

The Organisation of the Building Trades of Eastern Brittany 1600–1790: Some observations

ELIZABETH C MUSGRAVE

The building industries of early modern England are relatively well-known. The historical tradition begun by Knoop, Jones and Salzman documented the construction trades in the late middle ages. Numerous local studies such as those by Woodward have identified features and changes within the regional industries in this period.¹ London building has been particularly well-served, with Clark's recent work on building and capitalist economic organisation from the eighteenth century.² The period between 1600 and 1800 was one of organisational change; an industry based on individual artisans working for their own account seems to have been increasingly superseded by larger scale, capitalist contractors and a proletariat of waged labour.

The building industries of early modern France are less well studied, although construction was one of the largest employers of labour and materials in the pre-industrial economy. Economic conditions were different in France from England during the seventeenth and eighteenth centuries; there was little industrialisation, institutional credit facilities took longer to develop and the guild system persisted in strength until the Revolution. The French economy remained traditional in its structure for much longer than that of England.

The aim of this article is to illustrate the workings of the building industries of eastern Brittany in the period 1600 to 1790, as an example of the organisation of construction in France (Figure 1). It offers a comparative perspective of the Breton trades for students of the English industries and some brief comments on the differential nature of change in production organisation between England and France.

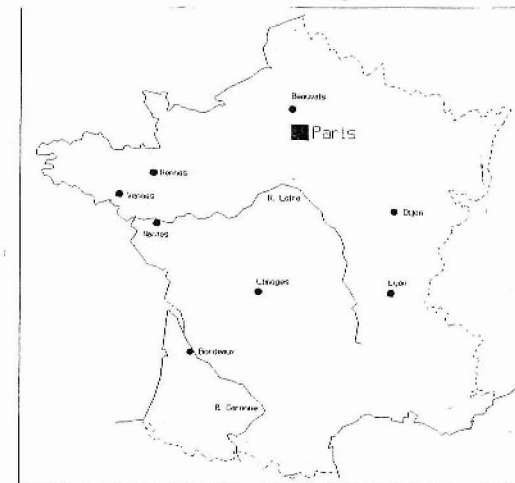


Fig 1: France – towns and cities mentioned in the text.

EDITORS NOTE

'Frank Bunker Gilbreth: Building Contractor, Inventor and Pioneer Industrial Engineer' (Volume 9)

The Editors have been asked to point out that the source for certain passages which appeared in M.J. Steel and D.W. Cheetham's article, especially commencing p.56 line 5 and ending p.57 line 25, should have been clearly given as Jane Morley, 'Frank Bunker Gilbreth's Concrete System,' *Concrete International* Vol.12 (Nov. 1990), pp.57-8, 60-1.

The authors apologise to Ms. Morley for their oversight in this matter.

The Nature and Organisation of the Free Building Trades

The structure of the building industries of early modern Brittany was heterogeneous and fluid, characterised by low levels of technology and capital investment. The basic unit was the skilled craftsman, carpenter, mason and roofer, who worked independently for his own account, on building sites. Projects could be managed in a variety of ways, from the hiring of a single mason to large, multi-craft projects employing hundreds of craftsmen and labourers, such as the construction of the Parlement of Rennes under the supervision of the architect Germain Gaultier in the first quarter of the seventeenth century.³

Building work was seasonal: demand rose in the summer and declined in the winter, with damp, short, frosty days and when transport difficulties made the supply of raw materials slow and expensive. Many artisans, particularly in rural areas, were only part-time builders, combining construction work with other occupations, particularly agriculture. In the Intendance survey of artisans in 1767, the syndic of Saint-Brieuc-de-Mauron reported that the craftsmen of his parish were little occupied with their trades, being mostly employed on the land.⁴ Urban artisans were also not assured of year-round work in construction: the apprenticeship contract between Morice Vaslin and the carpenter Leguen of Rennes of 1686 made provision for unemployment; if Leguen “n’aura du travail .. Vaslin .. pourra travailler à bon luy semblera”.⁵ Pierre Mahé of Pontchâteau was described in the survey of 1767 as joiner and innkeeper.⁶ Building was especially vulnerable to the movement of the economy: war, subsistence crises and rising prices saw the rapid cessation of projects and unemployment for artisans. The construction of the new Hôtel de Ville of Rennes, begun in 1731, was largely abandoned between 1741 and 1749, during the War of Austrian Succession; increased royal taxation demands on the city made the payment of building workers difficult (Figure 2).⁷

Mobility was a second characteristic of the construction trades: artisans itinerated between building sites in search of work. At one level there was a core of men who remained in the same enterprise, region or on the same project for months if not years; at another level there was a larger, itinerant work force which moved between sites to take up different kinds of work, as opportunity arose.⁸ The building projects of eastern Brittany did not attract

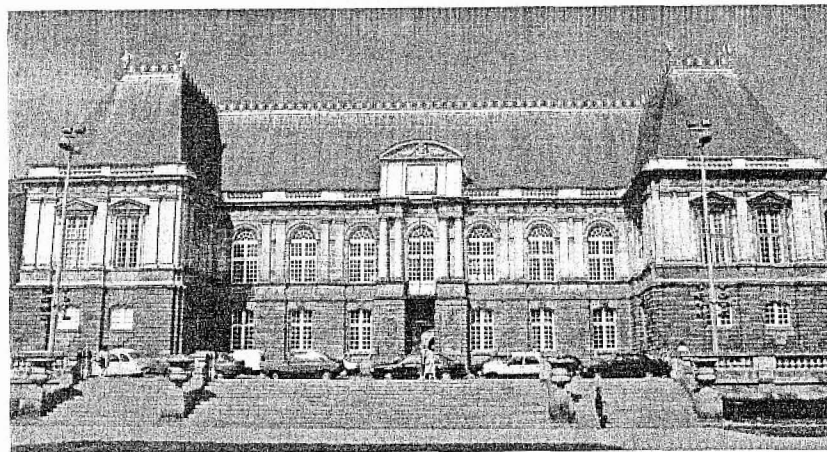


Fig 2: The Palais de Parlement of Brittany, Rennes, begun in 1619

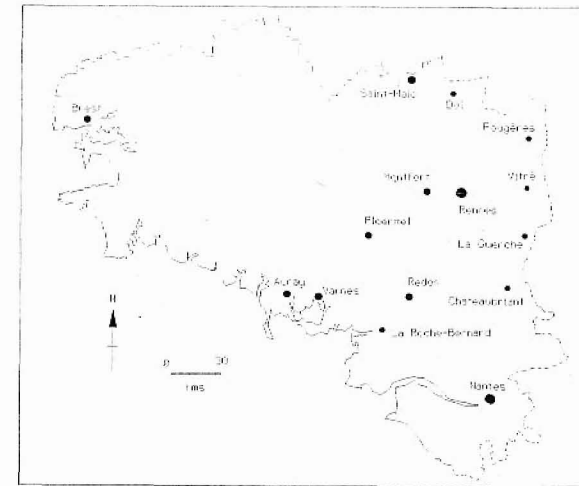


Fig 3: Brittany – towns and cities mentioned in the text.

migrants on the scale of the annual movement of the Limousins to Paris, but there was movement within the province in the summer months. Repairs to the abbey of Saint-Sulpice of Rennes in May 1753 employed eight stone-cutters and 24 masons, from Rennes, Saint-Malo, Saint-Sulpice, Fougères and Ploërmel.⁹ The labour force on building sites was fluid and transient, constantly moving between sites and projects in search of improved wages and conditions. The turnover of artisans within towns and on projects was high. Work at the Petit Séminaire de Rennes in 1785 lasting for 11 weeks employed a total of four quarrymen, 14 masons and 15 labourers. The average length of employment for masons was 4.7 weeks; two masons worked on the site for only one week each and no mason worked there for the full 11 weeks (Figure 3).¹⁰

The fluidity of the labour force was a product of ease of entry into the building trades. Training for these crafts was unregulated and numbers unlimited. In rural areas, youths might invest in a year's training as craftsmen to provide them with at least a part-time means of employment. Matthieu Priellec, described in 1700 as a farm servant, invested 48 Livres and one year to train as a joiner and carpenter with Pierre Le Normand of Theix.¹¹ The quality and type of urban apprenticeship also varied. In 1686, Francois Leguen, carpenter, took Morice Vaslin as his apprentice for 15 months. Vaslin was to accompany Leguen on building sites and to aid him in his work, for a wage of seven sous a day.¹² This was a less formal arrangement than the three year apprenticeship of Pierre Georget in the house of the master slate-roofer Fiacre Jubin of Rennes, agreed in 1706 for 160 Livres.¹³ The levels of skill acquired would differ, as would subsequent employment opportunities. There was no formal stage of journeymanship: hierarchy within the trades came from tasks performed rather than from age or formal status. In the masonry trades, stone-cutters were paid two sous more than masons throughout the period; slate roofers were paid more than thatchers, because of higher status accorded to the materials with which the former worked. Individuals could move between grades according to the availability of employment: Moulard worked on the new theatre of Nantes as a mason in March and as a stone-cutter in November of 1788.¹⁴ In rural areas, though rarely in towns, building artisans might even move between different crafts. Carpentry and joinery was frequently combined, as with Jan Régulier who constructed the handrails for a bridge over the Vilaine at Cesson in 1682.¹⁵ In

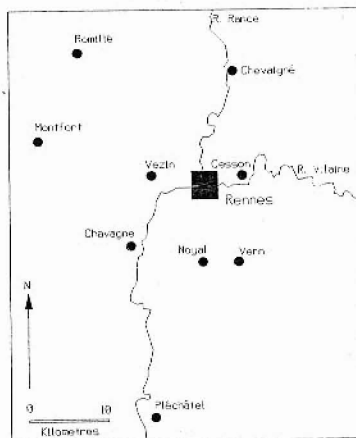


Fig 4: Rennes and its environs – bourgs mentioned in the text.

Languidic, Guillaume Le Fay combined the trades of mason and carpenter in 1734.¹⁶ Familiarity with several techniques or crafts might enhance opportunities for work in regions where building was dominated by small scale, relatively simple, repairs.

The “on-site” building trades had little formal organisation. In the early modern period they were practised freely in all the cities and towns of eastern Brittany and were widespread throughout the countryside. This was typical of most French towns except Paris, where roofers, masons and carpenters were incorporated into guilds until 1790.¹⁷ The mobility and low levels of income of most construction workers made their regulation and incorporation into guilds difficult. Most artisans hired themselves out as day labourers, casually, learning of the availability of work by word of mouth or by visiting building sites in search of employment. There is no evidence for a fixed hiring market in any of the Breton towns equivalent to the Place de Grève in Paris. The majority of builders spent their lives working for other craftsmen: in 1767, 40 of the 47 masons of Vitré were “journalliers” (Figure 4).¹⁸

The free nature of the “on-site” building trades meant that anyone with a little capital could act as a “master” artisan, taking on contract work, hiring other building craftsmen and training apprentices. Some such masters had a workshop base, like Lorant Leroy, “master” mason in Vannes who in 1654 employed Jullien Lebidre, mason, “à la journée”.¹⁹ This hierarchy was recognised by wage differentials. A ruling of the General Assembly of the Police of Vannes of October 1787 fixed the daily summer wage of building-related journeymen at 22 sous and that of a chef d’atelier at 25 sous.²⁰ These “masters” sought contracts directly from clients, subcontracted parts of larger projects from general contractors and site managers, and even subcontracted their own work to other builders, in a complex network of trade contacts. They had few permanent employees, rather choosing to subcontract specialists and hire casual artisans by the task or day.²¹ The activities of the carpenter Francois Leguen of Rennes in the year 1684 are typical. He took on a contract to restore two timber-built houses for 90 Livres, subcontracting the whitewashing and flooring of the refurbished rooms to two *terassiers* for 12 Livres; he did minor repairs to a town house for 18 Livres, and in association with Rostou, carpenter, contracted to build a timber extension to a house for 30 Livres.²² Many of these building enterprises were ephemeral; “masters” expanded and reduced their operations according to the availability of contract work, returning to employment periodically as day labourers and

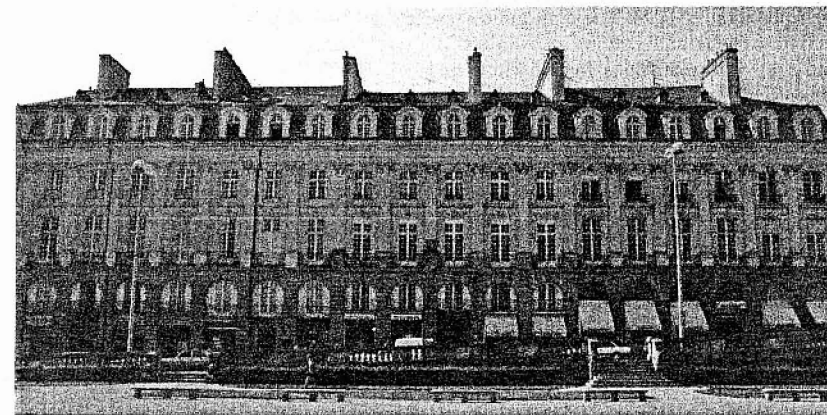


Fig 5: Apartments and shops, Place de Parlement de Bretagne, Rennes, built after the fire of 1720.

other occupations. Jan Bilaye, slate roofer of Rennes, worked at many different levels. In 1692 and 1693, he took on at least three roofing maintenance contracts for which he had to perform a few days’ work annually and which each yielded a yearly wage of a few Livres; in 1700 he subcontracted to build the roof of a new town house from a general contractor for 150 Livres and in 1701, Bilaye and Harcouet worked as day labourers to repair the roof of the parish church of Toussaints.²³ This was a casual, mobile workforce whose size, employment opportunities and careers varied according to the vagaries of the building market.

Other “masters” did not operate from a fixed workshop but hired or formed temporary associations with equally qualified craftsmen to work on a specific project. The “master” hired and paid his workforce, but they had the same status and were paid the same rate as him. Thus Jean Perinnet, slate roofer employed on Vannes cathedral in the 1620s, was paid 12 sous a day for himself and for each of his companion roofers.²⁴ Associations extended the credit and labour networks available for individual artisans.²⁵ The construction trades were part of Sonenscher’s economy of the bazaar with “evanescent arrangements”, “fleeting transactions of small-scale entrepreneurs”, a “wide variety of possible clients, markets and outlets”, where a “capacity to take advantage of the short-term opportunities that they supplied” determined employment (Figure 5).²⁶

The Workshop-based Trades and Craft Guilds

In contrast to the “on-site” construction trades were the subsidiary trades of glazing, locksmithing, nail-making, joinery and plumbing, which were heavily, although never exclusively, dependent on building for custom. These were workshop-based trades, found largely in towns and *bourgs*, which needed fixed means of production and a stable location to prepare their raw materials. These trades differed from those of the “on-site” crafts in a number of ways. Firstly, the internal organisation of these crafts was more formal than that of the “on-site” crafts. By 1600, most were incorporated into guilds in the larger towns of Nantes, Rennes and Vannes, although they were practised freely in France, where guilds for workshop trades existed in most of the larger towns. The guilds, supported by the jurisdictions of the municipal police courts and the Parlement of Brittany, were active until

their abolition in 1790. The craft guild regulated membership and policed the production activities of the trades. Entry was limited, by formal apprenticeship, masterpiece test and entry fee with reductions for the kin of masters, or purchase of royal letters.²⁷ Trained artisans other than masters had to work in a master's workshop and were dependent on their employer for raw materials, wages and work. Other journeymen were forbidden to trade for their own account. Secondly, these crafts were more hierarchical than the "on-site" trades, with a recognisable and fixed difference between master, journeyman and apprentice. In May 1744, the abbey of Saint-Sulpice, Rennes, paid Lavigne, master joiner, a daily rate of 20 sous, while his journeyman was paid 18 sous and his servant and his apprentice, 12 sous each.²⁸ Thirdly, craft production was fixed in workshops, usually in centres of population. In the 11 parishes of the *sousdélégation* of Montford in 1767, workshops of locksmiths and nail-makers were found only in the larger bourgs of Montford and Romillé, while masons, carpenters and roofers were found throughout eight parishes.²⁹ Journeymen could be highly mobile, however; in Nantes, the joinery and locksmithing trades drew their journeymen from the valleys of the Loire and its tributaries, Northern France, the Garonne area and Dijon.³⁰ This was part of a mobility pattern that extended throughout France, as Sonenscher has recently shown.³¹

Although establishment of a workshop required greater levels of capital investment than to become an on-site artisan, their owners were not wealthy. Most building-related craftsmen operated on a small scale and their workshops housed few employees. In 1738, a survey of the locksmiths of Nantes showed that 50 per cent of masters had only one journeyman while 31.5 per cent had none at all. Only 13 per cent of masters had two journeymen and 6.5 per cent had three or more.³² This pattern is similar to that of other workshop trades throughout France.³³ Relations between masters and journeymen were transient, often confined to the duration of a project or contract.

Finally, "on-site" artisans were more numerous and widespread within the province than were the workshop trades. It is impossible to quantify the total number of building artisans in Brittany at any one time, but relative figures may be calculated. The Intendant's survey of Vitré of 1767 and the *Capitation* of 1783 for Châteaubriand both show the numerical superiority of "on-site" artisans.³⁴

	Vitré 1767	Châteaubriand 1783	
	Artisans	Artisans	Journeymen
Masons	47	14	3
Carpenters	6	14	6
Roofers	30	7	0
Joiners	—	6	2
Locksmiths	11	4	0
Nailmakers	10	5	12
Glaziers	3	3	0

The large number of roofers, carpenter and masons was a result of greater demand for their products and ease of entry into these trades. The products of the workshop trades, glazing, plumbing, joinery and iron products, were used in small quantities, were employed on high status and urban rather than rural and vernacular buildings, and entry into these trades was more restricted, by masterpiece, entry fee and the capital required to establish a workshop.

Casual Labour

Below the level of the skilled artisan was a large, mobile and transient semi-skilled and unskilled labour force. Independent "on-site" artisans hired *serveurs* by the day to aid them with lifting and preparation of raw materials. In August 1626, Perinnet and Gougrault, roofers working on Vannes Cathedral, were paid 16 sous a day for their work and eight sous a day for each of their two *serveurs*.³⁵ Much more numerous were the urban and rural poor, men, women and children, who sought to make ends meet through casual labouring on building sites, carrying, digging, clearing rubble, such as Julienne Baudrier and Julienne Thomas, employed during repairs to the church of Saint-Ouen-de-la-Rouerie in 1745. Demand for such work was high. In June 1739, when an appeal for labourers to work on the Promenade de la Motte was made in Rennes, on the first day 286 people came forward; on the second day, 469, and on the third day, 1,219.³⁷ This put downward pressure on wages; demand for work led the city council to reduce wages from 10 sous per day to 8 sous and 6 sous for men and women respectively.³⁸

Changes over Time: The Rise of the General Contractor

Although most building work was performed by skilled, independent artisans, by the eighteenth century there was a small, permanent group of architects and general contractors in the towns of eastern Brittany responsible for the design, co-ordination and management of a significant proportion of construction projects. Contracting came relatively late to Brittany compared to other parts of western Europe; contractors appeared in Italy from the late fifteenth century, while Sully encouraged their use on royal works within France during the reign of Henry IV.³⁹ The function of a general contractor was to complete all aspects of a building proposal as outlined in plans and estimates, in return for a sum fixed in advance. Specific provisions of contracts varied widely but contractors commonly provided artisans, raw materials and supervision for projects, by hiring and subcontracting with large numbers of craftsmen and suppliers. They might also hire independent artisans, paying them by the day or task, such as Julien Badouin, contractor of a new town house for the *générale* of the parish of Saint-Germain, Rennes who in 1731 employed six masons "à la toise" for a short period.⁴⁰ There were no hard and fast rules: a combination of all these different methods could be used (Figure 6).

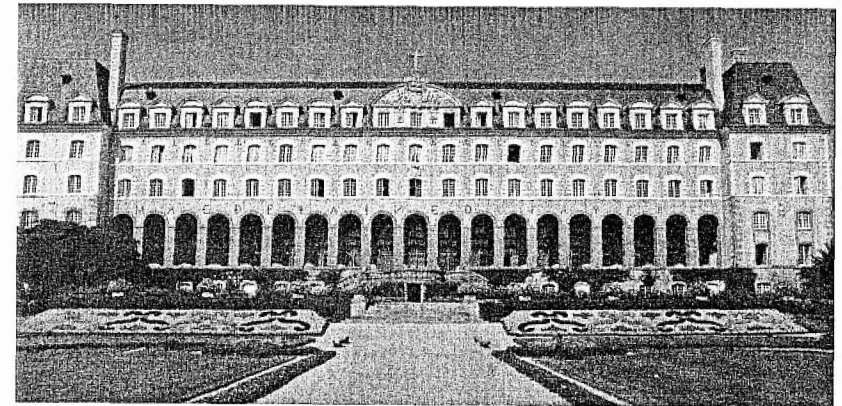


Fig 6: Abbey of Saint Georges, Rennes, after 1720.

General contract work was publicly advertised and tendered for. In May 1786, the contract for the construction of a new prison at Auray was advertised verbally, after Mass, before the church of Saint-Gildas of Auray on three consecutive Sundays and printed posters were put up in public places.⁴¹ Contracts were awarded to the bidder who offered the lowest price, before the *sousdélégué* after 1689 for public works and before the chief judges of local courts or notaries for private work. Competition could be fierce; in 1760, 12 artisans competed for a contract of repairs to three houses in the parish of Vern and bids fell from 350 Livres to a final offer of 88 Livres 15 sous.⁴² Most tenders involved fewer artisans. However, the mean number of artisans bidding for contracts of repairs in the parish of Vern was 3.1 in the period 1720–1750, rising to 4.7 in the period 1751–1790.⁴³ But for institutional clients, finding a contractor for a reasonable cost was not always easy: adjudication of repairs to a bridge at Clion in August 1675 ran to seven successive bidding sessions on consecutive dates before the contract was finally awarded.⁴⁴

The increased use of general contractors dates from the seventeenth century and the main forum for change was public works sites, an early example being the building of the new Parlement of Rennes. By the 1780s, the use of contractors by city councils was widespread. The minutes of Nantes council for 18 December 1784 record that henceforth it intended to use contractors for all building work except for minor repairs costing less than 1000 Livres; this was the practice of all other Breton towns and the Estates by this date.⁴⁵ Even relatively small public building projects would be contracted out, when possible. In 1737, repairs to wooden bridges and guardrooms in Nantes were tendered for 735 Livres and repairs to the College of Nantes were put out at 670 Livres in 1786.⁴⁶

Contractors also worked on ecclesiastical building from the second half of the seventeenth century (Figure 7). Public works contractors tendered for large ecclesiastical projects. In 1660, Tugal and Jacques Caris, father and son, the latter contractor of the carpentry work for the new Parlement of Rennes, were employed to extend the main domestic ranges of the convent of Notre Dame de Couets in Nantes.⁴⁷ But the use of contractors for clerical building

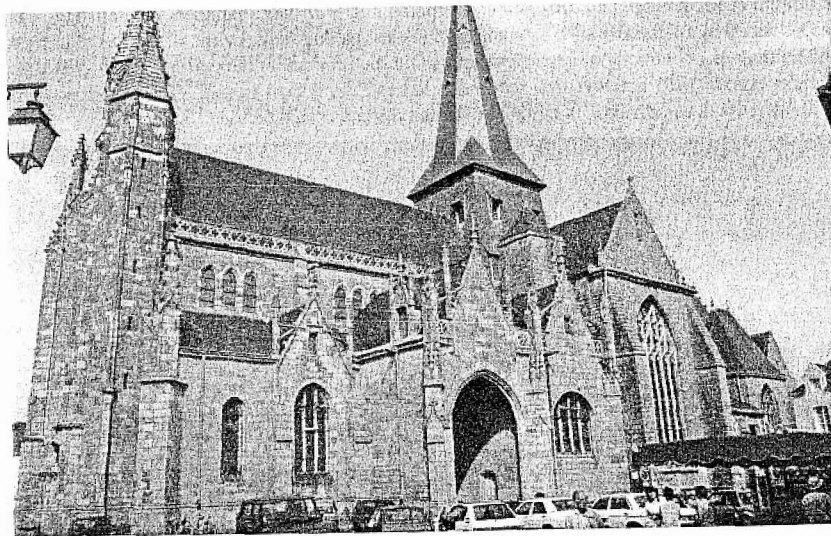


Fig 7: Collegiate church of Saint Aubin, Guerande, built and refurbished between the sixteenth and eighteenth centuries.

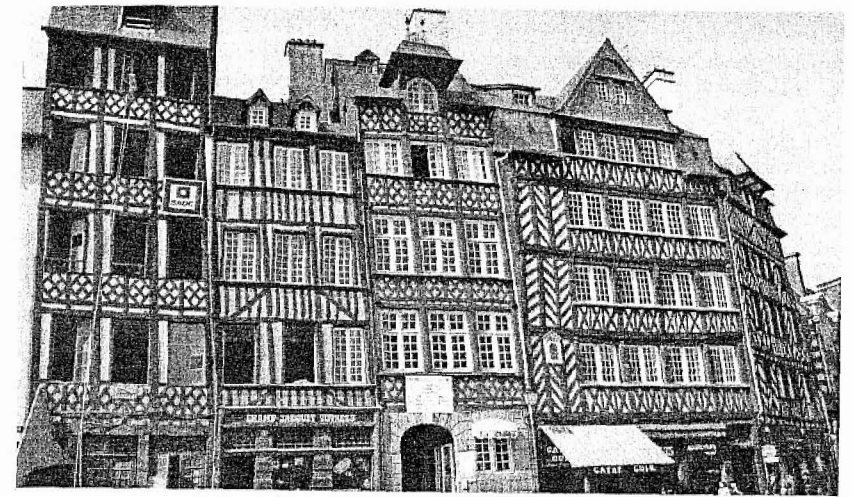


Fig 8: Town Houses, Rue de Champs Jacquet, Rennes, built before 1720.

was never ubiquitous. In 1697, the canons of Dol cathedral tendered out repairs to their chancel to Jean Lucas, “entrepreneur des ouvrages du roi” yet in 1742, refurbishment of the choir was directed by the canons themselves, who subcontracted craft work to a blacksmith, marbler, two whitewashers and roofers, an association of masons and a painter.⁴⁸

Private domestic building was also affected by general contracting in the same period, notably in towns (Figure 8). Again, the entire process could be handed over to the contractor; André Desnos thus contracted to refurbish the carpentry, chimney, windows, floor, locks and iron fittings, furnishing all necessary materials, for Francoise Adam, *veuve* of Rennes in 1703.⁴⁹

Rural domestic building was likewise subject to organisational change, most frequently on properties owned by urban residents and on buildings close to towns, where proprietors found it more convenient to hire urban artisans than to travel to the countryside in search of local labour. Jan Marion, *Sieur du Bas Bignon*, thus hired Pierre Robert of Rennes to construct a cider press and outbuilding at his property in the parish of Saint-Hellier in 1701.⁵⁰ In the hinterland of Rennes, the late seventeenth century saw increased use of urban entrepreneurs. Joseph Chalmer, *Sieur de Longras*, resident in Rennes, hired Sebastien Jouanin of the city to refurbish a *métairie* in the parish of Vezin in 1714 and Francois Bodin, *avocat* in the Parlement of Rennes, hired a Rennais mason to refurbish property at Bas Cranon, parish of Chavaigne.⁵¹ Terms of employment mirrored urban practices: a contract for repairs to the *métairie* du Clos near Dol stipulated that the contractor should furnish all labour, materials, tools, scaffolding, transport and other necessary items; the work was subject to visits and formal inspection; payment was to be made in three equal parts and financial sureties were required.⁵² The terms of rural contract work were often more varied than those affecting urban construction. However, provision of many services and materials remained with the client. In 1709, Jan Hellix of Rennes contracted to build a cob house with slate roof for Jullien Lesné, *métayeur* of Noyal-sur-Seiche. Lesné agreed to provide wood, stone, straw and hay, while Hellix furnished labour and all other materials. The builder lodged and ate with the farmer during the duration of the project.⁵³



Fig 9: Moulin de Diable, Guerande. Vernacular style construction of the eighteenth and nineteenth centuries.

The rise of the general contractor in an industry where costs were high and where available levels of capital were low, resulted in changes in professional relationships between building artisans. Few Breton contractors had capital reserves and construction attracted little outside investment: building was by commission rather than mass consumption (Figure 9). Increased demand for cheap, urban housing occasioned by rural immigration had different effects on the building trades in France and England. In seventeenth century Paris, dwellings for expanding numbers was met by extensions and alterations to existing properties; there was no new building on the scale of English towns and no equivalent support of speculative builders by investors seeking profit, as found by Locock in the West Midlands.⁵⁴ Breton construction did require a significant level of investment in raw materials and labour before final payment was received, so access to finance was crucial. Contractors were most frequently paid in three instalments, in arrears, and final payment sometimes came long after completion. Risks were thus high: speculators might run over costs or be left with stocks of unused materials. In 1745, de Rennes, contractor of public works in La Guerche, appealed to the Intendant to revoke his contract because he could not afford to complete the work; Jacques Dupré, contractor for work on the church of Piriac in 1765, likewise failed to complete the contract because of bankruptcy.⁵⁵

For this reason, public and private clients demanded proof of solvency from a contractor before he started work: he had to possess capital and credit-worthiness to finance his work. To guarantee completion of a contract, contractors had to provide sureties who were held jointly responsible for the financing of a project. In the absence of banks and other institutional facilities, credit came from trade networks and personal relationships. Jullien Douillard, contractor for the new Halles of Nantes in 1787, presented his aunts Ann and Clare Joubert as sureties.⁵⁶ Building artisans form a significant proportion of sureties and supporting associates. Sieur Ganacheau, contractor for repairs to the wall of the inter-communal cemetery of Nantes for 2,950 Livres in 1774, presented the building contractor Jean Gregoire as surety; in August 1764, Francois Dion, contractor for the rebuilding of the

presbytery of Montrelais, presented a master joiner and a master roofer as guarantors.⁵⁷ White shows that partnerships and associations were important for attracting creditors in eighteenth century England; Breton practice differed, in that public works' clients preferred to treat with one named individual responsible in law for a project, for it facilitated individual accountability and responsibility for work performed.⁵⁸

An important source of credit was gained by subcontracting labour tasks and supplies of materials for a project to other artisans. Small and Jones identified this practice as early as the fourteenth century in Northern France, in Artois and Beauvais respectively.⁵⁹ The workshop or artisan that took on such work carried at least some of the costs of wages and materials until their account with the principal contractor was settled, on completion of the project.⁶⁰ Subcontracting was a response to the difficulties of financing building and was important in disseminating the costs of construction amongst a wide number of artisans and suppliers. In August 1725, Baudouin, awarded a general contract to refurbish the Intendant's lodgings in Rennes, subcontracted with Bertrand Bourgeois, master mason, Mathurin Saudary, carpenter, Mainguy, roofer and Nicollas, excavator, each of whom was to provide their own materials and work force.⁶¹ In May 1702, Jacques Binault contracted to build a timbered house for an innkeeper of Rennes; he subcontracted the roofing work and supply of materials to Jullien Pin while carrying out the carpentry work himself.⁶² Subcontractors had to provide further artisans at their own expense – such as Jullien Lebidge, employed by the Vannes mason Lorant Leroy at a daily rate.⁶³ Subcontracting limited the number of transactions a contractor had to supervise and pay to have witnessed by notary; it also gave him legal redress for poor work and hope of compensation through the courts if work was not completed.

Contractors never monopolised the construction market. In the private sphere, both urban and rural, clients frequently organised their own projects, employing individual artisans, small workshops and suppliers. In 1686, Jan Harcher extended his house on the rue Vasselot of Rennes. In December 1685, he contracted the carpentry work to Michel Letailier; in January 1686, the roofing was contracted to Jullien Cocault, who was to complete his work within one month of the carpenter's deadline, and on 31 March, Jan Lounel, "terrasseur et blanchisseur" was hired to finish off and decorate ceilings, floors, window frames and walls of the new extension. Harcher purchased all wood, slate and other materials for the project directly from the suppliers.⁶⁴ Domestic building commonly occurred in stages, with the possibility of taking place over a long period of time, according to the available resources of the client.

The increased presence of general contractors therefore did not change the artisanal character of building production. The perpetuation of the role of the independent craftsman in construction occurred because most building was humble repair and maintenance work, requiring the services of a single artisan for a short period of time. Fivault, mason, was paid for three days of his own labour, for four days for an assistant and for a cart load of earth and two picks in Vannes in 1754.⁶⁵ There remained an enormous pool of building artisans who subcontracted work from general contractors or worked by the day or task for subcontractors and private clients.

There was no clear separation between general contractors and other building artisans. A small group of men in each town was identifiable as made up of generalists, "entrepreneurs", distinct in wealth and function from the mass of skilled and unskilled site operatives, and who paid more in *Capitation* than most building workers.⁶⁶ Such was Jacques Renault "maitre charpentier et entrepreneur d'ouvrages" in 1740.⁶⁷ In its instruction on the apportionment of payment for the tax on commerce of 1757, the *Commission Intermédiaire* of the Estates of Brittany distinguished between contractors and other

artisans. Men involved in commerce and finance – merchants, forge masters, manufacturers, building entrepreneurs and their sureties – were liable for payment as opposed to craftsmen and petty retailers, who were not.⁶⁸ This small number of relatively wealthy men, sometimes trained as architects and tendered for large projects, often public works. One such man was Jullien Douillard, architect, who constructed the new Halles of Nantes in the 1780s.⁶⁹

But there were different levels of wealth and scales of operation: there were many more smaller scale contractors, often part-time, involved with less expensive and private building work. Sébastien Jouanin of Rennes worked his way from being a carpenter to a general contractor. In 1698, he undertook the carpentry for the refurbishment of a town house for 45 Livres; by 1714, he was taking on general contracts, such as the refurbishment of a *métairie* and its outbuildings in the parish of Vezin, worth 500 Livres.⁷⁰ The casual nature of the trades meant that any artisan with sufficient capital could aspire to become a general contractor. Of 80 contractors examined between 1615 and 1789, 20 per cent were masons, 23 per cent carpenters, seven per cent roofers and six per cent joiners, the others coming from a range of building-related trades. Contractors were also local men: distance from Paris inhibited domination by national companies and members of the royal administration, in contrast to eighteenth-century Caen.⁷¹ Only a prestigious project like the new Parlement building of Rennes attracted Parisian specialists such as the masons Hardy and Duris in 1636.⁷² Contractors thus knew their craft, the constraints and practices of the local building market in Brittany.

There was continuous movement between the ranks of contractors and other builders. Clark argues that in eighteenth century London the rise of the contractor dissolved craft hierarchies, stimulated wage labour and promoted a clear division of labour between firm owners and skilled workers.⁷³ This was not true of Brittany, where most contractors could not survive on such work alone. They undertook single craft projects as subcontractors for the larger-scale contractors, and they would take on wage work if contracts were lacking. Work was sought wherever it could be found. There was also no “proletarianisation” of the mass of the labour force. Clark argues for London that the rise of the contractor caused the decline of the small master and the growth of “an integrated wage labour force paid on a time basis”.⁷⁴ In eastern Brittany, masters, workshop owners and day labourers continued to coexist. The pre-industrial structure of construction thus continued, with change occurring in the organisation of the industry. In reality few artisans ever had enough capital or credit to take on contract work; larger scale repair and construction projects were the preserve of relatively few. Most craftsmen expended all their available capital on apprenticeship fees and the purchase of hand tools. Jacques Annexo, “master” carpenter of La Roche Bernard in 1765, sold 12 *sillons* of ploughland in 1757 to purchase clothes and to pay for his apprenticeship.⁷⁵ In Dol in 1767, the four carpenters there owned only the tools of their trade.⁷⁶

Conclusion

The building industries of eastern Brittany underwent significant change in the early modern period. There was a shift within the industry from the employment of large numbers of individually-hired artisans under a site supervisor to the management of construction sites by general contractors, particularly by political and ecclesiastical institutions. Contractors provided labour, materials and management for a pre-agreed sum. Changes in organisation came later to Brittany than other parts of northern and eastern France, where contract work is known from the fourteenth century and the use of general contractors, from at least the sixteenth century. Breton chronology has parallels with the West Midlands, England,

although the use of contractors for private sector work was never as widespread as it became in the north London suburbs during the Napoleonic Wars.⁷⁷

But contractors never dominated the Breton industry. Much building work was small scale repair and maintenance, requiring the labour of one craftsman; the free nature of the trades meant that any artisan who could find backing could take on contract work; limited access to capital and credit necessitated subcontracting of work to other artisans and the persistence of protectionism in the form of craft guilds in the peripheral building trades limited organisational change. The same constraints operated in most French towns. The artisanal nature of the trades throughout France thus remained largely unchanged.

The economic structures in which the industry operated also remained traditional. There was no industrialisation or urban development in Brittany, or indeed in much of the rest of France, on the scale of later eighteenth century England. Changes in Breton building organisation were wrought in response to institutional credit demands in a period of increasing royal taxation; traditional economic structures were then modified to meet customer demand for more competitive building.⁷⁸

The structure of the building trades of eastern Brittany was therefore diverse and complex, and organisational change occurred within a pre-existing industrial framework. Apparent “modernisation” of the industry in the early modern period took the form of shifts and modifications of traditional structures rather than “capitalisation” or the replacement of one form of production organisation by another. Throughout the early modern period construction was “organised around complex networks of informally constituted cooperative arrangements involving varying combinations of partnership, patronage and clientage”; there was no permanent work force but an “irregular supply of labour employed for the minimum amount of time”.⁷⁹ The structure of the building industries of eastern Brittany remained fluid and heterogeneous throughout the early modern period.

Correspondence: Dr. E.C. Musgrave, Department of History, Nene College, Park Campus, Northampton. NN2 7AL

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