

Participative landscape management as an approach to enhance the perception of the Upper German-Raetian Limes



Expert talk with forest officials and archeologists at WT 7/31 (Walldürn)



Background

In the year 2005 the Upper German-Raetian Limes (URL) was inscribed in the UNESCO World Heritage List.

The principal objective of its designation as a cultural heritage site is to anchor its values in the public consciousness. The experts from the International Council on Monuments and Sites (ICOMOS) therefore demand that

- the present condition of the monument be safeguarded,
- it be protected from destruction and ill-considered attempts at reconstruction,
- the values that it represents be conveyed to the highest degree possible
- its visibility be increased (ICOMOS, 2007).

Background

In order to meet these requirements the federal states Rhineland-Palatinate, Hesse, Baden-Wuerttemberg and Bavaria are, as the abutting jurisdictions, responsible for the drafting of development plans.

In these plans particular emphasis has been placed on the monument in the context of the landscape. It was for this reason that the Institute of Landscape Management was awarded the task of developing practicable suggestions for the design and enhancement of the landscape value of the monument.

Objectives

The purpose of our project entitled *“Enhancing the landscape value of the Upper German-Raetian Limes UNESCO World Heritage Site”* is

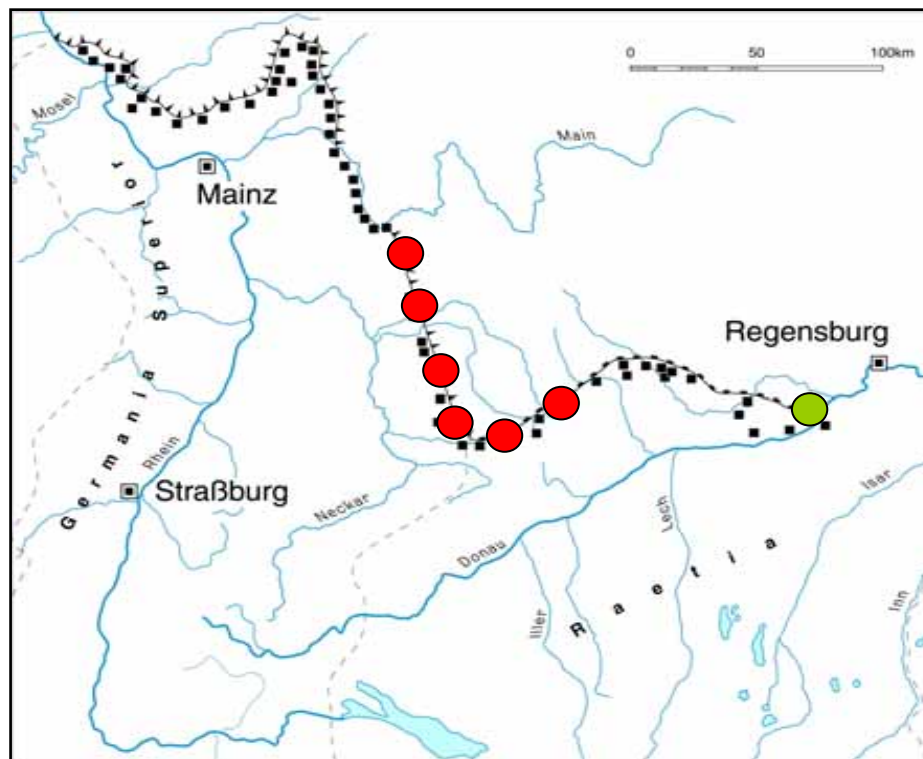
- to increase perception of the limes and its associated military infrastructure by means of appropriate management and design measures,
- to identify synergies between heritage protection, nature conservation, agriculture and forestry based on the example of the proposed design and management measures,
- to draft a guideline ensuring the lasting care of the design elements introduced.

The hub of the management measures are the invisible, barely visible and poorly accessible segments of the limes, as these are the areas in particular need of either enhancement or management.

Timeframe, financial support and research sites

The project started in August of 2006 and will finish in the autumn of 2008. It is supported by the German Limes Commission and the State Heritage Council of Baden-Wuerttemberg.

The research is being carried out on selected Limes segments in the German federal states Baden-Wuerttemberg and Bavaria..



The research sites along the Upper German-Raetian Limes

Methods

The project consists of two phases:

The first year was dedicated to developing ideas. Approaches for the design of the monument were developed on the basis of landscape analyses.

These ideas are now – in the second year – being implemented along sections of the Limes as part of a participative process involving representatives of heritage and nature conservation, forestry, agriculture, land consolidation and the Limes Cicerones.



Students discussing possible design strategies at the Freimühle fort

Methods

Historical geography

- 1) Interpretation of historical sources (e.g., old land register maps, photographs, oral history)
- 2) Inventory of historical landscape elements alongside the Limes

Remote sensing

- 1) Interpretation of aerial photographs
- 2) Landscape analysis using the ArcGis geographical information system software

Sociological studies

- 1) Stakeholder interviews
- 2) Seminars and expert workshops

Landscape design

- 1) Literature studies (e.g., on the topics plant use, land art, landscape management and design)
- 2) Creative thinking and planning

Data

Two, week-long landscape management courses in the years 2006 and 2007 with students of forest sciences and Roman archeology along the Upper German and the Raetian Limes

Two master thesis:

Forest design and heritage conservation along the Upper German-Raetian Limes in Baden-Wuerttemberg (M. Ebrahimzadeh)

Management of the Upper German-Raetian Limes in the open land (V. Brands)

Three stakeholder seminars + seven inspection walks with representatives of forestry, heritage conservation/archeology, limes guides and nature conservation

Numerous internal discussions, literature studies and presentations on the occasion of national (3) and international meetings (2)

General starting points for future management and design

Plants and vegetation as media to enhance visibility

- Keywords: forest management, plantations, grassland and hedgerow development

Organic materials, stones and soil as media to enhance visibility

- Keywords: accumulation of bark mulch, gravel or broken rocks, artificial earthen banks

Reconstruction of the visual connectivity

- Keywords: perceptibility, vantage point interactions, creation of reference points (landmarks)

Opportunities to correlate the Limes symbolism with the landscape

Art as a medium of communication and participation

Incorporation of relicts of historical land use

Management and design of the monument in the forest

Tending measures

- Basic principles applying to forest management (including timber harvesting and weather damages)

Design measures

- Selection of marking trees
- Creation of 'tree gateways'
- Creation of sight and vantage point interactions
- Planting alongside the monument
- Demarcations using organic materials, stone and earthworks
- Incorporation of relicts of historical land use

Management and design of the monument in the forest

Tending measures – basic principles applying to forest management

- Conversion of the forests traversed by the limes to stable, widely spaced continuous cover forests with sparse undergrowth along a 50 m strip on either side of the monument, to occur as part of the regular tending and thinning of the stands
- Most trees within the 5-7 m wide zone occupied by the embankment and the ditch must be carefully removed over the course of thinning operations
- Trees with low branches blocking of the view of the limes (e. g. between the limes hiking trail and the monument) are to be pruned to a height of at least 5 m, where this can be reconciled with silviculture and labour considerations
- No woody plants may be permitted to grow on stone remains

Management and design of the monument in the forest

Tending measures – basic principles applying to forest management

- Trees should be harvested singly and felled away from the monument
- Harvested trees may not be forwarded over the limes and machines may only drive on designated routes
- New extraction trails are only to be established parallel to the monument and at an appropriate remove
- Harvesting residues (tree crowns, branches) are to be deposited to the side of the monument
- Naturally regenerated trees are preferable to planted
- Operations should only take place in the winter months
- The location and the course of the monument, and all design and tending measures, must (and will) be incorporated in the forest management plans

Management and design of the monument in the forest

Design measures – selection of marking trees

- Parallel to the monument, at a remove of at least 5 m and preferably on the 'Roman side', individual well formed trees positioned along an imaginary line can be selected so that over the course of time they may take on a majestic appearance

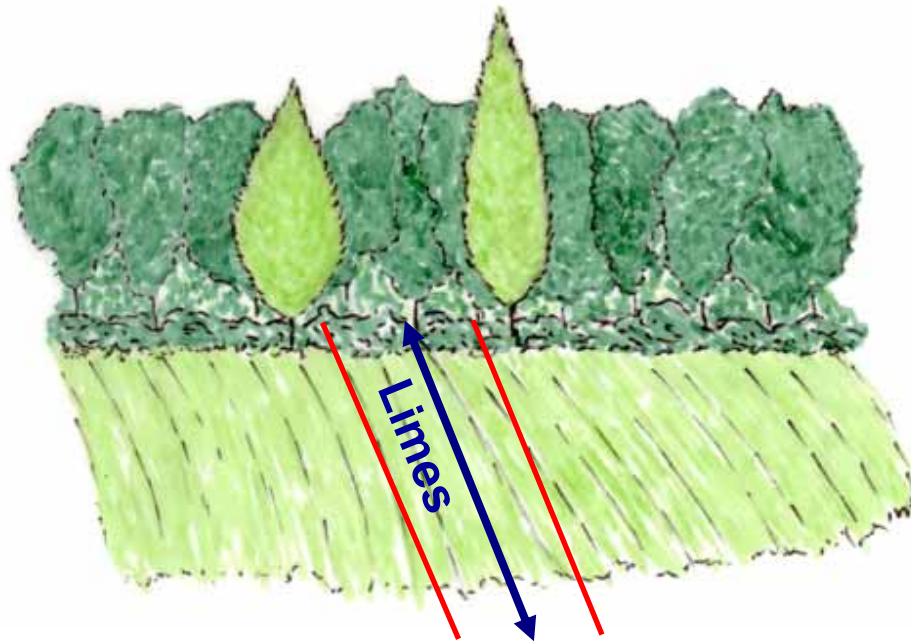


Row of old oak trees in a mature forest near Freiburg (Freiburger Mosswald)

Management and design of the monument in the forest

Design measures – creation of ‘tree gateways’

- Gateways between forest and agricultural land can be achieved by tending (or planting). At a distance of at least 5 m from the monument, the more striking trees near the forest edge are gradually released until they become solitary trees.



‘Oak gate’ beside a reconstructed limes section near Osterburken

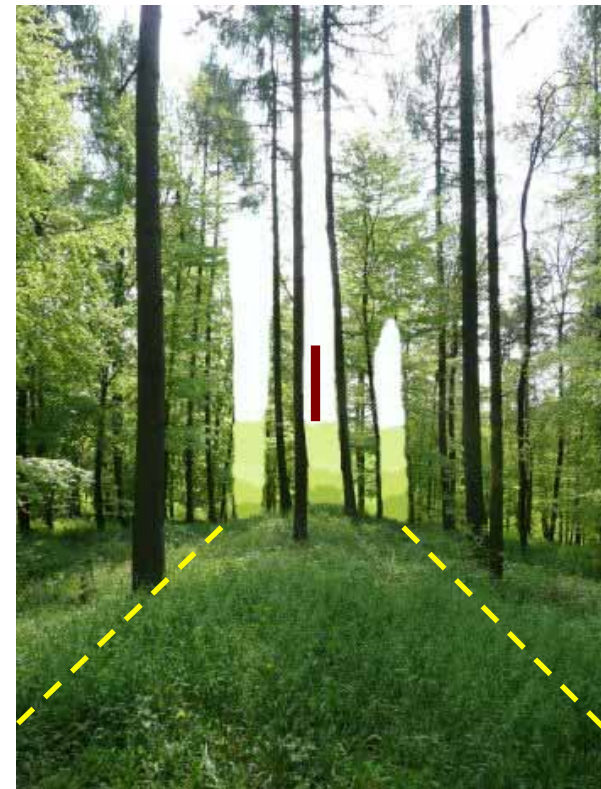
Management and design of the monument in the forest

Design measures – Creation of sight and vantage point interactions

- Sight interactions between the forest and the open landscape can often be achieved by removing individual trees aligned along a particular axis, so that “windows” to the surroundings are created.

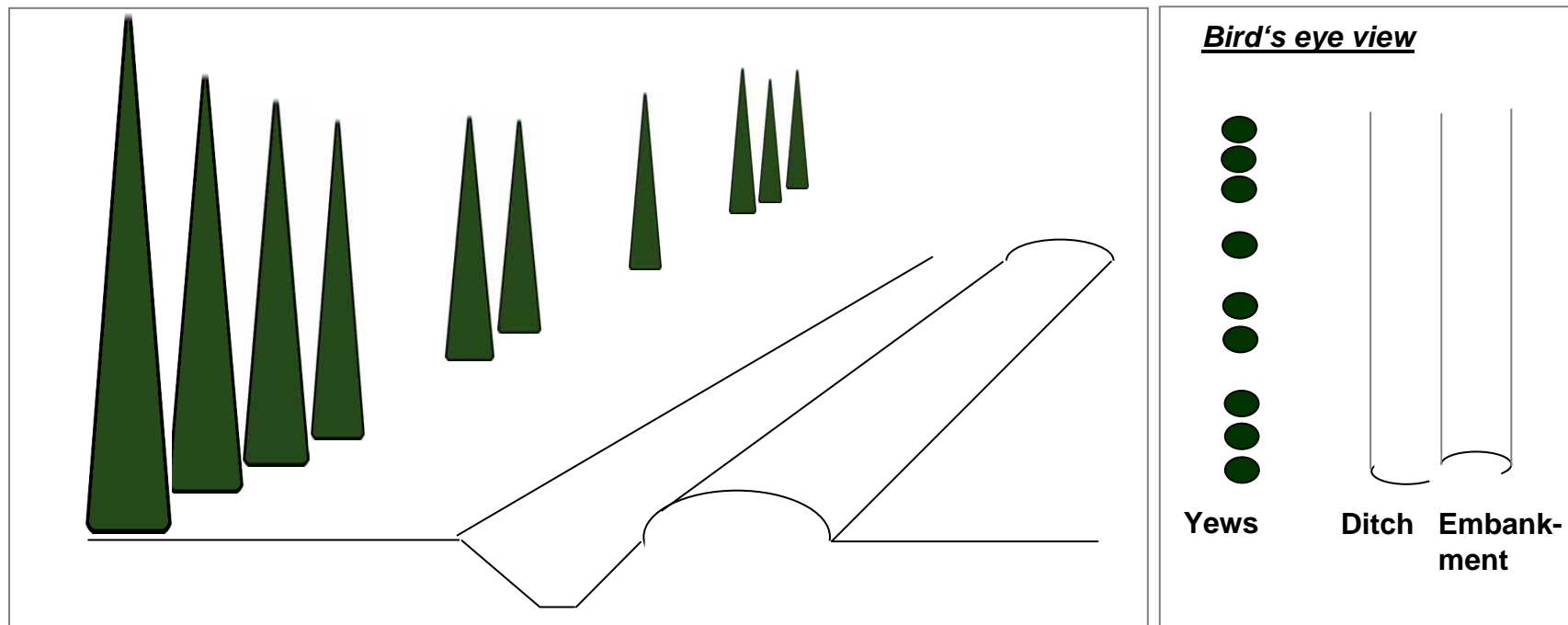


Well preserved and managed limes section to the north of Osterburken



Management and design of the monument in the forest

Design measures – planting alongside the monument

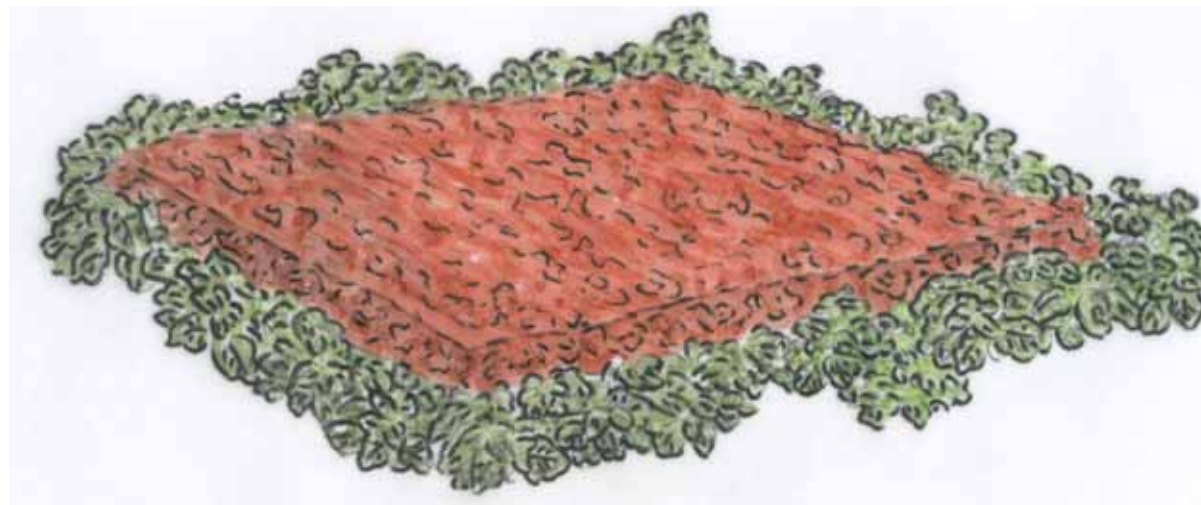


Plantation of yew (spruce, fir or pine) alongside the monument in deciduous forests to imitate the ancient palisade and to achieve contrasts

Management and design of the monument in the forest

Design measures – demarcations using organic materials, stone and earthworks

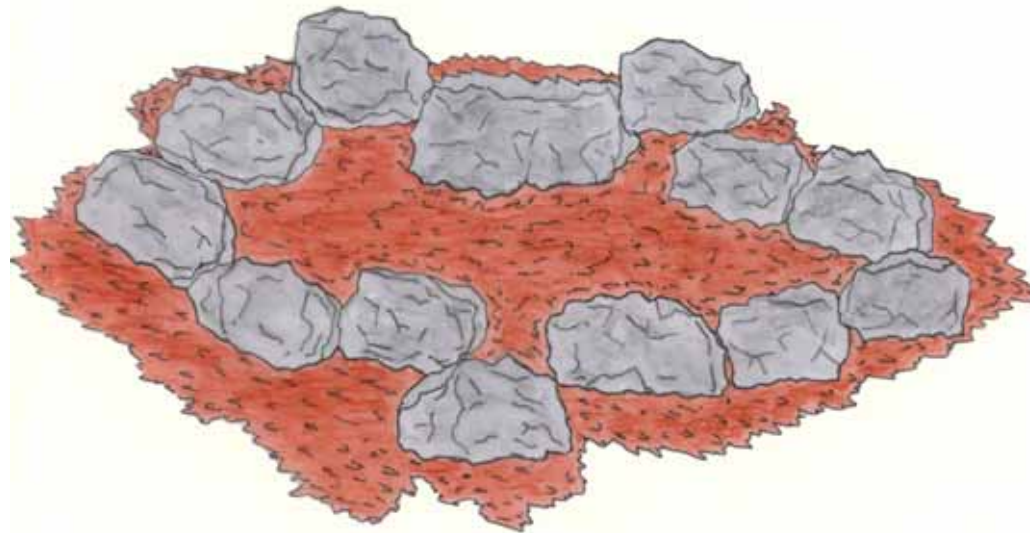
- The special design of watchtower sites (e. g. with bark mulch and herbaceous perennials at its edges or with accumulation of broken rocks and soil)



Management and design of the monument in the forest

Design measures – demarcations using organic materials, stone and earthworks

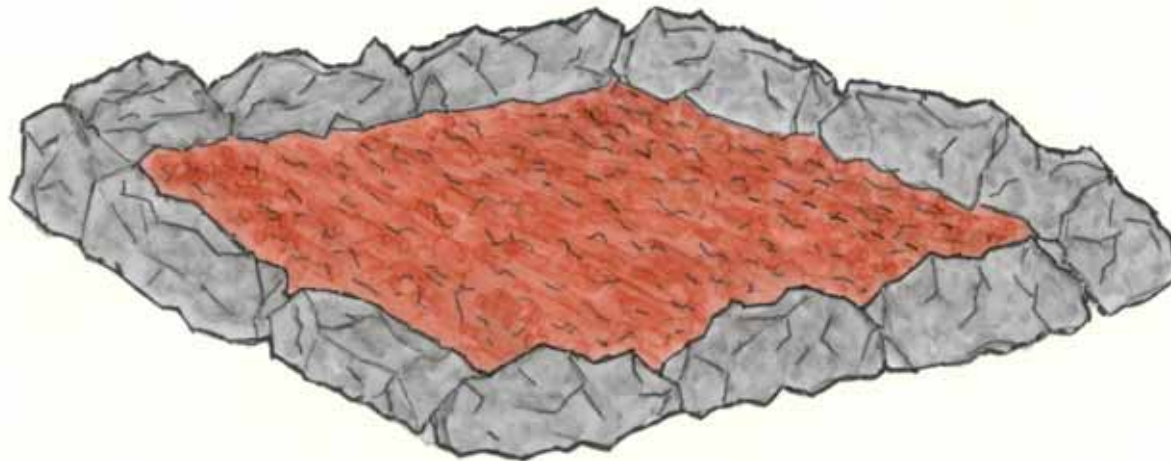
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Management and design of the monument in the forest

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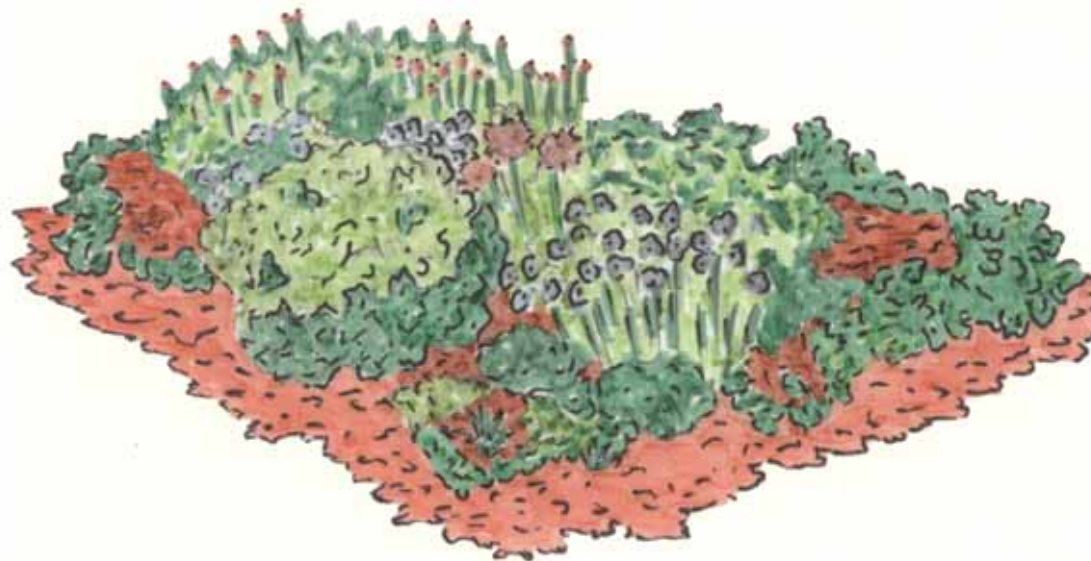
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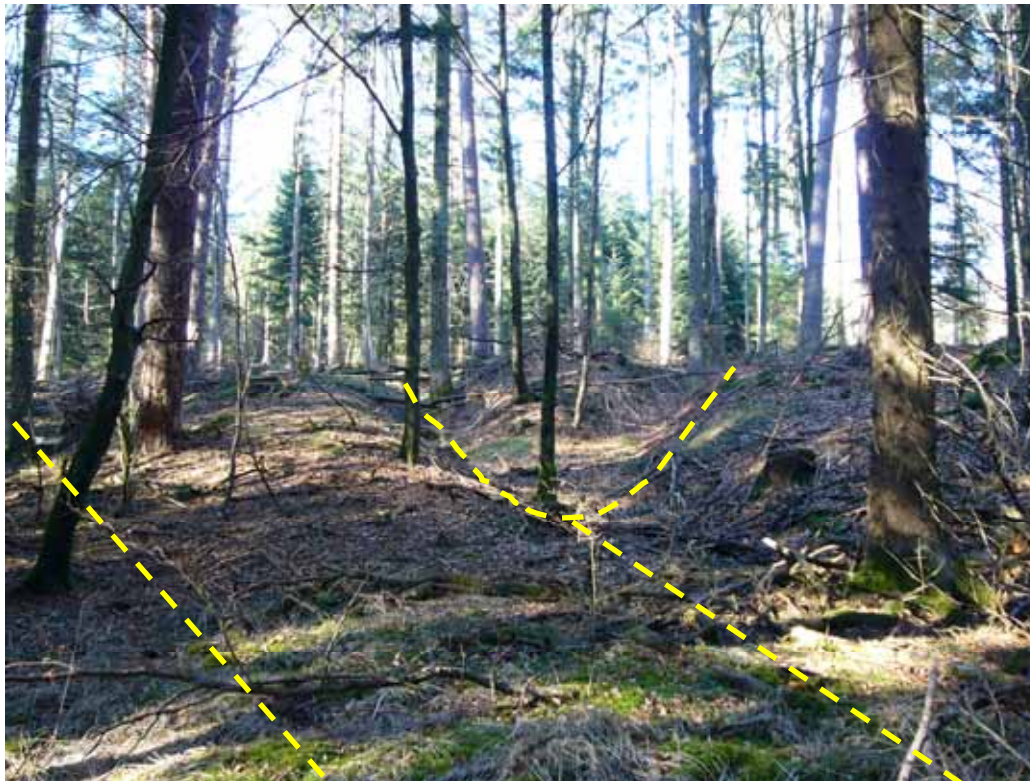


The common periwinkle (*Vinca minor*) is a soil covering dwarf shrub and an old ornamental plant, that often indicates archeological sites in the landscape, e.g. deserted settlements.

Management and design of the monument in the forest

Design measures – incorporation of relicts of historical land use

- Traces of historical land use are documented along the limes and incorporated in the design. This underlines the monument's value as a multifaceted cultural heritage site.



Hollow ways (probably the routes of ancient cattle drifts) between Lorch and Welzheim

Management and design of the monument in the open land

Collaboration with farmers and their official representatives is important. The consultations will start on June, 11th.

Parallel to the seminars with forest representatives, the main questions will focus on the farmer's willingness to contribute to the conservation of the Limes.

All tending and design measures in the open land can be promoted by the help of specific funding instruments (e. g. landscape management directives) and/or land acquisition by state authorities.

Management and design of the monument in the open land

Plants as a medium to enhance the visibility

- Linear plantations (avenues, tree rows, hedgerows, flowerbeds) alongside the monument.
- Discrete planting of trees at ancient watchtower sites or at points where the monument intersects with roads.
- Sowing of lawns, development of meadows contrasting with the current grass cover (different colours, different species), long term establishment of 'infertile' meadows.

Stones and soil as media to enhance the visibility

- Building of 'clearance rows' consisting of the different stone material used during the construction of the Raetian wall to visualise its ancient course (parallel to the monument).
- Accumulation of gravel and broken rocks over the soil covered residues of walls and buildings (e.g., watchtower foundations).

Management and design of the monument in the open land

Plants as a medium to enhance visibility–

„The Roman Arboretum“

- The limes was a meeting place for a variety of peoples and tribes. It exudes multiculturalism. It seems fitting, therefore, to bring together trees from various parts of the Roman Empire at one location.



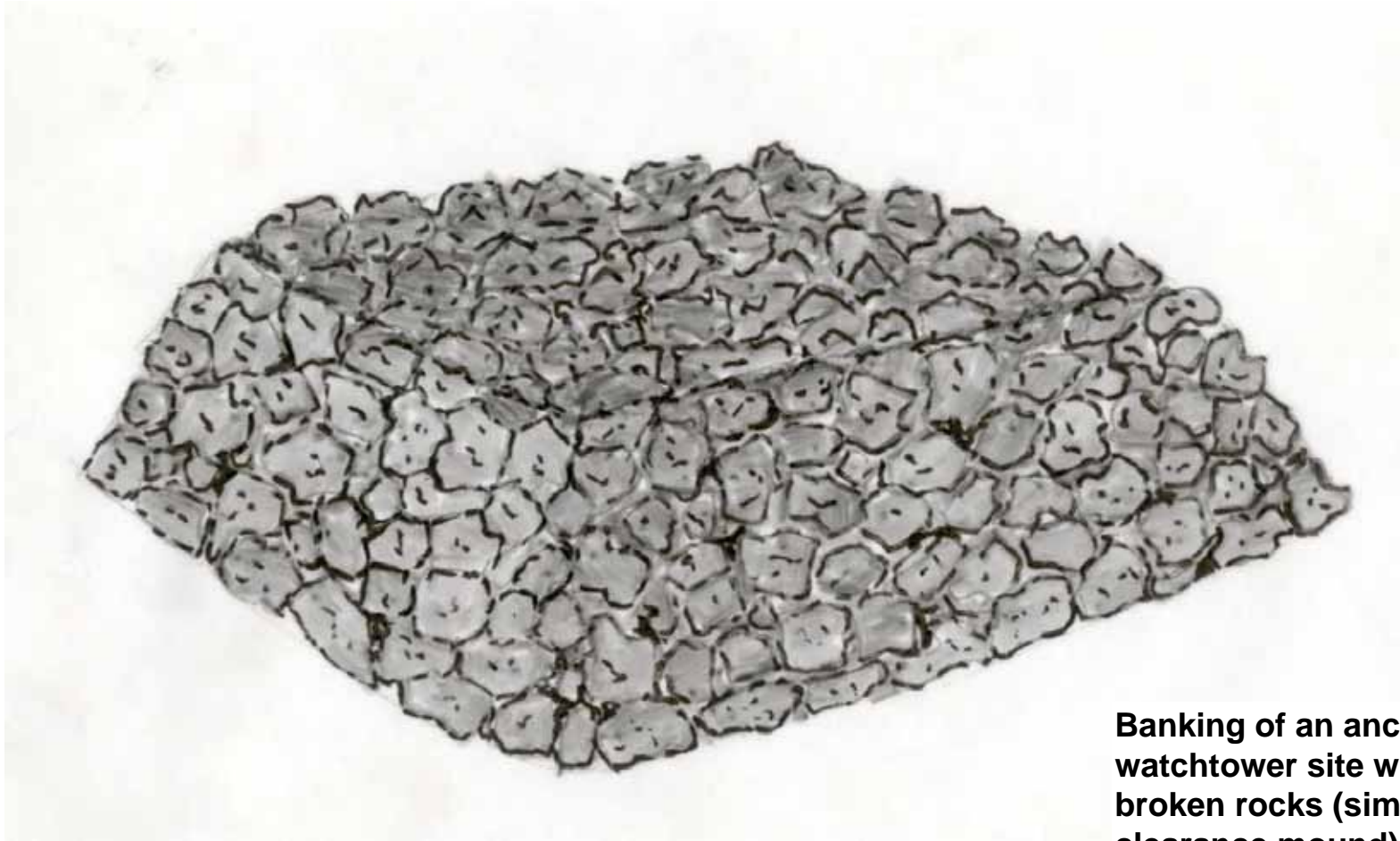
Parkforest around the Barrhill-Fort near Kirkintilloch in south-west Scotland



The botanical garden in the ruins of Pompeii

Management and design of the monument in the open land

Soils and stones a media to enhance visibility

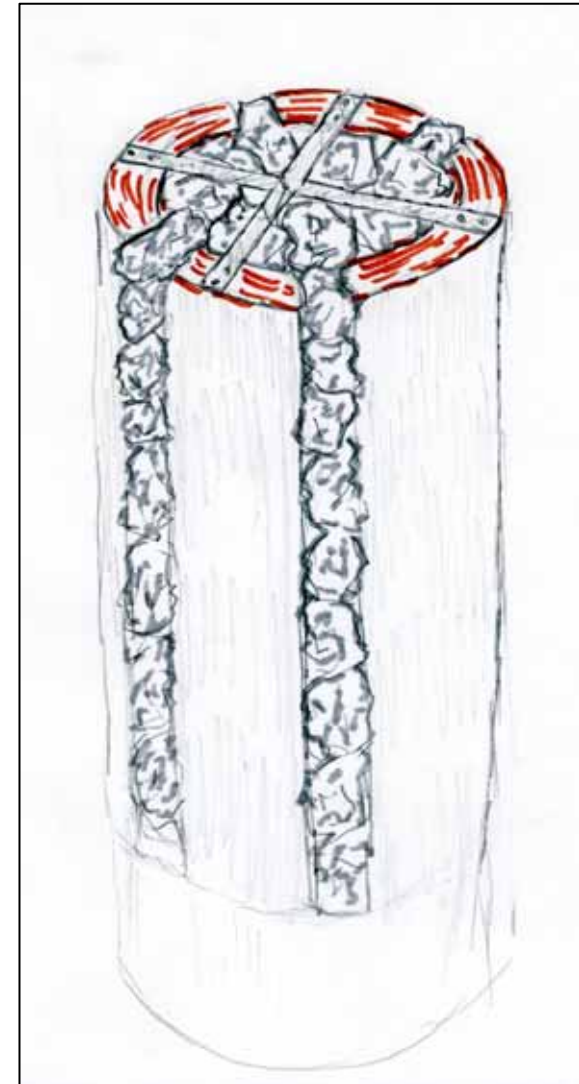
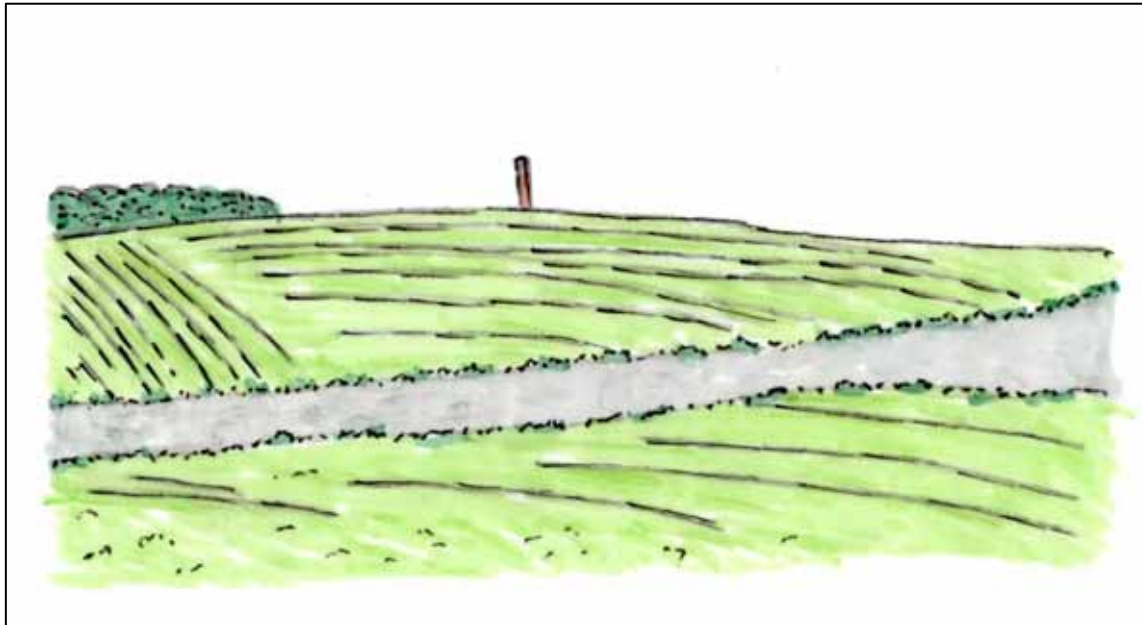


Banking of an ancient watchtower site with broken rocks (similar to a clearance mound)

Management and design of the monument in the open land

Art as a medium of communication and participation

- Land marks (Example 'Schwedenfackel')



Oak trunk excavated at its top to a depth of 1m and filled with stones, e.g., as used for the construction of the Hadrian's Wall

THANK YOU FOR YOUR ATTENTION



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