1. Introduction

“The years since Dörries [1928] wrote have seen no substantial increase of retrospective writing” (Gulley 1961, 308). This quote refers to the retrogressive method, one of two methodological approaches used when conducting historical landscape studies that has been heavily debated and questioned in research. Gulley uses the term retrospective, but the context in which he applied the method is now called retrogressive. As will be shown, the two terms have been used in parallel, despite different methodological contexts. Landscape analysis has gained considerable interest in land use planning recently, due to the European Landscape Convention (Council of Europe, 2000) and the European Environmental Impact Assessment directive (European Economic Community, 1985). These two pieces of legislation have led to renewed interest in developing landscape evaluation and assessment methods that can be used routinely in various investigations prior to, for example, new transport infrastructure and housing development. Landscape history is often part of landscape analysis/assessment, and there is reason to believe that the retrogressive method can be a tool for helping today’s landscape practitioners include the time depth approach in landscape studies.

However, Gulley’s quote implies a lack of use of the retrogressive method between Dörries’ work and his own in 1961, and this declining trend continues. For instance, Google Books Ngram Viewer (Michel et al., 2011) reveals that use of the word retrogressive declined between 1900 and 2017. Moreover, Gulley (1961, 309) writes that “the approach has difficulties, dangers even, but when no approach is exempt from these it would seem that truth would be furthered by approaching a problem from as many legitimate angles as possible.” Here, Gulley alludes to both the problematic and positive aspects of the method. However, the advantages, disadvantages, and overall use of the retrogressive method in landscape studies are not well described in older or contemporary international research, and to my knowledge, there is a regrettable lack of modern key publications on the subject written in English. The confusion in terminology (retrospective or retrogressive) further underlines the need for a methodological advance that can be applied within contemporary landscape analysis.

This paper revisits and critically questions the retrogressive method. The analysis revolves around epistemology, the fundamental question of how...
knowledge is produced and examined. It considers the features that characterise the retrogressive method, its history, its functions, pros and cons, and the method’s relevance today. Moreover, given a decline in use, it asks whether an ingenious method has been lost or whether a weak and problematic method has been superseded by better and more productive methods? The study is based on my experiences in previous work and on published literature and interviews. The main focus is on Scandinavian conditions, but the analysis is of interest to a wider audience because the retrogressive method has long been applied in northern and central Europe.

The analysis comprises two case studies. Section 2 of this paper reviews the literature on the method, including its principal features, and presents some examples. Section 3 describes advantages and problems with the method. Section 4 comprises a discussion, and section 5 presents some conclusions.

2. Introduction to the Retrogressive Method

2.1. Historiographical outline

The retrogressive approach first appeared in the literature during the late nineteenth century, when Maitland wrote (1897, v), “I have followed that retrogressive method from the known to the unknown of which Mr Seebohm is the apostle.” According to the Norwegian scholar Holmsen (1940–1942), the method was used in Norway from 1927 and in Sweden and Denmark as early as 1914. Dörries’ (1928) work was soon followed by Bloch, one of the founders of the French Annales school and probably the foremost scholar associated with the retrogressive method. Bloch calls it la méthode régressive in the foreword (dated 1930) to a paper in which he describes the method (Bloch, 1931, xiv). However, the word régressive was not translated directly in the English edition (Bloch, 1966). Bloch had a strong connection with Scandinavia, because he wrote his paper while visiting the Institute for Comparative Research in Human Culture in Oslo. This partly justified its selection as source material for the present analysis. Another prominent contribution was a short lecture by the Harvard scholar Leontief (1963, 4) in which the term retrogressive was not used, but instead the analysis direction was described as “moving on backwards.” That lecture provided a good theoretical justification for the retrogressive approach. In an era of positivism, Leontief called for more qualitative analysis in economic history and noted that one way to achieve this was to use more detailed descriptions of economic change and move back in time in analysis.

After Bloch, the British historical geographer Baker is probably the foremost scholar associated with the term retrogressive (Baker, 1968; Baker & Butlin, 1973). As stated above, Gulley (1961) used the term retrospective, while Baker (1968) used retrogressive. A similar change has been made within some Scandinavian disciplines, such as in Norway and sometimes in Sweden (Sporrong, 1985) and Denmark (Gissel, 1968). All these publications thoroughly describe the comprehensive approach of the retrogressive method and its major advantages. However, the drawbacks, pitfalls, criticisms, examples of use, and experiences from outside the English-speaking research community are less well described internationally. One exception is Cousins’ (2000) unpublished PhD thesis in archaeology. Another is a regional contribution by Karsvall (2013), written in Swedish, to which I will return.

2.2. The principles of the retrogressive method and its opposite

In stating that “one must look at the present or what was recently the present,” Bloch (1966, xxvi) provides an important indication that the starting point can be taken in the present day. This is reflected with his choice of source material, which included not only written archival records, but also field traces of earlier times visible in today’s landscape. His intention was to criticise a French scholar, Fustel de Coulanges, who could not find any traces in archival records of an open-field system with long furrows in France, despite their “characteristic pattern of plough-lands visible all over northern and eastern France” (Bloch, 1966, xxvii).

In starting with the present in the retrogressive method in order to shed light on the very remote past, Bloch reversed the direction of travel compared with the “strictly chronological approach, [...] where one] moves forward step by step from the most remote to the most recent past” (Bloch, 1966, xxvi). Such retrospective methodology makes earlier sources throw light upon later times. For example, by beginning with fields in historical maps from the seventeenth and eighteenth centuries and continuing via nineteenth century fiscal accounts to twentieth century satellite photos, one can follow how their size has fluctuated over time. A synonym for the retrospective method is the “progressive method” (Baker & Butlin, 1973; cf. Jäger, 1968). Another synonym appears to be “relic geography” (Nostrand, 2018).

The retrogressive and retrospective approaches have distinct differences that can be illustrated graphically. In the landscape section depicted in Figure 1, between 1300 and today there have been many different features, such as clearance cairns, settlements, place names, narratives, fields, and fences that can be studied in the archives (e.g., through old maps). These features came into being at certain points in time and were later documented, either in their original field of application (e.g., meadow) or with a new function (e.g., forest called “old meadow,” i.e., former meadow overgrown with trees). These features are documented and studied for a certain period of time, in a temporal cross-section that may cover a few years, many decades, or even centuries, depending on the availability of sources (Darby, 1952; Newcomb, 1969). The landscape cross-section illustrated in Figure 1 has a horizontal line for the first year of each century, and comparing two parts of the cross-section with each other can reveal differences. Such differences, or proof of changes, generate questions about the underlying reasons (i.e., the societal processes that formed the landscape). In the archive, the retrospective researcher starts with the oldest possible sources (e.g., maps, paintings, tithe records, or ethnographical interviews) to study the selected feature, moving forward in time by means of analysing more and more recent sources. The historical features are then compared with the present-day situation to identify changes.
The retrogressive approach focuses on moving back to past landscapes, through the study of landscape features documented in younger sources. Moreover, the retrogressive method deals more with physical remnants of past activities, either in today's landscape or in documents, than with narratives (e.g., attitudes, experiences of today's landscape), unless the story itself constitutes a historical document, such as eighteenth-century by-laws (Antonson, 2018) or nineteenth-century peasant diaries.

2.3. Worked examples of the method

Use of the retrogressive method within historical geography is described in three papers by Baker (1963, 1964, 1966). All three deal with field systems and reconstruction of the medieval landscape in the province of Kent, in the southeastern corner of England (Figure 2). The landscape can be defined as the land surface with its forms (e.g., hedges, ditches, settlements), the function of these forms, and the underlying processes, a definition closely in line with the landscape view taken by Sauer (1925). The sources used by Baker to analyse landscape are written archival material, including modern soil maps. The first paper, from 1963, uses a typical retrogressive approach, travelling back from younger sources (maps 1766, 1734), via older sources (probate inventories 1560–1700), and ending up in the Later Middle Ages, which more or less lack written sources. The second paper, from 1964, has traces of both the retrogressive and the retrospective, travelling back and forth between 1285 (rentals) and 1447 (reconstructed map based on rentals). The third paper, from 1966, uses the retrogressive method, travelling from eighteenth century maps via seventeenth century maps and fifteenth and sixteenth century rentals to thirteenth and fourteenth century leases. Sometimes comparisons between the maps are made in the opposite direction, from 1620 to 1794. Baker travels back in time using short time steps, each not exceeding around 150 years. However, the method applied is not described and not given a name. The German Siedlungsforschung research tradition also dealt with field system studies, often using a retrogressive approach without mention of the method (see Nitz, 1988).

Another example of the retrogressive method in historical geography is provided in many publications by Roberts (e.g., 1982a, 1982b). His focus is on village plans “as a key for understanding and reconstructing pre map written surveys” (1982a, 18). Roberts (1982b, 29) writes that “the fundamental problem is one of how to project our view backwards into the Middle Ages without the guidance of [archaeological] excavation.” He also calls this “moving [...] backwards in time” (1982a, 38). He often uses two source types, historical maps and drawings, ranging from the mid-twentieth century to the early twentieth century, and the landscape today with field traces. When using the latter, he distinguishes between features from different times: “at Armscote, some of the closes on the edge of the village have a distinctive rectangular form, with curved sides, suggesting that they are enclosed fieldstrips, implying peripheral expansion late in the history of the plan” (Roberts 1982a, 40). Interestingly, however, when presenting settlement evolution as time series maps he reverses the direction of time travel, starting with AD 850 via 1150 and ending in AD 1450 (Roberts, 1982b, 10).

In my PhD work (Antonson, 2004), I used settlements to chart landscape changes from the Early Middle Ages to Early Modern times (c. AD 1000 to 1750) in the Province of Jämtland, central Sweden. In that approach, it was
important to find out when farms were established and whether and when they were abandoned. It was clear that many of today’s farms and small hamlets have survived over time, as they have names that reflect an early establishment phase. However, I did not know whether other farms and hamlets had existed in the early part of the study period or whether other farms came and went during later times. Scarcity of sources was a major problem. There are some written sources from the High Middle Ages but very few from the Early Middle Ages. There are also burial mounds from the end of the Viking Age, which ceased with the advent of Christianity around AD 1050 (i.e., the beginning of my study period). The main source material covering all Jämtland is King Gustavus Vasa’s tax records from the mid-1500s onwards. Finally, there are hand-drawn historical maps from the 1650s onwards. This leaves a major gap in source material for the greater part of the High Middle Ages. I studied three thousand historical maps in great detail, and they proved to be a major source in identification of ödesbölen, a dialect term for a deserted High Middle Age farmstead. Later, I was able to link the desertion phase with the Black Death epidemic that started in AD 1350 and raged for more than a hundred years. Below I describe two of the approximately six hundred ödesbölen I identified through retrogressive analysis based on historical maps.

My first example is from Sunne parish (Figure 3a–b). On the 1967 printed map, there is an ownership boundary with a rounded form. In contrast, all nearby boundaries are long and straight, as they were created during the Storstifte partition land reform of 1797. In a detailed local field map of 1745 (map 23-frj-10), the area is called Fillstaböle. The appellative böle indicates an ancient settlement in this part of Sweden. In 1745, the small area is recorded as a meagre dry meadow (no. 18), “which since ancient times” has belonged to the hamlet of Fillstad in the neighbouring parish of Frösö. One small rectangular haybarn is marked, along with six small circles, which usually mark clearance cairns that originated in tillage. Ancient remnants of farming, such as terraces and clearance cairns, are still visible today, but creation of terraces stopped before Early Modern Times due to a new tillage technique (i.e., a switch from the ard to the North Sea plough). Together with the suffix böle, the arable field traces indicate a High Middle Age farmstead that was deserted at some point in time. The information in the historical map led to a field visit, resulting in new findings of rural features.
My next example is from an area a few kilometres to the north, in the neighbouring parish of Frösö (Figure 4a–b), which consists of a small island bearing the same name and land on the mainland separated by the Vallsundet strait to the south. An 1854 (map Y12-1:4) parish map (1:10 000) shows an absence of hamlets and single farmsteads along a 2.7 kilometer stretch of the mainland, even though it is as suitable for settlement and cultivation as the land to the east and west. To the east and west, there are several farms with old name types, such as Fillsta, Målsta, and Slandrom. Place names ending with -sta(d) usually date from the Early Middle Ages or High Middle Ages, while names ending with -om usually date from between 500 BC and AD 500. The land along the 2.7 kilometer strip is instead divided into small, regular holdings owned by various hamlets situated on Frösö island, on the other side of the Vallsundet strait. On more modern maps, these holdings are visible as hamlet boundaries, a boundary pattern that differs from that in the rest of the parish. To the east and west, there are several farms with old name types, such as Fillsta, Målsta, and Slandrom. Place names ending with -sta(d) usually date from the Early Middle Ages or High Middle Ages, while names ending with -om usually date from between 500 BC and AD 500. The land along the 2.7 kilometer strip is instead divided into small, regular holdings owned by various hamlets situated on Frösö island, on the other side of the Vallsundet strait. On more modern maps, these holdings are visible as hamlet boundaries, a boundary pattern that differs from that in the rest of the parish. In detailed maps (1:4000) from 1697 (map Y12-10:1), 1698 (map Y12-17:1), 1711 (map Y12-8:2), 1743 (map Y12-17:2), and 1820 (map Y12-31:1), the area is called Skårstad (a name not in use any more), Torrfinn utgods, and Böle utgods and in use as dry meadow, described as previously cultivated or old farmland. The appellative utgods also indicates ancient settlements in this part of Sweden. Ancient remnants of farming, such as terraces and clearance cairns, can still be observed in some patches between the modern settlements. I also found previously unknown terraces and clearance cairns in today’s forests. The Middle Age place names, the historical information on abandoned farmland, and the presence of terraces are strong evidence of deserted High Middle Age settlements. After the plague abated, the land of deserted farms was evidently divided between farms still in operation on Frösön island. This division into several smaller areas preserved the use of the land as meadows, preventing recolonisation, until new rural technology in the late 1800s made it possible to live on smaller holdings.

Using historical maps, Cousins (2000) and Oosthuizen (2003) both identified relict landscape features that are far older than the maps per se. Some linear field elements, such as boundaries, dikes, and roads, still exist today or are only present on historical maps. In the subdivision of hamlets and villages depicted in the southern Swedish geometric maps of the 1640s, Karsvall (2016) identified anomalies regarding the tofts (patches of land where farm buildings were placed), as some of them lacked house symbols on the maps. He identified the empty tofts as the last remnants of earlier farms deserted during the Black Death. The tofts had been “fossilised” due to their status as a legal instrument of land ownership within the subdivision regulations; whereas, other holdings of the earlier farms (scattered parcels) could be incorporated into surviving farms through exchange and sale without this being reflected in the historical maps.

3. Advantages and Problems of the Retrogressive Method

As these examples demonstrate, the retrogressive method has some merits. However, in contemporary English language methodological literature, there is also a lack of discussion regarding its problems, an omission I aim to rectify in this section. I start with a summary of two Scandinavian debates, mostly recorded in the Scandinavian languages, followed by contemporary views captured in the literature and in complementary semi-structured in-depth interviews. These interviews were with three scholars who have all lectured on, written about, or researched use of the retrogressive method. They were human geographer Alan Baker (AB), human geographer Ulf Sporrong (US), and historian Helge Salvesen (HS). The interviews were conducted at each interviewee’s

Figure 3: a) Fillstaböle marked as 7 on a printed map from 1967 (scale 1:10 000), National Archive of Sweden, map number 19E11h. b) The same area depicted on an area measurement map made by surveyor Gabriel Esping in 1745 (scale 1:4000) County Cadastral Authority Archives, map number 23-frj-10. ©Lantmäteriet Gävle 2014 (publication permit ref. I2014/00579).
office/home on July 9, 2014, September 2, 2014, and December 1, 2014, respectively. They were recorded and lasted for 41, 40, and 60 minutes, respectively. All the interviewees had the opportunity to remain anonymous or be named, and all consented to be named. They all read and approved the section of this paper in which their interview responses are used.

3.1. Two Scandinavian debates on the retrogressive method

These two debates are (1) the joint Scandinavian research project on deserted farms and villages, probably the largest joint historical research project in the Scandinavian countries to date, which ran between the 1960s and 1980s and where different countries used different methods (Gissel et al., 1981), and (2) a more personal debate between scholars in the 1950s and 1970s regarding the quality and quantity of the data used.

The retrogressive method has long been used by Norwegian historians. In an interview in a student newspaper on his retirement, the main proponent, Holmsen, said that he was inspired by earlier Scandinavian research and that he refined it and called it the “retrospective method” (Jörgensen & Hansen, 1975). A central issue for rural historians such as Holmsen was reconstruction of High Middle Age settlements, for which the retrogressive method was regarded as useful. However, the Norwegian approach came to be so harshly criticised by the Swedish and Danish historians participating in the joint Scandinavian research project on deserted farms and villages that the project almost came to grief (J. Brunius, personal communication 2000). The Swedish historian Österberg wrote that “in general, the use of rent and tax assessments from the middle or late 1500s to reach conclusions on High Middle Age conditions has dubious results” (Österberg, 1981, 39). She criticised the method for lacking both a “very high degree of accuracy” and “direct evidence in medieval sources” (Österberg, 1981, 39, 48; see also Salvesen (1982) and his criticism of this view). This implied that Swedish historians would only accept explicit

Figure 4: a) Map of the southern part of Frösö parish made by surveyor Albrekt Emanuel Behm in 1854 (scale 1:10 000), mostly showing dry meadows (coloured in green). Fields (coloured yellow) and buildings only appears to the west in Fillsta hamlet and to the east in Knytta hamlet. National Archive of Sweden, map number Y12-1:4. b) Geometric map of Knytta hamlet made by surveyor Matthias Busch in 1698 (scale 1:4000), National Archive of Sweden, map number Y12-10:1.
evidence concerning deserted High Middle Age farmsteads in contemporary sources and not, for instance, place names and the Icelandic sagas. The debate concerned the issue of what a source represents. The Swedish scholar Larsson (1970) clearly showed the importance of comparing sources of different ages during long sequences of time as a way to overcome this obstacle, because in his study, the same settlement units were categorised differently in the cadasters of the fifteenth and sixteenth centuries. However, Österberg (1976, 224) did not reject the approach out of hand, conceding that “even in Swedish studies, for example, it happens that some information in the material from the 1500s is perceived as being valid backwards in time [and] in both Danish and Swedish research one seeks through meticulous study of maps from the 1600s and 1700s to find indications of agrarian conditions in a far earlier period.” It is unclear what research she is referring to in that statement. Geographers were not part of the joint research project, and so it is not surprising that the potential of maps was not fully utilised in the final report on the project, for instance, concerning how landscape forms changed over time (i.e., morphogenesis; see Baker, 1975). The stance regarding the credibility of the source material of later times inevitably led to differences in how the desertion rate was calculated, resulting in a lower rate in Sweden and Denmark than in Norway and making the values incomparable. In line with Larsson’s suggestions, when historical maps were used for some Swedish provinces, together with place names from various documents, the desertion rate rose and approached the Norwegian level (Jansson, 1998; Antonson, 2009a). Holmsen (1940–1942) believed that the method should not be used in local studies but preferably in regional studies and that it is especially suitable for topographical studies, which in this context can be equated with landscape. However, Larsson (1970, 44) maintained that reconstruction of High Middle Age settlements was only likely to succeed in “territorially rather limited areas.” In keeping with this, the Norwegian scholars chose to study small areas, contrary to Holmsen’s claims. Holmsen (Jørgensen & Hansen, 1975, 16) also argued that the method is not well suited for the study of societies that were controlled by the nobility but rather for agrarian societies, which in his words had a “great degree of continuity.”

The second debate came closer to human geography and rural history. It centred on work by Hannerberg, a Swedish mathematician working in the field of historical geography at Stockholm University, whose contribution to research in human geography was the development of the “metrological approach” (Hannerberg, 1976). This was during the positivistic era of geography, and his approach was a way of mathematically calculating the type of measurement system used for laying out tofts and fields in the landscape and, once the correct measure had been identified, using it for dating the origin of the field design layout. He stated that historical maps could be used concerning older land-partitioning techniques, but he did not mention the retrogressive method per se (Hannerberg, 1969). In the same publication (1969, 187), he hinted at a criticism by declaring that, when reading landscape backwards, what is “decisive for the source value is [whether] the division [between a parcel and mapping] has remained virtually unchanged in the meantime,” (i.e., he questioned the assertion of landscape change). Older Swedish human geographers with research roots in the 1950s and 1960s knew that there was a debate between Hannerberg and the Middle Age rural historian Dovring. Dovring (1953a) was associated with the French Annales School and referred to the “regressive method.” Hannerberg, referring to Dovring’s (1947) PhD thesis, criticised it for not considering the time aspect (i.e., that the historical maps revealed older information that could distort calculation of land area from figures originating from the maps) (Hannerberg, 1977). There is no documented counterstrike from Dovring. However, in another context he expressed criticism of mathematical analysis in rural historical research, because there is no discussion concerning what the sources represent (e.g., the context in which they were produced). He also pointed out a temptation to draw conclusions from too small a quantity of source material. For instance, he noted that such analysis “can easily turn into finding systems: a tendency to find the system of things, even where the sources do not provide evidence of such” (Dovring, 1953b, 402–403). During the 1960s and 1970s, Dovring changed from rural history to an international career within economics after being ostracised by the Swedish academic historian community (Myrdal, 2010). Therefore, it is not surprising that no reply to Hannerberg’s critique can be found in Dovring’s writings. However, Ulf Sporrong, a student of Hannerberg’s and one of the few to have used the metrological tool, has pointed out some weaknesses in Hannerberg’s use of the retrogressive method. He writes:

After all, one must, however, say that the question is troublesome. It is in the nature of the statistical test that it does not provide a causal connection other than the measurement prior to the demarcation of toft and field. It is up to the researcher to determine the dimension of time, which of course could be facilitated through field work of various kinds. [...] The statistical results can thus be interpreted in several acceptable means from a metrological point of view (Sporrong, 1985, 128–129).

3.2. Contemporary views
One of the few studies to actually reflect upon the drawbacks of the retrogressive method is that by Cousins (2000), who noted that the method has not been particularly common among archaeologists, which may seem illogical because “when using a retrogressive approach, the landscape archaeologist excavates the whole landscape as he would a site” (p. 18). The frequency of use of the retrogressive method is a topic that the three experts interviewed for the present analysis reflected upon. All agreed that the retrospective method is much more common today, “but has it not always [been like that] within some [research] topics.” (US). “I’m pretty sure you can talk with a newly hatched PhD and ask, ‘How do
you relate to the retrogressive method?" and be told ‘I’ve never heard of it.’” (HS).

[Using] the retrospective method [...] was the normal practice I think, you know, the making of the landscape of county X. But the other way of doing it, going backwards, was much more unusual. It is more difficult, perhaps, it’s more academic. I mean, researching the history of landscape development, the story of landscape development, is something that can be fairly readily understood by a very wide public, and it was academic as well as popular to produce it that way and [...] Hoskins’ book on the making of the English landscape was the absolute classic in this country. But doing something backwards is somewhat perverse [laughter] and not so readily grasped, and I think it caught on as a way of writing [...], let’s call it popular history or popular geography. [...] As an academic exercise, as a way of doing research, it makes a good deal of sense, but if you get to the wide audience it probably doesn’t. (AB).

An underlying reason why the retrospective method is more common is that our language is not well suited for the method and that it is tricky to formulate the result. The problems occur, not so much when you are doing the research as when you are writing it up [...] because it is difficult to write a story, a narrative, against the flow of time. A lot of the landscape themes [...] the actual terminology, the words that we use assume you are proceeding chronologically with the flow of time, [an] ongoing, forward-moving process. So, if you are studying them backwards you can’t actually write it backwards, because there is no vocabulary, no language for unclaring the wood or undraining the marshes. Though you are doing the research backwards, and you may well be writing it fundamentally backwards, sections within your backward account have nonetheless to be moving forward, because that’s the only language we can use. (AB).

One of the interviewees told an anecdote regarding the confusion in terminology (i.e., the unfamiliarity of the word retrogressive), which must be partly an effect of unfamiliarity with some of the European literature: “When I asked if he had listened to him, Andreas Holmsen said to me ‘No, I never heard Marc Bloch [when he was in Oslo], so I had no idea what he was doing.’” (HS). The interviews also provided indications that some of the Scandinavian research environments did not seek methodological experiences outside the Scandinavian research literature, while the English language literature seldom refers to Scandinavian literature.

Cousins (2000, 19) emphasised one problem in particular, the risk of blindness, when archaeologists tend to prioritise older landscapes or information about it: “equally important later landscapes will tend to be ignored.” He also raised dating problems (i.e., a feature) such as place-name, which cannot be dated except that it must be older than a certain point in time (terminus ante quem). In this context, Karsvall (2013, 433) referred to chronological errors (i.e., “structures that are perceived to have relevance back in time have to be dated or have a chronological depth that is known, so that the risk of anachronistic misinterpretation can be minimised”). All three interviewees mentioned scarcity of sources as a characteristic of the retrogressive method, which is also one of its greatest problems: drawing too far-reaching conclusions. At the same time, the scarcity of sources is the retrogressive method’s greatest merit, according to the interviewees. The possibility to “say something about [...] older times, which you do not have source material from.” (HS). “The [method] has after all benefits because one can draw conclusions, though they may be indirect, concerning features, which the historical material is completely silent about. For example, our [Swedish historical] maps showing deserted land and that kind of thing” (US).

Moreover, Oosthuizen (2003) mentions uncertainties regarding objectivity (i.e., the interpretation regarding studied features). One of the interviewees said that “methodologically speaking there is a danger involved [...] when an entire academic environment begins using it; the questionable things disappear without discussion and one simply uses mind-set as a kind of truism.” (HS). This resembles one drawback mentioned in Karsvall’s (2013) Swedish study, the risk of overinterpreting the results because of inadequate source material. One interviewee said that imagination is sometimes “superabundant.” (US). “You seem to see the relationships and explanations that are not causal. And that is particularly true when dealing with this statistically; then one can see relationships that are not really there.” (US). However, although this issue was important concerning the retrogressive approach, it was also of wider methodological importance:

This is where historical critical sense should come in. [...] Just because you say “No, here I have a safe method that backs me up, so I can allow myself to do almost anything.” No, you cannot! [...] Especially when it comes to the retrogressive method, you must be especially observant of all the drawbacks, all sources of error, which can come in. (HS).

Some similarities with my own two examples can be discerned in other recent works using the method. A historical document can provide new information on features (e.g., place-names, objects, acreage, or dimensions) that have been forgotten or erased by later cultivation. The archaeologist Svedjemo (2014) used this approach on the island of Gotland in the Baltic Sea to identify a special type of house foundation (AD 200–600), which no longer exists, on detailed historical maps. In his work, he acknowledged the trained eye of the eighteenth century surveyor. Moreover, he saved time on field work, as he did not have to search randomly but was able to go straight to sites to verify features identified from
their shape. He found that several house foundations identified on the historical maps had obviously been missed in the national inventory managed by the Swedish Ancient Monuments Register in the 1970s. Routines at the national inventory have since changed, however. When I worked there (in the 1980s), there was always a binder with excerpts of older documents concerning historical objects of different kinds from different periods, which were used as indicators of possible sites of interest. Another routine practice at that time was to visit County Cadastral Authority Archives and go through their historical maps, searching for lost place names and sites of abandoned farms.

However, using the landscape as a sole source was viewed as problematic by one of the interviewees: "I've always felt much more comfortable with documentary sources than with archaeological sources, partly because of [...] equifinality. I'm happy to use field evidence if it's used in conjunction with documentary evidence. But I'm not an archaeologist, and therefore I'm always somewhat sceptical about some of the archaeological work that relies exclusively [...] on field evidence." (AB). Concerning relatively late written sources, such as town plans and municipal office protocols, all three interviewees thought that the retrogressive method could be applied to these to obtain information about earlier times: "indeed modern plans and maps are so damn boring, but I imagine that they could somehow be the starting point for a retrogressive view." (US). However, one view was that there is really no need to use the retrogressive method for relatively late periods, given the enormous amount of written accounts: "I guess that it would be possible; I don't see why it shouldn't be. [...] I haven't used the [retrogressive] method in relation to nineteenth century France because the documentation there is so vast, is so rich that you simply do not need to use it in the same way." (AB). However, Olsson (2012) presents an interesting example of the usefulness of the retrogressive method for later time periods by applying it to the nineteenth century manorial landscape of the Province of Scania in southern Sweden. In his study on forms, functions, and the underlying processes of avenues (i.e., tree-lined roads), he found that the use of historical maps (printed nineteenth century less detailed and seventeenth and eighteenth century hand-drawn detailed) and written eighteenth and nineteenth century manorial accounts could not answer all questions concerning form. Therefore, he used different kinds of photographs from the 1950s and earlier and compared them with the maps and written accounts to find out about the physical shape of the avenues (Olsson, 2012). This is a good example of the usefulness of twentieth century sources in reconstructing the landscape of older times.

The future of the retrogressive method may actually be viewed as maturing through practice. One of the interviewees compared this to the "C-method developed by Nobel laureate Willard Libby:

The method was ingenious, the problem was that he did not know about all the sources of error that could pop up along the way. This does not mean that we should have told Libby "No, stop that, because there will be so many sources of error here that your method will not hold good." Obviously it's a fantastic method; we just have to be sure that we include all the sources of error and correct for them as far as possible. The same goes for the retrogressive method; of course we must use it for all it's worth. But at all time we must be on our guard for errors. However, we must not become so preoccupied with finding sources of error that we reject the method. This is what the Swedish and Danish saga critics did: "No, we must reject the stories because there are so many uncertainties in this that the stories cannot be true." Thereby, they threw the baby out with the bathwater. [...] I'm a little afraid that [the retrogressive method] has not been used enough to become sufficiently sophisticated. Maybe there are some future challenges waiting for us in the practice of the method. (HS).

4. Discussion
Since Alan Baker published his short article regarding the retrogressive method fifty years ago, little has been written internationally about the method's advantages and disadvantages in landscape research, although the principal features are well described in a handful of older publications. However, this lack of recent mention does not mean that the method has fallen out of use. Rather, it has been applied to physical remnants of past activities, either in today's landscape or in documents, in order to study past landscapes and landscape change. The retrogressive method was first used by historians but has since become mainly a method for geographers and, in recent decades, used more and more by archaeologists. One result of this paper is to accentuate the terminological mismatch among some researchers. Maitland (1897) used the term retrogressive, while Dörries (1928) used the term retrospective. Bloch (1931) called it régressive. Baker (1968) clarified the methodological differences regarding the two concepts. In Norway, the term retrospective was used despite the retrogressive approach (Holmsen, 1940–1942 and interviewee HS), as was the case in some other Scandinavian research publications (Sporrong, 1985; Gissel, 1968).

My analysis of two Scandinavian debates helped reveal the criticism levelled against the method but was not sufficient for forming an opinion on how the retrogressive method can best be used and its shortcomings. Hence, it was necessary to interview some scholars who have previously used the method regarding their experiences and areas of application.

Gulley (1961) feared that use of the retrogressive method was dwindling, and a check on the Google Books Ngram Viewer confirmed that overall use of the term retrogressive is declining. Moreover, even when the retrogressive methodological approach was used more frequently, in the 1960–1980s, it did not appear to have been commonly applied within landscape studies.
The *retrospective* method was by far the most common approach used in geography before the 1960s and still appears to be the most widespread today, partly because of the strong focus within modern historical geography on planning issues, as mentioned in the interviews. For instance, it was not uncommon for previous studies to begin in earlier times and end up in the present, devoting a chapter to each century (e.g., Hoskins, 1955; Hoppe & Langton, 1994; Redhead et al., 2014).

One crucial question is why the retrogressive method appears not to be well used. One reason is probably the method’s difficulties in presenting the results in a pedagogic, chronological way and the English vocabulary not being well suited to describing history backwards. Newcomb (1969, 32) touches upon this topic when saying that “this type of manoeuvre [starting with the present day and delving back into the past] requires a delicacy and surety of literary touch if the author and his audience are not to become cut off completely from the thread of logical argumentation and confused about the implications of the entire exercise.” Moreover, some studies have used the retrogressive method in the analysis *per se* but then used the reverse (retrospective) approach when reporting major landscape changes (e.g., Roberts, 1982b; Antonson, 2004). Another reason may be that research in historical geography concerning times with a greater scarcity of written accounts has diminished. The retrospective method has always been more commonly used, especially concerning the nineteenth century and later. Moreover, one of the Scandinavian debates indicates that historians at the time in Sweden and Denmark had a normative single-minded focus on written sources. In contrast, the Norwegian tradition was more in line with the British, following Maurice Beresford, W.G. Hoskins, and others, and was less afraid of using archaeology and fieldwork (Baker, 2003). Yet another reason why the retrogressive method is not common today may be found within education, with a possible absence at undergraduate and postgraduate levels, meaning that students may lack a sound knowledge base when conducting their own research. This topic was raised during the interviews.

The two Scandinavian debates illustrate some of the main criticisms of the retrogressive method. One criticism concerns the way in which the sources are treated. In joint efforts at reconstructing High Middle Age settlement sizes at different points in time, Swedish and Danish historians criticised use of the retrogressive method by Norwegian historians, although the method *per se* was not rejected out of hand. According to Swedish historians, there was too much uncertainty attached to using lost settlement names or low taxes as evidence of deserted farms and no explicit evidence of desertion. Thus, Swedish and Danish historians considered that place names were not sufficiently explicit concerning desertion (i.e., place names as such were not rated a trustworthy source). Human geographers, whose main sources for centuries have been historical maps and deserted field traces, were not involved in the joint Scandinavian research project on deserted farms and villages. An excessive focus on explicit evidence of desertion overlooks one of the major geographical advantages of historical maps, namely the study of anomalies indicative of desertion (Antonson, 2009a). Such anomalies arise when the map shows divergences from other settlements, such as a patch of land with a place name and borders within which there is no arable land or isolated cultivation areas with no settlement. The fertility of fields, which is classified in many nineteenth century maps, may also be used. For example, high fertility is indicative of high phosphorus content in the soil, which in turn is indicative of places where people and animals lived for a long time. Such anomalies may be traces of previous settlements. The interviewees claimed that the criticism of the retrogressive method in the Scandinavian debates placed too much emphasis on the method’s details and not enough on its overall benefits. Moreover, the critics did not appear to have compared how the older international literature dealt with such details to reflect upon whether the method had matured over time. When the criticism was at its height, during the late 1970s and early 1980s, the retrogressive method had been in use in Scandinavia for over fifty years. In an era heavily influenced by positivist and quantitative thinking, it is easy in retrospect to see that they “threw the baby out with the bathwater.” However, that is a lesson learnt for the future.

Another aspect of the Scandinavian debate concerns time. Hannerberg (1969) discussed whether sources reveal information about anything other than the time at which they came into being. This puts the focus on a basic conceptual problem often associated with the retrogressive method, namely, whether the landscape has periodically stood still or undergone change. Several studies using the retrogressive method can be said to have a clear starting point in the eighteenth century but no clear end (e.g., Antonson, 2009a). Instead of focusing on continuity in the landscape, the retrogressive method may be more useful when focusing on change. This is best achieved when there is a clear starting point in later (younger) sources and a clear end point or cross-section in earlier (older) sources. When these two periods are compared, the analysis can help answer questions about change, the underlying processes, and so on (Baker, 1975; Leontief, 1963). Changes can occur quickly, as noted by Gulley (1961).

None of the interviewees objected to the retrogressive method being used for later periods, but they saw no real need given the abundance of data on the nineteenth and twentieth centuries. However, Olsson’s (2012) study is a good example of the usefulness of twentieth century sources in reconstructing the landscape of older times. The same can be said for times prior to the invention of the camera, for which paintings and drawings can be used instead (Antonson, 2009b).

One debated aspect of the retrogressive method is the length of time travel and the importance of verifying the source content by comparison with another source, as mentioned in the literature and in interviews. It is also recommended that, when possible, comparisons are made with sources of different ages without excessively large time gaps (i.e., taking short steps back in time) (Baker, 1963; cf. Figure 2). Too large a time gap between the younger and the older source naturally leads to greater
uncertainties about the reliability of the source and thus leads to a risk of overinterpreting the results (i.e., of seeing things that are not there). One way of increasing the reliability of the method is to occasionally reverse the direction of time travel (i.e., alternate regularly between sources, not just backwards in time but also forwards) to better understand the feature or source being studied (e.g., Baker, 1966). Another way is to increase the reliability of a written source with fieldwork, for instance by dating a feature visible on a historical map. The interviewees noted that the retrogressive method should not be limited to fieldwork based on the traces in today's landscape but should be used in conjunction with written sources, such as historical maps. This is usually called “source triangulation” or “multi-method research” (Merriam, 2009; DeLysy et al., 2010).

As regards the final theme, size of study area, in my work I have shown that it is possible to study both large and small landscape areas, down to at least farmstead size, using the retrogressive method (Figures 3 and 4; Antonson, 2009a). It should not play a decisive role whether these farms were owned by nobles or peasants.

The remaining question is whether this method can be of any use for landscape studies by nonresearchers, (i.e., whether it can be used within land use planning or be useful to residents, politicians, and the public at large). Sauer (1941, 3) wrote that “land planning can certainly not be claimed as the geographer's discipline, nor as a discipline in any sense.” However, today both landscape and planning are growing topics occupying many experts, because the European Environmental Impact Assessment (EIA) directive (European Economic Community, 1985) has made landscape assessment mandatory prior to large-scale land development. The historical content of today's landscape has long been an important aspect to assess, but the landscape concept has changed, and the days of assessing only historical physical features have passed (e.g., Antonson, 2009b, 2011). This is due to, among other things, the European Landscape Convention (ELC) (Council of Europe, 2000), which stresses people's perceptions (values, meanings, attitudes) of landscape and gives equal priority to the views of expert and layman. As a result of EIA and ELC, landscape assessment has become a growing commodity, resulting in the development, often with close links to research, of different landscape analytical tools for use by consultants and authorities. Nevertheless, history is still present, in one way or another. Below I describe some of the tools used to capture landscape history and present some conclusions on their use.

Swedish EIA reports reflect only retrospective thinking. There is scope for improvement in the EIA methodologies, and several promising analytical landscape tools for planners have been developed (Rojmans et al., 2009; Fairclough & Herring, 2016; Sarlöv Herlin, 2016). For example, one British/Dutch and two British tools have attracted specific international interest. These are landscape biography (LB), landscape character assessment (LCA), and historic landscape characterisation (HLC).

The LB approach has its origins in geography but has been prominently used within archaeology (Kolen & Renes, 2015). It involves a deeper focus on the views of individuals (beliefs, memory, and identity) on the shaping of landscape, in what has been called “landscape as a palimpsest” (Palang et al., 2011, 345). One source for LB is thus narrative, personal life stories, not only contemporary, but also historical. This shows some similarities to the microhistory approach (Antonson, 2017). However, LB also has a strong public participatory ingredient within planning, not least to inspire planners to “think in various time scales” (Palang et al., 2011, 346). Stories of landscapes are important sources in retrogressive methodology when seeking to understand older landscapes. However, there is a danger of relying too much on memories describing significantly older stages of a material landscape than when the memory was recorded. During my time as a civil servant, I often met farmers who told me what the landscape looked like in their youth, memories that do not match either photos or historical maps. Therefore, using a retrogressive approach within LB is a delicate matter but one which can be further explored. So far the retrogressive approach has not been used in trying to understand people's experience of the landscape, but rather the material landscape.

LCA is a landscape architect method (Swanwick & Land Use Consultants, 2002). While it focuses on today's landscape, it also assesses the reasons for its appearance and potential future changes. History is present but is not a core feature. The analysis often starts with the oldest times and ends in the modern, resulting in maps of land use types (e.g., Winchester City Council, 2004). The HLC approach also focuses on the current landscape but with a much deeper historical perspective than LCA. It is said that it often works as input to LCA (Herring, 2009), and there are similarities with LB, although LB focuses more on landscape narratives than on the material landscape (Palang et al., 2011). HLC analyses may take their starting point in past time and work towards today's landscape (Barnatt, 2003), as for LCA, or start with the landscape of today (Aldred & Fairclough, 2003). The HLC handbook (Aldred & Fairclough, 2003) focuses heavily on landscape characteristics and how to delineate these in areas and less on historical interpretation and analysis per se. Although a brilliant analytical approach, HLC has been criticised for a lack of time depth analysis using implicit data, such as older land use information reflected by place names (Rippon, 2013). There are elements of both retrogressive and retrospective thinking in HLC, but descriptions of its approach regarding time direction and how to read and interpret different types of source material are scarce. There is a clear risk of the landscape's time depth being managed too statically if sources are handled mechanically, because a source may contain much more information than the person who wrote it intended to convey. Hence, there is a risk of some data being taken as definitive and “all of this is compounded by the technological sophistication of GIS, which can produce wonderful maps which give the appearance of subtlety, but which are often only a mask on the true shallowness of what they are representing” (Anon, 2006).

I believe that the retrogressive method is still a powerful method to increase understanding of time depths,
processes, and change. The newly developed landscape analytical tools in contemporary landscape planning (LB, HLC, LCA) are effective and productive but not better than the retrogressive method in analysing the historical content of past landscapes with a scarcity of sources. However, under New Public Management, consultants performing landscape analysis (e.g., for an EIA report) do not do anything more than they are paid for. Because the retrogressive method can be time-consuming, it is in the interests of the research community to investigate whether it can be adapted for use in the consultancy market so that it may be better integrated into the newly developed landscape analytical tools in contemporary landscape planning (LB, HLC, LCA), rather than being treated as an internal academic research issue.

5. Conclusions
In revisiting the “reading landscape backwards” (retrogressive) approach, it can be concluded that the reason for this method being less used in research lies partly in the flow of time. Analysis benefits from the retrogressive approach, but when presenting the results, the retrospective approach is better used (i.e., starting with older times and ending in more recent times). Another reason is harsh criticism during the 1950s–1980s regarding the trustworthiness of sources and overconfidence in quantitative analysis, criticism that still resonates with researchers.

It can also be concluded that the method has merits when there is a scarcity of written sources; in which case fieldwork, such as archaeological digs, should be used as a complement. However, the time steps must not be too great to minimise misinterpretation. Documented beliefs and experiences, such as the Icelandic Sagas and folk tales, often involve long periods of time between event and documentation, which underlines the importance of using a combination of sources (so-called triangulation or multi-method approaches).

An additional conclusion is that time travel analysis benefits from a combination of retrogressive and retrospective approaches (i.e., travelling back and forth in time). The retrogressive method has proven useful when studying landscape change using cross-sections in time and when the size of the study area is not important. Moreover, the method is highly relevant within landscape planning, for instance when planning for new transport infrastructure and housing areas. So far, the retrogressive method has dealt more with physical remnants of past landscape and overconfidence in quantitative analysis, criticism that still resonates with researchers.

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The focus in this paper was on Northern Europe, but the retrogressive method is also suitable for continents with a much smaller number of written sources, such as Africa. I started this article by quoting Gulley and end it in the same way: “It would be regrettable if retrogressive writing in historical geography fell into complete desuetude” (Gulley 1961, 309). The renewed interest in land use planning is likely to help avoid this regrettable outcome.

Note
1. The medieval time division is not straightforward (Antonson, 2004, footnote 239). Moreover, the period has been divided into an “early” (500–1050), one “middle,” also known as “high” (1050–1300) and a “late” (1300–1500) part (Hollister, [1964] 1998, pp. 4, 156, 326). In Sweden, the latter part of the Early Middle Age corresponds to the Viking Age (c. AD 800–1050). After the Middle Ages, the Modern times take place, a period which also includes the present. The first part of Modern period is usually called Early Modern period (1500–1750).

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Competing Interests
The author has no competing interests to declare.

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