

DISPERSED VERNACULAR STRUCTURES AS LANDSCAPE DEVELOPMENT POTENTIAL: THE CASE OF THE ALPINE REGION IN SLOVENIA

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Abstract

Theoretical and practical origins of vernacular architecture are close to human nature, anthropological patterns of organising living space and working processes. Those objects are constructed even nowadays. Vernacular architecture does not represent object form past, however it appears from human and nature. Economics of simple architecture is survival, modest usage of resources and logical modality of living. Composition of vernacular objects is usually quite simple, using basic geometric shapes as equilateral triangle, square and circle. Physical conditions of humidity, air exchange, day light values and energy potentials are in those objects naturally forced without any radical change of entropy. Construction materials have local origin and there are no any health risks (non natural chemical compounds). Nevertheless this kind of architecture represents good liveable, quality architecture. Giving one more proof: the best objects have survived till nowadays based on clear non complicated internal standards. In terms of economics and management we could conclude the selected field of architecture depends on economics of architecture and effective landscape management.

Slovenia has heterogeneous relief, architectural heritage follows those conditions and there are four typical architectural styles (Mediterranean, Panonoian, Alpine and Central). Development of region depends on identity of region and her potentials in the field of tourist infrastructure and tourist products. Combination of tourism, agriculture and vernacular architecture may be fruitful combination, if there is accurate planning, assets management and marketing of products. Any of those is missing; the results are non-predictable, un-stable and negative to users, land development and environment. An average tourist just following hedonistic fulfilment of expectations is the opposite from cultural tourist, their expectations differ a lot. At this stage the deviation is part of tourist product; however there are some fluctuations the standards should be considered. Market elasticity of cultural tourism has wider field of customer fulfilment of expectations. Part of this elasticity interval is weather conditions, vernacular heritage, residence standards, way of travelling and familiarity with regional habits, rituals and other cultural activities.

Key words

Vernacular architecture, landscape management, tourism, economics

Introduction

Vernacular architecture derives from a comprehensive approach to the design, erection and use of locally available materials. Siting at a location is well-considered and based on in-depth knowledge of local factors such as climate, relief, illumination, exposure and security.

Form depends on function. Theoretically speaking, forms might vary, but owing to a sequence of events and other functions, a form acquires its own specific shape. *A hen's egg could theoretically be a sphere, but because of the manner in which it is laid and hatched it is shaped as it is* [Arnheim, 1971: 7]. The same holds for the shape of a roof, which can be flat, inclined, lean-to, pitched, spherical or like a tent roof. The form depends on the environment and the material of which it is made. The evolution produces an optimal form, which is resistant with regard to the given conditions.

Evolution means the adaptation of an inner order to exterior influences. Revolution means changing an existing order in a more radical way in terms of time and execution. The purposes of evolution and revolution are the same, as both are aimed at survival. Revolution is a human invention, with the addition of ideology. The purpose of revolution is questionable. *All animals are equal, but some are more equal than others* [Orwell, 1989: 90]. Ideology is only theoretical; it is practically verified by revolution, which eventually alters or even abandons it. But evolution, thanks to its gradualness and holistic nature, cannot go astray.

The dispersed structures found on the fringes of Alpine valleys and on closed plateaus lost their primary function during the second half of the 20th century. The use of structures such as hay barns, haylofts and Alpine dairy-farms was becoming less and less attractive, because of well-organised and efficient low land cattle breeding. Changes in agriculture and way of life negatively affected the management of highland structures, which are generally also difficult to access. Visits to sites and structures were becoming fewer and fewer, pastureland was becoming overgrown, and paths ruined by erosion and climatic phenomena. In the late 1980s, awareness of the existence of vernacular structures grew. The interest was due to the rising living standard of the population and to a slowly emerging awareness of the architectural heritage. During that period, individual compact areas of dairy-farm settlements were becoming popular: Velika Planina, Zajamniki and Pokljuka. The lost function of dairy-farm structures was replaced by a new one – weekend houses to enjoy leisure time.

Tourism and spatial assets management

By far the most relevant is cultural tourism. Thematically, it is related to history, history of art, archeology, ethnology, architecture and other fine arts. It should be underscored that this is not only a matter of material culture, but also seeking personal contacts with the local people. Cultural tourism means active participation, research and learning in a chosen field. Active participation also involves physical work on farms (helping with farm work), researching nature landscape in relation to the vernacular, and learning about customs, language, ways of working materials, singing...

Highlighting only conspicuous monuments places minor cultural heritage in a disadvantaged position in terms of development. Drawing an economic analogy, we may liken it to countries whose industry is based on one or two products (oil, bananas). Monofunctionality is risky, as the loss or devaluation of a monument (due to mass tourism) results in the complete loss of a market niche.

A consideration of what constitutes a good quality cultural tourism offer corroborates the thesis that Slovenia's advantage lies in the very dispersal and heterogeneity of its cultural landscape, with elements of Alpine, maritime, continental and Pannonian regions. Such a small geographical area with so many varied segments of heritage, is unique

Heritage is a vehicle of collective knowledge, conscience, social integration and national pride.

Cultural heritage is vernacular in terms of economy – the use of local human resources in practice means – even though it sounds very technocratic – the employment of the local workforce. The potential of such a workforce lies in their knowledge of the living environment, and in the fact they do not need to commute to work. Culture represents the 'software' of human activity in space; it has an indirect impact on decisions and actions in the environment. Greater awareness generally leads to a more open-minded apprehension of environmental problems.

Strategic development planning in culture is also envisaged by the Act on the implementation of the public interest in the area of culture, which obliges municipalities to prepare local programmes for culture as an integral part of development planning documentation. The requirement has been adopted from the legislation of some Western countries and has proved useful because, by preparing a cultural programme the local authorities can participate in public competitions for funds. In addition, the programmes prepared are included in municipal and regional planned outlay.

Associations and societies are examples of organisations of civil society; they accommodate various contents and enrich the offer of cultural activities. Due to the diverse types of geography in Slovenia and the variety of contents, their membership is variegated in terms of age and education (and consequently in terms of personal values) [Lipovšek, 2003: 41]. Societies are of two kinds - public which support mass activities; and closed societies, operating according to the principle of lodges, which form in specific circles. Both have equal visions, socialising in order to better implement what they delight in and what unites them.

Culture and values are reflected among people, but also in the shaping of the cultural landscape. Cultural landscape has a multi-layered significance which we perceive on multiple levels: visual (the set-up of the built tissue and its relations with the environment) and planar (topographic list of settlements, routes, cadastral data and parcelling respectively). A good example is how drywall constructions have practical meanings – land management – animal husbandry, terraces..., only later they assume the role of physical representing divisions among owners...

More harmonious regional and environmental development is defined as follows [UMAR, SRS, 2004: 13-14]:

- environmental tax reform,
- encouragement of environmentally appropriate business and consumption practices,
- provision of more available building plots for industry and housing,
- economic incentives for a more efficient use of available funds,
- development of the real estate market (records, loans, taxes),
- enhancement of regional centres,
- introduction of binding partnerships.

Close cooperation with spatial planners, local authorities and population is all to the advantage of a better tourist offer.

Compact and dispersed structures

On the basis of the history of uses and changing functions of vernacular structures the following pattern of the use of environment potential emerges (use of the locally available materials, meeting land use needs of agriculture, strategic places, new activities on a location):

Stage I	Use of the basic features of a location, of local material and designated use of the environment's potential. Natural landscape with individual structures.
Stage II	Densification of structures, improvement of architectural specificity. Enhanced use of environment potential. Individual densifications of structures are woven into the natural environment – cultural landscape begins to take shape.
Stage III	Maximisation of use of all available potential and the greatest population density. Progressive alterations of architectural specificity, high rise constructions, differentiation of structures with respect to owner's status (bigger structures, more durable materials, esthetic details, amount of material used). Cultural landscape becomes mature.
Stage IV	Changes in living patterns and socio-political conflicts. Reduced use of the environment potential at particular locations. Cultural landscape stagnates and declines.
Stage V	Decay of built tissue. Only structures built more solidly, more rationally and more appropriately erected at a location are preserved. The loss of traditional skills related to the working of materials, structure design and recognition of environmental and spatial features . Many structures disappear and decay, and natural environment prevails over built tissue. Areas containing vernacular architecture are marginalised.
Stage VI	Slow discovery of architectural potential of existing structures. Individual structures are given new functions, which is followed by unplanned renovation in the so-called traditionalistic style.
Stage VII	Mass 'discovery' of traditional areas, compact dairy-farm settlements flourish, and the architectural profession is taken by surprise. Typified renovations appear, featuring quasi-rural details and exaggerated decoration. New materials (sheet metal, fiber cement corrugated roof sheets) are uncritically utilised for renovation, and additionally alter the image of compact settlements.
Stage VIII	Gradually, the profession accepts the traditional architectural heritage as a genuine quality and values it from the viewpoint of design, use of materials and employment of available materials. Separate areas are comprehensively renovated i.e. local communities in collaboration with professional agencies attempt to qualitatively regenerate them (renovation of hayracks in the municipality of Kranjska Gora – invisible architecture, which is the principle form in the cultural landscape). Cultural tourism emerges and enhances the awareness of the architectural heritage.
Stage IX	A period of serious comprehensive research of vernacular architecture and enabling inter-disciplinary collaboration between tourist organisations, professional agencies and spatial planners. Rural architecture and remote farm buildings of self-sufficient farmsteads take on an ever-increasing role as "attractors" of sustainable management of space and natural resources. Particular natural disasters highlight the irrational, unplanned use of space in the past – here we find a connection with the economics of 'sunken costs' - i.e. costs which will be created, but cannot be anticipated. An example is the flooding in the municipality of Kranjska Gora, the connection between the closure of a railway line and flooding 'natural' disasters.

Discovering individual structures on the fringes of Alpine valleys, reconstruction of forest trails and new forms of tourism: adventure tourism, 'Robinson's' holidays, cultural tourism, active holidays in the countryside and work practice on farms.

Systematic renewal of structures, education of the local population about the quality of traditional architecture – exhibitions, conferences, technical literature on the Web.

This review of the development stages is highly abridged, and it should be stressed that the transitions between the stages are uninterrupted and vary in tempo. At present we are in the last stage, in which individual structures and new forms of tourism have been discovered. It is at this very point that the profession can contribute a great deal to the renewal and development of new potential within vernacular architecture.

Concentrated structures more rationally exploit natural resources and better resist the elements. Compact settlements also allow for easier spatial management, comprehensive solutions and systematisation. In tourism, such designs are more desirable – the organisation of events, spreading of information etc. Nonetheless, we cannot deny the existence of structures having good potential from the viewpoint of tourism, other economic uses and education. Existing structures are situated at locations verified over time, and they exercised specific functions in the past. By employing analytical methods, we may more easily define and justify new uses. Analytical methods for defining the economics of a structure and for producing the documents for a particular structure include:

- measurement of structure
- architectural drawing of structure
- analysis of structure as to materials used
- analysis of microlocation
- renovation proposal (new programmatic contents, physical renewal).

Dispersed structures will only be re-used; there will be no new ones. The point is to rehabilitate a structure and determine its exploitation potential within the framework of the local economy and tourist offer. Seeking and finding the so-called elasticity of an offer curve within the predetermined architectural form is feasible by combining economics and architecture. The economic aspect plays the role of detecting potential sources for increasing the means; the architectural aspect tends to clearly define the relationship between the vernacular architecture, living standards and legislation. This combining of disciplines is called the economics of architecture.

Economics is not connected with architecture, but with society. Cultural economics is measurable indirectly or, better, it's a quantity that can be estimated. Socialisation and the cultural growth of marginalised people, people at risk (crime, violence, suicides) and the poor (socially endangered) exercise a positive influence on particular social strata and communications with the environment. America's NGA (National Governors Association) has presented the results of research which shows that art education has had an impact on the decrease in criminal offenses, that it has boosted the development of creative thinking and problem-solving, and has improved communication and increased self-confidence. Economic impact is evident from the response of the population, as well as from the relationship between the public service and individuals. Public services are less burdened by registering anomalies and more occupied with prevention in the form of education and consulting. The conclusion is clear: prevention is better than cure. [One-dimensional viewing of problems highlights the fact that prevention is doubly determined and not explicitly proved.] Decisions concerning investments in development and education are always questionable and founded upon past results – in other words, no education provides a 100% guarantee of success, yet it provides more success than no education at all.

Economics of vernacular structures and their management

I did my field work in the area of the Julian Alps, Karavanke/Karawanken and Kamniško-Savinjske Alps. The logic of the builders and economics of architecture become clearly evident at all perception levels through observing, recording and analysing structures. It is most obviously reflected in the present examples.

Example: Korensko sedlo



Figure 1
Scheme of the border-crossing area.
Source of 3d map: GoogleEarth 4.3.7284.3916
(beta), (Aug. 2008) : Digitalised Aerial view.

At the mountain pass between Slovenia and Austria individual structures are found dispersed across a small plain. The area is the visitor's entrance point to a new country. Due to Slovenia's EU membership and the Schengen area, the border post has been closed down. The existing infrastructure does not serve its purpose; the retailing and restaurant facilities are abandoned and consequently decaying. On the Austrian side the story is similar, the difference being that the restaurant is open, while customs and frontier police facilities are closed down.

On the Slovene side there are haylofts and pens. The ground floors of the latter are designed to store tools and carts, whilst the first storey is for fodder. The lower room of the haylofts is a shelter for pasturing animals, usually cattle, but exceptionally also sheep. The area is partly used up as a pasture land, it is already evident that the area is being overgrown and that the basic functions of structures have been abandoned.

The mountain pass area, the Slovene and Austrian part of it, holds potential for the development of a new destination and for the exploitation of natural resources for agricultural needs. A proposal for the revitalisation of the area might take advantage of the following:

- use of the existing built tissue,
- transformation of vernacular structures to serve the tourist offer,
- reconstruction of walking trails in the Karavanke/Karawanken,
- introduction of sustainable agriculture (growing herbs for the needs of the local economy, local dairy products),
- preservation of cattle on pasture and revitalisation of Alpine dairy farms,
- climatic health resort (exchange of aerial masses between Zgornje-savska Valley and Ziljska Valley),
- employment for people who lost work due to EU membership and changes to frontier regimes.

Method of development scenario

Common way to evaluate the spatial potential of area is using prediction scenarios. In example of Korensko sedlo I used typical settlements patterns in nearby locations in the same region. As follows three scenarios were made:

- **Green scenario** * area becomes more and more overgrowing by trees and pasture and transhumans objects are demolished; pasture is rare.
- **Custom-made scenario** * projection of pattern of Kranjska Gora, nearby tourist centre. Typical investors sprawl with no sense of landscape image.
- **Vernacular scenario** * patterns of "Triglav street" Zajamniki and pattern of dispersed transhumans from Velika planina (variation VP). Scenario include landscape image, culture and vernacular architecture, however tailored for nowadays needs.

All scenarios are made in snapshot phases at 15th, 20th and 30th year of development.

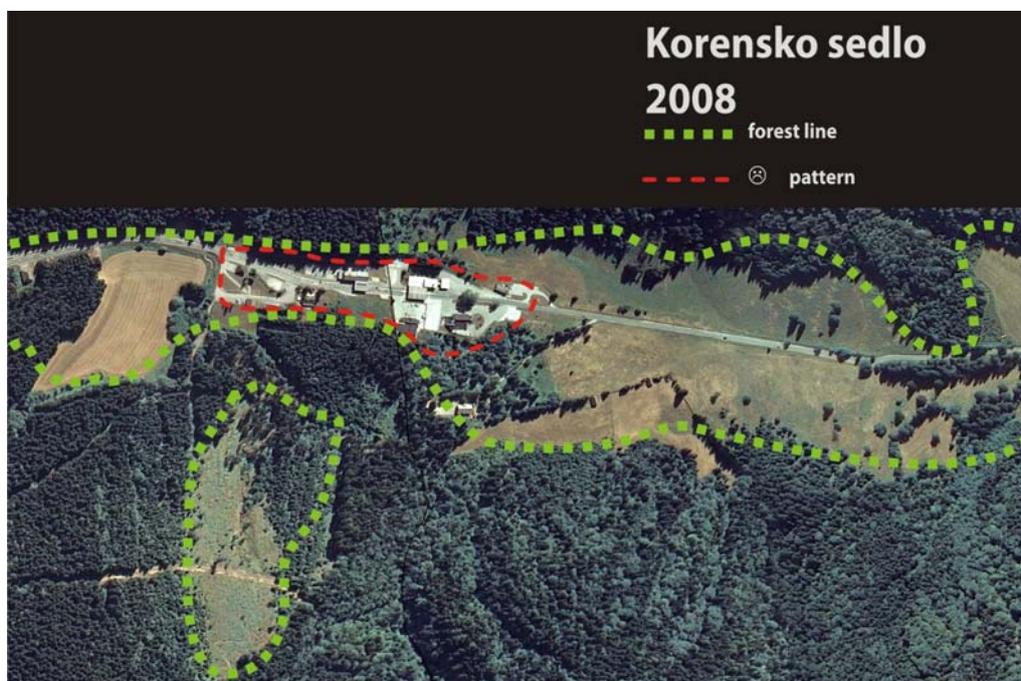


Figure 2
Area in 2008.

Source of map: Public Information of Slovenia, the Surveying and Mapping Authority of the Republic of Slovenia ,(2005 - 2008): Orthogonal Landscape photos. <http://www.geopedia.si/> <aug. 2008>.

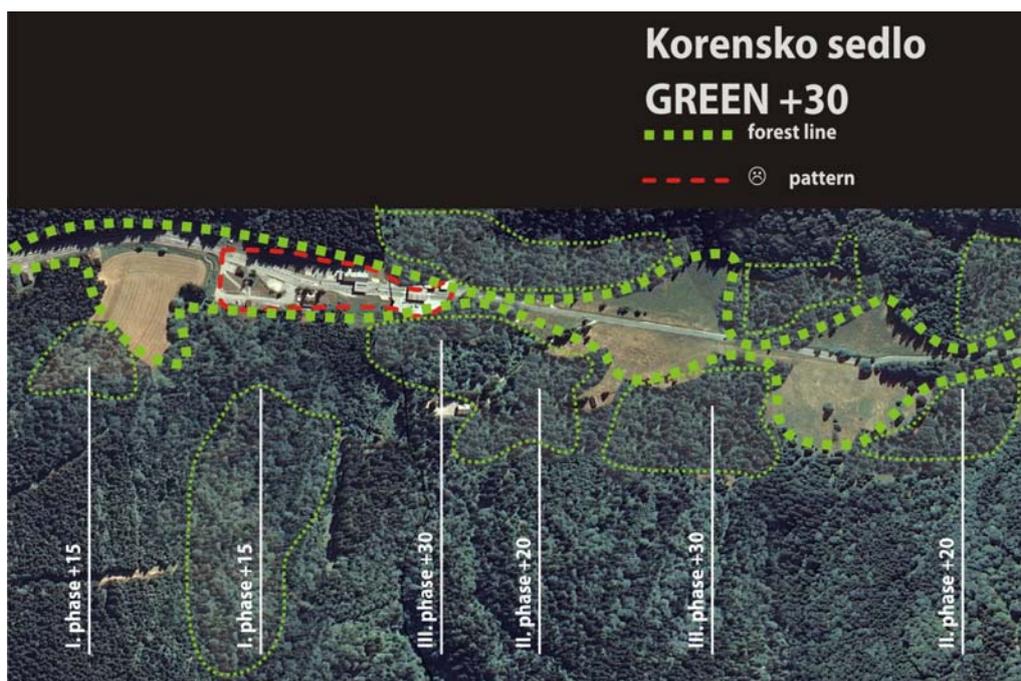


Figure 3
Green scenario - area is being overgrown and that the basic functions of structures have been abandoned.

Source of map: Public Information of Slovenia, the Surveying and Mapping Authority of the Republic of Slovenia ,(2005 - 2008): Orthogonal Landscape photos. <http://www.geopedia.si/> <aug. 2008>.

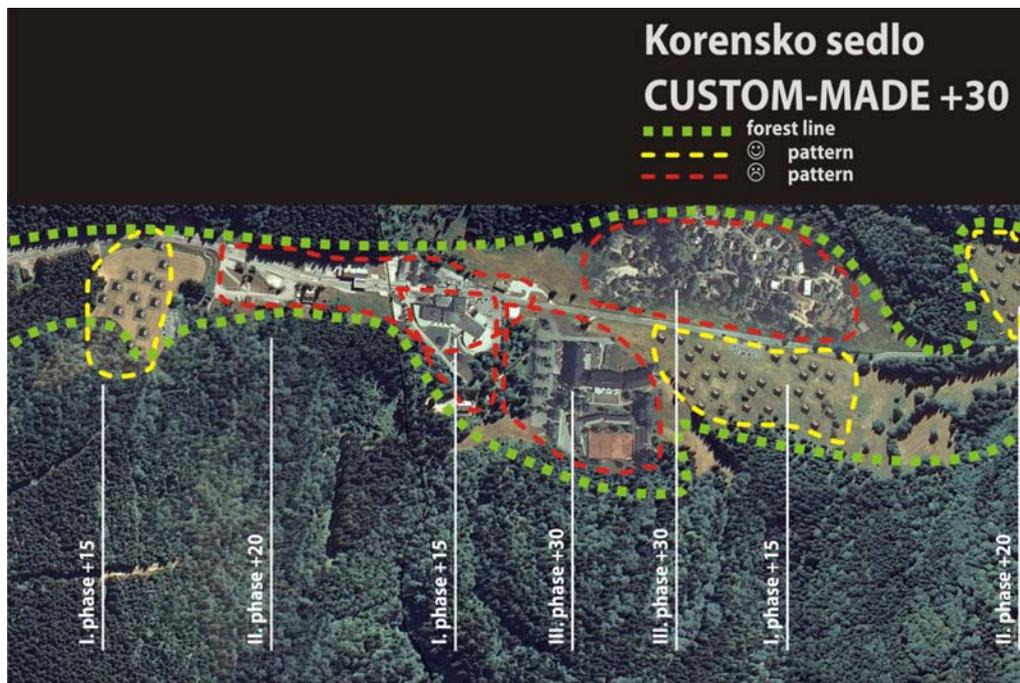


Figure 4

Custom-made scenario - area is being developed by investors without concern of landscape management to maximise profits. Scenario of negative development is taken from local patterns of settlement (Kranjska Gora and Jasna). Image of dense, non-planned sprawl.

Source of map: Public Information of Slovenia, the Surveying and Mapping Authority of the Republic of Slovenia ,(2005 - 2008): Orthogonal Landscape photos. <http://www.geopedia.si/> <aug. 2008>.

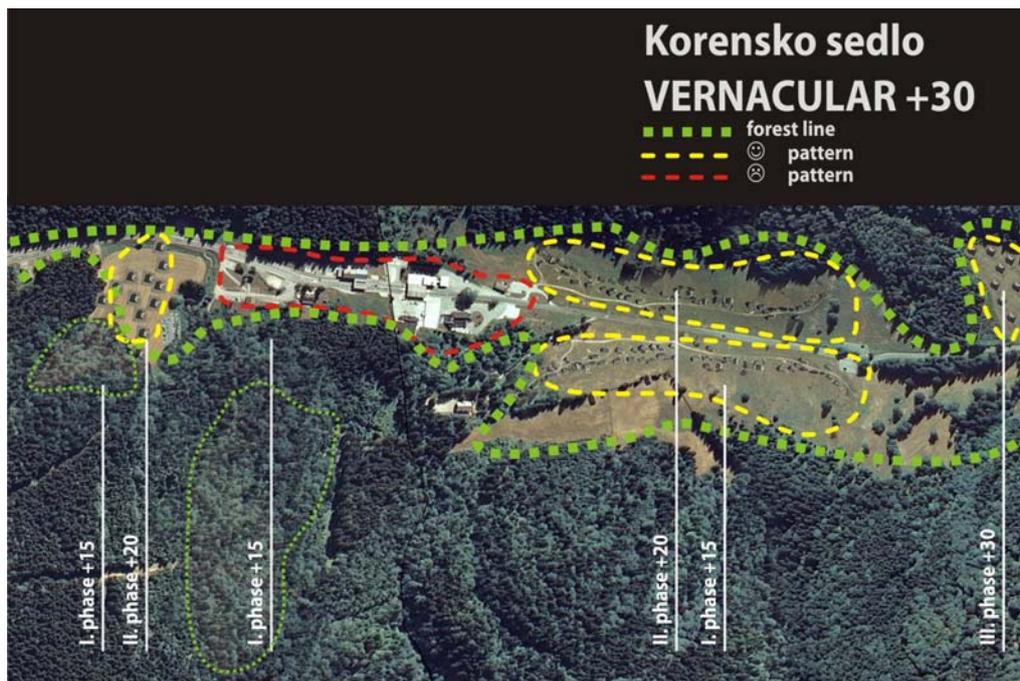


Figure 5

Vernacular scenario – groups of aligned and dispersed settlement patterns. Landscape is part of an image of the whole.

Source of map: Public Information of Slovenia, the Surveying and Mapping Authority of the Republic of Slovenia ,(2005 - 2008): Orthogonal Landscape photos. <http://www.geopedia.si/> <aug. 2008>.

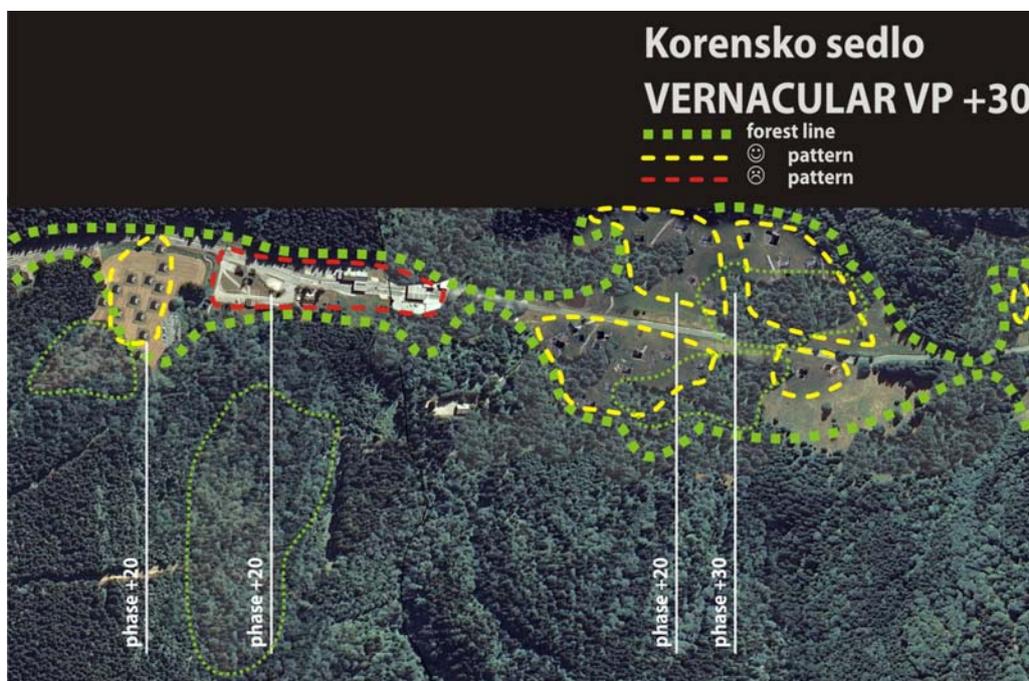


Figure 6

Vernacular VP – groups of aligned and dispersed settlement patterns with possible green areas.

Source of map: Public Information of Slovenia, the Surveying and Mapping Authority of the Republic of Slovenia, (2005 - 2008): Orthogonal Landscape photos. <http://www.geopedia.si/> <aug. 2008>.

The most favourable scenario is vernacular scenario (also VP) - using local materials, included landscape image, area is prevented of devastation and introduces need for human resources. Cultural landscape is protected and serves as development potential (tourism, sports, education, pasture).

Economically speaking, the use of the area for tourism and agricultural activities would stimulate the exploitation of natural resources for the purposes of construction, maintenance and use. Timber would have a major role here serving as building material, material for furniture design and firewood. As well as the practical employment of timber for construction, it should be emphasised that timber is a natural store of CO₂.

The cultural value of timber is greatly increased by the application of the traditional skills of heavy timber construction, even more so if previously FSC standards were heeded i.e. using locally-grown timber, worked in local processing plants using minimum energy. Dove tail wood joints or single bell wood joints are not just modes of construction, they are also elements of esthetics and design. The best decoration is one which also serves a technical purpose – performs a function!

The design of structures is derived from locally known design typologies; fundamentally, these are one or two- cell structures with two storeys. In the Alpine mountains also we find an accessory to the basic body of structures – a coat. The coat is multifunctional:

- enlarges the roofed space for animals on the ground floor – a bad weather shelter,
- provides an additional storage room for the herdsman or user,
- protects the structure's lower margin against weather conditions,
- enlarged roof plane enables the collection of more water from precipitation

Such a design allows for easy modifications of the existing typology to serve new requirements and users. Partial modification is feasible only if there's a solid knowledge of the fundamental design principles of a vernacular structure (origin, culture, practical value) and provided local climatic conditions are taken into account. An example of a succesful genuine transformation is Velika planina. A former mountain of dairy-farms and herdsmen has become an interesting tourist destination.

Estimation of access time

	SLO Podkoren	A Rikarja vas
Walking distance	45 '	1h 30 '
Car	15 '	20 '
Horse	30 '	1 h
Bus (50 persons)	available in summer * 20 '	available in summer * 25 '
Farm tractor	30 '	1 h
Car + trailer	available in summer * 20 '	available in summer * 25 '

Relief configuration and location of the pass are typical of the Karavanke/Karawanken. In the winter period the pass is accessible only with the help of appropriate winter equipment and snow chains. In this period of the year it is unsuitable to big vehicles or mass visits. A suitable organisation of the traffic regime and a well-thought out timing policy of restaurant activity might soften the passages between seasons and make them all economically acceptable. In the winter time the offer is transformed into personally oriented tourism, which means leisure time for private parties, adventurers and other individuals who seek a pristine, „non-industrial“ contact with the environment. In this period of the year it is possible to organise socially useful events – natural disaster rescue courses, civil protection training, timber harvesting and haulage, maintenance of roads and pathways.

The revitalisation proposal enables the exploitation of the area in a manner which does not create new conflict points, but eradicates the negative consequences of “inter-state global” development. Entrance and exit points between Slovenia and Austria thus acquire a new value, and a transition point becomes a place for a temporary break or stay.

Besides its commercial value, the proposal has great cultural value, as it would be an expression of the coexistence of two countries, Slovenia and Austria.

Conclusion

The above examples are in their initial development stages and need to be specified in more detail. They enable the revival of the half-forgotten values of living outside a compact settlement, where all natural resources are respected and carefully managed. The proposals exploit already existing structures, which I believe is an advantage in terms of social acceptability, as the structures can already be seen. More energy and means will have to be invested in the renovation of the “service” infrastructure (e.g. access routes, pathways), satisfying residential standards, ownership, determination of tax burdens, as well as overcoming cultural and linguistic hurdles between the participants.

Revitalisation proposals emphasise encouraging the development of social capital. Support from the environment, enabled by individuals or organised groups, is designated as social capital. In spatial management, the making of plans and execution of particular implementation acts, the cooperation of the local population is of crucial significance. The more they are involved in the processes, the more they are familiar with the issues, and consequently they attempt to improve the outcomes. We should not overlook the connection between human and social capital: human capital ensures a fundamental number of individuals with particular goals and knowledge, whilst social capital means the critical mass needed to make the most of the necessary human capital.

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