

# The textile industry and the foreign cloth trade in late medieval Sicily (1300–1500): a “colonial relationship”?

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*Historians have recently argued that by the late Middle Ages a number of Mediterranean economies, notably southern Italy and parts of Spain, stood in a “colonial” relationship vis-à-vis other Mediterranean or northern European regions. For Sicily it has been argued that its economy was based on the exchange of agricultural products, principally grain, for imported manufactures, mainly textiles. Sicilian cloth manufactures were too weak to withstand foreign competition, which created an unbalanced and externally dependent structure of exchange and radically curtailed any chance of autochthonous economic development. This article discusses the empirical evidence upholding these statements about Sicilian textile manufactures. It includes an evaluation of the proportion of foreign imports to local production and consumption, of the socially distinct markets to which foreign and local manufactures catered, and of the nature, quality and extent of local production; the discussion is set in the context of the economic and social transfor-*

*mations taking place in Europe after 1350. The final part briefly analyses the institutional structures and constraints peculiar to Sicilian manufacture, such as the relationship between city and countryside and the apparent lack of any craft organizations. In the light of the extensive evidence for textile manufactures, the author concludes that the empirical basis for the argument that Sicily had a “colonial” dependence on cloth imports is insufficient, that local manufacture was quite capable of withstanding foreign competition of comparable quality, and that the explanation for Sicily’s economic development in the late medieval and modern periods must be sought in its own social structures and in the result of the conflicts that arose within them.*

In recent years historians have increasingly applied modern concepts of underdevelopment to explain the alleged economic backwardness of a number of southern European regions during the Middle Ages; the term “colonialism”, for example, has been used quite freely (Burns 1975), while the geo-economic concepts of centre, semi-periphery and periphery popularized by Immanuel Wallerstein (1974–80) for the early modern period have also found favour. Such terminology and, sometimes, the theories upholding it have been applied particularly to the Italian Mezzogiorno, which includes mainland southern Italy, Sicily (Bresc 1986) and Sardinia (Day 1984), and to many parts of Spain (Edwards 1987:3–6).

Briefly put, the argument is based on an assessment of these regions’ economies as having been prevalently agricultural, tied to an international market which in exchange for products of the land provided manufactures. Such a structure of production and exchange is said to constitute economic sub-

ordination; a vaguely mercantilist theory has been bolstered by the concept borrowed from dependency theorists of "unequal exchange" (Bresc 1986). Dependence, in this view, was created through the exchange of goods with a ~~low~~ labour content (grain and other agricultural products) for others with a ~~higher~~ quantity of incorporated labour (textiles). By implication, such a structure of trade bred dependence because it excluded (hypothetical) alternative developments.

This implied conclusion can have two somewhat different versions. The weak version, which is practically tautological and nearly impossible to verify, simply states that without the influence of international trade the local economy would have developed differently; the strong version of the theory, which is what most historians of medieval Italy subscribe to, holds that such hypothetical, autarkic development would have been better (more advanced) than what actually took place. The theoretical presupposition of both versions is that international trade had a determining effect on medieval economic change. A further assumption behind the stronger case is a unilinear track of development, leading from medieval to contemporary economic backwardness; there was never an opportunity for a different historical course to be taken (Epstein forthcoming: Introduction).

What follows is a discussion of a central element of the argument for medieval Sicily's "colonial" or generally undeveloped economic status, which is supposed to stem from the weakness of the island's manufacturing capacities. Textile manufacture in particular, as the most developed medieval industry, has come under detailed scrutiny,

and a number of scholars have argued that Sicily produced no high-quality woollen cloth to speak of and that all attempts to set up urban industries failed miserably.<sup>1</sup> The island had no other option but to import foreign cloth, which it paid for principally with grain exports.<sup>2</sup> I propose to discuss the evidence for these statements, and in particular I will attempt to evaluate the proportion of foreign imports to local production and consumption, the different markets to which foreign and local products catered, and the nature and extent of local production. I shall conclude with a brief discussion of the significance of these structures for Sicily's overall economic development.

## I

Detailed evidence for foreign cloth imports (to Palermo), most of which has been collected and presented by Bresc (1986:475–522), can be found in sales contracts drawn up by notaries. Although the statistical significance of these records is dubious, given the random nature of their survival and the limitations of what was actually recorded, they can be used with caution to trace shifts in patterns of demand. However, the principal conclusion in terms of structures of supply and demand to be drawn from this sort of evidence is the unsurprising one that foreign cloth catered to a "luxury and prestige-seeking" market (Bresc 1986:475).

In order to assess the relative proportion of imports to internal consumption we must resort instead to aggregate import figures, and compare these with what, given the approximate size of the population and average individual needs, must have been actual levels of consumption. This approach is

necessary because, as shown in the course of this article, for the most part local structures of cloth production have left little or no documentary trace. Although a number of important clues to manufacture exist and have simply been overlooked, a purely positivistic approach to the documents inevitably concludes, in the way recalled above, that consumption of foreign cloth was far more important than local manufacture, simply because trade in foreign cloth looms so large in the existing evidence.

Aggregate figures for woollen cloth imports to Palermo fortunately exist for most of the fifteenth century. Palermo was the leading Sicilian urban cloth importer throughout the later Middle Ages, with the exception of the second half of the fourteenth century when its regional market contracted drastically, and this role was enhanced after the Aragonese reinstated it as the capital of Sicily in 1439 (Epstein forthcoming:ch.2). The only other major Sicilian city with a specific toll (*caxia pannorum*) on foreign cloth seems to have been Sciacca,<sup>3</sup> and although Catania, to some extent Syracuse and naturally Messina also imported substantial quantities of cloth they never came to rival Palermo.<sup>4</sup> An effect of the greater unity of the Sicilian market after the Catalan–Aragonese reconquest in the 1390s was the increased diffusion within eastern Sicily of cloth imported to Palermo;<sup>5</sup> a reasonable estimate of the capital's catchment area for cloth during the fifteenth century is that it was about two-thirds of the Sicilian population (Aymard 1976:129), although, as we shall see, because of the higher rate of cloth consumption in Palermo itself imports there were closer to three-quarters of the total; probably no more than

one-quarter of total imports was unloaded in other ports at any one time.

Between 1407–8 and 1438 Palermo imported an average of a little over 4,000 cloths a year. Between 1,600 and 2,000 of these were re-exported to the interior.<sup>6</sup> Given an approximate total population of 250,000 at this time (Bresc 1986:75–6), from which we subtract the capital's 30,000 inhabitants, we find two-thirds of these, about 146,000 people, annually consuming 1,800 foreign cloths. Since each cloth was approximately 12–14 *canne* (25–29 m) long, a person could have bought on average about 20–33 cm each year, approximately one complete dress every 20 years (a set of clothing seems to have required a minimum of 2–3 *canne*; the annual salaries of shepherds and agricultural labourers usually included 4 *canne*, and only of heavy woollen *orbace* at that)<sup>7</sup> – that is, one to two dresses in a lifetime. Put differently, about 5% of the population could buy a new set of foreign clothing every year. In comparison, the 30,000 inhabitants of Palermo bought an average 0.8–1.12 *canne* each, nearly six times as much – that is, 30% of them could buy a new set of foreign clothing each year.

Given the disparity of incomes which existed in the Sicilian countryside and the figures for Palermo, we must conclude that consumption of foreign cloths was in fact even more polarized than I have just argued: that a minority of the population – perhaps 2% or even less – was buying up to half a cloth (6–7 *canne*) a year, while the vast majority either bought none whatsoever or, if slightly better off, acquired some small article of foreign clothing that was kept only for the best occasions and was handed down to one's heirs (clothing,

though not for the major part of foreign origin, is the most frequently cited single article in Sicilian post-mortem inventories).

Reliable figures for the total value of imports only begin again in the 1460s, but since we do not know average prices we cannot reconstruct the number of imported cloths with any precision.<sup>8</sup> If we calculate using 1450–9 prices, imports rose to an average 6,300 cloths in the 1460s and increased further in the early 1470s to 7,470 a year. In 1482–3 to 1496–7 they could have risen to an average of 14,000 (Table 1). The greatest upsurge in exports took place after 1485; previously, with the exception of 1467–8, imports had always been fewer than 10,000 pieces. If grain prices (which between 1400 and 1459 were closely linked to cloth prices) are assumed as the general price index, against which to measure the inflation of cloth prices, by 1480–99 these would have risen by 27.7% compared to 1450–9, from 3.81 to 4.87 *onze*. Accordingly, average cloth imports in those years would have been just over 11,500 pieces, a figure just slightly higher than the average imports for 1500–20.

Between 1500 and 1520 an average of 2,250 cloths were being re-exported from Palermo to the countryside, compared to the approximately 9,000–11,000 cloths imported every year to the capital.<sup>9</sup> Assuming once again that Palermo supplied two-thirds of the island's population (which by then had risen to about 500,000–550,000), "rural" consumption would have dropped to one-tenth of a *canna* per capita, a decline of 35–40% compared to the early fifteenth century;<sup>10</sup> meanwhile Palermitans were buying on average double the previous amounts (between 2 and 3 *canne* per per-

Table 1. Foreign cloth imports to Palermo, 1407–8 to 1496–7<sup>a</sup>

	A	B	C	D
1407–8	350	10,500	2.84	3,697
1410–11	144.27.19	4,347.28.10	2.84	1,531
1416–17	344 <sup>b</sup>	10,320	2.84	3,634
1426–7	600	18,000	2.84	6,081
1434–5	392.7.4	11,767.6	2.96	3,975
1435–6	455	13,650	2.96	4,611
1436–7	402	12,060	2.96	4,074
1437–8	446	13,380	2.96	4,520
1462–3	778	23,340	[3.81] <sup>c</sup>	6,126
1463–4	597.27.2.3	17,937.3.15	[3.81]	4,708
1464–5	741.14.18	22,244.27	[3.81]	5,839
1465–6	622	18,660	[3.81]	4,898
1466–7	865.12	25,962	[3.81]	6,814
1467–8	1,309.24.17	39,294.25.10	[3.81]	10,314
1468–9	710.9.7	21,309.10.10	[3.81]	5,593
1469–70	850.3.11	25,503.16.10	[3.81]	6,694
1470–1	782.22.19	23,482.28.10	[3.81]	6,164
1472–3	974.2.18	29,222.27	[3.81]	7,670
1473–4	1,088	32,640	[3.81]	8,567
1482–3	1,149.2.3	34,472.4.10	[3.81]	9,048
1486–7	1,700.1.17	51,001.25.10	[3.81]	13,386
1487–8	2,012.9.9	60,369.13.10	[3.81]	15,845
1489–90	1,813.2.4	54,392.6	[3.81]	14,276
1490–1	2,531.3.2	75,933.3	[3.81]	19,930
1492–3	1,136.22.11	34,103.16.10	[3.81]	8,951
1496–7	2,100.22.13	63,002.19.10	[3.81]	16,541

A – Receipts of the *caxia pannorum*.

B – Total value of imports (30 times the revenues of A).<sup>d</sup>

C – Average price of one cloth (from Bresc 1986:478).

D – Estimated number of imported cloths (B/C).

<sup>a</sup> From Trasselli 1955:302–3; Bresc 1986:507; Giuffrida 1976: table II. When Trasselli and Giuffrida conflict I have followed the former. Figures in column (A) are expressed in *onze*, *tari*, *denari* and *grani*; 1 *onza* = 30 *tari*; 1 *tari* = 20 *denari*; 1 *denaro* = 6 *grani*.

<sup>b</sup> Only until February 1417.

<sup>c</sup> Average price for 1450–9.

<sup>d</sup> The *caxia* was 1 *tari* per *onza* (3.3%) of the value of the cloth (Sipione 1968:240 (1349); Orlando 1857:166 (1444); Trasselli 1957:295). In the sixteenth century 4 *denari* per lo interesse della moneta seem to have been added (Giuffrida 1976:57).

son). In fact the tendency for an increasing proportion of imports to remain within the capital city can be traced back to the fourteenth and early fifteenth centuries. Between 1400 and 1459 the proportion of cloth in transit towards other destinations dropped to 52.1% from the 69.5% it had been a century earlier; with the exception of 1430–9, when the number of re-exported cloths increased, during the first half of the century the proportion of hinterland consumption continued to decline (Bresc 1986:505, table 122).

Thus, while between *c.* 1450 and the 1520s re-exports from Palermo were not increasing as swiftly as the overall population, the capital itself was buying far more than it ever had previously. Given that in 1400–59 the type of cloth bought elsewhere in Sicily was not any cheaper than in Palermo (Bresc 1986:506), Palermo's increase in cloth purchases and the decline in re-exports must have been the effect of changes among upper-class consumers themselves. They are not connected *directly* to changes in the conditions of rural life (for example, rural impoverishment), for the majority of the population had never bought foreign cloth in any case.

There could be an *indirect* connection between changes in cloth imports and rural standard of living, if the redistribution of income in favour of landlords after the 1450s enabled them to buy more luxury goods than before. The proportion of the “national” income at the disposal of those who I have argued were the principal consumers of foreign cloth does in fact seem to have been increasing after the mid-fifteenth century. As argued elsewhere, rising grain exports after 1460 are a sign of increasing

land rent, not of a greater overall “surplus”; increases in labour and land productivity, which would have caused an increase in potential “surplus”, took place before or after, not at the same time, as exports of grain began once more to rise (Epstein forthcoming:ch.5). The trends of grain exports and cloth imports coincide strikingly, suggesting that the same class of people – large-scale landholders – was involved in both trades: good export years for grain coincide with high cloth imports.<sup>11</sup>

The sharp rise in the price of cloth after 1450 could also be taken as an indication of a wealthier set of consumers, who were demanding higher-quality, more expensive products. With the return of the Aragonese in the 1390s, cheaper Catalan cloth flooded the Palermo market, and average prices dropped from 4.64 to 2.84 *onze* (in decimals), a near 40% decrease. They subsequently rose only slowly to 2.96 *onze* in 1430–9 and then to 3.11 *onze* in 1440–9, at a rate of 4–5% each decade. Then, quite suddenly, average prices increased by 22.5% to 3.81 *onze* per cloth in 1450–9. However, since the price of grain in the same period had increased by just under 17% (Epstein forthcoming:ch.5), it is possible that the rise in foreign cloth prices was simply an effect of inflation; more work on the Sicilian foreign cloth market needs to be done before the relative effect on cloth prices of demand for more expensive cloths and of inflation can be accurately weighed.

If the preceding arguments about the social status of the majority of the clientele for foreign cloth are correct, shifts of size and location of the market for foreign cloth must be positively linked to comparable changes within its clientele. If the income of the aris-

tocracy and patriciate that had previously attracted foreign cloth inland from Palermo was rising throughout Sicily, *ceteris paribus* this should have been reflected in increased inland consumption; since the proportion of consumption outside Palermo was in fact *contracting* – by the early sixteenth century the proportion of all cloths imported to Sicily retained by Palermo had risen from one-half to three-quarters – this suggests that wealth expendable on luxury goods such as foreign cloth was increasingly concentrated in the capital, presumably because formerly rural clients were immigrating there. Besides being the seat of central government, with its attendant patterns of expenditure, Palermo was increasingly becoming the place of residence of the kingdom's upper classes, rather like Naples on the Continent.

We can now sum up the interim conclusions reached in this section. It is argued that the Sicilian economy during the late Middle Ages was underdeveloped, and that this situation was caused by a structural weakness of the island's manufactures, particular of the cloth industry. In exchange for the cloth Sicily did not produce and had to import, it exported grain and other agricultural products. If this were true, one would expect foreign cloth imports to meet the greater part of the Sicilians' needs. Instead, we find that imports met at most about 5% of overall needs in any one year; given income disparities, this proportion was in fact even lower. The market for foreign cloth was basically restricted to two specific classes of society: the landed aristocracy and the urban middle to upper classes (*borgesias* and patriciate). The quantity of imported cloth was closely connected with the amount of expendable wealth these

people could command. An effect of rising land rents after the mid-fifteenth century seems to have been to increase cloth imports, although rising inflation may account for part of the apparent increase. In any case, the proportion of imports to local consumption did not rise above the 5% limit before 1500. A longer-term process, which accelerated after the 1450s, was for the wealthiest Sicilians to move to Palermo; this caused an increasing proportion of imports to be consumed within the capital's walls. The importance of the foreign cloth trade would thus seem to have been vastly overestimated. We must apparently look elsewhere – specifically, to internal sources of supply – for a more accurate picture of the forces determining local economic development.

## II

The precise nature of the late medieval social and economic crisis is still controversial, although that there was a "crisis" is generally accepted (Seibt and Eberhard 1984). Much of the debate up to now has been based on the assumption that concepts like "depression", "growth", or "expansion" are applicable to whole societies, that is, that individual and aggregate indicators tend to move together and, furthermore, cannot be broken down to be more socially specific. John Hatcher, while admitting that "the fifteenth century was truly the golden age of the English labourer", falls back on "the simple fact that there were fewer people to share the resources of the nation" and on subjective evaluations of people's attitudes towards death to explain the situation in fifteenth-century England in the con-

text of depression (1977:73). In the well-known debate between Cipolla, Lopez and Miskimin (1964) on the late medieval “depression”, disagreement centres on the importance each scholar attributes to certain economic trends, which are taken to be representative of the economy as a whole. Cipolla points to indications of growth in volume of production, while Lopez and Miskimin cite equally clear cases of contraction, particularly in the size of foreign trade.

Despite their disagreements, these and other historians appear to subscribe to the idea that there is a fixed stock of goods in an economy, and this stock remains constant irrespective of changes in the number or status of the individuals involved. Thus the Black Death and the epidemics that followed, by reducing the number of individual consumers, inevitably increased each of the survivors’ share of the overall income. Although it is usually accepted that a major, albeit not immediate, effect of the “crisis” and the demographic setbacks after the mid-fourteenth century was to redistribute income in favour of the lower classes (for example Cipolla 1981:218–19), an aggregative analysis of the economy tends to obscure the changes not only in patterns of demand, but more particularly in structures of production, that such a redistribution provoked; furthermore, the preference accorded by some historians to export-led industries as agents of economic change can lead them to the conclusion that the European economy contracted in the later Middle Ages *because* these industries stagnated or declined. Both approaches are unable to account for what appears to have been a crucial characteristic of medium- to long-term economic change in the later Middle

Ages: growth in some sectors (catering principally to middle- and lower-class consumption) and stagnation or decline in others (generally those with more socially restricted outlets). This is particularly true for the main medieval manufacture, cloth.

A defining feature of the international cloth market in the medieval period is that it was a market in luxury items consumed largely by the wealthiest sectors of the population; we have seen that Sicily was no exception. Recent challenges to this view have simply shown that such cloths were not restricted to purely aristocratic consumption – a point that need not be laboured within the context of most of Mediterranean Europe. However, the limited share of the overall market that this kind of “advanced” production could command has also been confirmed (Chorley 1987). Even at the lowest end of their price scale, such cloths were still inaccessible to the vast majority of people. There seems little doubt, for example, that the success of Catalan woollens in Sicily between 1400 and 1450 was mainly due to their being on average cheaper than the competition; but even this “cheap” production was unable to command a true mass market in Sicily or elsewhere (Bresc 1983).

In his overview of the international textile market after the Black Death, Miskimin recognizes its limitations and argues that the shifts in production between England, Brabant, Holland and Flanders were actually a redistribution of the slices of the same (small) cake, in which Flanders was the loser. At the same time, he argues – principally on the evidence of Florence – that a shift towards the production of higher-quality cloth took place throughout Europe, a

“creative response” to the greater concentration or skewed distribution of wealth and the “hedonistic consumption pattern” that followed the demographic disaster of 1348–50 (Miskimin 1975:92–100; 1964:esp.490; Munro 1983:esp.103–6).

Miskimin’s interpretation rests on two main assumptions: the “global” approach mentioned above, and the belief that in the late Middle Ages it was the “élite” industries, those producing for the international market, that were the engine of the European economy. But this is to ignore the fact that by far the greatest quantities of cloth consumed in medieval Europe never travelled further than a few days on horse- or mule-back. Most cloth was produced for household, local or at most regional consumption: it was low in quality, yet its output was far greater than that of luxury cloths. Although it is difficult to assess the overall commercial value of locally marketed textiles, because of the generally rural character of production which often eschewed guild organization, its integration with peasant subsistence structures and the lack of financial and fiscal records for trade, these types of manufacture arguably had far greater multiplier effects on the economy than export-led industries. Long-term development and growth of manufacturing was predicated on such popular products and not on luxury or semi-luxury woollen and silk cloths.

The late Middle Ages witnessed an expansion of cheap textile production on a local and regional scale, often of non-woolens, catering for lower-income consumers in apparent contrast to what was happening to the better-known exporting industries in western Europe. Thus in Italy rural and

semi-rural linen, woollen and fustian clothmaking expanded – in Liguria, Piedmont, Lombardy and the kingdom of Naples – during the same period in which the Florentine industry began producing only the highest-quality woollen and silk cloth (Mazzaoui 1981:129–38; Borlandi 1953; Heers 1961:227–9; Romano 1974:1849–53, 1855–6; Jones 1978:181–3, n. 14; Comba 1984; Grohmann 1969:85, 87, 137, 173, 211, 297, 414, 427; Leone 1975:16–33, 38–43, 47–9; Mueller 1984). Genoese tolls on consumption demonstrate this shift in consumption patterns dramatically. Between 1341 and 1398 the city’s population dropped from 60,000–65,000 to 36,000–40,000 (a loss of about 40%), the index of tolls on foreign cloth imports plummeted from 100 to 39 (–61%), while that on local textile *consumption* actually rose from 100 to 103 (Day 1963:xxviii–ix).

One of the most striking characteristics of these changes is their generally rural setting; even the previously mainly urban Florentine industry moved a large part of the simpler manufacturing cycles into the surrounding countryside (Melis 1962; Kellenbenz 1963; Fournial 1967:399–416; Peyer 1977; Hoshino 1980; Mazzaoui 1981; Bridbury 1982; Comba 1984). The shift is commonly understood to have been towards more accessible, cheaper and less rigidly organized labour and closer to primary materials, including water to power fulling mills (Carus-Wilson 1952:409–14; 1959–60; Thirsk 1961).

What seems clear about this development is that it enhanced quantity and, perhaps, variability instead of enforcing high standards of quality – precisely what a nascent mass market then required (Thirsk 1978;



Millward 1981). This was a period that signalled, if not the birth of the rural and semi-rural textile industries of western Europe, a decisive moment in their secular development.

In an important recent paper, John Munro suggests that these 'local' cloth industries developed as 'import substitution' manufactures in response to a relative decline of the international trade in cheaper textiles (Munro 1988). If this theory were correct, 'local' industries would have worked for customers who had previously bought imported cloth; we would expect a quantity of cloths roughly equivalent to former imports to be produced. However, this theory conflates the luxury industry (which the Flemish one undoubtedly was, as Munro's analysis of master masons' purchasing power shows) with the entire cloth industry, overlooking the fact that the 'local' and 'international' industries catered to very different markets because of their differing price ranges. Thus, contrary to the predictions of the 'import substitution' theory, after the mid-fourteenth century 'local' industries actually expanded far more rapidly than luxury cloth exports declined. The reason for this was the different demand elasticity for cloth in the upper and lower classes of society. By the mid-fourteenth century the market for luxury cloths was relatively saturated; moreover, at the top of the wealth pyramid the income elasticity of demand for cloth was slight, that is, even quite substantial variations in a wealthy person's income would only marginally affect their expenditure on cloth. On the other hand, the income elasticity of demand for cloth of the poorer sections of society was very high. Even a less than

dramatic rise in lower class incomes after the Black Death would have increased demand for cheap textiles considerably – far more than a comparable decline in upper class incomes could affect demand for luxury cloth.

I propose to verify if these European patterns of response to the fourteenth-century "general crisis" – stagnation in the luxury textile industries and expansion in the cheaper rural and semi-rural manufactures, in response to a wide-ranging redistribution of income in favour of the lower-to-middle classes – were taking place in Sicily also. To do so, I shall have to enter into a detailed analysis of what the vast majority of the population in Sicily was actually consuming, and if and how this affected local structures of production. If no change in these structures can be perceived, this will uphold the theory that the Sicilian economy was unable to develop endogenously; if the contrary can be demonstrated, it will provide a strong argument for revising existing theories of Sicilian "underdevelopment".

### III

When answering the question of what most Sicilians were actually wearing historians have taken as their model the central and northern European structure of consumption. Recognizing how low cloth imports were, Aymard (1976:127) has sought for alternative sources of consumption in local woollen production. Other scholars have also searched for traces of what should have been, on the evidence of the small quantity of foreign imports, a widespread woollen industry, but they have only come up with the production of *orbace*, a heavy, untreated

cloth commonly given in part payment to shepherds and other agricultural labourers.<sup>12</sup> A few further, scattered manufactures of presumably better-quality woollen cloth have recently been discovered but, paradoxically, have been considered to be the main indication of “the defeat of Sicily’s industrial potentialities” during the latter half of the fourteenth century. This, curiously given what was taking place throughout the rest of Europe, is because they were *rural* (Bresc 1986:195–201). No other kinds of manufacture – of linen, cotton or even hemp cloth – have so far been described. According to Bresc technical knowledge in silk and linen weaving and dyeing, which flourished up to the thirteenth and early fourteenth centuries, subsequently disappeared. The few (woollen) manufactures that existed in Palermo, which presented a

classic organisation, dominated by the commercial capitalism of the ‘drapers’ ..., did not lack a certain standing [up to c.1350] ... But they did not confront foreign superiority, which became oppressive, in the field of high quality cloths, and retreated into the production of furnishings, blankets and counterpanes, doublets, small carpets and of the thick but water-proof *orbace* (1986:198).

We are faced here with a rather confused argument. Imports were low, therefore local production must have made up for the difference on the internal market. Yet what local manufacture can be discovered was not competitive with foreign imports – and hence was marginal. Bresc (1986:167) bolsters his argument by stating, like Michele Amari a century before (1933b:512 and 1939:826), that a general “retreat from intensive cultivation” (particularly of textile plants and fibres) took place after the thirteenth century:

The consequences of the general abandonment of intensive cultivation were immense: an increase in Sicily’s dependence, of specialisation in monoculture, a retreat of industrial and artisanal activities for lack of local raw materials ... This loss of substance is a determining factor in the obliteration of Sicily’s textile production, and in the upholding of an unequal commercial relationship: Sicily remains or becomes an importer of cloth, of silks, even of wine and oil.

Does this picture of a country that somehow “decided” to abandon all intensive forms of agriculture in favour of a grain-exporting economy fit the known facts? Let us look in turn at the production and use of each of the main cloth fibres: cotton, flax, hemp and wool. I shall not discuss silk production which, though economically important, did not play such a relevant role in clothing the Sicilians.

#### *Cotton*

As in southern Italy and Spain, cotton was introduced into Sicily by the Muslims. Although the expansion of cultivation throughout the western Mediterranean between the ninth and the twelfth century coincided with a particularly favourable climatic period, the reasons for its diffusion probably lie more in the popularity of cotton textiles among Muslims, together with the latter’s advanced knowledge of irrigation techniques which could to a large extent overcome climatic constraints (Mazzaoui 1981:17–27). Because of the wide range of cloths one could produce with it, cotton came to rival and in some cases to displace the most ancient Mediterranean textile fibre, flax (Lombard 1978:61ff.).

During the thirteenth century cotton cultivation was quite widespread in Sicily, stretching from Carini near Palermo (Kehr 1904:174–6) to Cammarata in the Madonie

mountains (Bresc and D'Angelo 1972:384 n.3), from the plain of Milazzo in the north-east (Martino 1979:52 n.67) to Licata in the south (Carini 1893:319–21, doc.cccxxxiii). In the first half of the fourteenth century Sicilian cotton was still widely exported, principally to Catalonia but also to Africa and Marseilles,<sup>13</sup> despite the fact that according to Pegolotti (1936:293) it was of poor quality, worse even than the cotton of Basilicata, Malta and Calabria. He also stated that Messina and Palermo imported cotton from Acre and Cyprus (1936:65, 66, 94), and it is known that cotton (perhaps of another quality) was subsequently imported to Sicily from Amalfi (Bresc 1986:512).

However, cotton did not disappear from Sicily after the Black Death, although the reduced population (losses were over 50% – Epstein forthcoming:ch.1) may well have found it harder to cultivate and, perhaps, to irrigate given the large amounts of intensive labour it requires. After 1350 cotton was still grown in the Madonie mountains (Bresc-D'Angelo 1972:384 n.3), on the Aeolian islands,<sup>14</sup> on the Terranova plain (Bresc 1986:170) and near Alcamo (Di Giovanni 1876:62). By the fifteenth century the cultivation of cotton had concentrated in central and southern Sicily and particularly in the south-eastern Val di Noto. Noticeably, cotton seems to be less important compared to other areas in Sicily in the region most hard hit by the fourteenth-century demographic setbacks, the western Val di Mazara;<sup>15</sup> cultivation survived or even prospered in what was a still quite densely settled and ecologically well-endowed area, the Val di Noto. It is here, in fact, that the most favourable soil and

climatic conditions prevail – ideally, a mean temperature of  $\approx 10\text{--}15.5^{\circ}\text{C}$ , a growing season of about 180–200 days without frost, minimum rainfall of about 50 cm a year, and a mixture of clay and sandy loam with a fair amount of organic matter; the area between Noto and Syracuse has relatively light soil and is particularly well watered.<sup>16</sup> The disappearance of cotton from western Sicily, if that is what took place, does not seem to be attributable to competition by sugar plantations (in need of similar types of terrain and intensive care), which appeared around Palermo in the latter half of the fourteenth century, since not only was cotton apparently not cultivated around the city previously but in areas like Noto it seems to have flourished side by side with sugar-cane (Epstein forthcoming:ch.4).

By 1370 at the latest (trade was probably taking place already before 1350) Malta and the island of Pantelleria also started exporting cotton to Syracuse and to a lesser extent to Catalonia in order to pay for imported grain.<sup>17</sup> Catalans were buying cotton, probably in eastern Sicily where their political allies then held sway, throughout the second half of the fourteenth century (Madurell Marimón and García Sanz 1973:docs.120, 128, 164 (1368–99)). In 1376 over 39 tons of Sicilian cotton were exported to Genoa, nearly all from Messina, although in fact the fibre may have originally come from Calabria and Lipari; a single ship transported 33 tons.<sup>18</sup> The 1382 statutes of Ancona may refer to dyed cotton coming from Sicily, while Marseilles imported Sicilian and Maltese cotton throughout the late fourteenth and fifteenth centuries (Ciavarini 1896:257–9; Mazzaoui 1981:183 n.85).

During the first half of the fifteenth cen-

tury cotton was sold in south-western Sciacca (Grohmann 1968-9:338), in the county of Modica in the south-east (Sipione 1968:244) and in Aidone near Piazza Armerina in the centre of the island (Cordova 1890:42). The main centre of consumption seems to have been Syracuse, whose market controlled local production in Terranova and in the rest of south and south-eastern Sicily (Bresc 1986:170 for Terranova) while importing cotton from Malta for local manufacture;<sup>19</sup> Syracuse also exported large quantities to Catalonia. In 1414 Ferdinand I wrote on the jurors of Syracuse about the fraudulent practices in the sale of cotton to Catalan merchants *quatenus in dicta civitate vel aliis locis ei adiacentibus*; sacks of cotton bought in the city and its surrounding territory were to be sealed with a special mark to ensure good quality.<sup>20</sup> After about 1460 Messina began importing from further abroad than Calabria, which was probably still its main source of supply;<sup>21</sup> this might explain the wide spectrum of prices we find there.<sup>22</sup>

Sicily seems to have exported cotton right up to the seventeenth century (Mazzaoui 1981:174 n.77, 177 n.23, 183 n.85). Francesco Cupani, a seventeenth-century botanist (1696:85-6), records five varieties of *Gnaphalium* (now *Gossypium herbaceum*), popularly called *cuttuneddu di campagna*; he also identifies one *Gnaphalium frutescens*, which given its popular name (*arvuliddu di cuttuni*, little cotton tree) may have been used as a cheap cotton substitute. Cotton was still cultivated in Sicily in the 1960s and a number of local varieties were recorded (Trasselli 1982a:24 n.6 quoting Centro Studi 1963:135; Gussone 1844:464-5).

After the mid-fourteenth century cotton

cultivation seems to have concentrated and expanded in eastern Sicily and particularly in the Val di Noto, while it probably contracted in the Val di Mazara. Overall, evidence for production increases, and as we shall see, this appears to be confirmed by developments in the manufacturing sector.

### *Flax*

Flax, the most ancient textile fibre known to man, which in our period and region was far more widely cultivated than cotton, has received on average much less attention from medieval textile historians. To some extent this may be because of its extreme diffusion and because not being widely traded it has left fewer documentary traces;<sup>23</sup> some historians have also argued that climatic constraints limited its cultivation to more temperate, Continental climates such as that of Lombardy (Toubert 1973:219). For Sicily this is manifestly untrue, as a glance at the lists of bed and personal linen in individuals' inventories shows; Cupani (1696:114-15) distinguishes seven kinds of *Linum usitatissimum*, four of which were wild, while Gussone (1842:375-9) lists ten varieties. The Constitutions of Melfi (1231), which expressly forbade that flax and hemp be placed for retting closer than one mile to a town or castle because of the stench, indicate that both plants were widespread in southern Italy (Conrad et al. 1973:308).

Flax exhausts the soil, and may thus be difficult to cultivate where there is great pressure on the land. This technical fact would imply that Sicily, which was relatively underpopulated in the later Middle Ages, but also experiencing an increasing popular demand for clothing, was in a

favourable position for flax cultivation to spread further. Flax cultivation is well attested throughout the island under the Normans (Peri 1956:247; D'Angelo 1971:54–62), but by the end of the thirteenth century it seems to have been more common in the eastern half;<sup>24</sup> the tendency towards regional specialization seems to have continued right up to the late fifteenth century. Lentini was the main centre of production; flax was so abundant there that during periods of extreme famine its seeds were eaten as a substitute for grain.<sup>25</sup> Where flax grew abundantly linseed was also pressed for oil,<sup>26</sup> but the plant's main purpose was for fibre. For the Val di Noto we find it mentioned in Castrogiovanni,<sup>27</sup> Catania,<sup>28</sup> Aci (which supplied Catania),<sup>29</sup> Aidone (Cordova 1890:42), Paternò,<sup>30</sup> Syracuse (Ashtor 1978:443–4), and the counties of Caltanissetta<sup>31</sup> and Modica (Sipione 1968:243–4). In the Val di Mazara it was apparently grown mainly around Sciacca, and in Alcamo;<sup>32</sup> it was also exported from Trapani to northern Africa<sup>33</sup> and is mentioned in the ordinances of the Greco-Albanian colony of Palazzo Adriano (La Mantia 1904:3, 8). Along the torrent of the Ammiraglio near Palermo it was grown together with hemp, which likes the same sort of humid soil.<sup>34</sup>

In the Nebrodi mountains, where flax is still grown and woven today (*Il lavoro* 1977; *Immagini di lavoro* 1981), Randazzo was an important centre of production.<sup>35</sup> Messina was supplied mainly from Calabria<sup>36</sup> and Naples,<sup>37</sup> but also from the Val Demone,<sup>38</sup> and exported flax to Genoa (Day 1963:502), Cagliari,<sup>39</sup> and even back to Calabria<sup>40</sup> and to other parts of Sicily – sometimes in exchange for wheat or to a lesser extent

cheese, for which the Val Demone was largely dependent on outside supplies.<sup>41</sup> The lack of evidence for exports from the Val Demone during the second half of the fifteenth century could possibly indicate a shift in Messina's main function, from redistributor to consumer, following the development of the local veil industry.

Nonetheless, flax production in Sicily seems by and large to have met local demand (discussed in the following section), implying that the plant was more widely cultivated than it is possible to trace. Although, as with cotton, the Val di Noto seems to have been the largest producer, flax was probably also quite common in the Val Demone, where an export industry in high-quality veils had developed by the second half of the fifteenth century. Regional specialization might explain why Palermo regularly imported Egyptian flax, although the main reason for this was probably the latter's higher or different quality.<sup>42</sup>

### *Hemp*

Hemp, although not nearly as important as cotton and flax for manufacturing, since it was mainly used for sacking, sailcloth and rope, could be mixed with flax to make a heavier kind of half-linen cloth. Hemp in the form of tow was also used by shipbuilders and so was often needed for the Crown's arsenals;<sup>43</sup> Alfonso the Magnanimous did not hesitate on occasion to ban all trade and export in order to meet his more pressing needs.<sup>44</sup> Perhaps because of hemp's strategic importance, but more probably because of more limited cultivation, the price of flax and of the less valuable hemp was apparently very much the same.<sup>45</sup>

It is difficult for lack of detailed evidence

to trace any particular changes in the areas and amounts hemp was cultivated. Like cotton and flax, hemp seems to have been grown mainly in the Val di Noto, near Syracuse,<sup>46</sup> Noto,<sup>47</sup> Catania,<sup>48</sup> Paternò,<sup>49</sup> Lentini (Starrabba 1877–8:221–2 (1413)) and in the vast county of Modica, particularly in the lands of Ragusa, Scicli and Modica itself.<sup>50</sup> In the fifteenth century sacks for the sugar-works (*trappeti*) near Palermo came from Catania (Bresc 1986:239, n.54). Hemp also grew in the Val di Mazara, but does not seem to have been an important crop there (Bresc 1972:121; Di Giovanni 1876:59). There seems to be no evidence for hemp cultivation in the Val Demone in this period; it was imported from the Val di Noto both for local consumption, as in Randazzo,<sup>51</sup> and for re-export (Messina produced ropes and naval shrouds, both for its local arsenal and for other ports like Trapani (Starrabba 1901:220–2)). However, words for hemp in contemporary Sicilian dialect are to be found mainly in central and eastern Sicily (Jaberg and Jud 1928–40:1493, 1498).

Evidence for the cultivation of hemp is poor, and can be inferred mainly from the existence of manufactures (of rope, sails, shrouds and other cheap textiles) and from royal requests for military use. Consequently there is little evidence for geographic specialization during the fourteenth and fifteenth centuries, although there are indications that, as with cotton and flax, the south-eastern Val di Noto was better endowed than other areas.

### Wool

As elsewhere in western Europe – the English case is probably the best known – the

expansion of husbandry<sup>52</sup> in Sicily during the fourteenth and fifteenth centuries had important effects on the wool market. Evidence for this shift in agriculture is mostly indirect and mainly refers to the Val di Mazara. The late medieval evidence for the development of textile manufactures may possibly indicate a change in the distribution of stock among the *valli* compared to the situation in 1283, for which we have quite reliable figures. At that time the Val di Mazara accounted for 36% of Sicilian sheep (with most of them, however, being raised in the Madonie mountains, particularly around Polizzi), compared to only 21.8% in the Val Demone; the Val di Noto, with 42.2%, seems to have already begun specializing in husbandry and perhaps also in wool manufacturing (Epstein forthcoming:ch.5). By the mid-fifteenth century the sheep and wool market in Noto itself was very active.<sup>53</sup>

The poor quality of Sicilian wool was common knowledge at the time.<sup>54</sup> Charles I's attempt to improve the local strain of sheep by importing animals from northern Africa is also well known.<sup>55</sup> Although nothing is known about the results of this particular effort, by the sixteenth century at the latest there are references to wool from Barbary sheep raised in Sicily; there are now three different Sicilian races: *siciliana*, *comisana* and *barbaresca*.<sup>56</sup> Despite the expansion of animal husbandry after 1350, a specialized transhumance system such as existed in Spain and southern Italy never developed in Sicily; sheep husbandry seems to have been more integrated into mixed farming and responding to demand for meat and especially cheese rather than a source of wool. This could well explain why no-



thing like the Spanish merino sheep was bred in Sicily, although the two races of sheep which were cross-bred for merino were very similar. In addition to lack of interest in wool and to some extent connected with the lack of a *mesta* system is the relatively small (and, after 1350, apparently decreasing (Epstein forthcoming:ch.5)) size of the Sicilian flocks, which may have inhibited specialized breeding.

Nonetheless, although there was little local or international pressure to increase the quality of local wool, this need not have been an insuperable manufacturing constraint, as is shown by the cases of Florence and Flanders, where the local high-quality industry imported wool from Spain or England. In fact, for reasons I shall come back to, Sicilian manufactures were quite content to use the somewhat coarse local variety of primary material.

#### *Conclusion*

More vegetable fibres were grown in the Val di Noto than in the Val Demone; the Val di Mazara lagged behind the other *valli* in all sectors. There is clear evidence of economic differentiation and specialization of fibre cultivation on a regional scale, a process which had already begun by the fourteenth century (Epstein forthcoming:chs.2–3) and was probably enhanced as a result of the “ruralization” of manufacture and the growth of popular demand in the later Middle Ages. This conclusion has wide implications for the question of Sicilian economic development, for if the Val di Noto – a more predominantly pastoral region than the others – was specializing in rural cloth manufacture, as argued below, it could help explain the region’s demo-

graphic resilience and its extraordinary recovery and expansion during the fifteenth century (Epstein forthcoming:ch.1). More generally, these processes of differentiation and specialization indicate an economy that was far from the stagnant, non-developing one depicted by recent historians, an economy in which shifts in demand were actively influencing both agriculture and manufacture in a mutually integrative way.

#### *IV*

##### *Cotton manufacture*

Cotton manufacture in medieval Sicily is quite widely documented,<sup>57</sup> and its popularity can be seen in the large number of Arabic terms medieval Sicilians employed for particular kinds of cotton cloth (*alfanectus*, *buccaxinum*, *burdum*, *chumia*, perhaps *iuppa* – not necessarily limited to cotton – *sytir* and *tarcha*) (Caracausi 1983). In 1506 Gian Luca Barberi (1966) listed the towns within the royal demesne where the *gabella arcus cuctoni* was levied. The toll was apparently applied on a piece-work basis to the padding or quilting of doublets, jackets, quilts and coverlets (Pollaci Nuccio and Gnoffo 1892:327). To Messina, Catania, Trapani, Sciacca, Agrigento, Naro and Noto<sup>58</sup> listed by Barberi, we can add Caltagirone (under feudal jurisdiction),<sup>59</sup> Castrogiovanni<sup>60</sup> and Palermo, where a *gabella dili gippuni et iupparelli alias di l’arcu dilu cuctuni* was granted in 1454.<sup>61</sup> Production in Syracuse, the main manufacturing centre of *burdo* (a mixed cloth of cotton and flax or wool used mainly for mattress ticking and curtains), is not documented directly;<sup>62</sup> the cloth, which was of high quality, was sought after throughout Sicily.<sup>63</sup> Randazzo and Marsala, which pro-



duced their own quality of *burdo*, are also not mentioned by Barberi.<sup>64</sup> Quite probably a number of other manufacturing centres are missing from his list, particularly those centres of eastern Sicily for which evidence is more scanty; but given the apparent distribution of resources after the mid-fourteenth century discussed previously (which indicated a concentration of cotton cultivation in the Val di Noto and to a lesser extent in the Val Demone, and an apparent decline in the Val di Mazara) one can note that of the twelve localities with distinctive local production, five were situated in the Val di Mazara (Palermo, Trapani, Sciacca, Agrigento and Naro), while the Val Demone seems to have had only two recognizable centres, Messina and Randazzo. Lipari is known to have produced cotton sails.<sup>65</sup>

Cotton was also used for table and house cloth, for blankets, bedcovers, clothing and garment decoration. Syracuse produced a type of large white blanket decorated with roses,<sup>66</sup> cloth for mattress ticking<sup>67</sup> and for various types of clothing. Notarial registers for Randazzo record many qualities and designs of local cloth.<sup>68</sup> Messina, on the other hand, seems to have specialized in tablecloths and veils.<sup>69</sup> Toll revenues from the *arcus cuctoni* recorded in 1506 for Messina were much higher than anywhere else (10 *onze* compared to 20 and 6 *tari* in Trapani and Catania); if the toll was that of the early fourteenth century (2 *grani* per piece) at least 3000 pieces (jackets etc.) were being made there each year.

By the fifteenth century locally produced fustians, which may have been imported into Sicily up to the thirteenth century (Mazzaoui 1981:189 n.18), begin to appear in the sources; there is even evidence of

some being exported to Majorca (Bresc 1986:566 n.131 (1451)). Fustian was produced in Palermo<sup>70</sup> (where it already appears in the early fourteenth century) (Pollaci Nuccio and Gnoffo 1892:326), Malta (Bresc 1986:203), Patti (Sciacca 1907:313), Randazzo,<sup>71</sup> Noto<sup>72</sup> and perhaps also in Messina (Gabotto 1906–7:262, 268, 270–1, 485) and Catania (where we find tolls on *menzuoli* and *incordellati*).<sup>73</sup> This indicates a relative concentration of cotton manufacture in eastern Sicily.

The existence of these local fustian manufactures raises an additional very important point. In contrast to the situation in, for example, Catalonia, where by the fifteenth century fustians and *tele* from Lombardy, Germany, France and even Calabria and Sicily were flooding the market (Del Treppo 1972:201, 274, 282–3), Sicily – which should have been far more dependent on international textiles – does not seem to have imported large quantities of fustian. Local production was able to fulfil local needs: at least as far as non-woollen cloth was concerned (and probably, as we shall see, in most woollens as well), Sicilian manufacture was technically quite capable of withstanding foreign competition.

#### *Linen and hemp manufacture*

The production of linen and hemp cloth is far less documented, probably because it was technically less specialized and therefore could be practised on a household basis.<sup>74</sup> Dowry lists, together with post-mortem inventories – one of our main sources for local textiles – described large quantities of linen shirts, corsets, handkerchiefs, napkins, towels, sheets, cushion and mattress covers, all probably spun and woven by the

bride herself (Giambruno 1906:doc.cxxv; Bresc and Goitein 1970; Schneider 1980), Post-mortem inventories in eastern Sicily commonly list spun and sometimes woven flax.<sup>75</sup> We sometimes find a person giving the flax grown on his land to a peasant to weave, but the quantity of material involved (about 30 m) might not indicate a very developed putting-out system.<sup>76</sup> However, Trapani's tolls of 1312 mention *textitores pannorum de lino*, who had to pay 6 *tari* a year per loom, while looms for other cloth paid 5 *grani* (only 4% as much).<sup>77</sup> For fifteenth-century Noto a number of contracts register sales of up to 75 m of (linen?) *tela* at a time.<sup>78</sup> An effect of widespread household production would be that linen (like flax) was little traded except for high-quality or particularly large pieces; yet this seems to conflict with the evidence for large quantities of linen exchanged in the fair of Randazzo.<sup>79</sup> Probably the simpler kinds of manufacture (which, judging by inventories, included embroidering)<sup>80</sup> took place within and for the household, while larger and technically complex work involved more specialized labour and responded to market demand. Whether there was in fact an actual social or sexual distinction between the two forms of labour it is not possible to say; although it would be tempting to argue that "rural" industry grew out of female domestic production, the present state of our knowledge (particularly as regards female labour markets) gives us no grounds to do so.

The elusiveness of linen manufacture may be due to some extent to the scarcity of notarial records for eastern Sicily. High-quality linen veils began to be produced in Messina in the late fifteenth century, al-

though it may be that we learn about this manufacture only because veils began then to be widely exported, particularly to Valencia and Barcelona.<sup>81</sup> In the early sixteenth century Messina appears to be producing large quantities of linen cloth out of imported flax, although again no previous evidence exists for this manufacture (Traselli 1979:88–9, 95, 99). There are some indications of locally specialized manufactures for linen bed covers – the largest kind of cloth, which may have needed a different kind of loom or greater technical skills to produce – in Syracuse, Malta, Marsala, Sciacca and Castrogiovanni developing during the late fourteenth and fifteenth centuries (Bresc 1986:203–4); they were even exported to Florence (Bec 1969:73). Two of the four mainland centres (thus excluding Malta) are situated in the Val di Mazara, which seems to have been growing less flax than the other two *valli*; this impression could, however, be due to the documentary sources for manufacture, mainly notarized inventories, which are far more abundant for western Sicily.

The poorest type of cloth, that made with hemp, is also least documented. Sacking and sails, let alone rope, were too cheap to interest substantial merchants or involve sums of money sufficiently large to leave many traces in the documents. The single largest consumer of hemp was undoubtedly the Crown (because of naval demand), but lacking detailed accounts there is no way of charting production.<sup>82</sup> Because of its common use, hemp cloth must have been regularly traded (besides probably being produced for household use),<sup>83</sup> we find hemp mentioned somewhat less frequently than



flax in post-mortem inventories (Gabotto 1906–7:273). It does not seem to have been used much for regular clothing.<sup>84</sup>

#### *Wool manufacture*

Partly because of the surviving sources, which mainly concern Palermo, most research on urban wool manufacture has concentrated there. The failure of the Genoese adventurer, Alafranchino Gallo, to set up a manufacture between 1322 and 1337 has been taken as the main proof of Sicilian ineffectiveness in the textile industry (De Vio 1706:82–3, 149–50; Pipitone Federico 1912; Trasselli 1956:304–5; Costa 1981; Besc 1986:199). A previous attempt by Frederick III to set up a shop run by Lombard Umiliati also seems to have failed (Trasselli 1956:304–5), and there may have been other unrecorded attempts.<sup>85</sup>

The explanations given for these failures – the poor quality of the local wool and the low skills of the labour force (Trasselli 1955:295 n. 9), the competition on the one hand with cheaper local rural production and on the other with high-quality foreign imports – appear at first glance to be reasonable.

The quality of the wool and some of its implications have been discussed above. It is difficult to determine the level of skills needed to produce high-quality woollens or the kind of skills actually available within Sicily. It is true that quite a number of foreign textile workers are known to have immigrated to Palermo during the fourteenth and fifteenth centuries (Besc 1986:208–9), but it is difficult to distinguish there between the “natural” mobility of a traditionally vagrant profession and the specific attractions provided by a poorly en-

dowed labour market such as Sicily is supposed to have been. Although, as we shall see, there was no lack in Sicily of sophisticated technical traditions in textile production, these were principally connected with linen and cotton manufacture; furthermore the Lombards, who immigrated in the twelfth and thirteenth centuries and who seem to be connected with late medieval “rural” woollen industries, settled principally in central and south-eastern Sicily, and were little connected with the larger cities. There does not seem to be a *prima facie* reason for immigration not to have supplied the necessary technological knowledge if this was lacking; immigrant labour *was* resorted to on occasion but with no noticeable success. The statement that such necessary knowledge was lacking misses the point, which is *why*, given the existing endowments (Lombard traditions) and opportunities (immigration), these were not taken advantage of.

As far as local competition is concerned, up to the 1340s the production of *orbace* and woollen caps was quite common in Palermo,<sup>86</sup> but by the end of the century wool manufacture had more or less disappeared from the city (Trasselli 1956:312), with the only known producer working in conjunction with a weaver in Polizzi.<sup>87</sup> By the second half of the fourteenth century already most cheap woollen cloth and more specialized products like caps were being imported from the Madonie – particularly from Polizzi, but also from nearby Caltavuturo and Castelbuono – to some extent from Corleone, and from Piazza and Noto, which sent large quantities of over 200 *canne* (400 m) per shipment (Besc 1986:210 n.14); Palermo may have specialized in

finishing cloth made elsewhere.<sup>88</sup> Attempts to introduce manufacture there, particularly of caps, were renewed towards the end of the fifteenth century, but the apparent need to import foreign labour and the fiscal incentives that were granted seem to indicate very strong difficulties faced by urban manufactures in Sicily.<sup>89</sup> Such apparently futile attempts to implant urban textile industries were made also by Messina, where another Genoese tried to develop a wool manufacture in 1404 or 1405, with no lasting results.<sup>90</sup> A similar pattern can be discerned for the kingdom of Naples up to the mid-fourteenth century (Caggese 1930:530–6), nor were subsequent Aragonese attempts in Naples ever very successful (Grohmann 1969:266–7).

There is, however, no evidence that local competition – which was limited to the cheaper varieties of cloth – could have had any influence on manufacture specialized in high-quality woollens. The attempts to set up high-quality manufactures never gained sufficient impetus to advance beyond rather cheap production. One serious reason for this may indeed have been international competition, and the peculiar structure on which the international cloth trade rested in Sicily. We have seen that in Sicily the market for luxury cloth was quite limited, both socially and in size; and that to a large extent the clientele for this cloth was the same that obtained a large part of its revenues via the international grain market. The merchants who sold cloth were the same, or were part of the same communities, as those who bought grain. Although presumably the buyers of luxury cloth in Sicily were not too preoccupied about where the cloth came from (and

would therefore have bought locally produced high-quality woollens had there been any), foreign merchants (and even intermediating locals) surely had no incentive in fostering Sicilian competition,<sup>91</sup> while they had all the interest (if only to maintain a roughly even balance of trade) in establishing the closest possible link between what they bought (grain) and the only major article they could sell: high-quality cloth. Because of the socially determined constraints on the market for expensive woollen cloth, no medieval high-quality manufacture could limit its output to a purely local or regional market, however wealthy, and in fact found most of its clientele somewhere abroad. Once again, foreign merchants had no interest in peddling wares which would compete with their own, and the Sicilian mercantile community can be presumed not to have been interested in changing the system as long as it could make its customary profits. As argued in the following section, however, international competition only provides part of the explanation, and perhaps not the most important part at that. There seem to have been forms of endogenous institutional constraint which may well have been more powerful.

Finally, to factors directly involving foreign competition and trade networks one might add the misguidedness of trying to develop cloth production in the larger Sicilian cities, in a period when the most advanced industries elsewhere in Europe were moving to the countryside or to the smaller urban hinterland because of lower overhead and transaction costs. This seems to be the lesson for southern Italy, where the most successful manufactures, which often attained quite high quality, developed in the

outlying provinces (Grohmann 1969:98, 211, 279; Aymard 1976:136–9).

In Sicily, like elsewhere in Italy, the “ruralization” of woollen production apparently entailed – more than a dramatic shift from town to countryside – an enhancement of the function of middle-sized semi-rural towns with good access to running water for washing and fulling and to peasant labour (a large proportion of peasants lived in these towns rather than in small villages). Since the town was presumably the organizing centre both of labour and of subsequent commercialization, one effect of the contemporary tendency to expand urban jurisdictions over surrounding territories and hamlets (Epstein forthcoming:ch.2) can have been to improve access to cheap labour; otherwise, as we shall see, corporative control over labour in textile manufacture seems in this period to have been particularly weak.

The coincidence between the location of fulling mills and other machinery (*bactindria* and *paratoria*) and known manufacturing centres is noticeable (Figure 2). We find industrial machinery in the area of the Madonie, particularly in and around Polizzi, in the surrounding county of Scalfani<sup>92</sup> and in the county of Geraci; further east in the Val Demone, in the plain of Milazzo, in Nicosia and particularly in Randazzo and its district;<sup>93</sup> finally in the Val di Noto, near Caltagirone and Lentini, but especially around Noto itself, where the feudal rights over the *saltum aque molen-dinorum et paratorum ... ubi panni extenduntur* were very much aspired to. The only *paratorium* not to appear in the northern mountain ranges or in the Val di Noto seems to be one in Salemi, built in 1493 *ad*

*opus parandi albaxia [orbace]*, while the main manufacturing town for which I have not found any fulling mills in this period is Corleone, perhaps because its industry was petering out by the end of the fourteenth century (Trasselli 1956:308–9; Bresc 1986:208–9).

Manufacturing also took place in the area around Ucria and Sinagra near Patti,<sup>94</sup> in Randazzo<sup>95</sup> and Castiglione,<sup>96</sup> all in the Val Demone. An active trade in caps in Messina in the late fifteenth century could indicate local manufacture.<sup>97</sup> Catania was also known to produce *orbace*.<sup>98</sup> The main wool-manufacturing area, however, as the number of references to fulling mills indicates, was situated in the vicinity of Noto and in the county of Modica, particularly around Ragusa and subsequently also in Scicli, which supplied both Palermo and Messina.<sup>99</sup> By the late sixteenth century Noto was producing 100,000 *braccia* (1000 cloths of 25 *canne* each) of wool cloth for export each year; the origins of this industry appear to lie in the fifteenth century.<sup>100</sup> There was probably also an industry in Syracuse.<sup>101</sup> In the fifteenth century no major manufacturing centres seem to have existed in western Sicily.<sup>102</sup>

The accepted view of local woollen production is that it was of poor, in fact of the poorest quality, used only by peasants and other underprivileged persons. The word of the chronicler Michele da Piazza himself might be taken as proof of this. In May and June 1357, when the fortunes of Frederick IV of Sicily were at their lowest ebb and the Angevin troops were near to besieging Catania itself, the peasants of Taormina, Castiglione, Francavilla, Calatabiano and elsewhere suddenly attacked the invaders,

who were destroying their crops and vineyards. A massacre ensued and the few surviving Angevin soldiers fled, leaving all their precious goods and particularly their clothing on the ground. "Many peasants", wrote Michele, "who from their birth had only dressed in thick woollens (*panni grossi*), now covered their bodies with the enemy's clothing, decorated with silk and silver" (1980:2.16).

This chronicler's rhetorical flights should not be taken too seriously, although they might be taken to describe the situation preceding the widespread diffusion of cheap manufacture. By the fifteenth century, when the sources are more abundant, we find evidence for a number of distinct qualities of Sicilian wool cloth. In 1474–5 the monastery of San Martino delle Scale, for example, probably not a close follower of fashion (although black was then popular), bought three different kinds of black cloth in Ragusa (*nigro masculino*, *nigro di cucullo* and *nigro di manto*) (Giuffrida 1976:67, n.91) and there is extensive evidence for woollen cloth dyed in other colours;<sup>103</sup> this seems to be the meaning of the references to *orbace pycti* (painted) coming from nearby Patti and Lercara Friddi.<sup>104</sup> People recognized particular kinds of *orbace* from Randazzo, Castiglione and Catania, for example, as if they had some design or quality to distinguish among them. A kind of mixed wool and, probably, linen cloth was also produced under the generic name of *tela* (Giuffrida 1976:69; Mazzaoui 1981:80, 82), although the term probably defined a wide variety of textiles, including pure linen and cotton ones.<sup>105</sup> *Tela*, for which Noto was a major manufacturing centre,<sup>106</sup> also had a modest foreign outlet.<sup>107</sup>

### *Dyeing and finishing*

In discussing textile manufacture, something must be said also of a major element of the process of cloth production, namely dyeing and finishing; it is a question directly connected with the argument, put forward by Bressi (1986:167, 198), that Sicilian manufacture was technologically stagnant and unable to match foreign competition.

Although inventories show that most Sicilian cloths were coloured, it is often difficult to distinguish local textiles from foreign imports if the latter are not described with any precision. Furthermore, we have hardly any direct reference to local dyeing, except through the tax that was levied on it (*gabella tinctoriae*). We know very little about organic "poor" dyes used in pre-industrial manufacture, partly because they have left so few traces (Multhauf 1984). Here I have generally assumed that if a dye known to have been used elsewhere was also found in Sicily, it was actually being exploited there too. What follows is a first attempt to chart, if not actual practices (Bressi and Bressi 1980:97–8), the technical opportunities open to Sicilians given their natural resources.

Sicily was naturally well endowed as far as soap (Pollaci Nuccio and Gnoffo 1892:326) and astringents are concerned. The ash of *Salsola kali*, which grew near Sciacca, Agrigento and Catania (Boccone 1674:59–60) and was known abroad as *soda di Catania*, was exported to the rest of Italy up to the nineteenth century as a basic ingredient for making both soap and glass (Ashtor and Cevidalli 1983:497, 499, 506, 516, 522); it was also commonly used in Sicily to scour and bleach flax (Boccone 1674:59–60). Alum, an astringent and mor-

dant much used in the high-quality industries both to scour wool and to fix colours, was found both on the Aeolian islands and in central and eastern Sicily around Etna. When Levantine supplies were interrupted in the mid-fifteenth century, Genoese and Sicilian entrepreneurs began exploiting Sicilian alum mines for export; however, the discovery or the opportunity of working the far larger mines near Tolfa soon shifted interest away from the island (Epstein forthcoming:ch.4). *Saponaria officinalis*, common throughout the island, produces mild oleic acid which can be used to clean vegetable fibre. Gall nuts,<sup>108</sup> sumac (*Rhus coriaria*, much used also for tanning leather) and alkali (the *soda di Catania*), all found in Sicily, are also good mordants; the first two were particularly suited for cotton. Etna was a source both of volcanic ash and of sal-ammoniac; the latter was exported to Spain and Egypt under the Muslims (Lombard 1978:147). There may have been fulling earth available too.<sup>109</sup> Finally, the water in Paternò possessed such astringent qualities that it was used as a mordant and to make cloth turn black (Arezzo 1542:24v-5; Fazello 1573:33).

Dye-works and the activities of dyers are mentioned quite frequently, both before<sup>110</sup> and after the Black Death,<sup>111</sup> disproving any catastrophist theory about technological decline during the fourteenth century (Bresc 1986:198). According to Barberi (1966), in 1506 the royal demesne included a toll on dyeing in Palermo, Trapani, Sciacca, Agrigento (Val di Mazara), Messina, Randazzo, Nicosia, Castoreale (Val Demone), Catania and Noto (Val di Noto). Since up to at least the mid-fifteenth century Syracuse in the Val di Noto also levied a toll on

dyeing, dye-works would appear quite evenly distributed throughout Sicily. However, if the previous conclusions about the Val di Mazara's relative lack of manufacturing industries are correct, most active dyeing there may have been done mainly on finished cloth imported from elsewhere on the island. On the basis of Barberi, it would seem that what tolls had not yet been alienated as appanages yielded very little indeed; however, the returns from the sale of the *gabella tintoriae* in Syracuse increased from approximately 10 to 40 *onze* per year between 1437 and 1458.<sup>112</sup> Barberi mentions 15 to 20 *onze* in Messina as the highest returns. In early fourteenth-century Palermo the average toll was 1 *tari* for 2 *canne* of cloth; thus at least 1200 *canne* would have been passing through Messina's official dye-works in the 1490s, and more than double that amount in Syracuse in the 1450s. Although the toll probably included most colours,<sup>113</sup> it seems reasonable (although unverifiable) to suppose that, just as cheap cloth was not subject to heavy taxation, cheap dyeing was nearly exempt (or could easily evade tolls by taking place beyond government control).<sup>114</sup>

Despite complaints in the late sixteenth century that local (luxury) textile industry was undeveloped for lack of good dyeing materials (justifying a request to the Crown to introduce extensive "industrial" cultivation of woad) (Baviera Albanese 1974:39), there is abundant evidence to suggest that the cheaper kinds of local cloth – wool, of course, but also the harder to dye linen and cotton textiles (Trasselli 1956:308 n.11; Multhaus 1984:586) – were given all the major colours, including red, black, green, blue and yellow.<sup>115</sup> There are also references



to locally produced and dyed green, blue and violet silk<sup>116</sup> and to multicoloured carpets and coverlets.<sup>117</sup>

Red, a very popular colour, could be obtained with gall nuts, carobs and sesame seed (Sic. *iuriulena*; Arab. *gulyulan*) (Cupani 1696:87); henna was used up to the thirteenth century, and there seems little reason for believing that it should have disappeared thereafter;<sup>118</sup> madder (*rugia di tinturi*) was also used (Cupani 1696:193), but had disappeared by the nineteenth century (Gussone 1842:193–4). An annual grass of the Compositae family, *Carthamus tinctoria* or *sativa* (Sic. *usfaru* – Caracausi 1983:387), sometimes used to adulterate saffron, gives a lightish red-orange tint; a lichen, *Roccella tinctoria*, common throughout the Mediterranean, was ground and fermented with urine to produce a red-scarlet dye;<sup>119</sup> two types of beetle, *Kermes vermilio* (*Coccus ilicis*) and *Dactylopius coccus* (the latter, which is rarer, is found on Malta), gave a very popular red tint; finally a number of molluscs of the genus *Murex* and *Nassarius*, quite common in Sicilian seas, produce a deep red verging on the purple (Carini 1881:26–30).

Black could be obtained from the bark of walnut tree roots, of wild *Prunus*, oak and maple, besides gall nuts and sumac; we have seen that the water near Paternò was used to dye cloth that way.

The classic yellow dye was dyer's broom (*Genista tinctoria*); saffron, *Crocus sativus*, which grew wild in Sicily (*zafarana di povireddi*, of the poor) (Fazello 1573:28; Cupani 1696:53; Zeno 1909:290), does not seem to have been used much for dyeing (Lombard 1978:130). Most tree barks produce dyes whose primary colour is yellow (Bellenghi 1811:28–9); in one instance 5 can-

*tara* of wood *dilo quali si fa tinta ialina* were exported from Trapani.<sup>120</sup> In 1499 a man was given licence to export to Africa in order to ransom a prisoner flax, wine and 25 *cantara* of *gorczena*, a term derived probably from the Catalan *groc*, *grogguena*, describing a substance which gives off an orange-greenish colour.

Indigo (*Indigofera tinctoria*) and woad (*Isatis tinctoria* and *argentea*), which dye blue, were both found in medieval and modern Sicily (Gussone 1844:147–8). Woad is one of the few dyes which needs no mordant to be fixed and can be used easily with linen and cotton, although it is nearly impossible to control the colour's exact tonality (Lombard 1978:141). Medieval Sicilian used at least three originally Arabic terms to define varieties of blue (*sarto*, *kahalo* and *azolum*) (Caracausi 1983).

Green could be obtained with a copper lactate, by dyeing “in sour milk that had been left standing in a copper vessel” (Wild 1970:82).

Finally we find references to an unspecified *coluri di erba blanca*,<sup>121</sup> probably obtained with absinthe (*Artemisia absinthium*) of which Cupani (1696:1–2) describes two popularly named varieties. *Acanthus sativus* (Sic. *alchanna*) was used to bleach both hair and textiles (Caracausi 1983).

In conclusion, although we lack detailed documentation of any local manufacture, particularly for the production of linen, there is ample circumstantial evidence pointing both to its existence and to its probable expansion during the late fourteenth and fifteenth centuries. Woollen manufacture was not, as has previously been argued, limited to the production of

heavy and rough *orbace*, since a number of local qualities of finer cloth are known. The main manufacturing centre, Noto, subsequently developed into a major exporting industry. However, the main issue raised in this section concerns the existence of linen, cotton and fustian manufactures, about which nothing had so far been said. It appears in fact that these manufactures were, both in terms of the volume of their production and in their positive feedback effects on the rural economy, more central to the Sicilian economy than woollen production; in this Sicily was closer to northern African than to northern Italian patterns of consumption (Brunschvig 1940:231–2). The assumption that woollens were *the* manufacture in Sicily has thus been doubly misleading, in that historians have concentrated on the cheapest type of wool cloth products and have consistently ignored other kinds of manufacture. Finally, the evidence for manufacture confirms (with the exception of linen, for which eastern Sicilian documentation may be insufficient) the conclusion reached in the previous section about the regional distribution of textile raw materials. Manufacture of both woollen and cotton cloth was most developed in the Val di Noto, to a lesser extent in the Val Demone, and least in the Val di Mazara. Compared to the latter, the Val di Noto and the Val Demone were noticeably more specialized in pastoral farming. Presumably here peasant families had more time on their hands to devote to household cloth manufacture than in the labour-intensive zones of grain production in western Sicily (Thirsk 1978:110–11). Production was widely diffused and cheap; although the quality may have suffered it reached a wider

segment of the population than any other kind of cloth. A major effect of the “fourteenth-century crisis” thus appears to have been increased regional agricultural and manufacturing specialization.

Sicilian manufacture appears to have been particularly favoured in its access both to mineral and to organic scouring, mordanting and dyeing materials; the Catalan industry, for example, had to import alum, nuts, kermes, woad and indigo from abroad (Carrère 1967:458–75). We shall see that there is no lack of evidence of technical expertise to exploit what might otherwise have been purely potential natural resources. Also, the argument put forward elsewhere, that dyed cloth was basically restricted to urban and middle to upper-class markets and that “poor” natural dyes were economically insignificant (Riera Melis 1983), does not seem to apply to Sicily. Once again, the relative lack of evidence in written documents of Sicilian capabilities should not obscure their existence; neither should one assume that, because the use of local colorants has left so little trace, it necessarily took place outside the market-place. Like most cloth manufacture in Sicily, transactions involving the production, exchange and use of mordants, soaps and dyes did not generally give rise to a formal, written document.

## V

A major and as yet unanswered question concerns the institutional framework in which Sicilian manufactures operated. Apart from a few scattered references to weavers – which, significantly, include women<sup>122</sup> – and to looms in private inven-

tories, we are in near total ignorance about the organization of production. Although no medieval craft statutes seem to have survived, during the fifteenth century artisans in a number of employments in larger towns and cities began to organize in corporations and to clamour for representation in local government.<sup>123</sup> Yet, with the exception of Palermo, where *lanari*, *accimatori* (woollen finishers) and *calzettari* (sock-makers) are listed in 1385 (Maggiore Perni 1892:599–600), and a corporation of cloth finishers (*paratores* – which might have included dyers too, as in the Pyrenees (Riera Melis 1983:164–5) – is recorded in the 1430s (Bresc 1986:212), I have found no mention of cloth-manufacturing guilds – despite the fact that weavers’ guilds usually developed before those of more specialized artisans. It is also significant that these references subsist for the woollen industry, which was probably the least developed among Sicilian manufactures, and that they concern Palermo, where even the woollen industry never managed to develop very seriously.

Some evidence for institutional organization such as putting-out systems does exist,<sup>124</sup> and references to master artisans in the manufacture of *tela*<sup>125</sup> and wool cloth<sup>126</sup> can be found, mainly for Noto. There is little direct testimony of involvement of merchant or urban capital in manufacture (with the exception of the abortive attempts to set up high-quality manufactures in Palermo); what we can assume to be merchant capital was involved instead in the *trade* of large quantities of *tela* or sometimes woollens, and once again most of the evidence for this comes from Noto.<sup>127</sup>

Given the evidence for locally and regionally specialized manufacture, the sparseness

of evidence for organized manufacture is surprising. Could one argue that no craft organizations for cloth existed in medieval Sicily, except for major cities like Palermo and the most specialized manufacturing towns like Noto? Although the paucity of surviving records, particularly relating to local economies, makes such generalizations inherently dangerous, it is difficult to believe that such a noticeable absence of references to one of the most characteristic institutions of medieval Europe, namely guilds, is purely due to the chances of survival.

The reason for this may lie instead in the structure of the Sicilian market and in the nature of medieval corporations. These existed to exclude non-participants as much as to enforce and regulate common standards of economic behaviour; in fact, common and rigidly enforced standards are the principal means of exclusion. In order to enforce such regulations effectively, guilds and corporations must have access to political power, either directly or filtered through intermediate authority. In the medieval economy, urban power over the surrounding countryside was crucial to such forms of regulation and exclusion from the market. Corporate monopoly was not, however, an end in itself; it limited access to the market, and was in fact an extremely effective mechanism of enforcing prices to the general disadvantage of (rural) consumers (Kula 1976:ch.3). The capacity to enforce common technical standards was also an important factor, particularly in the production of high-quality cloths, for which for a long time it may have been an organizational prerequisite.

Sicily seems in part to have lacked a

major institutional factor of this model, namely strong urban control over the countryside. Not only did Sicily not have a metropolitan pole of development (the geographers' "central place"), but it was generally less urbanocentric (*not* less urbanized) than, for example, central and northern Italian regions, despite the tendency during the fourteenth and fifteenth centuries for towns to achieve greater control over their hinterlands (Epstein forthcoming:ch.2). In addition, the functional distinction in Sicily between town and country may well have been more blurred than elsewhere, not least because so many peasants (with the notable exception of the Val Demone, where settlement was more dispersed) lived within town or city walls.<sup>128</sup> Although the most concentrated and "urban-like" settlement pattern was found in the Val di Mazara, which was the region with least manufactures, in the Val di Noto, where manufacture was most developed, 81.9% of the population lived in communities of more than 300 hearths by the fifteenth century (Epstein forthcoming:ch.1). It is therefore difficult to argue, for example, that the (apparent) lack of crafts involved in cloth manufacturing was an effect of the dispersion of the industry within small peasant communities, where the transaction costs of setting up corporative organizations would have been too high.

If the lack of evidence for guilds reflects an actual state of affairs (the presence among weavers of women, who were normally excluded from corporative organization, is a further clue in this direction), one might argue that, because the linen and cotton manufactures were more deeply integrated into the peasant household economy

– most peasants probably grew their own flax, and many may have cultivated their own cotton – a system of production developed which avoided centralized corporative control; that the woollen manufactures grew in similar conditions; and that a possible explanation of this is that the costs of enforcing corporative control, including common standards of quality, were too high in the context of a relatively unspecialized and dispersed, but at the same time expanding market. The virtual absence of international competition for cheap textiles (the failure of foreign fustians is particularly significant in this context) in a situation of rising demand reduced, but did not exclude, the desirability of the inherently monopolistic role of craft corporations. One might even argue, as has been done for early modern England, that it was the *lack* of standardization and uniformity that suited local consumers best, and insured producers against the uncontrollable fluctuations of fashion tied to particular segments of the population (Thirsk 1978:114–17).

The possibility that because of its limited size and the large number of local competitors the "rural" market was not lucrative enough to be worth investing in corporate organization for its control could help explain why we do not find any requests by artisans that their markets be protected with restrictive legislation (a phenomenon which is by contrast quite common in the fifteenth century among wine producers, who catered to very localized markets) (Epstein forthcoming:ch.2). Instead, guilds in fifteenth-century Sicily seem to have been primarily involved in promoting access to local power structures for their members, and their aims were not, at least overtly,

concerned purely with the promotion of their trade. Their function in this period seems to have been economic in a wider sense, by using access to political power to obtain a share of lucrative administrative offices and, perhaps, to represent wider social interests than those of one individual craft (this appears to be the case at least in Catania, where a fierce conflict over local political representation was waged between the patriciate and the local artisans) (Bresc 1986:735–6).

In a way, however, this explanation assumes that guilds as a matter of fact were set up *after* the development of an industry in order to bring it under control – an assumption that historically is not necessarily correct; it also does not explain why *no* complaints or attempts to enforce corporative control were voiced, assuming that the existence of competition by itself could have dissuaded artisans from petitioning for privilege. Thus we must explain why competition was apparently, and contrary to normal medieval practice, accepted as such; and the hypothesis quoted from Thirsk, that fragmentation of the market and lack of standardization were perceived by producers as positive assets in a period of expanding demand may well be the most fruitful.

I am not implying, however, that in Sicily urban capital was not invested in textile manufacture or did not exist; rather, the institutional preconditions for its profitable employment in high-quality or large-scale (capital-intensive) manufacture were lacking, and it concentrated instead (as far as we can see) on the commercial side of things. Instead of a set of rigidly organized, conflicting urban manufactures we find a more fluid situation, in which monopolistic

and corporative practices were far harder or less necessary to enforce. Although I have argued above that the failure of urban high-quality industry was to some extent an effect of international competition, it seems that institutional constraints, or their absence, played a greater role in shaping the character of Sicilian manufacture.

One way of testing the hypotheses put forward above and of verifying their *ad hoc*-ness would be to analyse other regional textile industries and markets, both for the connections between agricultural and pastoral economies and household manufacture and for the relationship between institutional and economic constraints (such as the capacity by the state, including cities, to enforce corporative demands and property rights, and the nature and fluctuations of the markets to which cloth manufactures responded) and the organization of production.

## VI

In Sicily during the fifteenth century the market for local textiles was large and apparently expanding. On the (conservative) assumption that each person annually needed 2–3 *canne* of cloth, sufficient for one set of clothing, we can estimate that a population of 250,000 in the mid-fifteenth century must have been consuming the *equivalent* of 38,500–57,700 foreign cloths (at an average length of 13 *canne*) each year, about ten to fourteen times the amount actually imported in the period. Although one must not assume that all or even most cloth woven in Sicily was produced for the market, given the probably quite substantial domestic “subsistence” sector, it is clear

that very large quantities of locally made cloth were indeed traded; significantly, in the Val di Noto the travelling pedlar is still called *u panniari, u panneri, u laneri* (the clothier, the woollen dealer) (Jaberg and Jud 1928–40:271).

In 1477 the town of Randazzo sold a toll of 2 *denari per canna* on *tucti tili dublecti fustayni cordelli et altri merchi che si vindino ad canna ... exceptu panni* [of wool] during the fair of St John the Baptist for 60 *onze*. Given a minimum profit of 10%, which was the legally recognized rate of return, the tax farmers must have assumed that at least 19,800 *canne* of linen and cotton cloth (woolens were excluded) would be traded during the two weeks of the fair.<sup>129</sup> In terms of volume this would have been equivalent to about 1400–1650 foreign cloths, approximately one-half of Sicily's annual imports in this period and as much as was re-exported from Palermo to its hinterland. While at least for a time local output must have increased in parallel with the rising population after 1450, inventories and dowries (which admittedly list whole trousseaux) record extraordinary wealth and variety of clothing, indicating decidedly higher levels of consumption than I have assumed (for example, Salomone Marino 1876, 1896; Garufi 1896). Thus production for purely domestic use could probably cover the difference between my estimate of traded cloth and actual average personal consumption.

We now return to the two questions with which we began. Did the international textile trade somehow reorient Sicily's economic development? And did this trade shape the economy in a way that prevented it from "developing"? The answers devel-

oped above can be summarized as follows. First, imports were restricted to a qualitatively and quantitatively very limited sector. Second, Sicilian manufacture was able to produce enough cloth to satisfy the greater part of internal demand; it was technically sufficiently sophisticated to provide a wide range of goods catering to different tastes and needs, including the all-important matter of colour variety; and it was expanding in the period under scrutiny. Far from being a sign of weakness (Bresc 1986:210), the apparent shift to more rural surroundings – at least in western Sicily, for which the most detailed evidence exists (for the eastern parts the documents only begin when these industries are already well established) – is an example of a process common to the whole of western Europe which signals a growth in rural and lower to middle-class urban demand. Third, the preceding two points (limited imports, large domestic capacity) involved two basically distinct markets, the one élitist, the other popular; the future of mass industrial markets lay in the large domestic capacity argued for in the second point. Fourth, given the available technology and the character of late medieval society, the possibilities for high-quality manufacture to expand into sustained growth were extremely restricted. Fifth, the type of manufacture with the greatest inherent capacities for growth and development (in the sense of positive transformations of the economy) appears to have been a form of domestic production. And finally, the lack of high-quality woollen cloth industries in medieval Sicily was probably due to internal institutional factors more than to stifling international competition; proof of this being that in those sectors

in which these same institutional factors (location of production close to sources of raw material, energy and labour, and apparent lack of corporations) were favourable (in the linen and cotton industries) Sicilian manufacture was capable of resisting fierce foreign competition.

These answers point out the need for research in at least three new areas. First, it is important to establish the actual dimensions of the late medieval market for exported cloth, and particularly to verify Misikimin's hypothesis that the market was to some extent closed, so that competition mainly resulted in a redistribution of "shares of the cake". Second, it is important to study cloth production in a regional context, which includes its agrarian structures and institutional constraints, and not limit analysis to the export industries on the assumption that production for local and regional consumption was economically less effective. Finally, it is crucial to address the question of the role of production for domestic consumption compared to manufacture for the market (petty commodity production). "Subsistence" systems of manufacture are closely linked to local and regional agrarian structures; Malanima (1982:64–75), for example, has argued that in early modern Tuscany rural industry could not develop because of the subsistence-type sharecropping system, which was excluded from any significant contact with the market.

The dismissal of rural and semi-rural local and regional manufacture as marginal, unimportant and technically undeveloped seems to be based on a number of questionable assumptions. Many medievalists are still fascinated by luxury production and

trade because of a theoretical inclination to view the "merchant adventurer" and international commerce as the engines of economic growth, in sometimes inadvertent contradiction to most theories about the nature of modern European economic development and the origins of industrialization based on mass production and consumption. The abrupt termination of the "Middle Ages" in 1500 seems to bring with it a lack of awareness of subsequent phenomena whose origins and significance lie in the "fourteenth-century crisis"; while the significance of medieval cheap and luxury cloth industries can be understood principally through a greater knowledge of later developments. A regressive method of enquiry, starting from the early modern period and working backwards in time, can help locate problems which are otherwise not self-evident or obscured by the lack of much documentation.

The preceding analysis also implies the need for greater theoretical self-consciousness in the study of medieval market structures; it shows that one should not dismiss what has left little recorded trace to the limbo of the "natural" or non-monetary economy. This problem is quite evident as far as mass, popular clothing is concerned, since cheap, often household-based production rarely involved the kind of commercial transaction that had to be enforced by legal document. Curiously, in Sicily this documentary bias was reinforced by the Crown's fiscal policy. Judging by the low returns compared to known levels of consumption in the late Middle Ages, the tax on beating cotton (*arcus cuctoni*), which had its roots in Norman or even Muslim Sicily, seems barely to have been enforced. The

few other taxes referred to were levied by local communities and were extremely low.<sup>130</sup> Attempts to introduce new tolls were either resisted<sup>131</sup> or made only temporarily.<sup>132</sup> Alfonso tried to include local woollen cloth in the revised version of the *gabella emptionis et venditionis pannorum* of 1444, but there is no evidence in the returns from the *secrezie*, the demesne's local toll offices, that the measure was enforced.<sup>133</sup> It is also significant that the toll was limited to woollens. This, and the fact that the Crown so easily accepted popular remonstrances, seems to reflect an accurate weighting of such tolls' possible financial returns against the hostility they provoked.

Finally, it has not been recognized that in Sicily, as in southern Italy (Yver 1903:84–95, 104, 189), woollens were less popular than linen and cotton cloth. Judging by the large number of surviving fifteenth-century personal inventories, many people owned little more local than foreign wool cloth, and both were quite insignificant compared to other kinds of textile. The model of northern European, prevalently wool consumption is decidedly inappropriate to Sicily. Also, since the productive cycles of cotton and probably also linen cloth, which intensified during the winter and spring and slackened in the summer, were admirably suited to integration within a peasant economy, there seems further ground to argue for their greater economic impact compared to woollens (Mazzaoui 1981:74–6). The coincidence in Sicily between the most densely populated areas and those most specialized in manufacture – the Val di Noto and the Val Demone – has been amply demonstrated, although the precise nature of this link is as yet unclear. On the

one hand, the Val Demone and particularly the Val di Noto weathered the late medieval demographic crisis far better than the Val di Mazara (Epstein forthcoming:ch.1), and one could argue that, *inter alia*, an integrated economy based both on agriculture and on small-scale manufacture could better resist the social ravages caused by the epidemics. On the other hand, it might well be that manufacture developed in those areas *because* the population was already more thickly settled, and could therefore uphold the sort of intensive cultivation cotton and flax need more effectively than in the Val di Mazara.

To these very basic factors influencing regional differentiation one could add the coincidence between the areas of more intense production and those of so-called Lombard settlement. Between the eleventh and the thirteenth century Corleone, Polizzi, Patti, Randazzo, Castrogiovanni and the rest of the Val di Noto were all intensively settled by northern Italian peoples (Peri 1954, 1959), and traces of this immigration survive to this day in the technical terminology for weaving, for instance in the term *guindarum* alongside *animulum* for skein winding (Jaberg and Jud 1928–40:1507; Bresc and Bresc 1980:92, n.9). Similar considerations apply to the technical tradition of the Islamic world, which left many traces in local terminology. Of 309 words derived from Arabic current in medieval Sicily, fifty-four (17.4%) referred to clothing, dyeing and the textile trade (Caracausi 1983). A third strand in this complex web was provided by the Jewish population, whose traditional near-monopoly over dyeing in the Muslim world survived in the newly Christianized culture



right up to their expulsion in 1492–3.<sup>134</sup> These cultural influences, which formed a rich technical heritage from which subsequent industries would grow, could only, however, furnish a background for the more intense forces of changing supply and demand: it was the latter that spurred development where mere technical potentialities still lay dormant.

Marian Małowist (1972:47–8) has explained the relative backwardness of Polish textile manufacture on the grounds of the nature of its market: artisans “could survive as long as the internal markets grew”. In one sense this is a tautology, given the prevailing manufacturing structures of the period; but it also highlights the limitations of a “national”, or more precisely a mercantilist interpretation, in which a country’s wealth and foreign trade are analysed without taking into account the nature of medieval and early modern cloth markets and their divisions along approximate class lines. The statement that in Sicily “the ‘national’ industrial production addressed itself essentially to the lower classes, while it could no longer reach the wealthy circles that could pay” (Bresc 1986:201) implies that an industry with limited outlets and fewer direct feedback effects (such as that producing upper-class woollen cloth) was or would have been the major developing factor of an economy. In early modern Poland (Bresc 1986:201) the internal market for cheap cloth did not expand because the revenues of its potential consumers were drastically compressed by the early modern “feudal reaction”; in Sicily, the expansion in consumption after c.1350 was based on a somewhat less dramatic redistribution of wealth in favour of the peasantry and

salaried labourers (Bresc 1986:213; Epstein forthcoming). If the same level of consumption was sustained during the demographic recovery that took place after c.1450, local manufacture must inevitably have grown apace; before the end of that century no signs to the contrary had yet appeared.

It may well be that, as Rosario Villari and others have argued for the kingdom of Naples, a decisive change in economic structures which reduced popular levels of income and hence consumption only took place in the seventeenth century (Villari 1967:3–7 and 1983; for a view based on export-led industries see De Rosa 1988). If that were so, the cause of the Meridione’s failure to develop would have little to do with “universal laws of unequal exchange” (Bresc 1986:3); it would more probably be found in the class and institutional structures which determined the outcome of the “seventeenth-century crisis”.

## *Acknowledgements*

My thanks to Sheilagh Ogilvie, for her extensive comments on this paper; and to Doug Lee, for help with ancient Roman evidence.

## *Notes*

<sup>1</sup> In 1277 Charles I expressed his concern for the lack of high-quality woollen cloth production in his southern kingdoms: *Regnum nostrum singulis ad regimen humani generis habundat, pannis laneis dumtaxat exceptis* (Yver 1903:84 n.1). Yver’s work clearly shows that the Angevins’ preoccupation stemmed from the great sums of money the court and upper classes spent on imported cloth, despite the quality of local production.

<sup>2</sup> Carmelo Trasselli first advanced this theory (1955, 1956, 1957), subsequently upheld by Giuffrida 1976; Aymard 1976:127 (la seule production de l'île reste le traditionnel *orbace* ... Hormis l'*orbace*, tous les besoins de la consommation intérieure sont couverts par l'importation); Cancila 1980:254; Bresc 1986:3 for his debt to Trasselli's interpretation.

<sup>3</sup> Barberi 1966. In 1410 Messina requested exemption from a *gabella nova vel tarenì* on cloth. If this refers to the *caxia* it was not new, and Messina had probably not previously been exempt (Giardina 1937:172–84).

<sup>4</sup> A large quantity of cloth sold in Catania in 1500 seems to have come from Messina (NC 14926, unnumbered f. and f.588). For Syracuse see C 2893, f.85 (1441): Item perço com los mercaders catalans que solien habitar en Saragossa eran acostumats anar ab lurs draps a les feries de Catania e altres lochs de Vall de Notho, los quals draps venien en gros e les gabelles de la cort del dit senyor ne havian gran util, de alguns anys ença han acostumat los dits mercaders catalans no anar hi ans los mercaders de Vall de Notho van comprar los draps a Saragossa, perço com per lo secret de Saragossa los es feta alguna gracia del dret deles gabelles. Also CS 1, fos.35–41v (1427); CR 851, f.683rv (1439?); TRP n.p.67, f.102rv (1439). For Messina see CR 875, fos.308–18 (1496): 311v, 317. Between 1521–2 and 1538–9 an annual average of 1,865 cloths was imported there (Trasselli 1982b:37 n.12), compared to the 9,000–11,000 shipped to Palermo.

<sup>5</sup> Bresc 1986:501–4 for distribution maps. On the basis of 501, table 120, the *value* of exports to the Val Demone, for example, would seem to have actually decreased in 1400–50 compared to 1298–1349 (from c.3,000 to c.2,500 *onze*). This is presumably a mistaken impression conveyed by the sources (which are, however, presented as statistically reliable). Del Treppo 1972:165 – of a set of 185 cloths sent from Catalonia to Palermo in 1434, 60 are shipped on to Messina.

<sup>6</sup> The exact average is 4,053 cloths a year for nine years (table 1). Bresc 1986:507, overestimates re-exports to the interior at 2,400 cloths; his own figures, based on notarial records that tend to over-represent re-exports (p.500), give an average re-export of 52.1% during 1400–50 (pp.505–7).

<sup>7</sup> For 3 *canne* of foreign cloth for a woman's dress: C 2898, f.42v (1445); for part payment in *orbace* see below, n.12.

<sup>8</sup> I have divided the total value of imports by the average prices for 1450–9, the latest period for which they are known; prices were rising, so imports tend to be overestimated. Average cloth prices began to

rise rapidly in the 1450s and probably continued to do so right into the sixteenth century: they were up to 5.25–6.3 *onze* in the early 1520s (Aymard 1986:129).

<sup>9</sup> Aymard 1976:129 estimates that re-exported cloth accounted for one-fourth of the total value of imports; the actual number of re-exported cloths might be higher if the countryside bought cheaper products. During the first half of the fifteenth century this was not so (Bresc 1986:505–6).

<sup>10</sup> Proportions drop from 0.145–0.212 *canne* per person in 1400–40 to 0.09–0.105 *canne* in 1500–20, when it is assumed that the population supplied by Palermo was 300,000, and that the hinterland did not on average buy cheaper cloth than what was consumed in Palermo (see above, n.9).

<sup>11</sup> Epstein forthcoming:ch.5. Aymard 1976:133–6 argues for the connection in general terms in the sixteenth century with no reference to particular segments of society. Lack of precise figures for grain exports in the early fifteenth century and for cloth imports after 1450 make a correlation between the two difficult to establish; one can note the coincidence in 1407–8 of exceptionally high grain exports and correspondingly large cloth imports.

<sup>12</sup> Trasselli 1956:303–4; NR 5, fos.9, 15, 26v, 26v–7 (1455).

<sup>13</sup> Zeno 1936:53–4, 104–7, 126; RC 2, fos.109v–10 (1321–2): Catalan merchants buying cotton in diversis terris montaneis Sicilie; Madurell y Marimon 1965:452–3, 494–5 (1334–5); Mazzaoui 1981:175 n.7. PR 5, f.238 (1312): the toll on exported merchandise from Trapani is 3% ad valorem on everything except cotton, for which 1% is paid.

<sup>14</sup> Michele da Piazza 1980:2.68 (*bambacium* and *oliveta*) destroyed in Lipari in 1361; C 2822, fos.71v–2 (1443) and C 2852, f.113 (1445): *cuctuneria* in Lipari.

<sup>15</sup> Inventories from fifteenth-century Corleone do, however, mention spun cotton: NCorl 10, fos.1v–3 (1388); NCorl 38, unnumbered f. (l.xii.1434).

<sup>16</sup> For intensive irrigation around Noto see C 2868, fos. 29–30 (1451): Rinaldo de Xurtino is authorized to deviate two streams; cannamelas vineas ortos viridaria et alias segetes et campos irrigare ac quidam vivaria facere et alia opera et industrias agere.

<sup>17</sup> Luttrell 1975:53–4; Bresc 1971:116; 1975:131–2; Trasselli 1977:310–11 and n.29; Carrère 1967:368; Del Treppo 1972:178. LV 88, fos.27v–8 (1464): the Crown tries to barter cloth and *buldrones* (cotton or dye-plant seeds) for Maltese cotton.

<sup>18</sup> Day 1963:292, 300, 312, 345, 351, 372, 377, 431, 471, 472. RC 4, f.150v (1351): a load of seven

bales of cotton being taken from Tropea in Calabria to Naples by a Genoese merchant is waylaid to Syracuse.

<sup>19</sup> CS 2, f.148v (1435): the Syracusan Jews are unlawfully taxed on cotton they buy in Malta.

<sup>20</sup> C 2429, fos.5v–6. See also Besc 1975:131–2; Carrère 1967:368, 637 n.4; Del Treppo 1972:160, 178, 181 n.91; Trasselli 1955:313 n.31: 39 sacks of cotton captured from a Genoese ship returning from the Levant are sold in Syracuse. C 3477, fos.132v–3 (1463): cotton confiscated from Pietro di San Giovanni, a Catalan merchant living in Syracuse.

<sup>21</sup> NM 10, f.111rv (1477): 50 bales of cotton from Aleppo; Genuardi 1924:138–9 for cotton from Malta. For Calabrian cotton see NM 3, f.356v (mid-fifteenth century); NM 6A, fos.74v–5 (1468); NM 7, f.523v (1492): Abraham Levi, a Jew from Reggio Calabria, promises to cut *cutuni de chippu* for 4 months in Satriano (Calabria) for a Messinese. NM 3, f.301rv (mid-fifteenth century); NM 6A, fos.67, 268 (1468–9) for trade in raw cotton. Also Yver 1903:104.

<sup>22</sup> NM 6A, fos.74v–5 (1468): 5 *onze* 6 *tarì* for 1 *cantaro* of *maclulato* from Calabria; 67 (1468): 6 *onze* 20 *tarì* for 1 *cantaro*.

<sup>23</sup> D'Angelo 1971 argues that flax and hemp “disappear” from the area of Monreale after the twelfth century; Besc 1986:512 refers to imports from Egypt during the fifteenth century. See JJ, leg.1, f.64rv (1370): *commenda* of 4½ silver marks to buy grain and flax in Sicily.

<sup>24</sup> Carini 1893: Appendix, docs.xxviii and cx (1282–3): 300 *cantara* of flax tow to be sent to the docks in Messina via Catania. Flax is said to be cheaper *ultra Salsum* (here indicating eastern Sicily) than elsewhere.

<sup>25</sup> Michele da Piazza 1980:1.88 (1353–4): people must eat *leguminibus tantum et semine lini*. In 1413 a ban on food exports, including flax and hemp, is requested (Starrabba 1887–8:221–2). Also RC 18, f.113rv (1393): flax in association with wheat, barley and legumes sold in Lentini.

<sup>26</sup> Zeno 1909: 290 (Catania, 1400: adulterating olive oil with linseed oil is forbidden); Gaudioso 1971:21 n.17 for Catania (1435); Barberi 1966:241–8 for a *gabella olei linuse* in Castrogiovanni (1506).

<sup>27</sup> Arezzo 1542:25: in ea plaga quae meridiem pertinet est lacus antiquitus Pergusa nomine, quo non piscium quidem pleno sed colubris ad linum molliendum dumtaxat, cuius magna ibi copia ennenses utuntur.

<sup>28</sup> RC 136, f.143 (1476); Barberi 1966:66.

<sup>29</sup> RC 69, fos.38v–40 (1433): Catania asks not to pay the toll on flax from Aci. Sales of flax from Aci

in Catania: NC 14926, fos.197v–8, 406v, 427v–8, 459v, 465v, 485rv (1499–1500).

<sup>30</sup> NC 6311, f.105v (1501): sale of land sown with fava beans and flax.

<sup>31</sup> C 2846, fos.98v–9 (1444): Alfonso confirms a new toll on spun flax introduced by the count of Caltanissetta.

<sup>32</sup> For Sciacca see Grohmann 1968–9:338; La Mantia 1908:17–18 (1440); CR 849, fos.18v, 19 (1446–7). For Alcamo see Di Giovanni 1876: 71 (post 1330).

<sup>33</sup> CR 877, fos.139, 143 (1499).

<sup>34</sup> C 2859, fos.69–71 (1448): the torrent irrigated *segetes viridaria cannameles vites arbores lina canapes agrosque*.

<sup>35</sup> NR 20, fos.55–6 (1488); NR 22, f.65 (1495); NR 23, f.123 (1496): contracts to cultivate land *comu è solitu conzari terra di linu*.

<sup>36</sup> NM 6A, f.277 (1469): *commenda* to be invested in flax in the coming fair in Reggio; NM 6B, f.380rv (1469): a load of 20 sacks shipped from Calabria to Trapani together with timber. Del Treppo 1972:218 and n.218: Calabrian and Neapolitan flax sent to Barcelona via Palermo and Syracuse.

<sup>37</sup> NM 7, f.214v (1492).

<sup>38</sup> NM 9, unnumbered f. (1451?); NM 6B, f.597v (1470).

<sup>39</sup> NM 5, fos.79rv, 90 (1446?).

<sup>40</sup> NM 6B, f.425v (1469).

<sup>41</sup> NM 5, f.82rv (1446?).

<sup>42</sup> Besc 1986:512. This trade was already in place in the eleventh century (Goitein 1971:14–16); cf. Abulafia 1977:46–7.

<sup>43</sup> Trasselli 1982a: 250 n.21 (1452–3); CR 36, f.105 (1453); Carrère 1967:200 (1455).

<sup>44</sup> C 2895, f.34v (1454). See C 2886, fos.152v–3 (1456): licence to export 300 *cantara* (c.2.3 tons) of hemp to Catalonia.

<sup>45</sup> NM 5, f.90 (c.1446): 1 *cantaro* of flax for 1 *onza* 10 *tarì*. CR 853, fos.94–6, 98 (1455): 1 *cantaro* of hemp for 1 *onza* 1 *tarì*.

<sup>46</sup> La Mantia 1917: doc.ccxli (1286–7); NS 1927, fos.11v, 39, 41v–2 (1498–9).

<sup>47</sup> NN 6332, f.47v (1447); NN 6335, f.173v (1459); NN 6343, fos.7v, 23v, 66rv, passim (1490–1).

<sup>48</sup> C 2891, f.95 (1434); Barberi 1966:65.

<sup>49</sup> NC 6241, f.14rv (1506); NC 6242, fos.1, 3, 4v, 48v (1511, 1513).

<sup>50</sup> CR 853, fos.94–6 (1455). C 2883, fos. 195–6 and C 2884, fos.4, 38, 83v–5, passim (1454–5): exports of hemp from the county of Modica via Syracuse.

<sup>51</sup> NR 2, f.34 (1445); NR 10, f.26 (1479).

- <sup>52</sup> This seems to have taken place by maintaining the *same* number of animals after the dramatic population losses after 1348, rather than by actually *increasing* them (Epstein forthcoming:ch.5).
- <sup>53</sup> NN 6332, fos.5v, 27 (1466–7); NN 6335, fos.12, 25v, 28, 47, 174rv (1458–9).
- <sup>54</sup> A fourteenth-century Milanese *aestimationis mercium* ranks it in the last position together with the worst Provençal wool (Barbieri 1974:137). Sicilian wool was rarely exported (Carini 1893: docs.dxxiii, dxcii, dclvii; Pegolotti 1936:178; Giuffrida 1978:290–1; Trasselli 1956:305 n.3; Day 1963:535).
- <sup>55</sup> Filangieri 1967:13 (1278); Bresc 1986:196.
- <sup>56</sup> Mauceri 1915–16:183 (lana barbarischa, videlicet turchisca, videlicet sichiliana in Syracuse in 1548); Frayn 1984:25.
- <sup>57</sup> *Contra Mazzaoui* 1981:26.
- <sup>58</sup> For Noto see also CR 4, fos.494–5v (1422) and CR 21, fos.284–7 (1451).
- <sup>59</sup> C 2826, f.47rv (1434); C 2850, fos.106v–9 (1445).
- <sup>60</sup> Bresc 1986:203: a lu yectu di Castrojohanni (1455); CR 875, f.261 rv (1496): two men from Castrogiovanni selling bedcovers, rugs and curtains in Agrigento.
- <sup>61</sup> TRP Atti 14, f.51. See also Bresc 1986:208–9 s.v. *cottonarii*.
- <sup>62</sup> For *burdo* made with flax see Mazzaoui 1981:166; with wool, see Bresc and Goitein 1970:910. Also Bresc and Bresc 1974:44; Bresc 1986:203; Caracausi 1983:n.41.
- <sup>63</sup> NR 5, fos.183v–4 (1456): a Jew from Syracuse sells 40 *canne* mataraciorum optimorum et di li plui fini ki actrovari si ponu et ki si costumanu essiri fari li fini et perfecti magne xorte dicte civitatis Siraguserum to the Palermitan patrician Giovanni Lo Iacono, during the fair of Randazzo.
- <sup>64</sup> NR 8, fos.34rv, 37rv (1468): trade in facies matharacii magne xorte in Randazzo. NCOrl 41, unnumbered f. (1438): mataracium ad ogeptum Marsale.
- <sup>65</sup> C 2821, fos.39v–40 (1432): Alfonso complains that he has received only 400 *canne* of *cotonina* (a Genoese term for sailcloth).
- <sup>66</sup> NC 14926, f.341 (1500): dila xorta grandi.
- <sup>67</sup> NR 2, fos.6v–8v (1444); NR 8, fos.26–7, 43–4 (1467–8); NR 14, fos.247v–8v, 252v–3v (1489).
- <sup>68</sup> NR 2, unbound f., fifteenth century; NR 14, fos.200v, 241v, 273v (1489); NR 15, f.75v (1490) – cum laboribus ad undam et buctinelli, factu a rosa alazzata, a fogla et ayquila, a giglu et ad rosa, a rosa salvaya.
- <sup>69</sup> NM 3, f.304v (mid-fifteenth century: tablecloths); NM 5, fos.139 (1446: tobaliae di collu et de testa), 181 (1447?: urlorum bonbicis); NM 6A, f.171 (1469: tobaliarum de bonbice). Also Gabotto 1906–7: 259, 260, 270, 275, 276.
- <sup>70</sup> CR 22, f.377v (1442).
- <sup>71</sup> NR 20, fos.73rv, 102rv (1489).
- <sup>72</sup> Aymard 1976:127. NN 6352, f.17v (1496): sale of 624 *canne* and 2 *palmi* of tele lane albaxe mactarelle albe et nigre, which may indicate fustian, given that mactarello probably refers to cotton.
- <sup>73</sup> Marletta 1909:131 (1506). See NC 14926, f.456 (1500).
- <sup>74</sup> The baron of S. Fratello forces his subjects to spin his flax (or wool?) for free (RC 137, fos.188v–9v, 1476).
- <sup>75</sup> Gabotto 1906–7:263, 273, 481, 482 (tela rubea), 485; Mauceri 1915:109, 111, 112, 116, 117 (tela maczarinu) for fifteenth-century Syracuse.
- <sup>76</sup> Gabotto 1906–7:274: cannas tele quindecim que sunt in possessione cuiusdam mulieris nomine Thusa, de casali Lardaree, que habuit eas pro texendo. The loom sold by a Calabrese carpenter to a *cirurgico* in Messina need not have been for household use (NM 7, f.313, 1492).
- <sup>77</sup> PR 5, fos.236v, 239v. Weavers of rindelli (silk cloths) paid 12 *tari* (f.236v).
- <sup>78</sup> NN 6335, fos.30v, 160 (1458–9). For tela see below, n.105.
- <sup>79</sup> NM 6B, f.373 (1469): a woman sells 2 sheets intaglatorum et non invernizatorum [unfinished] ad octo timpanea for 5 *onze*; NR 23, f.12v (1495): sale of a curtain of 15 *canne* for 6 florins. C 2827, f.214rv (1441) for a licence to open a shop tam lini quam lane in Palermo. See below, n.129 for Randazzo.
- <sup>80</sup> Schneider 1980 argues that embroidery of trousseaux was taken up by peasant women only in the mid-late nineteenth century; she does, however, also stress the long-term importance of domestically produced cloth in Sicily.
- <sup>81</sup> NM 6A, f.136 (1469); NM 7, fos.31v (1491), 338v, 340v, 341rv, 479v–80, 502v (1492): sales for 127.9.15 *onze*, of which veils worth o.47.3.15 are exported to Valencia. Prices vary from t.11 to t.13.10 per piece. Del Treppo 1972: 181 for veils to Barcelona. CR 875, fos.308–18:315 (1496): li extraccioni di vili chi si fanno continuamenti in quista chitati per fora Regno tanto per furisteri quanto per chitadini.
- <sup>82</sup> La Mantia 1917:doc.ccxli (1287): purchase of 2,658 *canne* of sacking to store biscuit for the navy. C 2896, f.81v (1451): 100 *canne* of sailcloth for a royal ship.
- <sup>83</sup> Zeno 1909:291 (1400): sale at the market of Catania.

<sup>84</sup> Although hemp prefers rich, wettish land, if grown in drier soil it will provide finer, more flexible fibre comparable to flax (Toubert 1973:219 n.2); this seems to have been used to make tablecloths (La Mantia 1906:58; CR 849, f.29v (1446-7): *tuvagla una di tavula di stuppa* (Sciacca)); also NC 6311, f.223 (1501): 5 *canne* of cannavazzo allavuri di pipirellu.

<sup>85</sup> RC 2, f.193 (pre-1340) for the cost de lictoris seu privilegio immunitatis concesse alicui extero volenti facere pannos laneos, aureos, sericos et cindatos (o.2 per person).

<sup>86</sup> Trasselli 1956:306-7, 310, 313, n.26; 1958:22, n.38, 23, n.40; Peri 1982:76, 113, nn.57-60; Giuffrida 1976:53, 67, n.90.

<sup>87</sup> Bresc 1986:207-9; the table at pp.208-9 is slightly misleading, in that it combines information for Palermo with that for Corleone, which was far more rural.

<sup>88</sup> Bresc 1986:208-9 for the numbers of *cimatores* and *paratores*, which in fact increase slightly after 1350; but these figures could also reflect a shift of such activities to Corleone (see above, n.87).

<sup>89</sup> CR 71, f.161rv (1490) (see Giuffrida 1976:67 n.90): Bernardo and Gabriele di Carpani, from Milan, are allowed to buy foreign wool and introduce foreign workers to make birricti di diversi coluri et xorti; CR 77, f.405rv (1494): Stefano de Pellegrino, of Palermo, and master Giovanni Rodia, a cap maker, can dye caps black and red toll-free; CR 77, f.108rv (1495): a notary, Filippo da Catanzaro, is granted permission to build a fulling mill to make *orbace* and wool caps. Trasselli 1965:226 n.41 for a Neapolitan weaver in Palermo in 1476. CR 97, f.451rv (1509): the consuls of the new capmakers' guild are Arnao Casal, a Spaniard, and Giovanni Casamayuri. Testa 1741:574 (1514); 1743:9-10 (1520) for tax exemptions granted to Palermo's master weavers. Cancila 1980:253 for an attempt by a Lucchese in 1548 to set up a business using foreign workers and materials.

<sup>90</sup> Giardina 1937:doc.lviii; the same petition records the request to set up a soap factory.

<sup>91</sup> A kind of conspiracy theory, in which local landholders and foreign merchants are seen to be in collusion to stop any Sicilian high-quality cloth manufacture from developing, appears implicitly in Bresc's work (Epstein forthcoming: Introduction, ch.5). The conservative effect of local merchants has also been noted by Małowist 1972:47-8, who argues that this was a major reason for Poland's backwardness after the sixteenth century. For a more general analysis of the non-revolutionizing role of merchants and merchant capital see Fox-Genovese and Genovese 1983.

<sup>92</sup> C 2849, fos.188v-9 (1445): Count Antonio Spatafora complains quod non obstante quod ipse comes prope ipsas terras habeat molendina et paratorium sufficiencia et opportunum [!] pro frumentis et pannis suorum vassallorum ibidem habitancium, they refuse to use them. Bresc and D'Angelo 1972:366 (Polizzi, Giardinello, Risalaimi, 1300-1450); Peri 1956:448 (Polizzi, 1303); Barberi 1888:476-7 (Polizzi, 1347).

<sup>93</sup> C 2823, fos.58v-9 (1434): Simone Moncada obtains all rights on future mills, serras et bactindieria.

<sup>94</sup> NM 7, fos.190v, 226rv, 358v (1492).

<sup>95</sup> La Mantia 1917:doc.ccxiv (1290); NR 14, f.175rv (1489); NR 15, fos.270, 421rv (1491).

<sup>96</sup> NR 5, fos.197v-8, 195v-6, 196, 196v (1456).

<sup>97</sup> NM 6A, f.172 and NM 6B, fos.406v-7 (1469); NM 7, f.322v (1492).

<sup>98</sup> C 2893, f.130v (1442); NC 14926, fos.180v-1, 184, 204, 206rv, passim (1489-1500).

<sup>99</sup> Giuffrida 1976:67, n. 91, 68: purchases by the monastery of San Martino delle Scale of Palermo in Ragusa (1455-75); 83, n.120: manufacturers in Scicli in the late sixteenth century. Sipione 1968:243-4: a fifteenth-century tax on lo albaxo che veni et accatta lo frusteri, with reference to lo missinisio che veni et accatta ... puro albaxio.

<sup>100</sup> Littara 1593:33: et de aliis fluminibus et fontibus quorum huberrima est apud Netinos copia, quibus et fecundissimae arbores irrigantur et panni lanei quorum maximus est quaestus nam ad centum ulnarum milia quotannis Neto alio exportantur, balneo astringuntur in officinis, quae a re ipsa paratoria nuncupantur. See also Giuffrida 1976:71, n. 99.

<sup>101</sup> Trasselli 1982a:314 n.28 (quoting CS 1, fos.35-41v, 1427) for a reference to a "scaler of cloths", which he assumes were foreign.

<sup>102</sup> Cancila 1980:254: manufactures in Sciaccia in the sixteenth century.

<sup>103</sup> Orlando 1857:169 for a *gabella emptionis et venditionis* on locally dyed woollen cloth (1444); see also below.

<sup>104</sup> NM 7, f.215 (1492).

<sup>105</sup> RC 4, f.241 (1374?): tele palmorum undecim cuttoni. Generic references in Tirrito 1877:144-5 (1401): Item quod si qua charera vel charerius [weaver] ceperit aliquid pro vidanda, solvat bajulo medium augustalem et patronos tile tarenos duos; Sciaccia 1907:313 (1463); Gabotto 1906-7:259-60, 262-6, 270, 272 (*tela grossa*), 274-5, 480 (*tela maltese*, perhaps cotton cloth?), 485; Petralia 1981-2:195 n.50 (Palermo); Bresc and Goitein 1970:910-12 (1479). Also LV 80, fos.321v-2 (1462): doublet of *tela*; NR 7, fos.58v-9 (1464): Randazzo; C 2877, fos.154v-5

(1456): toll of 10 *grani* per bale of tele et operis albe entering Messina; NM 6A, fos.229v, 230 (1469): *tela* and *dublectis* sold in Messina; NR 14, fos.169v–70, 238 (1489): *tela sottile* sold in Randazzo.

<sup>106</sup> Above, nn.78, 99.

<sup>107</sup> Bresc 1986:566 n.133 (1442, to Cagliari); Bevere 1896:626 (pre-1452–4 and 1516, to Naples).

<sup>108</sup> NR 5, fos.197v–8 (1456): sale of 80 *cantara* (5.7 tons) of gall nuts in Randazzo. They were also exported (Pollaci Nuccio and Gnoffo 1892:335).

<sup>109</sup> NM 7, f.229rv (1492): sale of 195 *cantara* (c.6.6 tons) of *terra camelli* to be exported to northern Africa.

<sup>110</sup> Kehr 1904:doc.2 (Patti, 1207): Filangieri 1954:167 (Termini, 1271), 1957:45 (S. Marco val Demone, 1273); Girgensohn and Kamp 1965:76, n.15 (Eraclea [Terranova] and Butera, 1275); Carini 1893:177, 315–16 (San Marco, 1282–3); Bresc 1986:208 (Palermo and Corleone, pre-1350).

<sup>111</sup> Messina: Cosentino 1885:doc.cccclxxxi (1356); CR 48, fos.122–2bis (1468). Alcamo: Di Giovanni 1876:61–2 (1367?). Palermo: Lioni 1891:doc.dvii (1417); CR 19, f.54 rv (1450); TRP Atti 34, unnumbered f. (27.iii.1480); TRP Atti 45, f.254 (1491).

<sup>112</sup> CS 3, f.32 rv (1437); CS 10, f.182v (1458).

<sup>113</sup> Giardina 1937:81–4 (1292) for indigo in Messina. Mazzaresse Fardella (Barberi 1966:20, n.33) states that by law one had to dye blue and green in the royal dye-works; other colours could be dyed elsewhere but were also taxed. The pre-1312 *cabella tintorie* in Palermo lists *majuto* (brown), *tuni* or *cuni* (red), *sarto* and *cahalo* (light and dark blue), *viridis* and *musinni* (shades of green) and *ialino* (yellow) (Pollaci Nuccio and Gnoffo 1892:338).

<sup>114</sup> PR 5, f.236 (1312): Quod nullus audeat tingere setam colorum quorumcumque preter mayutam qui color spectat ad tinctoriam.

<sup>115</sup> RC 16, f.132v (1374–5): a royal flag is dyed russo crocis et nigro (crossed out and substituted as crocis [crocus?] ialino); NR 22, f.72 (1495): una carpita purpurigna; NCorl 38, unnumbered f. (13.i.1435): sale of 12 *canne* of cloth purpurigni de opera xakitana (of Sciacca); TRP Atti 56, f.165rv (1498): a Venetian, Giovan Pietro de Banderis, argues that he can dye red and black (in dictis coloris nigri et rubey consistit omnique quasi introytus gabelle [tintoriae] of Palermo); NS 1927, f.59 (1499): part of the town of Avola called di tili verdi. For blue see below.

<sup>116</sup> NCorl 34, fos.63–4 (1415): ateccis et richellis de serico viridi et rubio; NCorl 38, unnumbered fos. (29.xi, 1.xii.1434): cayulam de serico violatam cindaci, cilestris.

<sup>117</sup> NR 15, fos.20v, 75v (1490): bancale a tucti

coluri, carpitam laboratum [!] a tri coluri.

<sup>118</sup> Peri 1956:248 argues that in the famous document on the Jews from Garbo whom Frederick II asks to cultivate alchanam et indicum et alia diversa semina que crescunt in Garbo nec sunt in partibus Sicilie adhuc visa crescere (Carcani 1786:290–1; Abulafia 1988:335); the latter part of the sentence must refer to the *semina*, not to henna and indigo, which were already known since the Muslims. This may be reading too much into the evidence, however.

<sup>119</sup> CR 878, f.117 (1500): a Maltese exports about 700 kg of oricella ... dila quali si fa coluri russo from Trapani.

<sup>120</sup> CR 878, f.117 (1500).

<sup>121</sup> NR 14, f.187 (1489).

<sup>122</sup> The Palermo tolls of 1312 record 6 *tari* to be paid a quolibet textore pannorum de lino uno quolibet telario annuatim; there is no reference to guild structures (Pollaci Nuccio and Gnoffo 1892:330). Sometime after 1350 weavers in Corleone were made to pay 1 *tari* for each piece of *orbace* (Starabba and Tirrito 1880:160). For women weavers see above, nn.76, 79, 105; NN 6335, f.71v (1458): a widow in Noto promises to weave (and perhaps embroider) two coverlets, with specified measurements, for 2 *onze* 28 *tari*.

<sup>123</sup> Testa 1741:367 (1451): in alcuni cittati et terri de lo dicto regno su stati creati et facti consuli et sindici artiani, li quali capino in certa forma a lu regimento de li dicti cittati et terri. Also Bresc 1986:735–7.

<sup>124</sup> See above, nn.76, 99, 105.

<sup>125</sup> NN 6335, f.160 (June 1459): *magister* Martino di Laxa, of Noto, promises 29 *canne* of tele albe nothensis for the coming September.

<sup>126</sup> NN 6352, f.17v (1496): a *magister* Pietro de Veglia and another man from Noto sell 624 *canne* of tele lane albaxe mactarelle albe et nigre. NS 10245, f.255rv (1487): Nicola, son of *magister* Peri accimaturi.

<sup>127</sup> See above, nn.72, 78.

<sup>128</sup> In 1439 73.3% of the population lived in communities (which did, however, include outlying hamlets in their tax rolls) of over 300 hearths (1200–1500 people). In the Val Demone the proportion of people living in villages of less than 300 hearths was 49.1%, compared to 13% in the Val di Mazara and 18.1% in the Val di Noto (Epstein forthcoming:ch.1).

<sup>129</sup> CR 61, f.205rv.

<sup>130</sup> Assuming an average price of 1 *tari* 5 *grani* per *canna* of fustian and *tela* (CR 876, fos.6–7, 1497) the 1476 toll in Randazzo (2 *denari* per *canna*) was equivalent to a value-tax of 1.3%.

<sup>131</sup> Barbato 1919:123 (1421) – a new *caxa* on ber-

tuli carpit et ... altri soliti così di pocu prezu is being levied in Nicosia, and this is damaging both poor people who trade in these articles and the local fair.

<sup>132</sup> RC 176, fos.557v-8v (1491): Catania is made to pay as a *donativo* (a tax levied as a "gift") the revenues of a toll of 1 *tari* per *onza* (3.3%) on wholesale and 10 *grani* per *canna* on retail.

<sup>133</sup> Orlando 1857:166-70. Silk *faciola* and *glitiple*, woollen *bisaczijs*, *carpitis*, *tappetis* and *chalanis* and production for household consumption were excluded.

<sup>134</sup> For Jewish dyers in the Islamic world see Lombard 1978:145; Winkelmann 1880a:621 (1231) for Frederick II's confirmation of their status in southern Italy. Bresc 1986:208-9 lists 11 dyers, all Jewish, present in Palermo and Corleone between 1300 and 1460. TRP n.p. 1655 (1472-3): the gabella tinctoriae in Randazzo is farmed out to Merdoc Iuda. See also Yver 1903:90, 189.

## Literature

*Manuscripts* (abbreviations in parentheses)

Barcelona, Arxiu de la Corona d'Aragó: Cancilleria, Registros (C); Archivo Historico de Protocolos: Jaume Just, leg.1 (JJ)

Catania, Archivio di Stato: Notai I versamento (NC); Notai di Randazzo (NR)

Messina, Archivio di Stato: Notai (NM)

Palermo, Archivio di Stato: Real Cancelleria (RC); Conservatoria di Registro (CR); Tribunale del Real Patrimonio (TRP), Atti; TRP, Lettere vice-regie e dispacchi patrimoniali (LV); Notai di Corleone (NCorl)

Siracusa, Archivio di Stato: Notai (NS); Archivio di Stato, sezione di Noto: Notai (NN)

Valencia, Archivo del Reino de Valencia: Cancilleria Real, Camarae Siciliae Dominae Mariae (CS)

*Printed sources*

Arezzo, C. M. 1542. *De situ insulae Siciliae libellus*. Messina.

Barbato, A. 1919. *Per la storia di Nicosia nel medio evo*. Documenti inediti, i (1267-1454). Nicosia.

Barberi, G. L. 1888. *I capibrevi*, ed. G. Silvestri, iii. Documenti per servire la storia di Sicilia (DSSS). Palermo.

Barberi, G. L. 1966. *Liber de secretiis*. E. Mazzaresse Fardella (ed.). Milano.

Bec, C. 1969. *Il libro degli affari proprii di casa de Lapo di Giovanni Niccolini de Sirigatti*. Paris.

Boccone, S. 1674. *Icones et descriptiones rariorum plantarum Siciliae, Melitae, Galliae et Italiae*. Oxford.

Caracausi, G. 1983. *Arabismi medievali di Sicilia*. (Bollettino del Centro di Studi filologici e linguistici siciliani. Supplementi 5). Palermo.

Carcani, C. 1786. *Constitutiones regum regni utriusque Siciliae mandante Friderico II Imperatore ... et Fragmentum quod superest Regesto eiusdem Imperatoris Ann. 1239 & 1240*. Napoli.

Carini, I. 1893. *De rebus Regni Siciliae* (9 settembre 1282-26 agosto 1283). Appendice ai documenti inediti estratti dall'Archivio della Corona d'Aragona. DSSS. Palermo.

Ciavarini, C. 1896. *Statuti anconitani del mare, del terzenale e della dogana, e patti con diverse nazioni*. Ancona.

Conrad, H., T. von der Lieck-Buyken and W. Wagner. 1973. *Die Konstitutionen Friedrichs II. von Hohenstaufen für sein Königreich Sizilien. Nach einer lateinischen Handschrift des 13. Jahrhunderts herausgegeben und übersetzt. Studien und Quellen zur Welt Kaiser Friedrichs II*, 2. Wien.

Cosentino, G. 1885. *Codice diplomatico di Federico III [IV] d'Aragona, re di Sicilia, 1355-77*. DSSS. Palermo.

Cupani, F. 1696. *Hortus catholicus*. Napoli.

Day, J. 1963. *Les douanes de Gênes, 1376-1377*. 2 vols. Paris.

De Vio, M. 1706. *Privilegia felicis et fidelissimae urbis Panormitanae selecta aliquot ad civitatis decus et commodum spectantia*. Palermo.

Di Giovanni, V. 1876. *Capitoli gabelle e privilegi della città di Alcamo*. DSSS. Palermo.

Fazello, T. 1573. *Le due deche dell'istoria di Sicilia*. Venezia.

Filangieri, R. 1954. *I registri della cancelleria angioina ricostruiti con la collaborazione degli archivisti napoletani*, 6. Napoli.

Filangieri, R. 1957. *I registri della cancelleria angioina ricostruiti con la collaborazione degli archivisti napoletani*, 9. Napoli.

Filangieri, R. 1967. *I registri della cancelleria angioina ricostruiti con la collaborazione degli archivisti napoletani*, 21. Napoli.

Gabotto, F. 1906-7. *Inventari messinesi inediti del Quattrocento*. Archivio storico per la Sicilia orientale (ASSO) 3:251-76, 479-87; 4:154-64, 339-46, 483-90.

Giambruno, S. 1906. *Il Tabulario del monastero di S. Margherita di Polizzi*. DSSS. Palermo.

Garufi, C. A. 1896. *Ricerche sugli usi nuziali nel*

- medio evo in Sicilia. Archivio storico siciliano (ASS) n.s. 21:209-307.
- Genuardi, L. 1924. Il libro dei capitoli della corte del Consolato di mare di Messina. Palermo.
- Giardina, C. 1937. Capitoli e privilegi di Messina. Palermo.
- Girgensohn, D. and N. Kamp. 1965. Urkunden und Inquisitionen des 12. und 13. Jahrhunderts aus Patti. Quellen und Forschungen aus Italienischen Archiven und Bibliotheken (QF) 45:1-240.
- Gussone, J. 1842-4. Florae Siculae synopsis. 2 vols. Napoli.
- Kehr, K. A. 1904. Staufische Diplome im Domarchiv zu Patti. QF 7:171-81.
- La Mantia, F. 1908. Capitoli inediti della città di Sciacca del secolo XV. Sciacca.
- La Mantia, G. 1904. I capitoli delle colonie greco-albanesi di Sicilia dei secoli XV e XVI. Palermo.
- Lionti, F. 1891. Codice diplomatico di Alfonso il Magnanimo (1416-17), 1. DSSS. Palermo.
- Littara, V. 1593. De rebus netinis. Palermo.
- Madurell Marimón, J. M. and A. García Sanz. 1973. Comandas comerciales barcelonesas de la Baja Edad media. Barcelona.
- Marletta, F. 1909. Le gabelle della città di Catania sui panni e le sete nei secoli XV, XVI e XVII. Contributo alla storia finanziaria della città. ASSO 6:128-32.
- Mauceri, E. 1915-16. Inventari inediti dei secoli XV e XVI. (Da atti notarili di Siracusa, Noto, Lentini, Palazzolo Acreide). ASSO 12:105-17; 13:182-90.
- Orlando, D. 1857. Un codice di leggi e diplomi siciliani del Medio Evo che si conserva nella Biblioteca del Comune di Palermo ai segni Qq.H.124. Palermo.
- Pegolotti, F. B. 1936. La pratica della mercatura. A. Evans (ed.). Cambridge (Mass.).
- da Piazza, M. 1980. Cronaca (ed.). A. Giuffrida. Palermo.
- Pollaci Nuccio, F. and D. Gnoffo. 1892. I due registri di lettere degli anni 1311-12 e 1316-17, il Quaternus petitionum del 1320-21 e il quaderno delle gabelle anteriori al 1312. Palermo.
- Salomone Marino, S. 1876. Le pompe nuziali e il corredo delle donne siciliane nei secoli XIV, XV e XVI. ASS n.s. 1:209-40.
- Salomone Marino, S. 1896. Spigolature storiche siciliane dal sec.XIV al sec.XIX. ASS n.s. 21:363-96.
- Sciacca, G. C. 1907. Patti e l'amministrazione del Comune nel Medio Evo. DSSS. Palermo.
- Starrabba, R. 1877-8. Lettere e documenti relativi a un periodo del vicariato della regina Bianca in Sicilia (1411-1412). DSSS. Palermo.
- Starrabba, R. 1901. Consuetudini e privilegi della città di Messina sulla fede di un codice del XV secolo posseduto dalla Biblioteca comunale di Palermo. Palermo.
- Starrabba, R. and L. Tirrito. 1880. Assise e consuetudini della città di Corleone. DSSS. Palermo.
- Testa, F. 1741-3. Capitula Regni Siciliae. 2 vols. Palermo.
- Tirrito, L. 1877. Statuto, capitoli e privilegi della città di Castronuovo di Sicilia. DSSS. Palermo.
- Winkelman, E. 1880 a and b. Acta Imperii inedita saeculi XIII. 2 vols. Innsbruck.
- Zeno, R. 1909. Un capitolo di re Martino sull'acatapania catanese. ASSO 6:280-92.
- Zeno, R. 1936. Documenti per la storia del diritto marittimo nei secoli XIII e XIV. Torino.
- Secondary works*
- Abulafia, D. 1977. The two Italies. Economic relations between the Norman Kingdom of Sicily and the northern communes. Cambridge.
- Abulafia, D. 1988. Frederick II. A medieval emperor. London.
- Amari, M. 1933-9. Storia dei musulmani di Sicilia. C. A. Nallino (ed.). Second edition. 3 vols. Catania.
- Ashtor, E. 1978. The Jews in the Mediterranean trade in the fifteenth century. In: J. Schneider (ed.), Wirtschaftskräfte und Wirtschaftswege, 1. Mittelmeer und Kontinent. Festschrift für Hermann Kellenbenz: 441-54. Nürnberg.
- Ashtor, E. and G. Cevdalli. 1983. Levantine alkali ashes and European industries. Journal of European Economic History 12:475-522.
- Aymard, M. 1976. Commerce et consommation des draps en Sicile et en Italie méridionale (XV<sup>e</sup>-XVIII<sup>e</sup> siècles). In: M. Spallanzani (ed.), Produzione commercio (see below):127-39.
- Barbieri, G. 1974. La produzione delle lane italiane dall'età dei comuni al secolo XVIII. In: M. Spallanzani (ed.) La lana come materia prima. I fenomeni della sua produzione e circolazione nei secoli XIII-XVII:133-48. Firenze.
- Baviera Albanese, A. 1974. In Sicilia nel sec. XVI: verso una rivoluzione industriale? Palermo.
- Bellenghi, F. 1811. Processo sulle tinte che si estraggono dai legni. Ancona.
- Bevere, R. 1896. Arredi suppellettili utensili d'uso nelle province meridionali dal XII al XVI secolo. Archivio storico per le province napoletane 21:626-64.
- Borlandi, F. 1953. "Futainiers" et futaines dans l'Italie du Moyen Age. In: Hommage à Lucien Febvre.



- Eventail de l'histoire vivante 2:133-40. Paris.
- Bresc, G. and H. Bresc. 1974. Il liuto e la spada: un "trovatore" in Sicilia nel Trecento. *Rivista italiana di musicologia* 9:37-47.
- Bresc, G. and H. Bresc. 1980. Lavoro agricolo e lavoro artigianale nella Sicilia medievale. In: *La cultura materiale in Sicilia*: 91-139. Palermo.
- Bresc, H. 1971. Pantelleria entre l'Islam et la Chrétienté. *Cahiers de Tunisie* 19:105-27.
- Bresc, H. 1972. Les jardins de Palerme (1290-1460). *Mélanges de l'Ecole française de Rome (MEFRM)* 84:55-127.
- Bresc, H. 1975. The "secrezia" and the royal patrimony in Malta: 1240-1450. In: A. T. Luttrell (ed.), *Medieval Malta. Studies on Malta before the knights*: 126-62. London.
- Bresc, H. 1983. La draperie catalane au miroir sicilien, 1300-1460. *Acta mediaevalia historica et archaeologica* 4:107-27.
- Bresc, H. 1986. Un monde méditerranéen. *Economie et société en Sicile 1300-1450*, 2 vols. Roma.
- Bresc, H. and F. D'Angelo. 1972. Structure et évolution de l'habitat dans la région de Termini Imerese (xii<sup>e</sup>-xv<sup>e</sup> siècles). *MEFRM* 84:361-402.
- Bresc, H. and S. D. Goitein. 1970. Un inventaire dotal de juifs siciliens (1479). *Mélanges d'archéologie et d'histoire* 82:903-17.
- Bridbury, A. R. 1982. *Medieval English clothmaking. An economic survey*. London.
- Brunschvig, R. 1940. La Berbérie orientale sous les Hafside, des origines à la fin du XV<sup>e</sup> siècle: 1. Paris.
- Burns, R. I. 1975. *Medieval colonialism. Postcrusade exploitation of Islamic Valencia*. Princeton, N.J.
- Caggese, R. 1930. Roberto d'Angiò e i suoi tempi: 2. Firenze.
- Cancila, O. 1980. *Impresa redditi mercato nella Sicilia moderna*. Bari.
- Carini, I. 1880-1. Sulla porpora e sul colore porporino nella diplomazia specialmente siciliana. *Nuove effemeridi siciliane* 2nd ser. 9:297-339; 10:3-44.
- Carrère, C. 1967. *Barcelone centre économique à l'époque des difficultés 1380-1462*. 2 vols. Paris-Den Haag.
- Carus-Wilson, E. 1952. The woollen industry. In: M. M. Postan and E. E. Rich (eds.), *Trade and industry in the Middle Ages*: 355-428. CEHE. Cambridge.
- Carus-Wilson, E. 1959-60. Evidences of industrial growth on some fifteenth-century manors. *Economic history review (ECHR)* 2nd ser. 12:190-205.
- Centro studi per il cotone italiano. 1963. *Il cotone italiano, situazione attuale e prospettive*. Palermo.
- Chorley, P. 1987. The cloth exports of Flanders and northern France during the thirteenth century: a luxury trade? *ECHR* 2nd ser. 40:349-79.
- Cipolla, C. M. 1981. *Before the industrial revolution: European society and economy 1000-1700*. Second edition. London.
- Cipolla, C. M., R. S. Lopez and H. A. Miskimin. 1964. Economic depression of the Renaissance? *ECHR* 2nd ser. 16:519-29.
- Comba, R. 1984. Produzioni tessili nel Piemonte tardomedievale. *Bollettino storico-bibliografico subalpino* 82:321-62.
- Cordova, V. 1890. *Le origini della città di Aidone e il suo statuto*. Roma.
- Costa, A. 1981. Alafanco Gallo laniere genovese in Palermo nel secolo XIV. *ASSO* 77:385-415.
- D'Angelo, F. 1971. Sopravvivenze classiche nell'ubicazione dei casali medievali del territorio della Chiesa di Monreale. *Sicilia archeologica* 13:54-62.
- Day, J. 1984. La Sardegna e i suoi dominatori dal secolo XI al secolo XIV. In: J. Day, B. Anatra and L. Scaraffia, *La Sardegna medioevale e moderna*: 1-187. *Storia d'Italia* diretta da G. Galasso, 10. Torino.
- Del Treppo, M. 1972. I mercanti catalani e l'espansione della Corona d'Aragona nel secolo XV. Napoli.
- De Rosa, L. 1988. The de-industrialization of the kingdom of Naples in the sixteenth and seventeenth centuries. In: H. Van der Wee (ed.), *The rise and decline of urban industries in Italy and in the Low Countries (late Middle Ages-early modern times)*: 121-37. Leuven.
- Edwards, J. 1987. 'Development' and 'underdevelopment' in the western Mediterranean: The case of Córdoba and its region in the late fifteenth and early sixteenth centuries. *Mediterranean historical review* 2:3-45.
- Epstein, S. R. forthcoming. *Sicily and its markets 1300-1500. Regional development and social transformation*. Cambridge.
- Fournial, E. 1967. *Les villes et l'économie d'échange en Forez aux XIII<sup>e</sup> et XIV<sup>e</sup> siècles*. Paris.
- Fox-Genovese, E. and E. D. Genovese. 1983. *Fruits of merchant capital. Slavery and bourgeois property in the rise and expansion of capitalism*. Oxford.
- Frayn, J. M. 1984. *Sheep-rearing and the wool trade in Italy during the Roman period*. Liverpool.
- Gaudioso, M. 1971. La questione demaniale in Catania e nei "casali" del Bosco etneo. Il vescovo-barone. Catania.
- Giuffrida, A. 1976. Aspetti e problemi del commercio dei panni in Sicilia dal XIV al XVI secolo. In: M.

- Spallanzani (ed.), *Produzione commercio* (see below): 164–97.
- Giuffrida, A. 1978. Aspetti della presenza genovese nei secoli XIV e XV. In: *Civico Istituto Colombiano*, *Saggi e documenti* 1:265–93. Genova.
- Goitein, S. D. 1971. Sicily and southern Italy in the Cairo Geniza documents. *ASSO* 67:9–33.
- Grohmann, A. 1968–9. Prime indagini sull'organizzazione fieristica siciliana nel Medio Evo e nell'Età Moderna, con particolare riferimento alla fiera di Sciacca. *Atti dell'Accademia pontaniana new ser.* 18:295–341.
- Grohmann, A. 1969. *Le fiere del Regno di Napoli in età aragonese*. Napoli.
- Hatcher, J. 1977. *Plague, population and the English economy 1348–1530*. London.
- Heers, J. 1961. *Gênes au XV<sup>e</sup> siècle. Activité économique et problèmes sociaux*. Paris.
- Hoshino, H. 1980. *L'Arte della Lana in Firenze nel basso medioevo*. Firenze.
- Immagini di lavoro e vita contadina a San Piero Patti. 1981. Messina.
- Jaberg, K. and J. Jud. 1928–40. *Sprach- und Sachatlas Italiens und der Südschweiz*. 8 vols. Zofingen.
- Jones, P. 1978. Economia e società nell'Italia medievale: la leggenda della borghesia. In: R. Romano and C. Vivanti (eds.), *Storia d'Italia. Annali* 1. Dal feudalesimo al capitalismo: 185–372. Torino.
- Kellenbenz, H. 1963. Industries rurales en Occident de la fin du Moyen Age au XVIII<sup>e</sup> siècle. *Annales ESC* 18:833–82.
- Kula, W. 1976. *An economic theory of the feudal system: towards a model of the Polish economy, 1500–1800*. Engl. transl. London.
- Il lavoro contadino nei Nebrodi. 1977. Palermo.
- Leone, A. 1975. Aspetti dell'economia campana in età aragonese. *Atti dell'Accademia di scienze morali e politiche di Napoli* 86. Repr. in: idem. 1983. *Profili economici della Campania aragonese*: 13–56. Napoli.
- Lombard, M. 1978. *Etudes d'économie médiévale*. 3: *Les textiles dans le monde musulman du VII<sup>e</sup> au XII<sup>e</sup> siècle*. Paris-Den Haag-New York.
- Luttrell, A. T. 1975. Approaches to medieval Malta. In: A. T. Luttrell (ed.), *Medieval Malta. Studies on Malta before the knights*: 1–70. London.
- Madurell y Marimon, J. M. 1965–6. Contabilidad de una compañía mercantil trecentista barcelonesa (1334–1342). *Anuario de historia del derecho español* 35:421–525; 36:457–546.
- Maggiore Perni, F. 1892. *La popolazione di Sicilia e di Palermo dal X al XVIII secolo*. Palermo.
- Malanima, P. 1982. *La decadenza di un'economia cittadina. L'industria di Firenze nei secoli XVI–XVIII*. Bologna.
- Małowist, M. 1972. *L'inégalité du développement économique en Europe au bas Moyen Age*. In: M. Małowist. *Croissance et régression en Europe, XIV<sup>e</sup>–XVII<sup>e</sup> siècles*. *Recueil d'articles*: 39–52. Paris.
- Martino, C. 1979. *La valle di Milazzo fra età angioina e aragonese (Appunti e problemi di topografia e storia dell'insediamento)*. *Medioevo. Saggi e rassegne* 4:39–65.
- Mazzaoui, M. F. 1981. *The Italian cotton industry in the later Middle Ages 1100–1600*. Cambridge.
- Melis, F. 1962. *Aspetti della vita economica medievale (Studi nell'Archivio Datini di Prato)*. Siena.
- Millward, R. 1981. *The emergence of wage labour in early modern England. Explorations in economic history* 18:21–39.
- Miskimin, H. 1964. Monetary movements and market structure – Forces for contraction in fourteenth and fifteenth-century England. *Journal of economic history* 24:470–90.
- Miskimin, H. 1975. *The economy of early Renaissance Europe 1300–1460*. Cambridge.
- Mueller, R. C. 1984. *Die wirtschaftliche Lage Italiens im Spätmittelalter*. In: Seibt-Eberhard (see): 221–32.
- Multhaus, R. P. 1984. *Dyes and dyeing*. In: J. Strayer (ed.), *Dictionary of the Middle Ages* 4:325–9. New York.
- Munro, J. 1983. Bullion flows and monetary contraction in late-medieval England and the Low Countries. In: J. F. Richards (ed.), *Precious metals in the later medieval and early modern worlds*: 97–158. Durham, N.C.
- Munro, J. 1988. The 'New Draperies': The death and resurrection of an old Flemish industry, 13th to 16th centuries. Paper presented at the 'New Draperies' Conference (April). Leuven.
- Peri, I. 1953–6. *Città e campagna in Sicilia, i. Dominazione normanna*. 2 vols. Palermo.
- Peri, I. 1954. *Sull'elemento latino nella Sicilia normanna*. *Bollettino del centro di studi filologico-linguistici siciliani* 2:349–66.
- Peri, I. 1956. *Rinaldo di Giovanni Lombardo "habitor terrae Policii"*. In: *Studi medievali in onore di Antonino De Stefano*: 429–506. Palermo.
- Peri, I. 1959. *La questione delle colonie 'lombarde' in Sicilia*. *Bollettino storico-bibliografico subalpino* 57:253–80.
- Peri, I. 1982. *La Sicilia dopo il Vespro. Uomini, città e campagne 1282–1376*. Bari.
- Petralia, G. 1981–2. *Mercanti e famiglie pisane in*

- Sicilia nel XV secolo. *Annuario dell'Istituto storico italiano per l'Età moderna e contemporanea* 33-4:165-296.
- Peyer, H. C. 1977. Wollgewerbe, Viehzucht, Soldatendienst und Bevölkerungsentwicklung in Stand und Landschaft Freiburg i. Ue. vom 14. bis 16. Jh. *Freiburger Geschichtsblätter* 61:17-41.
- Pipitone Federico, G. 1912. Di un lanificio palermitano nella prima metà del secolo XIV. *ASS* n.s. 37.
- Riera Melis, A. 1983. L'aparició de la draperia urbana als Pirineus orientals. *Annals de la I Universitat d'Estiu Andorra* 82. El segle XIII. Andorra:152-78.
- Romano, R. 1974. La storia economica. Dal secolo XIV al Settecento. In: *Storia d'Italia*, 2. Dalla caduta dell'Impero romano al secolo XVIII. 2:1811-1913. Torino.
- Schneider, J. 1980. Trousseau as treasure: some contributions of late nineteenth century change in Sicily. In: E. B. Ross (ed.), *Beyond the myths of culture. Essays in cultural materialism*:323-56. New York.
- Seibt, F. and W. Eberhard (eds.) 1984. *Europa 1400. Die Krise des Spätmittelalters*. Stuttgart.
- Sipione, E. 1968. Tre documenti trecenteschi. *ASSO* 21:211-52.
- Spallanzani, M. (ed.) 1976. *Produzione commercio e consumo dei panni di lana (nei secoli XII-XVIII)*. Firenze.
- Thirsk, J. 1961. Industries in the countryside. In: F. J. Fisher (ed.), *Essays in the economic and social history of Tudor and Stuart England in honour of R. H. Tawney*. Cambridge.
- Thirsk, J. 1978. *Economic policy and projects. The development of a consumer society in early modern England*. Oxford.
- Toubert, P. 1973. *Les structures du Latium médiéval. Le Latium méridional et la Sabine du IX<sup>e</sup> siècle à la fin du XII<sup>e</sup> siècle*. 2 vols. Roma.
- Trasselli, C. 1955. Frumento e panni inglesi nella Sicilia del XV secolo. *Annali della Facoltà di Economia e Commercio dell'Università di Palermo* 9; repr. in: Trasselli C. 1977. *Mediterraneo e Sicilia all'inizio dell'epoca moderna. (Ricerche quattrocentesche)*: 289-329. Cosenza.
- Trasselli, C. 1956. Tessuti di lana siciliani a Palermo nel XIV secolo. *Economia e storia (ES)* 3:303-16.
- Trasselli, C. 1957. Il mercato dei panni a Palermo nella prima metà del secolo XV. *ES* 4:140-66, 286-333.
- Trasselli, C. 1965. *Richerche sulla seta siciliana (sec. XIV-XVII)*. *ES* 12:213-58.
- Trasselli, C. 1979. Lino e cotone a Messina. *Archivio storico messinese* 3rd ser. 30:87-99.
- Trasselli, C. 1982a. *Storia dello zucchero siciliano*. Caltanissetta-Roma.
- Trasselli, C. 1982b. *Da Ferdinando il Cattolico a Carlo V. L'esperienza siciliana 1475-1525*. 2 vols. Soveria Mannelli.
- Villari, R. 1967. *La rivolta antispagnola a Napoli. Le origini (1585-1647)*. Bari.
- Villari, R. 1983. *Ribelli e riformatori dal XVI al XVIII secolo*. Second edition. Roma.
- Wallerstein, I. 1974-80. *The modern world-system*. 2 vols. New York.
- Wild, J. P. 1970. *Textile manufacture in the northern Roman provinces*. Cambridge.
- Yver, G. 1903. *Le commerce et les marchands dans l'Italie méridionale au XIII<sup>e</sup> et au XIV<sup>e</sup> siècle*. Paris.