

## SUMMARY

### **COMPLEX SYSTEMS IN DIACHRONIC COMPARISON. SELECTED ASPECTS OF THE DEVELOPMENT OF THREE MICRO-REGIONS IN SOUTHERN GERMANY IN THE EARLY AND HIGH MIDDLE AGES**

The subject of this study is the structural transition of society and environment in the Early and High Middle Ages. The quintessence is formed by three case studies from southern Germany. The study areas in Grabfeld (Lower Franconia), Frankenalb (Middle Franconia) and Nördlinger Ries (Swabia) are investigated using archaeological sources, literary evidence and geo-archives. Starting from these micro-perspectives there follows a supra-regional comparison of the changes documented. The central focus is the structural development during the 10<sup>th</sup> and 11<sup>th</sup> centuries and the discussion about a »mutation de l'an mil«. The basis for evaluating this possible break is the comparison with other phases of radical transition between the 6<sup>th</sup> and 13<sup>th</sup> centuries. The extensive and interdisciplinary sources allow the inclusion of mostly non-literary periods and regions, as well as a proper long-term perspective.

In the first part of the study the sources and methods employed are described and the subject of the investigation defined. In addition to the published material from different fields of study, primary archaeological and geo-scientific sources were tapped for all three cases to varying extents. A decisive role is taken up by collections of surface finds, which form the basis for statements on the use of macro-regions well beyond individual find-sites. In order to record detailed information on individual settlement areas, a series of unpublished archaeological excavations was evaluated. The specific intensification of the sources for answering central questions was achieved by my own fieldwork, including systematic field-walking, trial-trenches, geophysical surveying, as well as geo-archaeological drilling and documenting sections. Together with aerial photographs, historical maps and digital geological data, all sources were incorporated into a GIS system, which with a data-bank formed the technical base of the study.

Since the state of publication of the archaeological sources was insufficient in all three study areas, an intensive analysis of the pottery was carried out, in order to gain a comparative chronological framework. The resulting chronology forms the basis for the periodic classification of the archaeological sites and many geo-archives, too. Moreover, together with the non-ceramic finds, the working of the pottery created the starting-point for answering various economic-historical questions.

Emanating from this groundwork the structural development of the three cases is analysed. Each of the artificially limited areas under investigation has an area of roughly 140 km<sup>2</sup>. The method of evaluation selected is in each case identical and, despite all the individual characteristics of the separate areas and societies, guarantees a comparison.

Not only the long-term, spatial pattern characteristics, but also the settlement development and the landscape preconditions of the three case areas before the 6<sup>th</sup> century are considerably different. Whereas in the Franconian Saale and in the Franconian Alb during the Migration Period there occurred a break in use followed by a comprehensive reforestation, in the Nördlinger Ries clear lines of continuity are discernible and the Early Medieval development could build upon the Roman Imperial exploitation.

At the level of landscape development, in all study areas the valleys dominate as regions liable to particularly intensive changes. Exemplified by the case of the Franconian Alb, it can be shown that from the late 6<sup>th</sup> century the floodplains experienced major transformations by means of hydraulic structures and the con-

sequences of forest clearance. Already by 800 the exploitation of the natural resources led to considerable disruptions of the ecological system. In consequence of the sources, these changes can best be observed in the Franconian Alb. But in the Franconian Saale, too, a substantial transition in the landscape is recognisable for the 8<sup>th</sup> and 9<sup>th</sup> centuries. Small levels of intensity in shifts in the landscape occur in these regions during the 10<sup>th</sup> and 11<sup>th</sup> centuries. After the substantial changes of the 9<sup>th</sup> century and before a new phase of forest clearance in the late 11<sup>th</sup> century, a phase of renewed stabilisation emerges. The Nördlinger Ries displays a divergent structural development of the landscape without phases of destabilisation, whose causes are to be sought in especially favourable natural preconditions. Here deep loess soils and relatively slight contours hinder degrading processes to a large extent, even with intensive use. In this case the particular geographical premises also reduce other anthropogenic influences on structural transition, whereas the opposite is true in the study area of the Franconian Alb. In the latter the consequences of land-use and landscape changes augment one another reciprocally and result in changes in numerous other levels of society.

The structural development of the settlement pattern shows consistently high dynamics in the 6<sup>th</sup> century. In all study areas the creation or intensification of settlement areas can be observed and this hardly alters during the 7<sup>th</sup> century. Following this similar development digressive processes are discernible from the 8<sup>th</sup> century. In the Nördlinger Ries the very intensive occupation of the 6<sup>th</sup> and 7<sup>th</sup> centuries is followed by a phase of relatively little structural change, because extensive parts of the landscape had already been occupied comprehensively. As far as one can detect, modifications occur at a micro-level within existing settlements. An important factor for the settlement morphology is the dissolution of the older estate-farm structures in favour of conglomerations of smaller farmsteads, a process recorded in the written sources of the early 9<sup>th</sup> century. In this one can recognise a central core of the later village structures. However, it becomes evident that such changes at a local level occur at very different rates, which could result in considerable structural variations of spatially neighbouring settlements. This also applies to both other study areas, in which during the 8<sup>th</sup> century a profound transition in the whole settlement structure took place, something which can be traced in the archaeological finds, the place-names and also in the geo-archives. In the Franconian Saale a royal feudal system formed the organisational framework of the settlement pattern, social elites played a decisive part in the opening up of the land. A similar settlement structure and genesis with a higher participation of the state can also be deemed for the Franconian Alb. In the 10<sup>th</sup>/11<sup>th</sup> century the developments take different courses. On the Franconian Alb a destabilisation of the landscape with a strong morphological dynamism, which already began in the 9<sup>th</sup> century, is followed in the 10<sup>th</sup> century by a phase of desertion at the edges of the valleys. The high-point of these changes is reached well before the turn of the millennium and is succeeded by a quiet phase of settlement activity. In the Franconian Saale, however, there are hardly any dynamics in the development of the settlement structure recognisable in the 10<sup>th</sup> century, although considerable changes occur on the social and governmental levels. Subsequent to the final abandonment of the royal palace at Salz and only after a time shift a restructuring of the settlement elements takes place. During the course of the High Medieval opening up of the land a harmonisation of the structural development on the level of the settlement landscape occurs in the study areas, whereby a strong force is discernible in the 12<sup>th</sup> century.

The analysis of the transition of social structures and communications systems represents a particular challenge. More than any other level a representative overall picture is complicated here by the selective transmission of sources and the feasibilities of testimonies biased in favour of the social upper class. For the 7<sup>th</sup> century assessing the structural transition is essentially dependent upon the presence of corresponding phases of occupation in the cemeteries. Only in the Franconian Alb, where these are present, one can recognise a clear social change. For the Franconian Saale around 800 the special source of the palace at Salz casts light on changes in the social networks at the top of society. Kings in residence, imperial assemblies

and ambassadors, who journey to the Saale from as far as the Byzantine Empire, indicate the integration in a far-spun system of communications. For the local society, however, there is hardly any information to gain from the sources of this period. The situation in the Nördlinger Ries is completely different, where in the 9<sup>th</sup> century monastic inventories of goods and deeds of donations give evidence of a particular vitality at the agricultural base of society and illuminate local and regional communication structures within the land-tenure system of the abbeys. In the study area of the Franconian Alb, owing to the lack of written sources, this layer of society is clearly discernible neither at the top, nor at the bottom. A significant structural transition in the 10<sup>th</sup> and 11<sup>th</sup> centuries is only recognisable on the Franconian Saale. This is not only the result of the unusually rich amount of written sources, but also of the special historical situation after abandoning the palace, which affected the presence of the elites, the social mobility of the local population and communication systems in a multitude of ways. In other areas such a rupture is not identifiable and, at the base of society at least, various processes of social and legal changes seem to start later than on the Franconian Saale. An assimilation of the existing sources and also of the intensity of the structural change takes place in all three areas only during the 12<sup>th</sup> century.

Up to the 9<sup>th</sup> century the course of the structural development of authority and administration was very similar over the regions. Particularly explicitly documented in the sources is the fundamental transformation during the second half of the 8<sup>th</sup> century, which can be closely associated with the creation of royal and monastic control over the land. The changed authority and administrative structure accompany mostly homogeneous economic transitions and are, moreover, strongly linked to the social and communication structures. In the study areas of the Franconian Saale and the Franconian Alb, the lordly intervention during this phase manifests itself in the construction of lavish and representative fortifications. The structures established around 800 hardly alter during the course of the 9<sup>th</sup> century. Only in the 10<sup>th</sup> century can one again recognise a phase of exceptional dynamism regionally. Considerable transformations on the level of authority and administration in the Franconian Alb correspond to the economic and settlement upheaval there. An important catalyst seems to have been a depletion of resources in the 9<sup>th</sup> century and the subsequent ecological crisis. Certainly, there are changes in both the other two study areas, but new people responsible in authority appear in large numbers only after the year 1000, after which the administrative structures experience substantial modifications through the disruption of the organisations controlling the land. In all three study areas, during the course of the 11<sup>th</sup> and then especially the 12<sup>th</sup> century one can notice a tendency to the formation of stronger than previously, locally and regionally directed structures of lordship, which mainly rest upon a network of newly erected castles. On a social level this process is accompanied by the establishment of the ministeriality («Ministerialität»).

Of all levels of investigations religion and cult display the largest structural conformity overlapping temporally. The development in the first two centuries under investigation was determined on the one hand by the occurrence of inhumation cemeteries in the 6<sup>th</sup> century and on the other hand by the abandonment of these burial grounds in connection with the founding of churches. However, this synchronisation could be modified in the future especially by excavations in churches, since the written records concerning this is based completely on more or less accidental historical references. Thus, the structural dynamics of the 7<sup>th</sup> century are possibly more intensive than have been recognised hitherto. Regardless of this, one must note that especially in the 8<sup>th</sup> and 9<sup>th</sup> centuries close connections between the centres of land control and the provision of churches become apparent. On the local level this is illustrated by the strong link between authority and the church. In the course of the 10<sup>th</sup> century there appear differences in the development, because in a part of the case-study areas during this period monastic communities were founded or otherwise enter as actors into religious life. During the second half of the 11<sup>th</sup> and in the 12<sup>th</sup> century a fundamental transformation concerning religion and cult occurs in all regions and, as far as one can tell, mainly synchronically. In this

phase one can detect the roots of the tight net of High and Late Medieval village churches and system of parishes. The herewith associated decentralised and more intensive provision with churches targeted at local village communities seems essentially to supersede the disbandment of the earlier land control, in which the assignment to churches was defined more by personal than by geographical links.

In their structural development up to the 9<sup>th</sup> century production, distribution and consumption display a strong synchronism in all study areas. As already observed for some other levels, the decades around 800 stand out as a highly dynamic period. The appearance of new persons in authority, who at the same time represent new groups of consumers, brings changes in the range of goods, production processes and distribution structures. Up to the 11<sup>th</sup> century the structures formed in this phase broadly determine the economic development of the study areas. Only the area of the Franconian Alb again constitutes a special case, since there a profound economic transition already takes place during the 10<sup>th</sup> century. The previously formative sector of iron-smelting had been worked out, probably the result of an exhaustion of the wood available in the late 9<sup>th</sup> century. This economically specialised sector apart, however, here also one can observe mainly in the sector of agrarian production lines of continuity well into the 11<sup>th</sup> century. In the Franconian Saale, too, fundamental changes only take place in the 11<sup>th</sup> century and, thus, well after the last recorded visit by a king. Subsequent to the lapse of special consumer groups and their associated production sectors there follows the dissolution of the system of royal demesnes and thus a substantial restructuring of agrarian production. In all three study areas it is evident that from the 11<sup>th</sup> century the structural development of the economy is no longer linked to the development in lordship to the same extent as before, and this manifests itself in dramatic changes in the system as a whole.

In the final part of the study the results and evaluations of the structural transformation of the individual regions and levels of analysis are gathered together into a comparative synthesis. This comparison is based upon a semi-quantitative scheme of appraisal. For each century and each level of analysis a judgement of the changes is effected in three stages from 1 (moderate) over 2 (evident) to 3 (profound). The development diagrams of the structural transition based upon these values experienced a methodologically discerning evaluation and were verified as to their susceptibility to misappraisals. In the synopsis of the three areas under analysis large compliance can be observed despite all of the individual particularities of the individual regions and societies. Apart from the special situation of the Franconian Alb in the 10<sup>th</sup> and 11<sup>th</sup> centuries, one can recognise a high degree of synchronism with periods of increasing and decreasing intensity of structural changes. All study areas are determined by a permanent transformation of considerable intensity. In this respect the 10<sup>th</sup> and 11<sup>th</sup> centuries do not form an exception and on a regional comparison do not especially stand out as a phase of particularly intensive structural change. However, the individual case studies show especially evident, individual developments during this phase. In the Nördlinger Ries the intensity of the structural transition seems to be below-average in the diachronic comparison. On the Franconian Saale, a below-average dynamism in the 10<sup>th</sup> century is followed by a profound intensification of structural changes. Here the year 1000 forms as a bench-mark for the end of the palace at Salz a decisive break, which is reflected at almost all levels. In the Franconian Alb the development occurs in the opposite direction, i. e. a period of considerable transition in the 10<sup>th</sup> century was followed in the 11<sup>th</sup> century by a phase of much below-average intensity of structural transformations.

Other phases of evident intensification of structural changes appear considerably clearer than this heterogeneous overall picture of the 10<sup>th</sup>/11<sup>th</sup> century. These occur in all case studies and with a high degree of synchronism in the 6<sup>th</sup>, 8<sup>th</sup> and 12<sup>th</sup> centuries. A central conclusion of this study is the very high dynamism of the decades around 800, irrespective of the individual regional prerequisites. This phase of economic and social renewal, which hitherto has been observed in the whole of Central Europe mainly in general studies, can be verified by the small-scale analyses presented here. At the beginning the different geographical pre-

conditions of the individual regions hardly influence the structural development in its entirety. Only during the course of the 9<sup>th</sup> century one-sided economical emphases in connection with vulnerable eco-systems make a stronger impact on individual development courses and, as in the Franconian Alb, leads to structural variations. The particularly stable rural disposition in the Nördlinger Ries, in contrast, appears in connection with the continuing economic focus markedly stabilising on the system as a whole. In addition, as a reinforcing factor there is a lack of a central ruling authority to initiate dynamism by individual decisions, which could have an effect in a short while on the whole region and on all levels of society. At the same time, one can detect in this circumstance the explanation model for the development on the Franconian Saale, where the end of the comprehensive royal access in the year 1000 brings about an especially intensive and mainly rapid structural change. Thus, a supra-regionally effective »mutation de l'an mil« cannot be confirmed by the micro-studies presented here.

Translation: C. Bridger