

Results of forest-preference surveys in Switzerland

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Introduction

In Switzerland, studies regarding visual preferences towards forest have been conducted since many years. Thereby, principally three types can be distinguished: (1) Studies considering forest-internal views focusing on preferences regarding forest characteristics such as structure, share of deadwood etc. (2) Studies about the perception and assessment of (spontaneous) reforestation of abandoned agricultural lands, where the focus primarily lied on the view from outside onto the (growing) forest and thus on the amount and distribution of forest. (3) If reforestation takes place the views from respective places to the surroundings become more and more reduced. This can have differing effects due to the visual quality of the surroundings.

In the following (and the corresponding presentation) a short overview of the well-known first two types of studies will be provided, whereas the focus will lie on the third type.

Preferences regarding forest characteristics (view from inside)

In Switzerland, several studies have been conducted regarding forest-characteristics preferences. The most recent one was part of the so-called "socio-cultural forest monitoring" (WaMos) (Hunziker et al. 2012). It investigated not only the expectations from the forest experience but also the respective assessment of the mostly visited forests. The study found that the people usually prefer the forests to be diverse, legible, coherent and mysterious. They differentiated more concrete forest attributes such as the existence of dead wood, species distribution, infrastructure elements and so on. E.g., dead wood was highly preferred by many people and at the same time highly rejected by many others, resulting in a medium preference value with a high variance for this forest element. Mostly, however, the expectations and perceived actual state matches well which explains the high satisfaction with forest visits in Switzerland.

Preferences regarding reforestation (view from outside)

Spontaneous reforestation of abandoned agricultural land represents one of the main issues of landscape-preference studies since decades (Nohl 1976; Hunziker 1995). They all found similarly that – from the point of view of landscape preferences – spontaneous reforestation is welcome up to a certain degree, whereas complete reforestation, i.e., when agricultural land with open views turn to a closed forest, represent a landscape aesthetical loss. However, a more recent study (Hunziker et al. 2008) questions this bell-shaped preference curve, as the Swiss people, i.e., the majority who lives in the peri-urban lowlands – also appreciated even completely reforested areas – at least if perceived from outside.

Preferences regarding view-reduction caused by reforestation (inside-out view)

To investigate to what extent spontaneous reforestation affects the view on the surroundings a study in the Swiss Alps, where this view has a high value for tourism, was conducted. First of all, the possible reforestation in the Swiss Alps until 2021 was included into a view-shed analysis in order to quantify the reduction of the view from hiking paths between 2011 and 2021 due to reforestation (Schüpbach et al. 2012). To evaluate the effect of the view reduction from hiking paths on landscape preference, participants in a survey were asked to rate manipulated photographs of different landscape scenarios by attractiveness (Junge und Hunziker 2013). Starting from an open view on a valley, on a traditional and on a modern village in a valley respectively, in each scenario the view is gradually reduced (33%, 66% and 99%) by forest re-growth. Moreover, participants were asked to state their opinion on different aspects of alpine farming.

The view-shed analysis revealed in most cases a reduction of 10-30% of the original view in 2011. It furthermore showed, that a reduction of the view of more than 30% is often caused by reforestation close to the hiking path.

The preference ratings of the landscape scenarios show that a reduction of the originally open view by 33% and by 66% due to reforestation is preferred to the original open view. A total reduction of the view is less preferred than the status quo, however, it is preferred to the open view on a settlement area independent of its quality (Fig. 1).

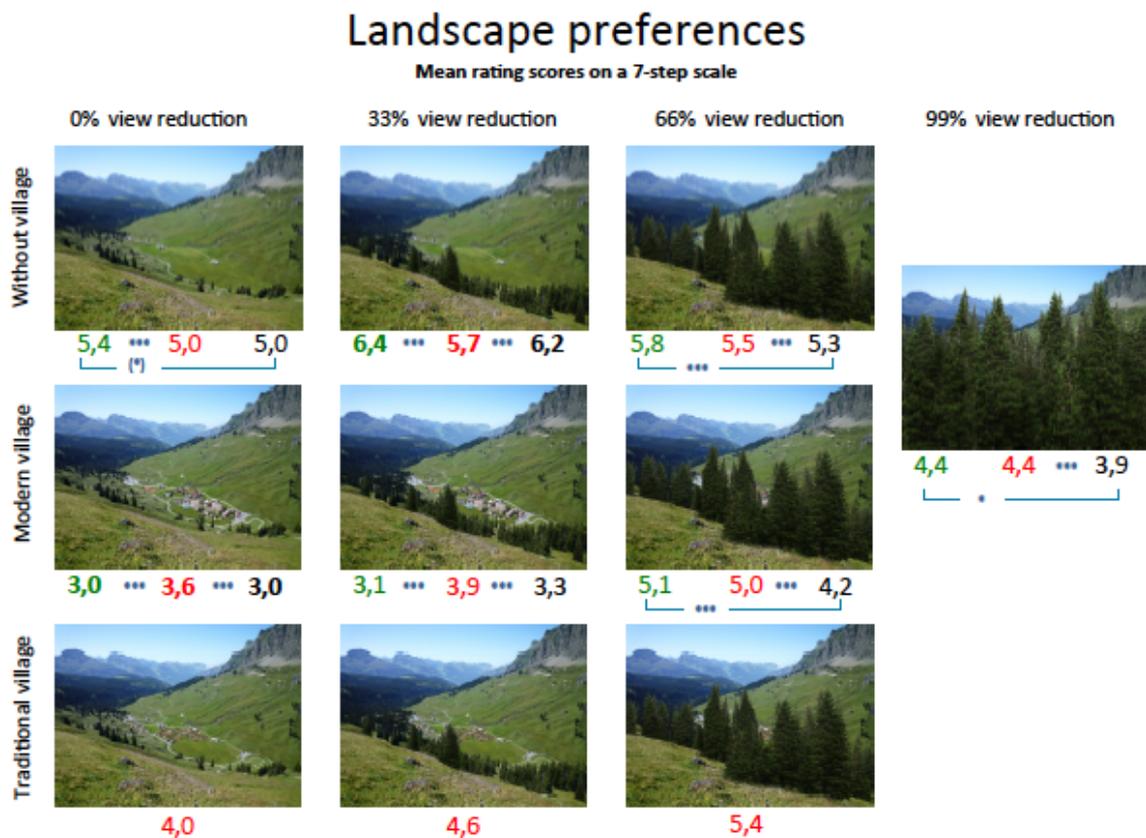


Figure 1: Landscape preferences for landscape scenarios of an alpine valley with a gradual reduction of the open view (33%, 66% and 99%) combined with the variation of a view on a

"traditional village", a modern village" or "no village". Mean preferences scores on a 7-step rating scale from "totally dislike it" to "totally like it" from tourists (green), the Swiss public (red) and mountain residents (black) are shown. Group differences are shown in blue.((*) $p < 0,10$, * $p < 0,05$, ** $p < 0,01$, *** $p < 0,001$). Bold: Highest and lowest mean rating scores.

To conclude, the modelling and the survey results show that in most cases spontaneous reforestation will not seriously affect the assessments of the views from hiking paths in the Swiss Alps. The changes seem to be acceptable for the public and a partly reforestation is even valued positively by the Swiss public. Furthermore, we can assume that even a complete reduction of the view from hiking paths on settlement areas or roads are valued positively. Thus, measures against a total loss of view can be concentrated on those areas where open views on landscapes without signs of settlement areas or modern infrastructure would be hidden by reforestation.

Further research is needed to enable estimating the effect of view reduction if the fact is considered that the observers are usually moving on hiking trails. This might increase the acceptance of reforestation-induced view reductions at single spots, as it was investigated in this study.

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