the majority of the workers. Manufactory was also different from the factory in that it did not use machines.

In practice, however, these three types rarely appeared in their pure forms. There were many transitional stages between the craft and putting-out systems. Manufactory and putting out were often linked as part of the work was done by crafters or cottage workers.

FACTORY SYSTEM:

The "mill" which had begun to be built in England at the end of the 18th century became more widespread, not only in England itself but in Belgium, France, Switzerland, Germany and the US. Two sectors – textiles and metallurgy – were particularly leading in this respect. The factory system was basically a product of industrial revolution in Britain. Industrial revolution brought both qualitative and quantitative changes to the method of industrial production. It basically led to three types of changes to the manufacturing industry – technological, processing and organizational changes.

The core characteristics of technological change was mechanization, which meant a systematic and generalized use of machinery which substituted the skill of man at all stages of industrial production. The most famous late-18th century invention were the cotton-spinning machines and the steam engine, along with a continuous flow of micro inventions, small improvements of machine tools and a gradual development of mechanical engineering.

The second major change was in the processing. There was a marked improvement in the procurement and working of raw materials, especially in metallurgical sector like iron and chemical industries [2], p. 1). In these industries new mineral raw materials and fuels (coal, metals and salt) substituted the traditional organic materials. New materials were not only cheaper but had elastic supply in comparison to traditional raw materials which had inelastic supply and were expensive. For example, coke (i.e. coal) was substituted for charcoal in smelting iron ore into pig iron and a new process – puddling – was developed to decarbonize pig iron and make iron. This transition from an "organic" to a "mineral" economy meant that expansion now became virtually unlimited which had been restrained previously.

A third major aspect of factory development was the increasing use of new form of energy. Inanimate power (in particular steam) took the place of human and animal power following the invention of the steam engine by James Watt in 1769. Development of steam engine opened a new and seemingly unlimited supply of energy, which made possible large-scale mechanization and it could drive any kind of machinery.

An essential feature of the factory was the concentration of manpower. In certain sectors, for instance in metallurgy and mining, labour concentration was combined with the use of advanced technical apparatus, such as the pumps, furnaces and machines [1], p. 484.)

In order to create an industrial plant, capital was indispensable. A workshop, mill, or furnace had to be built, raw material had to be bought, and workers had to be paid. The lone craftsman was in the simplest situation. He had his workshop in his house, generally of a size enabling him to lodge and feed one or two companions and the same number of apprentices [1], p. 478).

The modern factory was a big organization which was operated by big machines and with a relatively large number of laborers requiring large sources of capital.

How were entrepreneurs able to find the capital necessary for their investments? Often industrialists formed a company with the merchant. Money by inheritance was also used by nobility to invest. Where mercantilist policy predominated, the role of state helped and prizes or loans were of great importance [1], p. 480).

Who were the entrepreneurs? They were traders and merchants who were able to furnish the craftsmen and other workers with the raw materials and capital and also to command a good market for their products. These merchants also employed labour force which was available through transformation of the countryside or through migration. Noblemen and even princes took a personal interest in industrial activity or were prepared to act as its patrons [1], p. 484).

For the period 1780-1880, three industries had an impact and a rate of growth that can be described as driving or propelling industries – cotton, iron and railroad rails. It was in Great Britain that these industries underwent their earliest and most remarkable development [4], p. 92.)

With water power and steam engines, mechanization reached its full potential for productive output and employment of a plentiful, cheap and totally disarmed labour force. This led to the dramatic increase in levels of production. The British advantage was overwhelming during the whole first half of the nineteenth century and remained important. Four countries – Great Britain, France, Germany and the USA – accounted at this time for between 2/3rd and 3/5th of the world's industrial production [4] p. 92).

If material production is divided into two main sectors, agriculture and industry, this evolution appears most noticeably in Great Britain where the share of industry grew from 42% to 60% in 1831 and reached 73% in 1871. Thus in Britain the relative importance of industry in the production increased continuously during the nineteenth and twentieth centuries.

ORGANIZATION OF LABOUR UNDER FACTORY SYSTEM:

A factory system was characterized by power-generating and manufacturing techniques on an increasingly scientific basis. It separated organizational and operative functions and hired contractual labour who worked under centralized managerial authority according to elaborate patterns of division of labour [1], p. 512). It was very different from working at home.

In accordance with this, the industrial organization also changed. The size of the productive unit grew. Machines and power both required and made possible the concentration of manufacture. The shop and home workroom was replaced by the mill and the factory. In the factory, on the one side, there was the employer who not only hired the labour and marketed the finished products but also supplied the capital equipment. He also supervised and managed the use of capital. On the other side, the workers, no longer capable of owning and furnishing the means of production were reduced to the status of a hand. Factory also had to have a certain discipline. It needed and eventually created a new type of worker who worked according to the clock for fixed number of hours. From the start, the factory organization focused on specialization of productive functions which was in contrast to what had been the practice in shops and cottages.

In the last quarter of the 18th century, the creation of machine-industry became the dominant form of industrial organization particularly in England. In the factory, the old division of labour based on skill specialization collapsed and the machinery converts most labour to the denomination of the unskilled without any differences. The number of such workers in the total population increased steadily in European countries. Thus, in the United Kingdom, the share of working population employed in manufacturing industry reached to about 50% in 1910, and the share of tertiary activities greatly increased and changed structurally.

Under putting out system, most artisans and workers worked in their own homes. The staff of such enterprises was engaged by skilled masters and under them worked a growing number of untrained employees often women and children occupied in diverse ancillary services [1], pp. 486.

However, after 1500, the new differentiation of labour intensified. The functions of the workers now varied from highly skilled miners and smelters to craftsmen such as smiths or carpenters to unskilled workers and horse drivers. The differentiation of labour in the textile industry was even more marked: in the wool factory in Austria, the hierarchy ran from the cleaning, carding and spinning of the wool, to weaving, fueling, dyeing or bleaching. A hierarchy easily developed in enterprises where up to a hundred and more people were often working under one roof in a factory.

Many of these 'industrial' workers remained essentially peasants: for them and their families, industrial wages brought in merely a supplementary income even though it was important. Workers had also to accept some of their pay in merchandise and some in housing. Wages in cash were paid in various ways which included subsistence wages. In such industries free and unfree labour

existed side by side. Free workers represented an unstable element. Unfree workers were those who were sent to prison or in the houses of correction. Free workers might organize themselves into associations or even organize strikes [1], pp. 487-488.

Growth of industries led to development of industrial employment, urbanization and the system of wage payments particularly in Britain. The world of industry, trade, services and other offices which employed 2/3rd of all employment at the beginning of the century, employed 4/5th by 1871. During this period although the number of workers employed in agriculture and British countryside remained stable, these regions were an important source of manpower for industry. The exodus from agriculture went from around 25,000 per decade between 1751 and 1780 to 78000 for the decade 1781-90, 138000 from 1801 to 1810, 214000 between 1811 and 1820 and 267000 between 1821 and 1830. With the agricultural exodus, to which must be added the flight of ruined artisans, the demographic growth gave rise to the formation of a miserable and available labour force [4], pp.96).

SLAVERY AND INDENTURED LABOUR:

During the period of transition from feudalism to capitalism from 15th to 19th century, another process of organization of labour was at work in the European colonies.

During the fifteenth-sixteenth century, with the rise of maritime trade various European powers such as Portuguese, French, English, Dutch and Spanish established their colonies in Americas. These colonies were center of wealth extraction for Europeans. Many of these colonies became source of gold and silver which needed large amount of labour for mining of these precious metals. Many others became plantation economies that also needed huge labour. In these colonies it was mainly slave labour that was used by European powers. Barbados in Caribbean in 1624 and Jamaica in 1655 became English colonies and became a focus of the slave trade for the growing English empire. For French it was Santo Domingo, Martinique and Guadeloupe and for Portuguese it was Brazil, for Spain it was Mexico and Peru. Local population in many of these colonies diminished because of killings by Europeans and old world epidemics and exploitation of available resources was not possible without cheap labour. It was this requirement for labour which led to greatest forced migration in the history from Africa to Americas during 15-19th century.

Several traders from Europe had established their outposts on the West African coast where they purchased slaves from local African leaders. These laborers were transported to plantation colonies as labour in coffee, tobacco, cocoa, sugar and cotton plantation, gold and silver mines, rice fields, construction industry cutting timber for ships or as domestic servants. Current estimated migration put this figure as 12 million Africans who were shipped across the Atlantic through violence and barter and roughly 1.5 million died *en route*.

Slavery was practiced in some parts of Africa, Europe and Asia for many centuries before the beginning of the Atlantic slave trade. Slavery had virtually disappeared in Western Europe by the 1500s and it looked to be dying where it existed. Only Spain and Portugal still practiced slavery and these were the two countries that led the colonizing effort in the Americas, almost ensuring that slavery would be transported from Europe to the New World.

After 1400, when the Portuguese turned to West Africa they found slavery well entrenched. Muslim traders and powerful coastal African kingdoms held Africans in bondage and sold them as chattel to remote places throughout Africa and the Mediterranean. On the heels of Portuguese exploration, traders extended their reach into Africa, took control of the slave trade, and as a result this source of enslaved human labor expanded sugar production in the Madeira Islands, the Canary Islands, and the Azores throughout the fifteenth century.

The Europeans created a New World based on slavery. The depopulation of American Indians encouraged the Portuguese and Spaniards to use the already familiar system of African slavery to meet their labor needs. Between 1500 and 1620, Europeans brought at least half a million slaves to the New World from Africa, an enslavement based on race.

The Caribbean provided a model of how to create a permanent supply of human labor that involved institutionalizing slavery by disallowing slaves to own guns, make contracts for their own labor, or travel without permission. It was precisely because slaves were reduced to property. As property, slaves were listed in plantation accounts and recorded as items in inventories. They were recorded for tax reasons and detailed alongside other transferable goods on the pages of thousands of wills. The sale of children and the separation of families were among the most bitterly resented aspects of an inhuman system.

INDENTURED LABOUR:

After the abolition of slavery another system of labour recruitment was started in European colonies after 1830s. This is referred to as **indentured labour**. Indentured servants were contractual labour and they could be granted freedom after a specified period of time. There is an agreed-upon term of labour wherein the servant will serve someone on foreign lands (i.e. like the U.S.). During the indentured years the servant's services can be in exchange for food, lodging, clothing, transportation, and other amenities. Most of these individuals were young (below 21 years) and worked on farms doing most of the manual work. Others were asked to serve at homes doing some domestic services. Once the obligation has been completed, the agreement will then be terminated, and the servants will be set free. Some servants even receive a monetary incentive known as "freedom dues" upon the completion of their service. Thereafter they were now regarded as free members of the society.

Employment of indentured labour started in the nineteenth century at a worldwide level. It was first tried as an experiment by the British in Mauritius. It was a new endeavour with labour recruitment which was tried after the abolition of slavery. It was an attempt to demonstrate the superiority of free contractual labour compared to slave labour used earlier to the world. Recruitment of indentured labour meant bringing of workers from India, China, Africa and South East Asia to work in labour-importing colonies such as Caribbean islands, Mauritius etc. Mauritius was the first country which received indentured labour. The whole process involved mass inter-continental migration of people for about a century or so. Other than British, French and Dutch colonies also adopted the similar system after witnessing its success in Mauritius.

In 1834 slavery was abolished and after that the demand for Indian indentured laborers increased dramatically. They were sent, sometimes in large numbers, to plantation colonies producing high value crops such as sugar.

Generally speaking, though, slaves appear to be more pitiful than indentured servants. One of the reasons for this is because they are not given freedom even after many years of toil and hard work. They are, therefore, slaves for as long as they live. As such, they literally became the property of their master and have no rights.

Like all other types of property, slaves could be sold, exchanged, bargained for, and even be included as one of the assets in a will. By contrast, it is only the contract of the indentured servant (but not the actual servant), which could be bought or bargained for by an interested third party.

CONCLUSION:

In this paper, we have outlined a series of production systems over a long period of time from the fifteenth to the nineteenth centuries. All these systems have developed in response to the needs of the society, the structure of social organization, and the development of technology. The artisanal system under feudalism catered to the needs of the contemporary society which had limited amount of long-distance trade. The guild was an advanced system of production and labour organization. The putting-out system evolved in response to the initial capitalist system which wished to be relatively unrestrained by the guild. The manufactory also met the requirements of capitalists by bringing a limited number of workers under their direct control. But the scope and extent of the manufactories were rather limited and it existed only as a minority activity along with the large-scale artisanal and putting-out system. It was the factory which met the requirement of a developed capitalism during the late eighteenth and nineteenth centuries by concentrating a large number of workers under one roof and mechanizing the work-process. It also curbed the relative independence of the workers by instituting a close system of supervision. Thus, the factory represented the main form of production organization under developed capitalism in the nineteenth century.

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