1. Urban Structure, Urban Functions

The growth and role of cities in the two cultures of medieval Spain are intimately related to, if not dependent upon, the development of the agrarian economics just described. The conventional wisdom, perhaps, is to ascribe minimal morphological characteristics inhering in an urban nucleus, as Alfonso the Wise did: a city was "that whole place which is surrounded by walls, with the quarters and buildings contained within them." Accepting this definition, and the implicit high density of population with respect to the surrounding countryside, historians have had no difficulty in contrasting the high level of urbanization of al-Andalus with the near total lack of towns in Christian Spain prior to A.D. 1000, after which date urban nuclei appear and follow a "normal" pattern of morphological and institutional development in common with other European societies. In such a view, one could not treat comparatively urbanization in the Umayyad and Christian states prior to A.D. 1000 because of the lack of "cities" in the latter.

A comparative approach demands an expansion of analytical frameworks, beginning with an understanding that urban functions are not necessarily dependent on urban forms (that is, on those physical structures and material elements deemed essential to a minimal definition of a city). Such functions include coordination (political and judicial administration, for example), exchange of goods or information, and the transfer of surpluses from a rural hinterland to a central point. The crux of the difference between Islamic and Christian society before A.D. 1000 is that in the former these functions were concentrated, while in the latter they were dispersed. Thus, for example, administration of justice was concentrated in the towns in al-Andalus, while in the Christian kingdoms it was dispersed among a multiplicity of lay and ecclesiastical courts throughout the countryside.

The discrepancy in scale between the two societies should not obscure the identification of analogous processes. A very small number of persons (the inhabitants of an abbey, the "household" of a count) could discharge all minimal urban functions. Thus a tenth-century Castilian or Catalan monastery could well act as a node of an information network (through its scriptorium), as an administrative center for a populous domain, as a locus of technological innovation and technical services, and as coordinator of a regional economy and center of exchange. Indeed, early medieval monasteries tended to be located at transit points between the mountains and the plains, where they could effectively carry out these very functions. Then, as towns proper began to take form, the same monasteries quite easily adapted by shifting some of these functions into an urban setting, as when the Count of Castile granted the monastery of Cardeña two stores in Burgos in 982, ostensibly for the sale of agricultural surpluses.
In the eleventh century, when urbanization as a process became generalized in Castile, Cardeña even expanded and intensified its urban functions: it was granted the right to hold markets freely throughout its domains, even as the monarch was granting similar privileges to towns.²

Seen in this light, it is impossible (and probably a distortion) to separate urbanization as a process from the general development of networks (mainly economic) of communication.

With this proviso, some general statements can be made about the course of urbanization in early medieval Iberia. In al-Andalus towns developed quickly, beginning in the late eighth century, as a result of the emplacement of the region in the international trade network of the Islamic Empire. The international market encouraged concentration of artisan industries in towns whose monetary economy allowed the urban middle class to buy into the surrounding countryside and to develop the tightly interdependent town-huerta complexes whose agricultural surpluses further accelerated urban economic and demographic growth. In Christian Spain, both agricultural surpluses and urban functions were dispersed. A general movement of concentration can be first detected in the last third of the tenth century, gathering momentum in the eleventh owing to the economic growth that was produced by the stimulation of trade and concurrent commercialization of natural resources associated with the pilgrimage to Santiago de Compostela, as well as by the economic stimulus provided by the payment by the Taifa kings of vast sums of money in tribute.

This early urbanization, especially in Castile and León was marked by a strong influence of Islamic forms, perhaps through the emulation of the most obvious and visible model, perhaps also through the transfer of [112] perceptions and organizing principles by migrant Mozarabs. Symbolic of this process was the diffusion of the Arabic name for city -- madîna -- whose significance as an indicator of the urban revival in Castile has been stressed by Jaime Oliver Asín. This term appears in areas never occupied by the Muslims: Medina del Pomar (the Madînat Qastîliya referred to by medieval Arab geographers) in Old Castile and the more surprising incidence of the term in the Basque country (towns with hybrid names: Medinaveitia, Medinagoitia, Medinazcoitia), where Medina seems to have connotated a walled town with a citadel, probably also the site of a market or fair. Related to the usage of Medina was the diffusion of the Arabism azogue (from sâq) and its diffusion in the Basque language (including Socoa, near St. Jean de Luz, France) in the forms azoga and asoka.³

Both the urban function in general and the economic function of the town seem, in very early times, to have borne Islamic connotations. The same is true of morphological characteristics of early Castilian towns: both of the common terms for quarter/suburb (used interchangeably) were Arabisms: arrabal (from rabad, suburb) and barrio (from barrî, outside of). The same is true of terms relating to the immediate hinterlands of towns: alfoz (from hawz, district), indicating the immediate rural environs controlled by a town (synonymous with Romance término) and aldea (from dai’a, country estate or hamlet), indicating in Spanish usage an agglomeration intermediate between a hamlet and town, frequently applied to satellite villages which were jurisdictionally and economically dependent on a town. These terms were diffused by a variety of mechanisms and agents: by Mozarab and Christian Berber settlers, or by the emulation of Andalusi styles.

A whole other set of terms suggests the development of Christian cities of a later period (beginning in the tenth century and gathering force in the eleventh) parallel to that of Western European towns. Such terms (e.g., burgo) almost invariably occur in areas either located along the pilgrimage route or manifesting strong French influence.⁴

Although the sequence in the appearance of the names of the constituent parts of cities is significant (the Arabisms became common a century earlier), the mixture of the two sets of terms and the insistence by institutional historians on the significance of the burgum in the formation of towns raises the issue of what is viewed as normative. To an institutional historian trained in the German
historiographical tradition, the *burgum* is the norm and the fact that a suburb, a quarter, a permanent market, or a rural district [113] may be known by an Arabism seems adventitious -- a name and nothing more. I prefer to think that names of institutions are not adventitious, but, at the very least, represent perceptions. In the milieu of the early medieval Christian realms, the Catalan counties excepted, towns were Islamic, almost as if by definition. The model was proximate, overbearing, and compelling.

2. **Growth and Morphology of Towns**

The urban structure of medieval Spain was, to a large degree, built on a Roman base. Most of the major towns were located on the sites of Roman settlements and joined together in regional commercial networks whose spatial configurations were largely predetermined by the Roman road system. Thus, Córdoba, Seville, Cádiz, Toledo, Zaragoza, Valencia, and most other centers of al-Andalus had been Roman towns. However, so ruinous was the condition of most of these towns and so great their subsequent expansion in Islamic times that most of the Roman physical plant was submerged or obliterated. Indeed, al-Himyari regarded as a great curiosity the axial disposition, so typical of Roman city planning, of the layout of Zaragoza, one of the few towns to retain any semblance of its pristine shape. The city was built on Caesar's orders, he reported, according to a cruciform plan, with four gates at the termini of the two intersecting main streets. [5]

It is difficult to ascertain the growth rates of Andalusi towns, especially in earlier periods. Torres Balbás' ingenious reconstruction of the demographic growth of Córdoba on the basis of the number of male worshippers who could be accommodated in the city's main mosque, the successive enlargements of which are well documented, yields the figures of 25,000 population of the capital during the reign of 'Abd al-Rahmân I (eighth century), 75,000 at the time of 'Abd al-Rahmân II (ninth century), and 100,000 in the caliphal epoch (tenth century). The latter figure correlates quite well with other calculations, based on the maximum extent of the town, although 90,000 would be a more cautious estimate of the maximum. [6]

The decentralization attendant upon the collapse of the Caliphate and the subsequent heightening of regional economies seem to have acted as a spur to the growth of provincial centers. Seville, the second largest town of Islamic Spain, increased in population from 52,000 in the tenth century [114] to 83,000 in the eleventh, Toledo from 28,000 to 37,000, Granada from 20,000 to 26,000, Zaragoza from 12,000 to 17,000, Valencia from 11,000 to 15,000, and Málaga from 10,000 to perhaps 20,000. Basing calculations on known commercial patterns, the disposition of Roman roads and mountain systems, one can surmise the existence of two interconnected urban regions. The first was dominated by Córdoba, although the center of gravity shifted to Seville in the eleventh century as the old capital suffered political dislocation and displacement of population to the benefit of the 'Abbâdid capital. (I agree with J. C. Russell that the urban commercial network of southern al-Andalus included Fez, only 240 kilometers from Gibraltar, but disagree that it excluded Toledo, which had well-defined communication linkages both with the Guadiana basin and that of the Guadalquivir.) The Ebro Valley, with an agro-industrial center at Zaragoza and an important port at Tortosa, formed the nucleus of a distinct subregion, connected to the Balearic Islands and to Valencia, the latter an unimportant town in Umayyad times (possibly because of dense Berber settlement in the region) but which increased in importance and in size thereafter. The two regions were connected both by land (over the Roman road from Toledo to Zaragoza, passing through Medinaceli) and by sea (the ports of Tortosa, Palma, and Denia connecting with southern maritime termini). [2]

Since the Roman base was generally submerged everywhere, Andalusi towns developed in consonance with norms common throughout the Islamic world. Their chief morphological characteristics were the centrality of the mosque and markets, the eccentric location of fortress or citadel on a high spot along the town wall, the rigid distinction between public and private space, the fragmentation of quarters, and
difficulty of access to residential streets. The juxtaposition of the main mosque and markets in the town plans of the great Andalusi cities is seen archetypically in Toledo, where the public complex was located in the geographic center of the town; in Córdoba, Almería, and Málaga the main mosque was displaced for economic reasons, toward the Guadalquivir in the former and toward the seaport in the latter two. The centrality of the mosque is obvious in Seville, Valencia, and other Andalusi towns. Almería and Málaga provide examples of towns with citadels (alcazabas) located on high points along the town wall.

Public activities within the town walls were limited to the market-mosque area, the only part of the town endowed with squares and streets [115] broad enough to allow for public commercial and social activities. The rare street described as being a principal artery (zuqaq al-kabîr) would be that connecting the central nucleus with the main gates. This area was strictly non-residential and deserted at night, when it was patrolled by guards. The residential sections of the town were comprised of winding, narrow streets which followed the natural pitches and curves of the terrain in order to provide drainage (through a channel in the middle) for rain water and sewage. The sinuous character of the streets was proverbial (note the names of Streets of the Seven Windings in Córdoba, Seville, and Murcia, and one of Twelve Windings in Málaga) as was their narrowness, most no more than three meters wide, many under two, and some (in Murcia, for example) but one meter across. The pattern was complicated by numerous culs-de-sac (durûb; singular darb; Castilian adarve) which typically contained from eight to ten houses and which could be locked at night by a gate. The houses themselves turned their backs on the streets, having plain exteriors lacking in windows, oriented, rather, around interior patios. The structure of the family, with insistence on privacy and the seclusion of women, encouraged this complex arrangement of streets, which also had the advantages of providing security in times of civil unrest: a darb could be easily defended against attack by a handful of its residents. In consonance with the general lack of public space in residential areas, there were no squares, except small ones formed adventitiously (as were the trajectories of the streets themselves) by room left over after the construction of houses. [8]

For reasons of security, Jews in particular tended to reside in quarters that had internal walls and gates which could be locked. Examples are the suburb of the Jews' Gate of Córdoba (rabad bâb al-Yahûd) and the Jews' Town (madînat al-Yahûd) of Toledo, which was located along the wall, communicating with the exterior through the Jews' Gate. On the other hand, Christians seem generally (e.g., in Córdoba, Toledo, and Zaragoza) to have lived dispersed among the Muslim population, although there were two clearly defined Mozarab quarters in Valencia, a "Suburb of the Church" in Alcira, and other scattered examples of segregated Christian quarters. There were Berber quarters in Granada and Zaragoza. [9]

It was typical of Andalusi towns that urban life tended to spill out through the gates into surrounding huertas and suburbs (leading Torres Balbás to characterize them as "extroverted" with respect to their [116] immediate environs, as opposed to the introversion of Christian towns). Not only were the huertas, belts of irrigated parcels surrounding most Andalusi towns, closely connected with the economic life of the town, but the urban elite frequently owned country houses (munyat; Castilian, almütina) dispersed throughout the huerta. Extramural suburbs tended to form along the most heavily traveled commercial roads leading from the town, or around palaces and military establishments; caliphal Córdoba had more than twenty. Some suburbs outgrew the original madînas and were incorporated within the walls; others were unprotected and suffered attrition after the Christian conquest. Also related to the extraversion of Andalust towns was the incidence of other extramural areas devoted to public functions: extensive cemeteries (thirteen in Córdoba), and open-air prayer and parade grounds, which added to the animated nature of life beyond the town walls. The cemeteries, interspersed with olive groves and the tombs of holy men, served a variety of non-religious functions:
lovers trysted there and tanners dried their hides on graves. All this was in strict contrast to Christian Spain, where cemeteries were parochial and included within the town walls.\(^{10}\)

The few new towns built by the Muslims were either palatine-administrative complexes, such as Madîna al-Zahra' (the residence of 'Abd al-Rahmân III) and Madîna al-Zahira (built by al-Mansûr), neither of which survived Berber depredations of the eleventh century. Other towns of Muslim foundation were originally fortresses, such as Calatrayva or Calatayud.

Town life in the Christian kingdoms first emerged as a function of military or political necessity. This is true of León in the tenth century, when it was an administrative, ecclesiastical, and military emplacement with a small population and very little artisanal activity, as it was in Barcelona, which was administered by a viscount as military leader. The significant phase in urban development begins in the late tenth century and flowers in the eleventh as the result of economic stimulation, in the west from the commercial movement along the pilgrimage route, and in the east owing to an agricultural revolution which created the capital with which to underwrite the urbanization of Barcelona. At the same time, the collapse of Islamic strength and the successive displacement southward of the frontier made it possible to deemphasize the military role of urban centers and to allow the mercantile element to grow to dominance.

The histories of León, Zamora, and Salamanca provide examples of the shift in urban styles in response to the changing military and economic circumstances of the eleventh century. In the tenth century León had been the seat of a kingdom and a center of monastic and military activity. It had a weekly market, but its economy was limited to the exchange of agrarian products for finished goods imported from al-Andalus. There was an influx of Mozarab artisans, and one of the few permanent stores which has been documented was owned by a Mozarab. In the early eleventh century a small, exclusively commercial quarter began to form outside of the walls. This suburb attracted French and Jewish merchants and by the end of the eleventh century, thanks to the economic stimulus afforded by the pilgrimage trade, had spread out along both sides of the road to Santiago, was the site of permanent shops, and had a population of perhaps five hundred. By the 1180's the palatine town and the newer commercial suburb had fused, provoking the economic transformation of the former. The old quarter of the royal palace and the aristocratic quarter of San Isidro had, by the early thirteenth century, been invaded by smiths, tailors, shoemakers, carpenters, and other artisans who lived intermingled with aristocratic elements. The main street of the old city, on which the cathedral was located, was known by 1257 as the Street of the Ironworks (Ferrería). Zamora, on the Duero River, had been a predominantly defensive center in the tenth century, with a dense nucleus located around the cathedral and castle. An extramural nucleus or burgo began forming outside the Puerta Nueva at the intersection of three roads in the later eleventh century. As this burgo reached its full growth by the middle of the thirteenth century, it was combined with the old city, as a result of which the vital center of the town shifted to the site of the Puerta Nueva, which consequently became a square wherein the town council established its seat. The pattern of Salamanca's development was similar to that of Zamora. The original urban nucleus established in the tenth century as a frontier outpost was surrounded by a wall built from the remains of the old Roman wall. To the north arose a suburb-arrabal, which was walled in the mid-twelfth century to form a unified settlement. This expansion motivated the dislocation of the old permanent market (the Azogue viejo) to a more central location, now the site of the Plaza Mayor.\(^{11}\)

As noted in the case of León, the towns which arose along the pilgrimage route had both a markedly commercial nature as well as a tendency \(^{118}\) to orient themselves along the route. The town of Santo Domingo de la Calzada provides another example of the distinctive morphological features induced by the flow of pilgrims: it was constituted by elongated quarters on each side of the road, with secondary streets running parallel to the pilgrimage route which in turn became the principal artery within the
town itself.\(^{(12)}\) Other towns arose as suburbs outside of fortified *burgi* or castles (Jaca, Burgos), or near monasteries (Sahagún), but all were dominated by agglomerations of "French" artisans. Indeed Estella was established exclusively for their settlement, to enrich the kingdom of Navarre and to attract more settlers.

In the thirteenth century, particularly in the Crown of Aragón, a limited attempt was made to plan towns. Under the aegis of James I, symmetrically laid out walled towns with streets crossing at right angles and a central cathedral square were established at Castellón de la Plana (1251), Villarreal (1274), Nules, and Almenara.\(^{(13)}\) This spurt of town planning represented both a revival of the Roman grid pattern as well as the imposition of Aristotelian norms promoting notions of regularity and symmetry which were deemed conducive to a salubrious physical context for the development of urban life. The Christian urban style was introverted with respect to town environs. Public life was contained within the walls and was spread throughout the town's quarters, which tended to form small village-like units centered around parish churches. Artisans lived in their homes, and homes were oriented towards the streets, which, perforce, reflected this less restricted use by being wider and by opening out into frequent small squares.

When the Christians captured the great towns of al-Andalus, the principal organizing features of urban life were maintained intact. Public religious and economic functions continued to be located in the center of town -- the cathedral (converted from the main mosque) and the main market adjacent to it. Lesser details were subjected to progressive change: streets were widened, blind alleys opened up, and plain facades adorned. Thirteenth-century descriptions of Valencia and Córdoba singled out *straight* streets as an anomaly worthy of mention. Alfonso the Wise ordered the widening of the main streets of Murcia, a town noted for the narrowness of its thoroughfares. The judgment of the town fathers of Lérida that the streets were "confused, dark, and dirty" may have reflected a generalized opinion among Christians regarding the unsavoriness of Muslim-built towns. On the other hand, the widening of streets may have \[119\] had a technological rather than an aesthetic rationale. In Richard Bulliet's view, the disorganized street plan of medieval Islamic towns was a natural result of the lack of wheeled vehicles. Carts require that streets be flat, paved, and as wide as a single axle; without carts, the Islamic town was freed from this *vehicular straitjacket* and the roads were allowed to adapt to topographic idiosyncrasies.\(^{(14)}\) It makes perfect sense to suggest that when the Christians occupied these towns they had to readapt them to accommodate vehicular traffic.

3. The Urban Market

The role of the market was central in the process of medieval urbanization. In form and function there appears to be an evolutionary sequence of markets, reflecting overall economic development, that runs from periodic rural markets, to periodic urban, to permanent urban, with extramural markets playing a mediating role between rural and urban economies.

Rural markets, serving as exchange points for local agricultural surpluses, lacked the artisanal exchange function of urban markets, tended to be informal and unregulated by central authorities, and therefore are relatively undocumented. Since much of rural al-Andalus was inhabited by Berbers, the existence of traditional cyclical markets, common in North Africa, can be assumed. Toponymic evidence of such markets survive in names of rural communities named for Wednesday markets: Arva, Alarba, Larva (i.e., *sūq al-arba'a*), reflected in translation in the Valencian village of Cuart (fourth [day], that is Wednesday) de Poblet. A reminiscence of a Tuesday market is found in the Old Castilian village Talatel (*al-thalātha*) near Medina del Pomar, doubtless reflecting a Christian Berber settlement.\(^{(15)}\) Pedro Chalmeta concludes that, in al-Andalus, the prevalence of a money economy would have militated against rural *sūqs*, as would the relative autarchy of urban centers whose provisions came not from rural markets but from estates owned by townsmen.\(^{(16)}\) In the Christian kingdoms, market
privileges were granted to tiny hamlets and rural councils from the late tenth century on, as well as to lords (as in the cited case of the monastery of Cardeña) to establish markets within their domains.\(^{(17)}\)

In both societies, extramural markets were places of transition between rural and urban economies. In al-Andalus the rural villager sold his \([120]\) surplus in an extramural market (typically to acquire money in the event he owed taxes payable in specie), and then entered the city to buy in specialized urban markets which were found in a central location near the mosque from at least the early ninth century in the major towns.\(^{(18)}\)

We have noted that commercial activity in early Christian towns took place in extramural market suburbs which eventually, as a result of the increasing commercial orientation of town life, became incorporated within the town proper. The market privileges of these urban agglomerations specified weekly markets. Thus the Fuero of León (1020) provided for a Wednesday market; that of Sahagún (1095) for a Monday market; that of Nájera, Thursday; and so forth.\(^{(19)}\)

The shift, characteristic of the twelfth century, from a periodic to a permanent market, with an established location and permanent stalls or shops, was a decisive step. Here, the weight of Islamic influence was felt, particularly in León and Castile, where permanent markets were known by the Arabism açogue (from sūq), which indicated both the place itself and the concept of permanence. Therefore, the term açogue frequently acquired the meaning of commercial quarter, and in some cases there was a clear semantic differentiation between the Arabism, which connoted a permanent location, and the Latinism, mercatum, mercado, which still connoted a weekly market.\(^{(20)}\)

A permanent market consisted of a number of streets on which permanent shops were located; an open square where more transient activities took place; and, in larger towns, an Alcalcería, or covered market, where luxury goods were sold. There were also specialized markets, such as those for the sale of livestock (sūq al-dawabb, Castilianized as Zocodover), which, in Chalmeta's view, was a rural market transposed in an urban setting.\(^{(21)}\) In pre-industrial cities, it was common for artisans or merchants engaged in the same trade to occupy adjacent shops, or even entire streets or quarters. Given the primitiveness of means of transportation, the market functioned more efficiently if similar trades were concentrated. Such concentration also encouraged group cohesiveness, given material form in the organization of craft guilds, and it made control over the individual crafts by public officials more feasible. Indeed, ibn 'Abdûn, author of an Andalusi treatise on market regulation, urged that the market magistrate take pains to assign neighboring booths to members of the same trade. This was the practice in Seville, ibn 'Abdûn's town, and, upon its conquest by the Christians, Ferdinand III ordered the arrangement continued.\(^{(22)}\) Thus in Córdoba there was a quarter of parchment-\([121]\)makers, one of tanners in Zaragoza, of barbers in Toledo (these quarters may have contained only one street, however). In Seville and Valencia immediately after the Christian conquest there were streets of spice vendors (calles de Alatares, from Arabic ʻattâr), indicating that this arrangement dated from Islamic times. Likewise, the Repartimiento of Velez Málaga enumerates twenty-five ironsmiths located on one street alone.\(^{(23)}\)

The earliest citations of groups of tradesmen in León, representing settlements of Mozarabic immigrants, also reflect a tendency for those practicing the same trade to settle in compact groups. In the tenth century, however, these seem to have occupied hamlets, rather than city streets. A village named Pajarejos was settled by a group of Mozarab weavers (tiraceros, makers of tirāz, a luxury cloth), and other hamlets bore the names of the trades pursued by their settlers: Macellarlos (victuallers); Olleros (potters); Torneros (turners); and Rotarios (wheelwrights).\(^{(24)}\) Although named craft specialists -- yoke-makers, weavers, professional millers, and the like -- do appear precociously in the documentation of Mozarab settlements such as the valley of Ardón in the mid-tenth century, such
artisans are cited with frequency beginning in the eleventh century, at the same time that mercantile suburbs were forming. In particular, ironmasters appear increasingly throughout the eleventh century, both in Castile and Catalonia, and along the pilgrimage route artisans with French names practicing a wide diversity of trades were much in evidence. The Anonymous Chronicle of Sahagún records that there came to the town "from all parts of the world burghers of many trades, that is, smiths, carpenters, tailors, skinners, shoemakers, shield-makers, and men trained in divers arts." The same process occurred in Catalonia, where extramural markets were in evidence in tenth-century Barcelona and Gerona, towns which had by the late twelfth century fully developed urban markets with specialty districts devoted to the sale of meat (macella) and grain (balderias). (25)

Both the market itself, as a center of exchange, and the urban artisans who produced for the market necessitated governmental control. In the Islamic world, supervision of urban economic life gave rise to a specialized body of secular, customary law and a special jurisdiction called hisba (literally, calculation), executed in Umayyad times by a Master of the Market (sâhib al-sûq) and later by a muhtasib, both deriving their authority from the qadi. At the heart of their duties were the probity of weights and measures and the inspection of artisan manufactures and [122] comestible produce for adulteration. Thus the muhtasib is typically pictured as making the rounds of the market with an assistant who carries a balance with which to certify that products sold by weight were accurately priced. If a fraudulent practice was discovered in the commission, the muhtasib could punish the malfeasor summarily, typically by ordering the destruction of the bastardized product. The regulations, as collected in the treatises of Andulusi muhtasibs such as ibn 'Abdûn of Seville and al-Saqatî of Mâlaga, ranged from the general (prohibition of scandalous or irrereligious behavior in the marketplace) to very specific (stipulation of the number and kinds of thread per unit in various kinds of cloth; proportions of raw materials permissible in products containing multiple ingredients; procedures to be used in preparation and sale of meat). This jurisdiction was ultimately of Greek inspiration, drawing upon the model of the agoraonomos, the market inspector, and the astynomos, a public health official whose primary function was to maintain public space, particularly urban streets, in passable condition. The muhtasib, therefore, also looked into violations of what would now be called building codes, particularly as regarded the disposal of market and household refuse in the streets and the overbuilding of upper stories in such a way as to occlude the sunlight, making it impossible for muddy streets to dry. These public health functions were viewed as intimately intertwined with the functioning of the marketplace, which was the primary focus of public life, together with the mosque, over whose cleanliness and traffic the muhtasib also had some jurisdiction. (26)

As part of the process of urbanization in the eleventh century, the hisba jurisdiction was quite naturally transferred to the Christian kingdoms. A zabazoque (sâhib al-sûq) is mentioned in the Fuero of León (1020), where the office was no doubt introduced by Mozarabs; in the twelfth century the almotacén (derived from muhtasib) appears, becoming the standard market official in Castilian and Leonese towns. In the following century, the expansion of the Crown of Aragón along the eastern coast witnessed the diffusion of the muhtasaf (likewise derived muhtasib) in large and small towns, first those captured from the Muslims and later in many, such as Barcelona, where there was no immediate Islamic model. When the heartland of Andalusia was captured in the thirteenth century, not only the office but the entire structure of urban commercial organization was taken over intact. As Pedro Chalmeta remarks, one who has read [123] both hisba manuals and town ordinances of Mâlaga, Seville, Granada, and other formerly Islamic towns, codified in the later middle ages, can nearly anticipate both the content and sequence of the latter. Chalmeta catalogues the similarity between Islamic and Christian procedures governing the weighing of meat and flour; the preparation of sausages and cooked dishes; norms governing weaving and shoe-making; and the close similarity of sanctions, particularly the loss of goods. (27)
The fact that Valencian and Catalan towns produced manuals for the comportment of the muhtasaf and that this official seems to have enjoyed greater vitality than both its Castilian counterpart and perhaps even the original Islamic model is revealing. The Castilians appear to have borrowed, in the eleventh century, a less evolved office (i.e., the sâhib al-sûq) than that adopted by the Catalans two centuries later: al-Saqqâf and Raymond Deslluch, first mustasaf of Christian Valencia, were contemporaries. Moreover, the Christian almotacén and mustasaf were not, as their Islamic model, dependent upon a higher jurisdiction for their authority, but were elected officials of the town councils, with a rather specific mandate. While Muslims were generally restrained in their control of commercial activities, Christian authorities tended to have an exaggerated horror of an unregulated market which was institutionalized in the mustasaf. Also, because Islamic society placed a rather low value on customary law ('urf) in distinction to canon law (fiqh), the muhtasib did not hold a highly valued office, while, in contrast, the mustasaf of Valencia was considered an important municipal dignitary on a par with judges and jurates. The tighter organization of urban life in Christian society transformed into a very effective instrument of municipal government an area of law which in the Islamic world was amorphous, ambivalent, and not highly regarded. The heightened function of hisba jurisdiction in Christian garb created the interesting anomaly of actually strengthening the role of muhtasibs of the subject Muslim communities. (28)

The muhtasib also supervised craft guilds, through the mediation of the guild delegate, or amîn. In Christian Spain, guilds first arose in the early twelfth century, in response to the increasing specialization and economic power of urban artisans. In the Catalan and Valencian towns of the thirteenth century, guilds had already achieved a prominent role in urban governance and economy and the mustasaf was easily superimposed as a regulatory official in charge of a preexisting guild structure. He was [124] empowered to direct the election of supervisors (veedors) within each guild who were to report to him any evidence of fraud or malfeasance committed by a member. (29)

The easy acceptance of an Islamic institutional model and its transformation into an instrument of regulation in consonance with principles quite different from those prevailing in the Islamic world is a testimony to the dominance of Islamic urban styles in Spain of the high middle ages. Moreover, it is a good example of how an institution could be diffused quite devoid of its specifically Islamic content. More important than the culture he represented, the muhtasib reflected a higher stage of urbanization and economic organization and his utility to the expanding Christian urban economies served an immediate and useful integrative purpose.

When Christians captured Islamic towns, the market generally remained in the same place, with its name Castilianized or Catalanized, in the forms zoco, sueca, azuequa, and so forth. More than just a name is represented: these market areas, such as the Azoc of Lérida at the end of the twelfth century, were the vital economic centers, often the most densely populated areas, of these towns. In most cases, the Alcaicerías were also preserved. These had generally been owned by religious trusts and became, under Christian rule, part of the royal patrimony. Thus shops in the Alcaicerías of Toledo, Cuenca, Teruel, Zaragoza, and other towns were granted out to Christian and Jewish artisans and merchants. (30)

The physical form of the Islamic permanent market, its function in town life, and its governance were reflected in, and provided a direct stimulus to, the economic development of medieval Christian Spain. That development, however, although perforce related to the economic structure of al-Andalus, was the product of a complex interweaving of processes related to the international monetary system, to the development of agriculture, and to an opening toward Europe which lent a distinctive stamp to urbanization in the eleventh century.
4. Patterns of Trade and Investment

We have noted (in Chapter 1) the interdependence of the main supra-regional economies of the medieval world (the Latin West, the Byzantine Empire, the Islamic world, and the Far East) in spite of political and religious rivalries. The interdependence is basically gauged by tracking the directionality and rate of flow of gold and silver currencies and the relation of these to patterns of international trade. Trade, moreover, entails an exchange between raw materials and finished products, the concentration of which further lent spatial specificity to medieval economic patterns.

In the case of medieval Iberia, therefore, one is bound to consider, first, the embeddedness of Islamic and Christian zones in supraregional systems; second, and more specifically, the dependence of Christian Spain on the monetary system of al-Andalus; and, third, the interdependence of Islamic and Christian Spain seen in the exchange of Islamic finished products for Christian raw materials, the role of money in such exchanges, and the changing patterns of these relationships as the economic structures of the two societies changed from one of gross disparity towards one of similarity.

In al-Andalus, 'Abd al-Rahmân I had introduced a silver standard, based on the dirhem, which may have been the immediate model for the Carolingian monetary system, diffused, in turn, to the Christian kingdoms, particularly the Catalan counties. The Andalusi economy, monetarized by the end of the eighth century as a function of the rapid agricultural and urban development of the country, did not become bimetallic until the flow of Sudanese gold in the early tenth century allowed 'Abd al-Rahmân III to coin gold dinars. The apogee of the Caliphate was capitalized not only by this constant influx of gold and by tribute (in silver and slaves) from the Christian kingdoms, but by a favorable balance of trade within the Islamic world due not only to the export of artisan products (especially silk cloth) but, more importantly, by the country's role as supplier of crucial raw materials to the Magrib and the resource-poor Islamic East. The economic boom created a disparity in the standard of living between al-Andalus, on the one hand, and the East and the Magrib, on the other, reflected both in higher prices and in higher wages, the latter constituting a pole of attraction for migrating artisans and laborers. An economic decline at the end of the century was reflected in al-Manûr's raids on the Christian kingdoms, in quest of booty.

In the eleventh century, the economies of the Taifa kingdoms seem to have been minimally disturbed by the rupture of the Islamic world system. The breaking of the political unity of the Magrib and the East, particularly by the Almoravids, inhibited the flow of gold and goods eastward, but not to Spain. The strengthening of regional agricultural economies and the impetus to urbanization afforded by the political fragmentation of the state encouraged regional specialization and produced a series of booms in the Taifa capitals. The currency devaluation and monetary inflation caused by the payments of massive tributes (parias) to the Christians seem also to have stimulated the Taifa economies, the more so since a goodly proportion of those tributes appear to have been reinvested in Islamic industries through the purchase, by the Christians, of large quantities of both raw materials and finished products, particularly luxury items such as saddlery and cloth.

In Christian Spain, progress towards the full monetarization of the economy was slow. The incidence of bartering was pronounced, especially in the western kingdoms, through the tenth century. Although Alfonso II of León had introduced a silver standard (along Carolingian lines, but doubtless more motivated by the immediate economic influence of the Andalusi dirhem), silver currency was preeminently a money of account, and prices quoted in silver solidi indicated a weight equivalence rather than an actual monetary value. The universal equivalence of one solidus to one modius of wheat or one sheep is an indication that many transactions expressed in solidi were actually effected by an exchange in kind. Thus tenth-century land transactions record payment in cloth, livestock, iron, wine, and other products which, because of the low value of superabundant land, proved effective substitutes...
The controlling force of the Andalusi economy in areas where artisan crafts were underdeveloped, primitive, or non-existent, and which can be readily appreciated from the fact that an ornamented (guadameci) saddle, a bridle, or bit imported from al-Andalus far exceeded in value that of the horse it adorned, is also evident in exchanges in the form of gifts which played an important role in Christian Spain before the advent of a market economy. Thus in 978 count García Fernández bestowed upon the monastery of San Cosme and San Damián an impressive endowment, consisting mainly of Islamic and Byzantine cloth (the latter generally transhipped to Christian lands by Jewish merchants) -- almoçalas, alfaneques, ganapes (from Arabic ajnabi, foreign), greciscos (greek), "lettered altar clothes" (sabanas literatas, an allusion to tirâz, a luxury cloth embroidered with Koranic inscriptions), not to mention fifty Muslim slaves of both sexes. Since gifts were rarely accepted gratuitously (Sánchez-Albornoz cites the case of a Leonese abbot who granted a mill in return for an Andalusi saddle), their role in a society where monetary exchanges were infrequent and confined to the circle of kings and ecclesiastical magnates cannot be underestimated. A bolt or two of Byzantine cloth in ninth-century León was worth as much as an entire hamlet, not only because of its rarity but also because of the high investment value of such items, relative to the low value of land.

Because of the lack of gold, the purchasing power of the Christians remained relatively low through the tenth century. Such gold as could be mustered was ineluctably drained away to the south for the purchase of luxury products. The eleventh century, however, was marked by a rapid reversal of the Christian economies as a result of the political upheaval in al-Andalus, of the increased agricultural productivity of newly settled lands, and, later in the century, of the influx of pilgrims to the tomb of Saint James.

The impact upon the economies of the Christian kingdoms of the massive doses of gold paid in the form of tribute, which has been studied incisively by J. M. Lacarra, was profound, although its stimulation of the economy was more indirect than direct. The parias were a permanent feature of the peninsular economy, from their early development by Ramón Berenger I of Barcelona in the 1040's until the Almoravid invasion of 1086. The tributes were paid regularly, often in monthly installments, and became a normal ingredient of princely budgets. The kaleidoscopic shifting of alliances between Islamic and Christian magnates of this epoch was a direct function of the amount of tribute paid. (The potentiality for the facile switching of sides can be appreciated from the sheer multiplicity of tribute arrangements: the Hûdid kingdom of Zaragoza, which had contiguous borders with Barcelona, Urgel, Pamplona, Aragón, and Castile, paid tribute to all; more distant kingdoms, such as that of Seville, tended to direct their payments and allegiances less promiscuously.)

The investment of these sums, which ran to tens of thousands of gold dinars annually from each Taifa king, was, however, frequently diverted from purely economic ends. The lion's share was reinvested in the war effort, in soldiers' pay and by construction and purchase of fortifications. Christian princes, particularly the counts of Barcelona, also used the money to consolidate their realms by buying off inherited rights of rival claimants to their patrimonial domains. Substantial amounts were donated to ecclesiastical institutions: the sum given by Alfonso VI of Castile to the French monastery of Cluny exceeded the total of that foundation's annual income from rents. Tribute money financed, in great part, the building of the great works of Spanish Romanesque architecture, which might have stimulated the growth of local artisanry, as churchbuilding did in other European countries. But here the weight of superior Islamic economic organization was felt, as the new churches' needs for finely crafted cloth, glass, and finished wood, stone, or ivory products were met by purchasing these from Andalusi towns, thereby stimulating their artisan industries, even in the face of ever-mounting inflationary pressures. The most far-reaching impact of parias on Christian economics seems to have been that the introduction of vast quantities of gold and therefore the inception of bimetallic currency, with the widespread circulation of Andalusi gold dinars (called mancus in Latin), speeded up monetary...
circulation, causing inflation in prices of real property and salaries in those areas such as the plain of Barcelona, where the economy had already been stimulated by increased agricultural production. People who had made good in agriculture were therefore able, through the availability of a plenteous money supply, to convert their real estate into liquid assets which could then be invested in urban property and in commercial ventures.\(^{(34)}\)

The Almoravid invasion stopped the flow of tribute just at the moment when the Christian kingdoms had become accustomed to a monetary economy. Among the repercussions of this stoppage were an immediate economic recession and a concomitant expansion of economic horizons across the Pyrenees to Europe. Social unrest in the towns along the pilgrimage route disrupted the growth of urban industries there, provoking a break in economic development. The middle decades of the twelfth century witnessed the increasing commercialization of agricultural products, particularly wool, which were sold at a multiplicity of newly established fairs which became the foci of increasingly commercial contacts with European industrial centers, particularly those of France, Flanders, Italy, and England which used raw wool. At the same time the Almoravid dinar remained the basis of the Christian monetary system, but when the king of Murcia, ibn Mardanîsh, ceased coining Almoravid-style dinars in 1170, a process was set in motion that resulted in the first coinage of gold dinars in Castile -- the *morabetinos* or *maravedis* minted by Alfonso VIII in 1175, coined in Toledo in imitation of the Almoravid dinar with a quaint Arabic inscription alluding to the Pope as *imâm* of the Catholics.\(^{(35)}\)

These trends, leading toward a fully developed market economy, continued in the thirteenth century, abetted by the development of the newly conquered territory in the Andalusi heartland, by the development of urban craft industries, by the commutation of feudal dues to money payments, and by the boom in wool exports (this latter, however, with deleterious effects on the balance of the agrarian economy).

**PATTERNS OF TRADE**

The economic system of the medieval Islamic world was a tenuous construction whose fragility, to use Maurice Lombard's characterization, was the result of a resource base inadequate (in essential materials such as wood, iron, and other metals, as well as in water) to sustain for long the continuous expansion of an urban artisanal society. That system, at its point of maximum productivity, was the result of a carefully tuned balance of irrigation agriculture (whose natural limits placed a ceiling on the vegetable base of the diet), long-distance trade routes to make up for local resource inadequacies, and a monetary economy based on a constant afflux of gold, all combining to stimulate urban growth. When the trade routes were interrupted by the invasions of the eleventh and twelfth centuries the system was destroyed.\(^{(36)}\) Yet, given the nature of this international economy, al-Andalus was well-positioned, by reason of its relatively rich endowment with resources in high demand in North Africa and the East (wood, metals), to derive maximum advantage from the system in its epoch of expansion, and also, because of its access to Sudanese gold, to withstand and survive the cataclysmic effects of decline.

Viewed from the rest of the Islamic world, al-Andalus was an exporter of raw materials and of finished cloth, particularly silk. We have already noted the export of agricultural products, notably olive oil and wood, the latter forging intimate patterns of exchange between the peninsula and the Magrib. Iron deposits were relatively abundant, especially to the west of Córdoba in the Sierra Morena and in the vicinity of Seville, where the ore was strip-mined. From iron, steel was refined by an Indian crucible process, whence the generic name of steel, *hindawi* or *al-hindi* (which passed into medieval Castilian as *alfinde*); this was worked into swords and cutlery at Toledo and other towns.\(^{(37)}\) As important as iron were copper and mercury, the former made into cast or hammered utensils and a staple of Andalusi trade, the latter mined at the old Roman site of Almadén and exported throughout the Islamic world for use in the amalgamation \([130]\) of gold.\(^{(38)}\) Reserving for a discussion of the transfer of technologies
(Chapter 7) details concerning the most prominent craft industries, we will here note only the overwhelming importance of silk in the Andalusi export trade. Most merchants dealing in overseas trade handled silk in one form or another; silk was not just another article or trade, but a high-value commodity which was the object of capital investment. It was traded raw and worked in other countries; finished silken cloth was exported in abundant variety; and, so great was the market for this commodity, that there was even a heavy trade in inexpensive "pickups" (iltiqât), cloth made from waste silk spinnings, much handled by Andalusi merchants.\(^{(39)}\)

The purchasing power exercised by al-Andalus in virtue of its high standard of living in comparison with the Islamic East was enormous. The sale of the Egyptian flax crop in the eleventh century was coordinated with the arrival of Andalusi merchants; likewise, a Jewish merchant in al-Mahdiyya reported around 1063 that brazilwood, a dyestuff that figured prominently in Andalusi trade with the East, "sells slowly unless one gets a Spaniard for it."\(^{(40)}\) Such examples could be multiplied and serve only to illustrate the interdependence of the entire Islamic free-trading area in which Andalusis played a significant role.

Viewed from al-Andalus, the Islamic world was a vast emporium where finished products and highly valued raw materials could be purchased for gold. Andalusi goods were exported, of course, but it was the country's role as a consumer society that forged the primary trading linkages, particularly with the distant markets of Persia and India.

Although Arab historical and geographical writers provide some specifics on trading patterns (typically while listing the attributes of a specific town), the most cohesive description of commerce comes from Jewish sources, namely the rich collection of private commercial correspondence of Jewish merchants which survived in the Cairo Geniza. Since Jews were fully integrated in the urban commercial economy of the medieval Islamic world (often in partnership with Muslim merchants) the data contained in the Geniza papers can be taken as representative. Another source of information, scarcely tapped, is archeological, involving the identification of places of origin of surviving Islamic handicrafts, particularly ceramics.

The most proximate sphere of Andalusi commercial activities was North Africa. Morocco was both a source of raw materials (wood, alum, \([131]\) antimony) and finished cloth; there, Andalusi merchants sold their own finished cloth (Valencian brocade, according to al-Shaqundî), as well as copper, a staple export.\(^{(41)}\)

Throughout this period the great Moroccan towns, particularly Marrakesh and Fez, were extensions of the Andalusi urban economy. Merchants moved back and forth freely, bearing Spanish goods on camelback (a movement that increased, if anything, during the Almoravid and Almohad epochs). Since many businesses were family operations, members of the family would be stationed in different countries to ease commercial arrangements. Since commercial contacts between Morocco and Spain were so frequent, Andalusi merchants owned houses in Moroccan towns (for example, a Jewish merchant from Almería owned a house in Fez in mid-twelfth century).\(^{(42)}\)

Until the early eleventh century, Andalusi commerce with the East was mediated through Tunisian towns -- al-Qayrawân and its port, al-Mahdiyya. Andalusi merchants stationed in Tunisia would receive Egyptian or Syrian goods there and sell them on the spot or, if the home market was judged more favorable, ship them on to Spain. Thus brazilwood sent from Egypt to Tunisia around A.D. 1000 was forwarded to al-Andalus, where it reaped a huge profit; similarly, in 1020, an Andalusi merchant elected not to sell Egyptian textiles in Tunisia but rather to send them on to Spain, where the higher market price would "provide me with sustenance." The Geniza papers also record Andalusi merchants buying pepper and flax from the East there and selling silk cloth and copper. The decision to sell in
Tunisia or transship in either direction was dictated by the current market prices at the termini.\footnote{43}

The Hilâli invasions of the mid-eleventh century ended Tunisia's role as an entrepôt. Andalusi families doing business there transferred their operations eastwards, and the Egyptian trade was henceforth borne directly by ship from Alexandria to Almería or Seville. Egypt was a prime market for Andalusi products (al-Shaqundî mentions the export of Aljarafe olive oil there) and provided the Andalusí towns with wool and flax for their textile industries, as well as dyestuffs.\footnote{44}

Moreover, Cairo and Alexandria were themselves entrepôts for the caravan and shipping trade to Persia and Central Asia, on the one hand, and Arabia, India, and China, on the other. Andalusi merchants circulated freely throughout the Middle East: a Jewish trader from Badajoz was active in Palestine and Syria. Persia continued to supply high-quality silk textiles to the West even after the Andalusí silk industry\footnote{132} had become established. A Jewish merchant from Khurâsân accompanied his textile products personally to Seville, where he sold them.\footnote{45} Following the sea route to the Far East, Andalusí antimony was sold in Aden in the twelfth century, and a surprising volume of trade with India was registered, particularly in copper and bronze vessels. Not only were Indian copper washbasins (Arabic, \textit{jafna}, whose diminutive yields the Castilian \textit{jofaina}) imported to Spain, but broken copper, bronze, and tin vessels were sent to India, repaired, and returned. Other Indian products, such as cowrie shells, used for decoration and medicine, were imported.\footnote{46} Along the same route, goods from China also reached al-Andalus. Porcelain bowls discovered in excavations of the Alcazaba (citadel) of Almería and at Madîna al-Zahra' originated in Sung China and reached the West most likely through Egypt, where imitation Chinese pottery was also sold to Andalusí merchants.\footnote{47}

Trade between al-Andalus and the Christian West seems sluggish by comparison, at least until the eleventh century, when the Spanish Christians acquired enough purchasing power to provoke substantial commercial activity. Andalusí luxury items were omnipresent in the Christian kingdoms. Documents from the Astur-Leonese kingdom of the tenth century, perhaps reflecting Mozarab influence and tastes, are punctuated with citations of exotic cloth and tableware: \textit{yrake} (that is, Iraqi) crystal; a great variety of tunics with Arabic names (\textit{almexía}, \textit{algupa}, \textit{adorra}, \textit{moffarrex}, \textit{mutebag}), table- or altar-cloths (\textit{almuzalla}, \textit{fazale}, \textit{barragán}, \textit{mobatana}). These cloths were described with a rich vocabulary alluding to color, quality, style, or technique of manufacture which likewise reflected the variegated and complex textile industries of the Andalusí towns (e.g., various words for brocade - \textit{alvexí}, \textit{morgom} -- or for styles of embroidery -\textit{tiraz}, \textit{hatani}).\footnote{48} By the thirteenth century, imports from al-Andalus and the wider Islamic world figured in tariff lists, such as one governing cargos shipped up the Ebro from Tortosa -- cotton, sugar, Cordoban leather, copper, silk, and various dyes and spices (brazilwood, indigo, lac, cumin, and oregano).\footnote{49} These examples are by no means exhaustive, but merely illustrate the variety of Andalusí exports to Christian Spain, as well as the normality of this trade. In addition, al-Andalus imported slaves in large numbers from the European countries (particularly from Central Europe, where they were brought to Tortosa by Jewish slave dealers) and furs (notably that of the marten -- \textit{alfaneque} -- which were shipped through Castro Urdiales or Tortosa to Zaragoza, where the hides were\footnote{133} worked and the finished products sent to Córdoba, Seville, Morocco, or to ecclesiastical and noble households in León).\footnote{50}

The interdependence of Andalusí and Christian economies is difficult to gauge. One indication is the emergence of a fairly uniform system of weights and measures throughout the peninsula which reflects, in part, the heightened trading activities of the eleventh century and also the capture of Islamic commercial centers in the following centuries. In Alfonso X's decree of 1261 establishing standard weights and measures, Arabic terminology predominates. The maximum measure of grain was the \textit{cafiz} of Toledo, divided into twelve \textit{fanegas} of twelve \textit{celemines} each. All these measures are Arabisms, as
was the standard weight imposed for meat, the arrelde of Burgos.\footnote{51} That the Old Castilian Burgos used measures of Arab derivation probably reflects the antiquity of the phenomenon.

Christian craft industries were relatively late in developing, partly because finished products could be purchased elsewhere with the spoils of war. Until the Almoravid invasion these purchases were largely directed toward Islamic Spain; when access was temporarily shut off, trading links were forged with the towns of Western Europe. A domestic textile industry did not emerge until the end of the twelfth century in the Castilian wool centers of Segovia and Cuenca, and in the early thirteenth century in the Aragonese towns of Jaca and Huesca. That of Barcelona, possibly the most important late medieval peninsular textile center, developed only in the mid-thirteenth century (when it produced cotton cloth -- fustanes). This retarded development is no doubt related to the progress of the conquest and occupation of southern Spain which had the effect of destroying Muslim production centers, creating a market for northern products, and, at the same time, by the removal of the frontier southward, providing an atmosphere propitious for the channeling of productive energies into activities unrelated to war.\footnote{52}

The textiles produced by the Christian towns were neither of quality high enough to satisfy the luxury market, nor of quantity sufficient to the national demand. Therefore, at the same time, French, Flemish, English, and Italian cloth was imported (French cloth typically in the Crown of Aragón, Flemish in Castile). The taste for oriental wares was satisfied both in Castile and Aragon by importing cloth directly from Egypt and Syria.\footnote{53} The commercial reaction to the rupture in the balance of trade between production centers in Islamic Spain and consumption centers in Christian Spain was expressed in the transitional period of the thirteenth century by developing the rudiments of a home industry and supplying the remaining demand with imports. The full transition to an urban industrial textile industry, dependent to a certain extent on the importation of foreign artisans, became evident only at the very end of the century.

Since the textile industry was the most important medieval one, its progress is more or less the model for other craft trades. Iron was no doubt an exception; large-scale mining of ore is amply documented from the twelfth century, especially in the Catalan counties, where the precociously intensive diffusion of milling techniques was conducive to an earlier transition to industrial production. Moreover, this resource seems to have been controlled largely by ecclesiastical establishments which were able to finance mining and smelting operations. The monastery of San Millán was collecting part of its seignorial dues in iron and lead as early as the twelfth century and in quantities superior to its domestic needs. This surplus led to the early commercialization of metals, although large-scale exports (from the Basque ports) are a feature of the late thirteenth century, a movement linked to the commercialization of wine and wool.\footnote{54}

The economic history of early medieval Spain has perhaps been overly complicated by the intrusion of polemic. In Castro's view, Christians never mastered the technical skills necessary to foment a strong urban economy but were content to let others (i.e., Muslims and Jews) produce for them. But the dependence of incipient industrial production on foreign technologies and technicians (discussed in Chapter 7) is a normal feature of economic development. Sánchez-Albornoz sees the retardation of the Spanish economy more in terms of the displacement of productive energies and financial resources from industrial to military activities, until the conquest could be completed. But the lag in the Christians' attainment of a level of productivity analogous to that of other European peoples can also be explained in purely economic terms. The economy of Christian Spain until the eleventh century was dependent upon that of al-Andalus and was "colonial" in that, in the context of international trade, it was primarily a producer of raw materials and, to the extent that it purchased finished goods, it did so in and through the Andalusi commercial network. When that network was first broken and then destroyed (by the conquest itself), its function was quite naturally replaced by other markets and by
Notes for Chapter 3

1. Siete Partidas, 7.33.6.

2. Bonnassie, La Catalogne, I, 78; Moreta, San Pedro de Cardeña, pp. 85, 143.


5. Al-Himyarî, Péninsule ibérique, pp. 118-119 (trans.). The cruciform plan is referred to as 'ala mithal al-salîb ("in the likeness of a cross").


9. Ibid., I: 173, 198, 204, 205, 210, 211, 212.

10. Ibid., I: 134, 140 (munyat); 179, 180, 182 (suburbs); 200, 229 (musallas and musaras); 235-280 (cemeteries).


13. On planned towns, see ibid., pp. 240-246. Note also the lone Castilian example, Briviesca (province of Burgos), built in 1208 (p. 244, map 214). When the Muslims planned a new quarter, they laid out regular streets (Torres Balbás, Ciudades hispanomusulmanas, I: 360).

14. Torres Balbás, Ciudades hispanomusulmanas, I: 297 n. 7 (list of street widenings by Christians), 336, 338; note his observations (p. 340) On changing aesthetic norms governing the appreciation of Andalusi urban styles by later Spanish writers. Mut, Vida económica en Lérida, p. 290; Torres Fontes, Repartimiento de la huerta y campo de Murcia, p. 53; Bulliet, The Camel and the Wheel, pp. 224-226. Note Bulliet's attack on the prevailing idealist notion that the "oriental" city plan is generated by Islamic social principles.


27. Chalmeta, *Señor del zoco*, pp. 546, 586. On specific comparisons between the hisba manual of al-Saqatî and ordinances of late medieval Málaga, Granada and other towns, see Chalmeta, "El Kitáb fî âdâb al-hisba," *Al-Andalus*, 33 (1968), 1145 n. 4, 160 n. 1, 166 n. 2, 169 n. 2, et seq. Chalmeta's painstaking demonstration of the survival of these institutional and artisanal minutiae, particularly in towns, like Seville, where not many Muslims remained, is a striking commentary on the persistence of cultural forms.


32. Muñoz, *Colección de fueros municipales*, p. 49. Almoçalla is from Arabic, musalla (the prayer rug), alfanque, from fanak (marten).


35. On economic developments of the twelfth century, see García de Cortázar, Epoca medieval, pp. 262-263; Sánchez-Albornoz, "La primitive organización monetaria de León y Castilla," p. 471.

36. Lombard, L'Islam, p. 202, and Espaces et réseaux, p. 219. See also Urvoï's elaboration on Lombard's views ("Etude sociologique," p. 290). The Berber invasions cut off al-Andalus from the East, throwing it into economic dependence upon Morocco, creating an exchange system which was insufficient to maintain the previous high level of the Andalusi economy.


40. Goitein, Mediterranean Society, I: 157; Letters of Medieval Jewish Traders, 133.

41. Al-Saqundî, Elogio del Islam español, p. 116; Goitein, Letters of Medieval Jewish Traders, p. 54; idem, Mediterranean Society, I: 471 n. 41.


45. Goitein, Mediterranean Society, I: 60, 69, 103.


48. See the fairly exhaustive lists culled by Gómez-Moreno, Iglesias mozárabes, pp. 126-129.


51. Joaquín Vallvé Bermejo, "Notas de metrología hispano-árabe II: Medidas de capacidad," Al-Andalus, 42 (1977), 64-65. The Arabic equivalents are qafiz, equivalent to the load or himl, fanîqa, thamâni ("eighth," although it was a twelfth of a fanega), and ritl.

