Archaeology and Geography in Sweden.
Common Research Themes and
Contrasting Views in the Last Twenty Years

By Mats Widgren
Department of Human Geography, University of Stockholm
S-106 91 Stockholm, Sweden

Abstract

In Sweden, the meeting between archaeology and geography has been almost totally concentrated to the reconstruction of prehistoric agrarian landscapes. In the first part of the paper the history of agrarian landscape research during the last twenty years is outlined. The present-day good co-operation between the disciplines is based on previous, often rather conflicting discussion. The author argues that a more discipline-oriented debate on these problems today would again promote both the theoretical discussion and the concrete studies of the two disciplines. In the last part of the paper some discipline-specific elements in the geographical research on early landscapes are outlined.

When asked to contribute to a book in honour of Evert Baudou, the theme given in the above title seemed the most natural to me. Evert Baudou was one of the first archaeologists to work in close cooperation with geographers when, in 1964, he started excavations at the Iron Age settlement at Halleby. His controversial and "anti-geographic" results from this investigation were the direct reason for my entry into the borderland between archaeology and geography. Evert is thus responsible for my having spent 10 years on studying the stone walls in Östergötland (!). After having investigated the case, I found that Evert's criticism of Lindqvist (1968) was partly correct, but that his own conclusions concerning the dating of the stone walls were basically wrong. Furthermore, Evert has worked actively during the last ten years to develop interdisciplinary co-operation between archaeology, geography and many other disciplines within landscape history. During the different periods of co-operative efforts, critical discussions, conflicts and accommodations between archaeology and historical geography, Evert has thus been constantly present — in scientific criticism as well as in co-operation.

With this as the background, the aim of this paper is to answer the following question: (1) Have the archaeologists been caught in a "geographical trap"? (Evert in a discussion in Lund, Sept. 1984. (2) Have the historical geographers become so archaeological that the archaeologists can squeeze us to death? (My own reaction to Hyenstrands statement on the present state of archaeological/geographical affairs — see below.) This paper will probably not succeed in fully answering these questions.

The paper should be seen as a part of an ongoing debate on theoretical problems in landscape history (symposias in Stockholm 1983 — Sporrong & Roeck-Hansen 1984 — and Lund 1984). The tone will perhaps be somewhat "discipline-imperialistic" — in order to promote debate. The observant reader will also find a deal of self-criticism.

As a geographer with frequent contacts with archaeologists, I am used to many misconceptions about geography. Most Swedish archaeologists associate it with a small group of historical geographers, mainly from Stockholm. Geographical works quoted by Swedish archaeologists include authors like Carlsson, Göransson, Göransson, Helmfrid, Lindquist, Sporrong, Widgren and Windelhed. Only seldom or never do we find references to such Swedish human geographers as Bylund, Claesson, Godlund, Hägerstrand and Olsson, all of whom can, on the other hand, be found in the works of British archaeologists (Hodder & Orton 1976, Hodder 1977). Potentially, archaeology and geography share many common research themes, but the Swedish encounter has been heavily concentrated to only one of these fields: the reconstruction of prehistoric agrarian landscapes.

The seed for this very close relation between the disciplines was sown in the 30s when Nordholm, inspired by the Danish geographer Guðmund Hatt, analysed fossil fields in Kungsmarken outside Lund.
(Nordholm 1937).

For various reasons this initiative was never developed and when David Hannerberg in the 50s started investigations of fossil fields, his main inspiration was from Germany and Britain (Hannerberg 1958, 1963). To judge from the terminology, geomorphology provided an important background for this branch of geography.

This development of a historically-oriented landscape research ran parallel to very profound changes in geography’s aims, methods, and techniques – a shift which has been termed the “quantitative revolution”. Through works by Hägerstrand and (later) others Sweden played an important role in this development.

Hannerberg combined his interest in early agrarian landscapes with a mathematical training and beside his historical studies he was thus able to play an important role, too, in the introduction of quantitative methods in the new geography of the 60s. His lectures on quantitative analysis were published in 1969 and 1970 and they are still the most important Swedish textbooks on quantitative methods in geography.

This personal union between historical and quantitative geography is one of the reasons for the strong tradition of historical geography in the Stockholm department. No other university department in the Nordic countries managed to maintain a group of researchers in historical geography through the 1960s and early 70s, when quantitative methods and planning dominated human geography.

1965–1975: Spatial social science versus humanistic inductive archaeology

The historical geography which in the 60s gradually entered prehistoric periods through works by Hannerberg, Helmfrid and Lindquist was thus no longer a humanistic, idiosyncratic discipline trying to describe unique regions, but rather a social science, aiming at explaining the spatial development of society.

In an overview of geography and prehistory in the English-speaking world, Andrew Goudie pointed to the close and largely parallel development between geography and archaeology, concerning methods and modes of explanation; a development which was experienced in England in the 60s and early 70s (Goudie 1976:202). It is doubtful whether this fits into the Swedish situation. Although at least some archaeologists were influenced by for example Hägerstrand very early on (Malmer 1957), this did not lead to any profound changes in the aims and philosophy of the archaeological discipline. According to Seling, for Swedish archaeology the late 50s and early 60s meant mainly a renewal in typological and taxonomical methods (Seling 1979:22). The debate on the aims and philosophy of the discipline started in the late 70s in the student paper Kontaktstencil and did not reach the official organs until the early 1980s (Prävatan 75, 1980; 77, 1982).

The publication of “Det förhistoriska kulturlandskapet i östra Östergötland” by Lindquist in 1968 marked a breakthrough of geography into prehistoric periods. Although the field evidence that was the basis for the thesis was well-known long before, its fundamental role for economic and social analysis of Iron Age Sweden had not previously been understood by the archaeologists (at least to judge from publications).

But it was not the type of field evidence and the techniques used in analysing it that aroused the greatest discussion among archaeologists. In the reaction to the work, its hypothetico-deductive methods and its way of working with models played an important role. The difference between the “more empirically oriented method of archaeology and the hypothesis and model building of human geography” was stressed by Ambrosiani (1968:306, transl. by M. W.), and when in 1973 Evert Baudou published his results from the same investigation, he partly came to different conclusions as to the settlement development. Part of his conclusion was: “The geographical methods of working, using hypotheses and model constructions, are difficult to use on an archaeological material of the Halley type” (Baudou 1973:131).

The controversy on the results from Halley was the starting point of a period of intensive debate between archaeologists and human geographers. Ulf Sporrong’s geographical thesis, published in 1971, was met with scepticism by Ambrosiani (1972). The controversies concerned the development of settlement forms in the first millennium AD. Geographers tended to see at least the Late Iron Age society as based on small villages or hamlets with an advanced two-field system. Archaeologists, on the other hand, interpreted the same landscape as built upon single farms, with a heavy bias towards stock-breeding. Connected with this difference were different opinions concerning the size of the population and the role of the central administration (for a summary see Dahlbäck 1977).

But as Dahlbäck points out, the results depended not only on different types of sources but also on the different traditions and viewpoints of the disciplines. Ulf Sporrong brought the discussion to a head in an article in 1974 where he contrasted the social scienti-
fic and humanistic approaches to early settlement development.

A number of overviews on settlement research were published in 1976–77 (Helmfrid 1976, Sporrong 1976, Dahlbäck 1977, Stjernquist 1977). Some of these reviews point overtly to the very positive impact that these contradictions have had on the research. According to Helmfrid the discipline-specific viewpoints provide a

beachtliches Potential an Herausforderung für weitere gezielt Forschung und interdisziplinären Meinungsaustausch (Helmfrid 1976).

Dahlbäck concludes that:

Surely many of the results from both archaeological and geographical part will be reassessed and the methods will be changed and refined, but this will be done against a background of and thanks to a stimulating and sometimes provoking settlement research during the 1960s and 1970s (Dahlbäck 1977:385, transl. by M. W.).


In a way one could say that these reviews mark the ending of this phase of intensive debate and contradicting viewpoints between archaeology and geography. Influences from outside the two disciplines and indirectly from contemporary development in society changed the situation in the mid-70s. Theories on population growth and agricultural change (Boserup) and theories of ecosystems gradually came to influence almost all research in landscape history, whether archaeological or geographical. The geographer Lindquist published a work on Gotland during the Iron Age which introduced models from Boserup and Service into geographical landscape research (1974). Boserup’s work also played an important part in the synthesis of long-term landscape change that the archaeologist Welinder published in 1975. With his training in quaternary biology he also introduced ecosystems analysis into this field.

During this period the discipline-specific viewpoints were thus to a large degree substituted by a common framework. Later, this framework also formed the basis for a number of large, interdisciplinary projects on landscape history which were initiated by a group under Vitterhetsakademien (Människan, kulturlandskapet och framtiden 1980). From then on, the study of long-term landscape history has been dominated by a far-reaching interdisciplinary co-operation, where archaeology and human geography have been accompanied by history, quaternary biology, plant ecology and many other subjects.

The discipline-specific viewpoints have thus played a minor role during the last years and Åke Hyenstrand goes so far as to say that the work done by geographers on the development of the early agrarian landscape are

unnecessary to differentiate from works in settlement archaeology emanating from a purely archaeological tradition. The previous differences between so-called “settlement archaeology” (cf Ambrosiani) and geographical works, for example on the prerequisites of hamlet formation, are now different starting points within a common research trend (Hyenstrand 1983:59, transl. by M. W.).

When I read this sentence my spontaneous and self-critical reaction was:

Have the historical geographers become so archaeological that the archaeologists only embrace us? Will this hag successively change into a squeeze to death? What about geography’s specific contribution to landscape history?

The social scientific view and the hypothetico-deductive method have now been, if not embraced, at least accepted within archaeology. The identification of archaeology as a social science is probably not unanimous within the Swedish archaeological world. In much archaeological work inspired by social anthropology, the analysis of society is, however, often more explicit than in the present geographical work. Furthermore, the formerly specifically “geographical” field evidence has now been included in at least some sectors of archaeological practice and especially in the survey of ancient monuments which regularly records ancient fields. It may therefore look as if Hyenstrand was right in putting us all in the same box. The type of work which some geographers have done (Lindquist 1968, 1974, Carlson 1979, Widgren 1983) could today in theory have been done by archaeologists.

But does that mean that the discipline-specific viewpoints have lost their potential for a fuller understanding and explanation of landscape and society?

1985—: What comes next?

In the mid-80s we have, on the one hand, large interdisciplinary projects being built up around questions and frameworks that were worked out ten years ago. On the other hand, there are clear signs of a general shift in viewpoint in landscape studies and, in retro-
spect, the years 1983 to 1986 might well turn out to be the beginning of a third phase for the two disciplines in their common work to understand and explain landscape changes.

In 1983 Hyenstrand concluded a review of research on landscape and settlement history by pointing out "the most central". He said that the research so far has provided a good basis for spatial analysis of the landscape. But the description of social relations, social classes and the infrastructure of society is very weakly developed. The most central in settlement and landscape history should therefore be "systems for socio-geographical analysis and models for the spatial development of social forms" (Hyenstrand 1983:95, transl. by M. W.).

In an article published in 1984, Welinder summarized his efforts to explain landscape development from a systematic approach. Within the larger framework of interaction between the human subsystem and its physical-biological environment, he sees four groups of explanations of change in the cultural landscape:

1) Change dependent on the independent environmental subsystem.
2) Demographic change.
3) Internal change within the human subsystem.
4) Change in the relations between the human and biological subsystems.

Welinder considers that the first two groups of explanations have lost their interest during the last decades. His own work has mainly been based on explanations of the fourth type but today that type of explanation has "lost most of its glamour. ... Thus, the third group is in focus in the debate today" (Welinder 1984:9).

In his recent work on the Mälar valley area, Sporrong sees "the tension between individual and joint use of resources" as the driving force behind the formation of the early agrarian society (Sporrong 1985:210).

Theoretical discussions
To judge from this — and from many informal debates — the independent study of social organization and of social changes as a causative factor for landscape change will be an important element in the next ten years' work within archaeology and geography.

The now-prevailing theories and frameworks, on ecology and demographic change as causative factors for the expansions and stagnations in the landscape, have played an important role as a common framework for many different disciplines, and through this the climate of debate between the different disciplines is now much better than 15 years ago. Large projects and economic possibilities for research have been the effect of this. One can however ask what we have gained in interesting scientific discussions. Theoretical considerations, and discussions on factors of explanation today play only a minor role in the interdisciplinary work, something which was clearly shown on a symposium in November 1983 on the theme of "Theoretical studies on the cultural landscape" (Sporrong & Rocek Hansen eds. 1984).

The theoretical discussion is also often much more vivid within the disciplines than between them. I have therefore argued for a more discipline-oriented discussion on theoretical questions, a discussion where the subjects' own contributions to explanations can be furthered. Such a discussion, which would aim at enlightening each discipline's own theoretical development, concepts and definitions, would accordingly contribute more to an interdisciplinary understanding than the now reigning "interdisciplinary ideology of co-operation".

The aim of such a discussion would not be to strive after one "theory for the agrarian landscape" and we should not be afraid of the contradictions that exist between different traditions and viewpoints within the natural sciences, the social sciences and the humanities, or contradictions within disciplines. Many times the meeting point between different scholarly ideals contributes to the most interesting description and explanation of a man-made landscape.

Many people have argued that the present discipline boundaries do not reflect today's scientific problems, but are only obsolete structures. With no claim of generalizations to other problems. I would thus still argue that there still exist identifiable cores in the different disciplines and that these cores may still be a source of inspiration, conflicts and future results within landscape history. This concerns both philosophies, methods, techniques and sources.

What is geography?
Identifying the core of geography is a difficult task, taking into consideration recent philosophical debate within the subject. I will attempt it here by trying to declare the luggage which the geographer carries (or ought to carry) with him to the investigations of landscape. A social-scientific view is already mentioned as one of the parts of this luggage. The integrative study of physical and human landscapes is another obvious part of the luggage. Techniques of identifying and recording man-made fossil forms in the landscape are important methods that have been a specialty of
historical geography. They partly stem from another geographic branch—geomorphology.

But there are other parcels in the luggage, some of which are hidden, implicit in the studies, and depending on the history of the discipline. In what follows, I will touch upon some concepts and viewpoints in the history of geography during the last 50 years. Although they may partly be contradictory they are still a living heritage in geography and play a certain part in the definitions and aims of the subject, as it is conceived today by practising geographers.

In Immanuel Kant's definition of the different sciences, history was defined as chronological, studying phenomena which follow one after the other in time, while geography was chorological, studying phenomena which lie side by side in space (Holt-Jensen 1981:15). Following these definitions strictly, such a thing as historical geography could not exist. This distinction has also in different periods hampered the development of historical geography.

The American geographer Hartshorne defined geography as a discipline that is concerned to provide an accurate, orderly, and rational description of the variable character of the earth's surface (Hartshorne 1959:21).

From this viewpoint historical studies could only be motivated as far as they shed light on the present conditions. This approach to historical studies within geography has been termed retrospective and was advanced by the French geographer Roger Dion, who stressed historical studies since "the present landscape poses problems of explanation which can only be solved by a retrospective search for their origins" (Baker 1968).

A distinctive, but closely related approach is the retrogressive, which has been defined as a "method of working towards an understanding of the past by an examination of the present" (The Dictionary of Human Geography). This approach to landscape studies was developed by the French historian Marc Bloch, who insisted that the analysis of past landscapes required the prior analysis of the present landscape "for it alone furnished those comprehensive vistas without which it was impossible to begin" (Bloch 1954, here quoted from Baker 1968).

This background to historical geography is important for the present-day difference between archaeological and geographical studies of the prehistory. Most of the geographical studies in this field are implicitly retrospective or retrogressive in their approach. One type of studies take their starting point in the present-day landscape and the 17th century maps and trace the origins of different elements—retrospective. Other studies are directly aimed at explaining the prehistoric development, but use as its sources the present-day landscape and the 17th century maps—retrogressive. The geographical analysis of early landscapes requires a knowledge of and a profound interest in the present-day human landscape.

Hartshorne also stressed geography as a subject which should describe areal differentiation, the differences between places and between regions. This element in geography has sometimes been lost in the development of recent years. The interest in spatial structure as such (see below) sometimes ignored the scales which permitted answers to questions of "Why here and not there?" My own dissertation was for example criticized on that ground (Roberts 1983). Because of the scale level of enquiry I was also accused of being a landscape archaeologist rather than a geographer. The constant shift of scale levels from localities to areas, to regions and sets of different regions is an important part of geography's contribution to explanation.

Spatial analysis and quantitative geography

As has already been touched upon, the quantitative techniques that were introduced in geography during the 1950s and 60s changed not only the subject's set of techniques but also, gradually, its aim and philosophy. Geography was now defined by the question "Why are spatial distributions structured the way they are?" (Abler, Adams & Gould 1971:56). Instead of the real-world regions studied by Hartshorne and others, abstract spatial structures derived from the real world now became the object of study for geography. In these studies one often tended to separate society from its spatial structure.

There were high demands on explanation instead of description, but the explanation for spatial structures was conceived of in a geometrical way. This also influenced the work on historical landscapes. Men and societies which formed the landscapes were seldom discussed as driving forces to the studied changes. Sometimes when reading studies from the 1960s, one gets the impression of a landscape where fields grow, agglomerate and are enclosed as if they were determined by a spatial law separated from the societies of which they were a part.

At the same time a substantial development of quantitative techniques was also seen in historical geography. Johnsson analysed incomplete data on
17th century acreage with statistical methods (1965), Lindquist used nearest neighbour analysis in his studies of Iron Age settlements (1968) and in studying parish formation (1981) and Sporrong used factor analysis in classifying townships in Uppland (Sporrong 1972).

Compared to this, Swedish archaeology has been late, vague and amateurish in its acceptance of quantitative, spatial analysis. Reference is often made to spatial analysis (Hyenstrand 1982:60, Furingsten 1981, Wijkander 1983:10), but concrete work using methods from quantitative geography is weakly developed. As if trying to underline the magic of spatial analysis the foreign word "spatial" is used in Swedish texts by archaeologists instead of the Swedish rumslag which has been used by geographers in Sweden for centuries. Scandinavian textbooks (Hanneberg 1969, 1970, Nordgard 1976) and research on quantitative geography play a minor role for archaeologists.

After Malmer's first use of isarithmic maps (1957), it is difficult to find either applications or developments of geographical methods in the Swedish archaeological literature. Looking into the Nordic Archaeological Abstracts between 1974 and 1982, one finds two entries under spatial archaeology or chorology (Blidmo 1982, Larsson & Lundmark 1982).

It is in some ways a paradox that Sweden — with its early development of quantitative geography and its well-preserved archaeological monuments — classified and surveyed in large registers and partly already stored in computers — is so backward in spatial archaeology. This again is partly due to the uneven development between the two disciplines. When Swedish archaeology now has become interested in spatial analysis, geography has for a while been moving away from it. In undergraduate courses in Human Geography the role of quantitative methods has decreased drastically and in research level courses it plays practically no role at all. Spatial analysis may, within modern geography, have turned into a cul-de-sac, but within archaeology not even the most elementary quantitative description, classification or measurement of association of spatial patterns has yet been used on a wider scale. There is thus still a great potential in this field to be developed by geographers and archaeologists.

Reactions against "spatial determinism": Social structure vs. spatial structure
Within the paradigm of quantitative geography two fundamental problems of inference gradually emerged. The first one was the "form/process problem". While the main object of studies was spatial forms, the search for explanations was turned towards the spatial processes behind the forms. But to infer process from form is in no way an easy undertaking since "different processes could produce the same pattern (equi-
finality) and conversely similar processes could produce different patterns (multifinality)" (Dictionary of Human Geography, p. 322). The method of simulation has been proposed as a way out of this dilemma. By simulation of different processes, their resulting spatial pattern may be analysed and compared to real-world forms and patterns (for archaeological applications see Hodder 1978).

But others have argued that this contradiction between form and process philosophically goes deeper and that conventional modes of categorization and description of spatial form reflect only surface features while dialectics and human action represent deeper structures (Olsson 1974:59).

There is thus not only a contradiction between spatial form and spatial process, but also between social processes and forms and, on the other hand, spatial processes and forms.

This was the second problem that faced the quantitative geography and it has direct bearings on work in spatial archaeology. The ultimate aim of spatial studies in archaeology is to explain social structure. The ideas of spatial analysis outlined by Hyenstrand (1982) and the concrete work being done by Lundmark are both based on an assumption that spatial real-world distance is in some way associated with social distance (Lundmark 1984:12). Analyses of point patterns are used as a basis for conclusions concerning the extent of tribes, chiefdoms, etc. Problems relating to this have been discussed in depth during the recent geographical debate with no obvious simple answers (Gregory 1978:8ff, Joseffson & Lindstrom 1979). The more recent works by spatial archaeology's most eminent disseminator, Ian Hodder, have also been concerned with the fact that space is not "a neutral referent of behaviour and social organization" (1982:194). To all the previously mentioned tasks of geography we may thus add the study of the dialectical relationship between social and spatial structure.

Conclusions
No answers to the initial questions were promised and no easy answers can be given. Pitfalls exist for both archaeology and geography and sometimes they tend
to fall together into the same trap. In the last part of this paper I have tried to point out some discipline-specific viewpoints as a basis for geography’s contributions to long-term landscape history. But are they really specific? And what is archaeology’s specific contribution?

References

Seling, K.-G. 1979. Några aspekter på arkeologisk debatt


