



ELSEVIER

Landscape and Urban Planning 54 (2001) 255–266

LANDSCAPE
AND
URBAN PLANNING

www.elsevier.com/locate/landurbplan

The neglect of aesthetics in landscape planning in Switzerland

Klaus C. Ewald*

Landscape and Nature Conservation, ETH, 8092 Zurich, Switzerland

Received 16 August 1999; received in revised form 22 June 2000; accepted 2 August 2000

Abstract

In this paper, landscape is defined as any part of the Earth's surface in which various aspects, such as terrestrial, aquatic, natural and cultural interact with differing dominance. Within landscapes, energy and material flows over time are major driving forces of landscape dynamics. Such a comprehensive approach to landscape should also be applied in landscape planning, however this is rarely the case in Switzerland. The concept of landscape aesthetics in particular is neglected, therefore, four theses are formulated and discussed in this paper.

The tourist industry promotes Switzerland with pictures showing beautiful scenery. Some of the landscape elements shown, e.g. ecclesiastical buildings and historical profane buildings, are widely recognised for their aesthetic values, and scientifically examined by art historians and other disciplines. Strangely enough, this is not the case for cultural landscapes, despite the fact that they also reflect the history of human culture. This paradox evolves from the dichotomy between natural sciences and humanities. There is a lack of multi-, inter-, and trans-disciplinary approaches to studying cultural landscapes. The long-term genesis of the elements of the cultural landscape is illustrated by the typical structure of traditional cultural landscapes, i.e. "the hides of land" (i.e. strip-shaped forest clearings) (*Hufenfluren*).

Between 1750 and 1850, many painters depicted the beauty of the traditional cultural landscape. Their paintings are acknowledged as a part of culture and treated accordingly, but this is not the case for the remains of the cultural landscape they painted. Comparing maps from different points in time reveal the loss of elements of cultural landscapes. Results show how traditional systems of land use led to highly structured landscapes, whereas today's land-use levels out the scenery. Lack of public support significantly reduces the success of the legal tools to limit this process. © 2001 Elsevier Science B.V. All rights reserved.

Keywords: Elements of historical landscape; Changes in landscape; Landscape planning; Switzerland

1. Introduction and concepts

Geography as the science of the landscape has a long tradition in the German-speaking parts of the world. The "Kosmos" by Humboldt (1845ff) is still a source of inspiration for a comprehensive understanding of the term landscape. Referring to Humboldt (1845ff), Schmithüsen (1963) describes landscape

as the "gestalt" of a section of geosphere that has a geographically relevant size (*Landschaft ist die Gestalt eines nach seinem Totalcharakter als Einheit begreifbaren Teils der Geosphäre von geographisch relevanter Größenordnung*). A generally comprehensible landscape description is useful, both when analysing landscape ecosystems or landscape physiognomy. This is especially true today, as an increasing number of people get interested in topics related to landscape. Landscape can also be defined as any part of the Earth's surface in which various aspects, such as

* Tel.: +41-1-632-55-61; fax: +41-1-632-13-80.

E-mail address: ewald@nls.umw.ethz.ch (K.C. Ewald).

the terrestrial, aquatic, natural and cultural are interacting with differing dominance. Energy and material flows foster life and landscape dynamics. Apart from natural energy cycles, artificially generated energies play an important role in landscape economy. Hence, impacts on landscape caused by production and transportation of energy, such as power stations, reservoirs, or of masts for high-voltage cables must be considered as well. Such comprehensive aspects of landscape should not be neglected, however the main concern of this paper is with landscape appearance and aesthetics. I consider the neglect of landscape appearance and aesthetics in landscape planning in Switzerland to contribute significantly to today's environmental problems.

A comprehensive understanding of landscape requires that all parts of landscapes, including urban and industrial areas, are considered. It is obvious that forested areas are an integral part of landscape, too. Foresters, however, do not perceive their forests in a landscape context. Most of them still see forests primarily as an area of timber and timber production. The same holds true for agricultural landscapes. For farmers, landscapes are places of production and daily work — they hardly know or consider the concept of landscape. Thus, conflicts arise as soon as planners treat the agricultural land as a part of the landscape, as will be discussed later.

All landscape types, urban, industrial, forested and agricultural landscapes, are multi-functional. These functions are perceived differently by different people, highlighting the need for comprehensive landscape planning. The principle of landscape planning should be applied in all types of landscapes, probably with the exception of the planning of urban areas. In Switzerland, however, there is no tradition of landscape planning, as no university or any other academic institution teaches this subject, not even in courses of landscape architecture. This is the reason why in Switzerland, landscape is understood simply as the open space outside settlements, industrial areas and forests without any more sophisticated considerations of a landscape concept. Yet, restriction of the meaning and importance of landscape on the areas remaining outside settlements a priori lacks a scientific basis. The knowledge about landscape ecology (Forman and Godron, 1986; Leser, 1997) should have contributed to changing this practice. Although landscape is

planned in Switzerland, it is not in technical terms “landscape planning”, as only parts of land are attributed to the different ways of exploitation. This process is not guided by natural or landscape potentials through an understanding of ecology and sustainability, but rather by hierarchies of power. The contents of the library of the Swiss Federal Institute of Technology (ETH) reflects the insignificance of landscape planning in Switzerland. When searching for titles containing the notions “Landschaftsplanung”, “landscape planning” and “landscape management”, only some 200 references appear ranging from the beginning of this century up to now. This is a mere drop in the ocean compared to the amount of publications and research on this subject in Germany, UK and the USA.

For a professional orientation, we may therefore turn to Germany, where landscape planning has been a tradition since the last century. In 1998, landscape planning was even embodied in the law of construction (Gelbrich and Uppenbrink, 1998). This law claims landscape planning as the most important tool for the protection, maintenance and development of the entire landscape (Bundesminister für Ernährung Landwirtschaft und Forsten, 1976; Bundesregierung, 1997; Bundesverband beruflicher Naturschutz e. V., 1999).

Landscape aesthetics and scenery evaluation should be essential parts of any comprehensive understanding of landscape. Aesthetics is generally defined as the science of beauty or the teachings of harmony in nature or art. How beauty is understood and interpreted is said to depend on personality and the “spirit of the times”, *Zeitgeist*. However, pre-historical and ancient historical relicts show that traditions of aesthetics remain fairly stable even over long periods of time, despite considerable changes in the *Zeitgeist*.

These introductory thoughts can be summarised as follows.

1. The aesthetics of landscapes is hardly ever considered in the process of landscape planning in Switzerland.
2. For the public and planners in Switzerland, landscape aesthetics is not appreciated or acknowledged as having importance. It is seen as subjective and hence as irrelevant.

3. No profession is obliged to deal with landscape aesthetics and the maintenance of landscape appearance.

Despite these shortcomings, Swiss landscapes are still regarded as beautiful. This is especially true when the landscapes are viewed from distant viewpoints (as tourists tend to do) and when the observer is not aware of the dramatic decline in aesthetic values of these landscapes during the 20th century.

2. Tourism as the marketing of beautiful landscapes

For more than 200 years, Switzerland has been famous as a tourist destination. Today, the annual economic turnover of the tourist industry reaches nearly 2 billion Swiss francs. Accommodation and skiing are important components of tourism in Switzerland. However, beautiful landscape plays an important role, summer tourism especially depends on it. Maybe to some extent, international tourists might appreciate Swiss scenery more than do the Swiss public — has familiarity led to complacency with its management? But how does the tourist industry commercially exploit beautiful landscapes? Pictures and paintings of Swiss landscapes are present everywhere in Switzerland, although one may not always notice them. Thousands appear in magazines, newspapers, calendars, videos, or picture books. Snowy mountains are particularly dominant. However, such subjects have to be questioned, too. Are these photos of distant mountains simply illusions, where the distant haze conceals the reality of such landscapes? In the visual messages promoted by the tourist industry, Switzerland is portrayed as having beautiful landscape consisting mostly of subalpine areas besides the far off and majestic snow and ice-covered mountains. This subalpine landscape is never depicted as affected by technical artefacts, such as roads, levelled ski runs or holiday villages. However, in the lowlands, hardly any traditional cultural landscapes remain that could be promoted as beautiful scenery. Instead, tourist promotion for lowland regions centres on remains of old monasteries and other ecclesiastical buildings, profane buildings or historic gardens and parks.

Interestingly, these objects are implicitly considered as “culture”.

3. Cultural landscapes

Looking at “beautiful” landscapes leads to the question of their scientific and cultural context. Indisputably, ecclesiastical buildings and a large part of historical profane buildings form a basis for art history, science of art, architecture and history of architecture. Naturally, these cultural artefacts are sacrosanct for everyone concerned with cultural heritage. The same is true for historical gardens and parks, as well as for mobile forms of art, such as paintings or sculptures. But as soon as the concern widens to more than just the church with its vicarage and surrounding trees, for example to a hamlet or a small village scale, things change completely. Art history and related sciences do not claim responsibility for these artefacts anymore. The sacrosanct touch, as it is given to paintings and sculptures, vanishes. Apparently and most obviously, there are differences between the perception as well as the position of objects in one’s ideology on the one side, and the appreciation of cultural and aesthetic objects on the other. Consequently, we must search for differing perception and interpretation of aesthetics in our environment.

The term “culture” originates from the Latin word “cultivare”. On one hand, the term relates to objects of science, history of art or architecture, such as paintings, sculptures or renaissance gardens. In this sense, the concept of culture is related to high standards, and mental and spiritual subtlety. Here, undoubtedly aesthetics is the centre of interest. On the other hand, there is the term “cultural landscape”, *Kulturlandschaft*, in which the concept of culture is tightly connected with agriculture. As mentioned above, farmers do not include the concept of landscape in their thinking. The same holds true for a large part of the Swiss population, probably because their ancestors have been farmers one or two generations ago. The cultivation of potatoes and carrots or raising of poultry in cultural landscapes contrasts strongly with the subtle sense and spirit of aesthetics, art and architecture.

Based on the conflicts outlined above, in the following Section 4, I will focus on some fundamental

differences in the understanding of the landscape concept. Villas, castles, gardens in baroque style or paintings; all of these may be studied scientifically by established methods of the various disciplines. Such studies are part of traditional fields of research with an established reputation. But there is no “approved” set of methods to study cultural landscapes or the historical elements of cultural landscapes.

- Firstly, this lack of methods is caused by the historical structure of scientific disciplines, mainly the dichotomy between natural sciences and humanities. This structure prescribes whether or not a subject is scientifically treated and by which particular branch of science.
- Secondly, the age-old opinion that only cities or other urban subjects can be related to culture is still alive today. This idea also implies that everything outside cities is just uncouth, hulking wilderness. Hence, the conclusion can be drawn that traditional landscapes cannot be treated by any singular discipline. Multi-, inter- and trans-disciplinary approaches might be applied, but these are still in their infancy.

- Thirdly, public acceptance is lacking, maybe because it is still determined by the old, farmer’s point of view mentioned before. It is surprising that elements of agricultural landscapes are not appreciated more (Nohl, 1995), although they are documents of cultural history. So, what exactly are the elements and characteristics of cultural landscapes (see Ewald, 1996, for a review)? In terms of elements, at least 50 important artefacts of historical cultural landscapes can be defined (Wöbse, 1994), such as hedgerows, hollowways, terraced farmlands, stone walls and hides of land, *Hufenflur* (Fig. 1). Such elements formerly determined landscape appearance and consequently formed our understanding of landscape aesthetics. Today, many of these elements can only be found in relicts. However, the character of a cultural landscape is more than the sum of its elements. For example, the character also includes the spatial configuration of these elements and their interrelationship with natural features. Moreover, the agricultural context within which these elements have a distinct function and by which they are shaped also is part of the

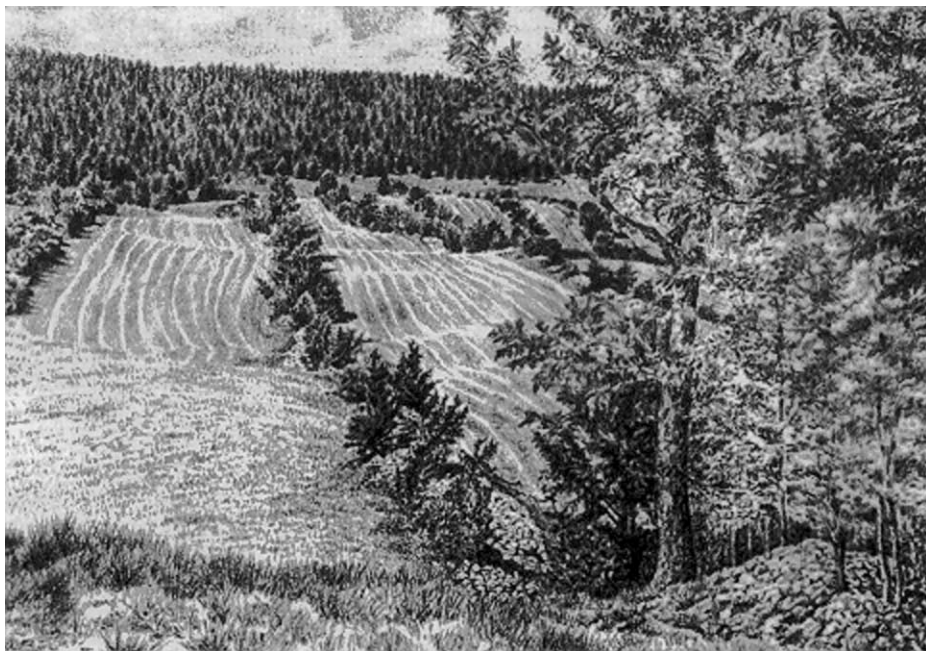


Fig. 1. Former hide of land, originated by forest clearing the end of the 13th century. Parts of land separated by stone walls. Drawing by Verena Fataar, WSL Birmensdorf, after a photograph taken in the late 1960s.

total character of the scenery *Totalcharakter* sensu Schmithüsen (1963) (see quote in first chapter).

4. Elements and characteristics of historical cultural landscapes

Elements of traditional or historical cultural landscapes, as shown in Fig. 1, should not only be seen as structural elements, or as in the case of the old stone walls as artefacts. They must also be evaluated in regard to their genesis. The following example illustrates the historical approaches of landscape research. I deliberately relate to the discipline of “history of open fields”, *Flurgeschichte*. This discipline has lost many examples for research as a result of the devastating levelling of entire tracts of land in Switzerland. Hides of land, for example, must be regarded not only as structural elements, markedly and unmistakably characterising landscape appearance by their stone walls and their bushes. They also represent a landscape phenomenon documenting human activities: the landscape shown in Fig. 1 has been cultivated since the end of the 13th century (Kreisel, 1972) by strip-shaped forest clearings. Despite this cultivation process, the topographical relief is still visible. This visibility of natural landscape structures is an important characteristic of traditional cultural landscapes.

This example should suffice to demonstrate the historical significance of parts or characteristics of the traditional cultural landscape. The historical dimension should remind us of the fact that landscape in any case is an irreplaceable archive. Consequently, we must treat landscapes in a similar way as other archives or collections in museums. Today, perception, interpretation and appreciation of landscape is taught only rarely. Consequently, even people professionally involved in landscape concerns are not aware of many conflicts between environmental changes and landscape appearance.

In the context of characteristics of historical cultural landscapes, further aspects have to be considered. It does not matter whether we study the *genesis of open fields* as the evolution of plots of land or as related to the third dimension, where landscape is shaped by the use of traditional agricultural instruments. In both cases, we find in historical cultural landscapes a huge diversity of convex and concave shapes of the land

surface. Landscapes characterised by terraces, balks, ditches and creases are very old, as depicted in paintings of Peter Birmann, Samuel Birmann, Georg Friedrich Meyer, Georg Büchel and of other Swiss painters of the period between 1750 and 1850. Thus, there must have been a long tradition in the set of habitats present in the cultural landscape. Close interrelationships exist between landscape appearance, landscape diversity and biodiversity. And here, a quintessence can be found: landscape appearance is much more than an exchangeable piece of scenery as the ones painted on papier mâché in theatres.

How do such complex structures of landscape elements look in their spatial context? This can be illustrated through the already familiar example of hides of land shown in Fig. 1. These are very impressive and important elements of traditional cultural landscapes in regard to their genesis, their value as habitats and their scenic beauty. In Fig. 2A and B, the same tract of land as in Fig. 1 is depicted on a topographic map for 1958 (Fig. 2A) and 1990 (Fig. 2B). The comparison of these two maps reveals far-reaching changes in the scenery that is basically a result of destruction of the hides of land. This comparison illustrates how in the process of planned or unplanned changes, traditional cultural landscapes and their aesthetic values are rarely considered.

A common approach in human geography, which deals with rural landscapes, is a focus on man-made landscape elements. However, landscape parts, which can be described as “natural”, form another important part of landscape appearance and aesthetics that needs to be observed and interpreted. What are the natural aspects of a landscape? Geological formations and the shape of landscape surface are of particular importance. The presence of forests, their structure and composition as well as their distribution in the landscape are additional striking features. Switzerland has no sea coast, but water present as lakes, rivers, streams, fens and glaciers is another important component of landscape. How people handle water and how they respect flowing and still waters gives insight into their values and beliefs (Fig. 3A and B).

Such randomly chosen landscape windows and their human-induced changes can also be reviewed and discussed in a systematic and representative manner. The elements must be considered in relation to their

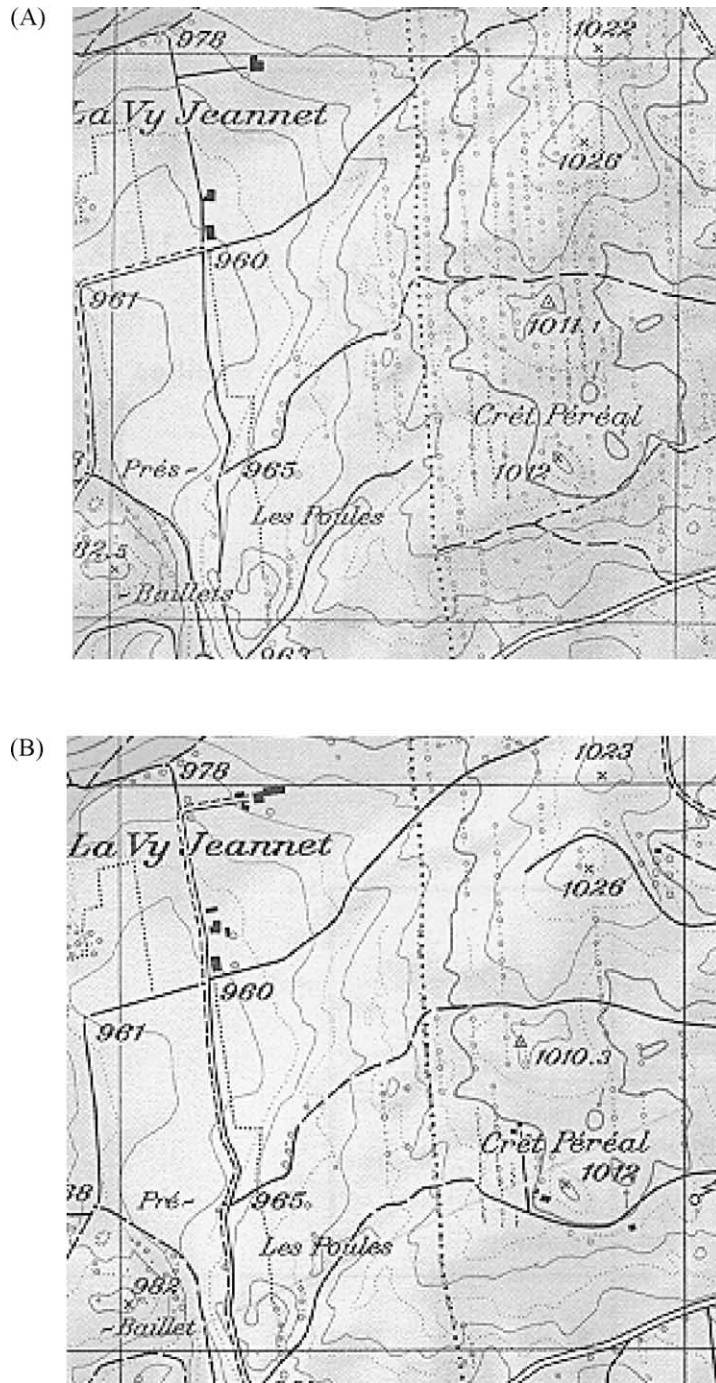


Fig. 2. Section of Fig. 1. Reproduced from topographic maps of Switzerland (no. 1162, 1958 and 1990, respectively), with permission of the Bundesamt für Landestopographie dated 18 August 1999.

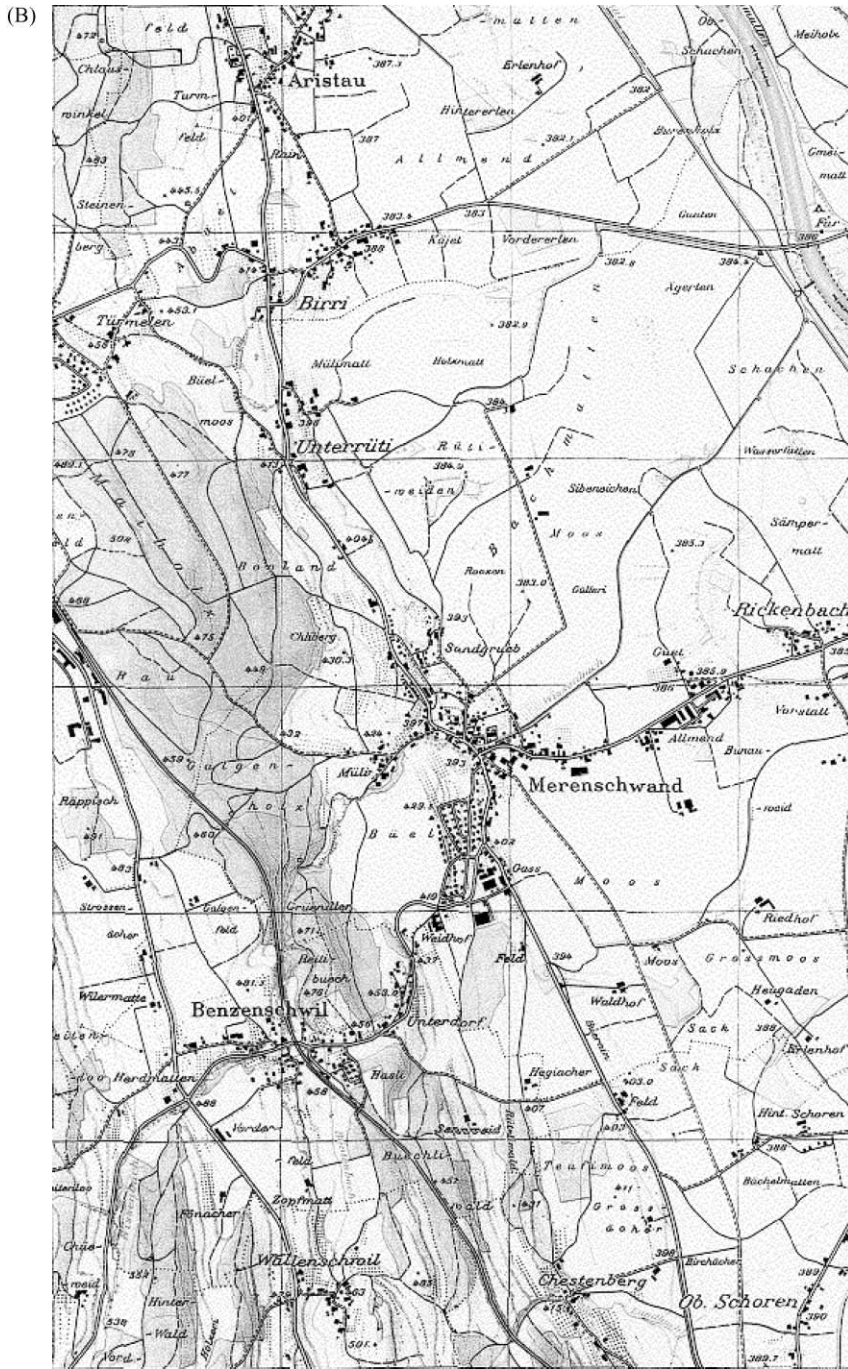


Fig. 3. (Continued).

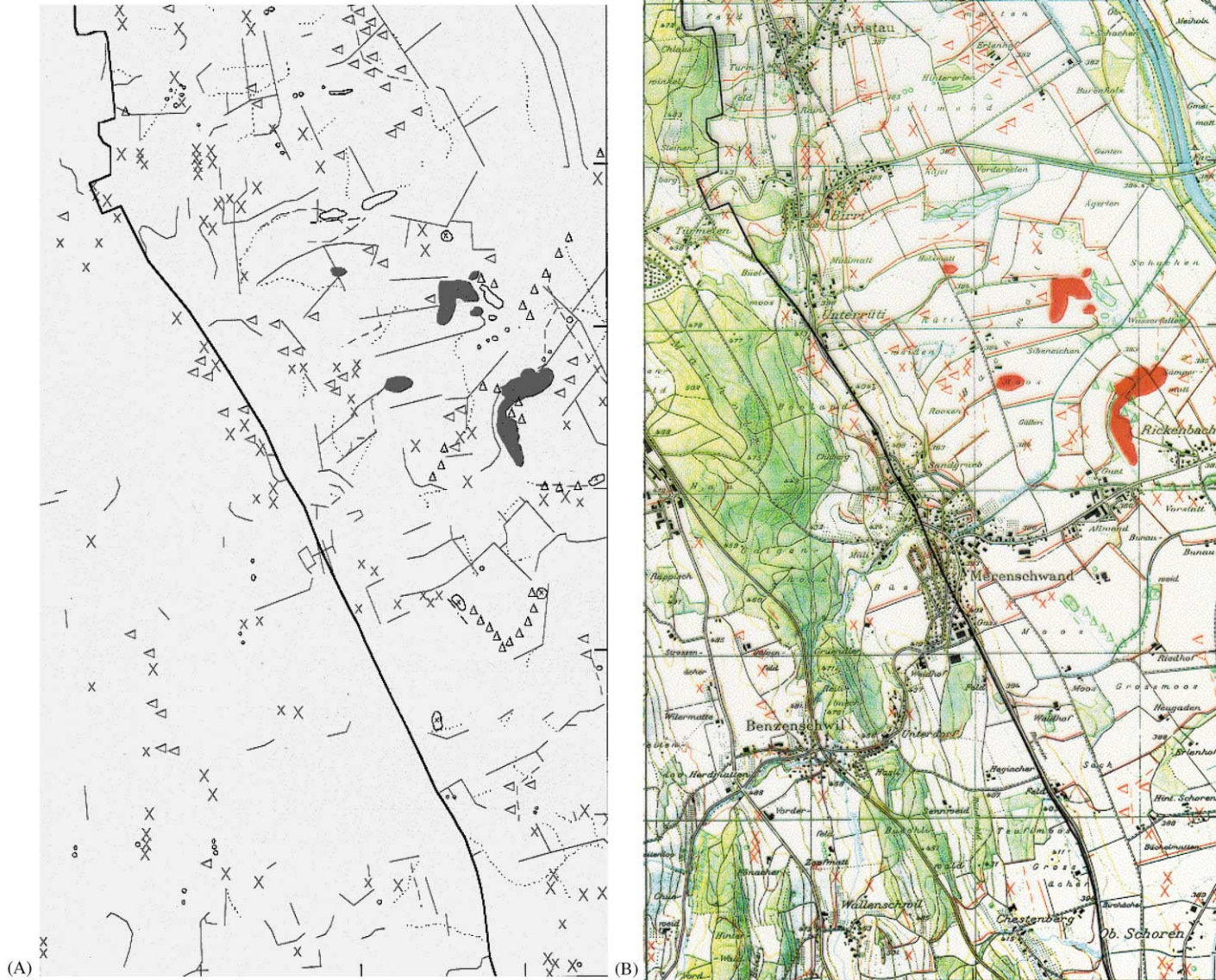


Fig. 4. Section of Fig. 3B with visualised landscape changes between 1982 and 1992. Boundary of inventory of landscapes and monuments of national significance (Bern, 1977ff) separates protected (on the right) and unprotected zones (on the left). Legends — negative changes with regard to landscape diversity: (—) new road, (red blob) dried humid area, (---) stream/river put underground, (X) tree(s) felled, (<) hedge(s) cleared; positive changes with regard to landscape diversity: (---) abolished road, (red blob) new humid area, (---) stream/river restored, (X), (O) freshly planted tree(s), (△) freshly planted hedge(s).

quantitative and qualitative characteristics as well as their arrangement in space.

5. Threats to historic cultural landscapes

Most traditional cultures have shaped natural landscapes, but not eradicated and disfigured it, as have powerful machines since the 1960s. Fig. 2A and B illustrate landscape changes in space and time in topographical maps of the same area from different times. This guarantees the highest possible degree of objectivity, as landscape appearance and beauty can be interpreted freely. In Ewald (1997), I documented the devastation of the scenery of an “every-day landscape” during a period of 23 years. Such processes leading to trivial and banal landscapes started in the 1970s. Personally, I know of no areas of Swiss landscape where the appearance has improved in the past 25 years. As can be seen in Fig. 4A and B (positive changes), landscape use could also contribute to attractive scenery. Fig. 5A and B however show what has happened to this landscape during the past 40 years.

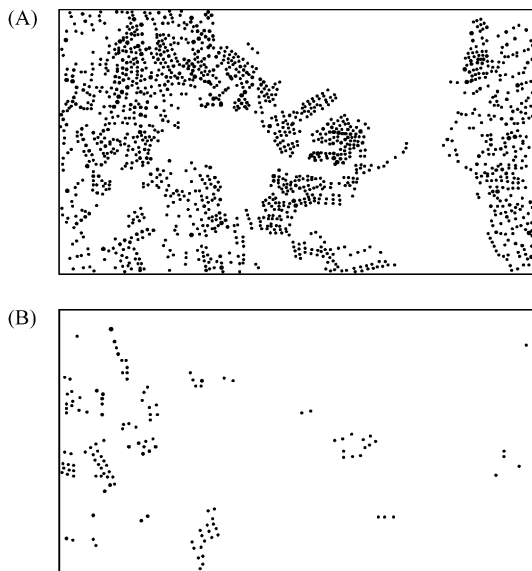


Fig. 5. Old and young fruit trees (area of about 1.5 km²). Drawn after aerial photographs from 1953 and 1994, respectively, by Carmen Brun-Ganzer.

What then are the main driving forces behind the destruction of historic cultural landscapes? Farmers and other land users generally want (and are forced by economic imperatives) to maximise their productivity. With the modern technical equipment of the past three decades, they have levelled the landscape and changed it into a large, homogeneous nursery.

Environmental organisations of nature and heritage conservation are involved in the early stages of development of relevant procedures. Usually, however, they are not given much weight.

6. Legal tools for landscape protection

Are there any laws in Switzerland dealing with landscape aesthetics? Obviously, this is a rhetorical question, as even if laws do exist, it does not necessarily follow that they are applied.

Basically, two relevant laws have to be considered in the context of landscape planning and aesthetics.

- First, there is the federal law on spatial planning (Bundesgesetz über die Raumplanung, 1979) enacted in 1979. This law mentions the need for care in treatment of landscapes several times. Article 17 names protected areas and their contents. Many concerns about landscape aesthetics would be fulfilled by these paragraphs, especially if they were deliberately adhered to.
- Second, the federal law of nature and heritage conservation (Bundesgesetz über den Natur- und Heimatschutz, 1966) enacted in 1966. This law is the most important and relevant source for the landscape concerns discussed here.

It has to be stressed however that theoretically it would be the Swiss cantons and not the federal government that have the responsibility and activity to protect landscape appearance. It is of no use to cite other laws, as they are even less relevant for landscape aesthetics as the two already mentioned. Also the publication “landscape concept of Switzerland” (Bundesamt für Umwelt Wald und Landschaft, 1998) issued in 1997 does not address the issue of landscape appearance or aesthetics. This concept enables the federal government to conduct inventories of objects of national significance. In 1977, the

government issued the federal inventory of landscapes and natural monuments (Eidg. Departement des Innern, 1977ff). The areas included in this inventory should be treated with some reservation. Using maps on a scale of 1:25,5'000, I have evaluated the environmental changes in an area belonging to this inventory. Fig. 4A and B illustrate the landscape changes between 1982 and 1994, over a period when all the relevant laws covering landscape planning should have been applied. Apparently, the protected zones changed even more than the unprotected zones. Wetlands vanished, woods disappeared and roads were built. Without going into details, it is obvious that the beauty of landscape has diminished and the existing legal tools did not help to stop this process.

7. Conclusions

Beautiful landscape is an essential resource for tourism all over the world. In Switzerland, where tourism has a long tradition and is of high economic importance, many of the landscapes appreciated by tourists are shaped by traditional agricultural practices. Cities, buildings, paintings, sculptures, styles, gardens or monuments are generally appreciated and document – and partly dominate – our understanding of aesthetics. However, the character of traditional cultural landscapes and the many elements that are part of these landscapes are not similarly studied and protected. Some years ago, a person who attacked with acid a landscape picture painted by Albrecht Dürer was justifiably committed to a psychiatric institution. Thus, the destruction of art that depicted landscape was punished. However, the destruction of actual cultural landscape and the resulting loss of its aesthetic appearance and historic value has often been subsidised or at least tolerated. It was mostly the intensification of agriculture during the last decades that destroyed many elements and characteristics of the historic cultural landscape in Switzerland. This caused a general decline in aesthetic value of many Swiss landscapes. Furthermore, many of today's environmental problems are strongly linked with the changes in land use and land cover. The existing legal tools have been unable to stop or to revert this process or moreover to guide it into a more sustainable direction.

The neglect of aesthetics in landscape planning in Switzerland is reflected in the fact that no agency or authority and no profession is responsible or obliged to protect or manage landscape aesthetics. In my opinion, we could learn a lot from landscape aesthetics of earlier times, for example from the paintings of cultural landscapes from 1750 to 1850, mentioned earlier. In those pictures, we see not only the wealth of landscape elements in their spatial and therefore functional context, but additionally we see examples of aesthetic and multi-functional landscapes. Being fully aware that no simple solution for the future can be deduced from past situations, I nevertheless believe that the long historic tradition of the concepts of aesthetics might guide our search for new ways to bring beauty back to the land.

References

- Bundesamt für Umwelt, Wald und Landschaft, 1998. Landschaftskonzept Schweiz. Teil I Konzept, Bern, 133 p.
- Bundesgesetz über den Natur- und Heimatschutz, 1966. Syst. Rechtssammlung 7, 451.
- Bundesgesetz über die Raumplanung, 1979. Syst. Rechtssammlung 6, 700.
- Bundesminister für Ernährung, Landwirtschaft und Forsten, 1976. Inhalte und Verfahrensweisen der Landschaftsplanung. Stellungnahme des Beirats für Naturschutz und Landschaftspflege beim BMELF. Bonn, Duisdorf, 32 p.
- Bundesregierung, 1997. Landschaftsplanung — Inhalte und Verfahrensweisen. Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit (Ed.), 3rd Edition. Bonn, 39 p.
- Bundesverband beruflicher Naturschutz e. V. (BBN), 1999. Zur Weiterentwicklung der Landschaftsplanung, *Natur und Landschaft* 74 (4), 165.
- Eidg. Departement des Innern, (Ed.) 1977ff. Bundesinventar der Landschaften und Naturdenkmäler von nationaler Bedeutung. Bern.
- Ewald, K.C., 1996. Traditionelle Kulturlandschaften, Elemente und Bedeutung. In: Werner Konold (Ed.), *Naturlandschaft-Kulturlandschaft*. Ecomed, Landsberg, pp. 99–119.
- Ewald, K.C., 1997. Die Natur des Naturschutzes im landschaftlichen Kontext – Probleme und Konzeptionen. *Gaia* 6 (4), 253–264.
- Forman, R.T.T., Godron, M., 1986. *Landscape Ecology*. Wiley, New York, 619 p.
- Gelbrich, H., Uppenbrink, M., 1998. Landschaftsplanung ist zukunftsorientiert. *Natur und Landschaft* 73 (4), 181–184.
- Humboldt, A., 1845ff. *Kosmos, Entwurf einer physischen Weltbeschreibung*, 4 volumes. Cotton Stuttgart, Augsburg.

- Kreisel, W., 1972. Siedlungsgeographische Untersuchungen zur Genese der Waldhufensiedlungen im Schweizer und Französischen Jura. *Achener Geographische Arbeiten* 5, 389 p.
- Leser, H., 1997. *Landschaftsökologie*, 4th Edition, UTB 521. Ulmer Verlag, Stuttgart, 644 p.
- Nohl, W., 1995. Die Landschaft von morgen im Spiegel der menschlichen Bedürfnisse und Werthaltungen. *Laufener Seminarbeiträge* 4, 55–62.
- Schmithüsen, J., 1963. Der wissenschaftliche Landschaftsbegriff. *Mitteilungen der Floristisch-soziologischen Arbeitsgemeinschaft N.F.* 10, 9–19.
- Wöbse, H.H., 1994. Die Erhaltung historischer Kulturlandschaften und ihrer Elemente. In: Heimatbund, D. (Ed.), *Plädoyer für Umwelt und Kulturlandschaft*. Meier Druck GmbH, Hennef, pp. 37–43.