## Barcelona's Foreign Links in the 18th and Early 19th Centuries

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I thought that a suitable subject for this evening's lecture would be that of «Barcelona's foreign links in the 18th and early 19th centuries». It was a question which arose in my research but which I did not deal with systematically in my book (1). It arose in three different forms principally - foreigners and the introduction of new technology to Barcelona, Catalans who left Barcelona in order to make contact with other industrial and commercial centres and finally visits made by foreigners to Barcelona. In my lecture I shall deal briefly with each type of contact before drawing some general conclusions.

Starting with the first, it is, I think, well known that the Catalan cotton industry in all phases of its development drew on foreign expertise - whether we are talking about the initial development of calicoprinting, the later introduction of first the manual and later the mechanical spinning processes or the nineteenth century adoption of steam-power.

With respect to the first phase the sources of the expertise were varied. The principal was Marseilles. Marseilles' status as a free port meant that it was excluded from the general French ban on all forms of calico-printing and it also enjoyed close links with Switzerland which was one of the most important European centre for calico-printing (2). The Marseillais Joan Benet Huvet was the first foreign printer of whose presence in Barcelona there is evidence. He was recruited by Jacint Esteve i Clariana, an espartero, in July 1736. The contract for his terms of service was signed in Marseilles -clearly Esteve had travelled there in search of a skilled printer. Esteve described himself in the contract as, already, a «fabricant d'indianes» and possessed too printing equipment so he was apparently already practicing the trade. It is clear though that his skills were inadequate for in the contract it was stipulated that he would work in the company which he was founding on the instructions of the Marseillais who was required by the agreement to «ensenyar la habilitat de pintar y fer las Indianas veritables a dit Esteva».

Esteve's printing concern lasted less than a year and one cause of this may have been the death of Huvet who left an orphan in Esteve's care (3). Another French worker, Joan Iber, who worked in the Serra, Canals and Canet company also came from Marseilles it would seem-later accounts of the origins of this concern were to attribute them to Canals who «en un viaje casual a Marsella compro los utiles ... de un muy pequeño establecimiento que por la ruina de su dueño estaba en venta» - and it was via Marseilles, it is probable, that another foreign worker, the Swiss Pedro Geñus, «sujet practico en pintar qualsequier colores en los lienzos, y abrir todo genero de diseños y dibujos para estampar, y dar la mayor perfeccion a los colores de que usa para la pintura, con cierto secreto» came to take the place of Iber in the Serra, Canals, Canet concern. The printers, this statement reveals, not only possessed dyers' skills but also skills in design and engraving as they made the moulds with which the colours were applied on the cot-

ton or linen cloth. The contract in question also shows the concern that the skills in question should be passed to Catalan hands - the «cierto secreto», which meant the formulas necessary to make mordants to fix the colours on the cloth, it noted, had been «manifestado ya a los Interessados en la Fabrica para assegurar en ella...tan especial circonstancia para la bondad y mayor perfeccion de estos generos» (4).

These were the earliest companies. A second wave drew its expertise from further afield. Bernat Glòria employed a one Joan Federich Hartung from Hamburg which he claimed was «el parage en donde se imprimen los colores con la mayor perfeccion y primor que exeden a los de Olanda» (5) and Jaume Campins and his associates, who established the royal manufacture of Mataró, employed a Swede, Jacob Lund, who reached Mataró via Cadiz during 1746 (6). It is not clear whether Gloria's claims for Hamburg's superiority over Holland are valid but it is clear that at this stage it was the northern European industry which was exercising technological leadership.

Resolving the question of the social integration in Catalonia of these emigrants from futher afield clearly posed problems which would not have existed in the case of arrivals from Marseilles. The care given to this question is revealed by the accounts of the Mataró manufacture which record that attention was given both to catering for the physical comforts and dietary needs of Jacob Lund -Dutch- style armchairs, silver cutlery, a chocolate mill, mirrors, a bed with gilded head board as well as a regular provision of barrels of beer were provided for him. These provisions as it turned out did not succeed in making him at home for within a year of his recruitment his relationship with his employers was as bad as it could be. The manufacture was suffering a severe «retraso» in its output and this was attributed to Lund's having «revelado el secreto de hazer Indianas a alguna persona». To prevent his diffusing the secret further he had been moved from his well-furnished rooms to a prison (7). He was later released but confidence had been lost and it is not with surprise that one finds him working the following year in Zaragoza for the Real Compañia de Comercio y Fabricas which had just been established there (8).

There was no third wave of immigration of calico-printers. By the late 1740's the skills had been passed on to sufficient Catalan workers for a basis to be provided for a steady industrial expansion. The next stage of technological importation was in connection with spinning - a first phase, from approximately 1765, involved the introduction of manual techniques and a second, from 1785 to the early 1800, mechanical ones. A third stage involved the adaptation of spinning and weaving to steam. The turning point here was the 1833 foundation of the Bonaplata, Vilaregut and Rull factory in the carrer Tallers. It would be too lengthy to describe these cases of innovation in detail here and so I will purely mention some salient features which characterize them. The source of the manual spinning skills was Konstanz, a centre of muslin production, in Switzerland. Most of the spinning machinery reached Catalonia via France though in the case of Arkwright's invention it was English workers who were the technicians responsible for the technological transfer. A consequence of this would seem to be that the Arkwright machines were always referred to as English machines whereas the rival, spinning mules were known as French ones (9). Finally contributory elements in the introduction of steam-power and modern machinery in the Bonaplata mill were periods of exile experienced by liberal Catalan manufacturers after the liberal triennium which gave them the opportunity to visit the leading industrial centres of France and England (10).

My second category of foreign link is a variant on the process of technological diffusion by immigration. It consists in a case of a Catalan worker who was sent abroad ion 1814 in order to involve himself in industrial espionage relating to calico-printing. In other words it is not a case of importing workers to teach Catalans a trade but of sending a skilled worker out of Catalonia to gain instruction elsewhere. The man in question was one Carles Ardit, ayudante de director in the Junta de Comercio's Escola de Nobles Arts. In view of the backwardness of the principality's calico- printing industry as a consequence of «los perjuicios inmensos obrados por la invasion como de lo tan costoso de su defensa», he was dispatched by the Junta «Con miras de mayores conocimientos en este ramo de texidos y estampados y la de adquirirlos con dissimulo», with instructions to visit leading manufacturers in France and Switzerland. Ardit was later to describe his mission as being intended to «desterrar de nuestras fabricas a los vendedores de recetas que han contribuido mas bien a destruir que a perfeccionar este arte». This was in his book a Tratado teorico y practico de la fabricación de pintados o indianas published in 1819, which served to diffuse the industrial espionage which he had undertaken. In the book he also gave some details of his experiences. He had managed to gain access to the principal manufactures of France and Switzerland, including those of Oberkampf at Jouy and Dollfuss Mieg at Logelbach. In Mulhouse, the centre of the French industry, his drawing skills enabled him to gain employment as a textile designer and thus access to the principal manufactures of the town. Once employed he put the skills to illicit use copying machinery, managing, he recorded in his book, to «enterarme de su mecanismo y de todas sus elaboraciones aun las mas secretas y delicadas». Finally, however, his «continuas observaciones y preguntas llamaron la atención de la policia», he nearly lost all his papers as a consequence, and he was obliged to break off his correspondence with the Junta de Comercio (11).

Coming now to my third theme, visits made by foreigners to Barcelona, there was a particular concentration of these at the end of the eighteenth century from about 1770. English visitors were the most plentiful (12). The prosperity of the city, both of its industry and commerce, is what struck visitors most - «The industry which everywhere appears in Catalonia seems to act with concentrated force in Barcelona, early and late, not only is the hammer heard upon the anvil but every artist is seen busily employed, each in his several way adding to the general stock», Joseph Townshend recorded in 1786 (13) but in addition the extent of recent construction in the city, the beauty of public buildings, the liveliness of cultural life and the quality of inns and cuisine occasioned comment and travellers emphasized too that the liveliness and activity observed were not confined within the city walls but spread to the surrounding countryside. I shall provide just one example of such a response, that of Arthur Young, the celebrated English agronomist who included Catalonia in a grand tour of Europe which he undertook just before the French Revolution.

Young had entered Catalonia through the Vall d'Aran and took a mountainous route to Barcelona via Rialp, Sort, Torre de Claramunt, Calaf, Montserrat and Martorell where he linked up with the Vilafranca road. The initial impression he obtained was of the toughness of living conditions of the Principality's mountainous areas. As he approached the plain, however, signs of prosperity increased and these reached a great intensity near Barcelona - «meet great numbers of carts and carriages with very fine mules, and every sign of approaching a great city», he recorded after passing through Martorell -and in the immediate vicinity of the capital he noted that the «buildings were many and good» and that there were «numerous villas...spread to the right and left, and ... seen all over the country». As for Barcelona itself, he wrote, «The first view of the town is very fine; the situation beautiful, and the road so great and well made, as to add much to the general scene; indeed there can nowhere be a finer». The city gates shut at 9.00 and Young and his travelling companion were obliged to ride hard in order to reach the city by this time. They succeeded in doing so, however, entering by the gate of Sant Antoni. They had been hoping to lodge in an inn called «The French Crown» but finding this full were forced to try another establishment which Young records was called «La Fonda». This they were more than satisfied with, however: Young recorded that «The contrast of this inn, which is a very great one, with many waiters, active, and alert, as in England; a good supper with some excellent Mediterranean fish, ripe peaches, good wine, the most delicious lemonade in the world, good beds ... contrasted most powerfully with the dreadful starving or stinking fare, we had everywhere else met with». Visiting the city the following day he found it «large, and to the eye, in every street, remarkably populous». He commented on the port, on the newly built Barceloneta, the theatre, the large number of ships in the harbour, the markets with their wide range of fruit -»full of ripe figs, peaches, melons; and more common sorts of fruit, in great profusion» and finally the city's manufactures-«The manufactories at Barcelona, are considerable. There is every appearance as you walk the streets of great and active industry; you move nowhere without hearing the creak of stocking-engines». Leaving the city after only two nights -his mania for agronomy explains this aberration - Young emphasized again the prosperity of the surrounding area.-»Enter immediately an extraordinary scene of watered cultivation and which must have given the general reputation of the province.» he recorded, «Nothing can well be finer, -the crops in perpetual succession - and the attention given to their culture great» (14).

I have only summarized a few details concerning Barcelona's foreign links here but it is, perhaps, possible to observe some patterns in them.

Firstly the experience of the cotton industry suggests that though the foreign link was important for the industry's development it was only generally a short-term and temporary connection that was made. Once the technique had been mastered further resort was not made to foreign workers or enterprise and the foreign workers themselves remained in subordinate positions. The technique was, as it were, absorbed within Catalan structures.

A second point which may be observable from this short summary is that there were fairly sharp contrasts between periods when Barcelona was isolated and forced to send out people in search of new technologies and others when Barcelona flourished and exercised itself an attractive force which drew visitors as well as merchants and skilled workers to it. The former periods were those which followed the disruptions occasioned by warfare - in this case the Wars of Succession and Independence - of the latter I have

just presented one example which is that of Barcelona's and Catalonia's great prosperity at the end of the eighteenth century. This was the period selected as the origins of Catalonia's industrialization by Pierre Vilar in his great study *La Catalogne dans l'Espagne Moderne* and the reports of visitors to the Principality, with their awareness of how exceptional the Catalan growth was in the European context of the time, represent additional strong evidence that something most unusual was occurring in the Catalonia at the time. The experience was all the more interesting, and all the more important, insofar that it was a solitary one in the Mediterranean zone and if based on a similar industrial technology to the British was dependent on a very distinct agricultural one - some of Young's comments reveal this.

If one were to raise the issue of which type of period Barcelona and Catalonia are experiencing at present, in the 1990's, then I do not think one would hesitate at all, in 1992 above all, in saying that it is the latter - the city, and Catalonia, are exercising an attractive force and drawing foreigners to it. The example is, again, all the more important and interesting insofar that it is Mediterranean based and occurring within distinctive structures. Long may it continue!

## Notes

- 1. A Distinctive Industrialization: Cotton in Barcelona, 1728-1832, (Cambridge, 1992).
- 2. On varied governmental policy towards calico-printing see James Thomson, «State Intervention in the Catalan Calico-Printing Industry in the Eighteenth Century» in M Berg (ed), Markets and Manufacture in Early Industrial Europe, (London, 1991), pp 57-92; on the European industry see SC Chapman and S Chassagne, European Textile Printers in the Eighteenth Century: A Study of Peel and Oberkampf, (London, 1981).
- A Duran i Sanpere, Barcelona i la seva història, (Barcelona, 1973), II, 292-3; Thomson, A Distinctive Industrialization, pp 73-7 and La indústria d'indianes a la Barcelona del segle XVIII, (Barcelona, 1990), pp 19-20, 27-8.
- 4. R Alier, «La fàbrica d'indianes de la familia Canals», Recerques, 4 (1974), 59-91; Thomson, A Distinctive Industrialization, pp 78-80 and La indústria d'indianes, pp 30-6. An excellent general study, and interpretation, of the eighteenth century industry is R Grau & M López, «Empresari i capitalista a la manufactura catalana del segle XVIII. Introducció a l'estudi de les fàbriques d'indianes», Recerques 4 (1974), 19-57.
- 5. R Fernández, «La burguesía barcelonesa en el siglo XVIII: la familia Glòria» in P Tedde (ed), La economía española al final del Antiguo Régimen, II, Manufacturas, (Madrid, 1982), pp 60-78; Thomson, A Distinctive Industrialization, pp 80-2 and La indústria d'indianes, pp 28-30.
- Martínez Shaw, Carlos, «Los orígines de la industria algodonera catalana y el comercio colonial» in J Nadal and G Tortella (eds), Agricultura, comercio colonial y crecimiento ecónomico en la España contemporánea, (Barcelona, 1974), pp 249, 256-8, 262-5; Thomson, A Distinctive Industrialization, p 140.
- 7. M Monjonell Pardas, «La real fábrica de indianas de Mataró de Jaime Campins y Compañía», (Tesis de licenciatura, Barcelona, 1956), pp 36-8 and Thomson, A Distinctive Industrialization, p 142.
- A Canellas López, «La Real Compania de comercio y fabricas de Zaragoza: Historia de su primero trienio» in Jerónimo Zurita: Cuadernos de Historia 3 (1952), p. 94.
- 9. A Distinctive Industrialization, pp 237, 249-53 and 263-4. See also on this A Sánchez, «La era de la manufactura algodonera en Barcelona, 1736-1839», Estudios de Historia Social, 48-49, (1989), pp 65-114 and J M Delgado Ribas, «De la filatura manual a la mecànica. Un capítol del desenvolupament de la indústria cotonera a Catalunya (1749-1814)», Recerques 23 (1990), 161-80
- 10. A Sánchez, «Los fabricantes de indianas a finales del siglo XVIII y principios del XIX: la familia Rull», (Tesis de licenciatura inedita, Barcelona, 1981), pp 222-37 and J Nadal, «Los Bonaplata: tres generaciones de industriales en la España del siglo XIX», Revista de Historia Económica, 1 (1983), pp 79-95.
- 11. Biblioteca de Catalunya, Fondo del Junta de Comercio, libro registro 104, ff 42-3; C Ardit, Tratado teórico, I, v.
- 12. See M Garriga i Ginestà, «Barcelona vista pels viatgers del segle XVIII» in Primer Congrés d'Història Moderna de Catalunya, (1984), vol I, pp 587-90 and P Fernandez Pérez, «La novedad de lo cotidiano. La Cataluña del siglo XVIII vista por viajeros extranjeros» in Segon Congrès d'Història Moderna de Catalunya, Pedralbes, Revista d'Història Moderna, 8, i, 83-8.
- 13. J Townsend, A Journey through Spain in the Years 1786 and 1787, (London, 1791), I, p 138.
- 14. A Young, «Tour in Catalonia», Annals of Agriculture, 8 (1787), 193-275.