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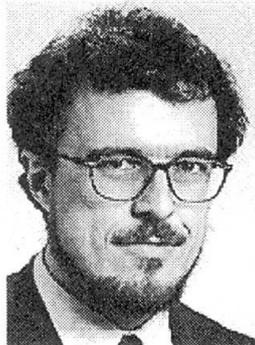
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Preservation Strategy of the Shortest Highway Crossing of the Alps

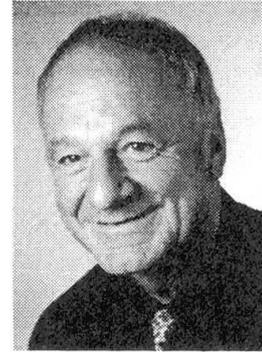
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Thomas Vogel, born 1955, graduated from the ETH Zurich in 1980. He gained 11 years of experience in bridge and structural design in consulting firms in Chur and Zurich. In 1992 he joined the ETH as a professor of Structural Engineering.



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Summary

Preservation programme and rehabilitation measures for the highway forming the Northern access to the St. Gotthard pass and tunnel are described. After a short historical background the preservation programme is explained with emphasis on systematics concerning grouping of the network, guidance of traffic, planning and execution phases and categories of intervention. Financing and organisation as well as the actual state are briefly mentioned. Finally, some groups of structures like bridges, galleries and retaining walls are mentioned, highlighting problems and solutions common to these groups and some special measures taken or in progress.

Keywords: avalanches, bridges, chlorides, columns, desalination, edge beams, galleries, natural hazards, rehabilitation, retaining walls.

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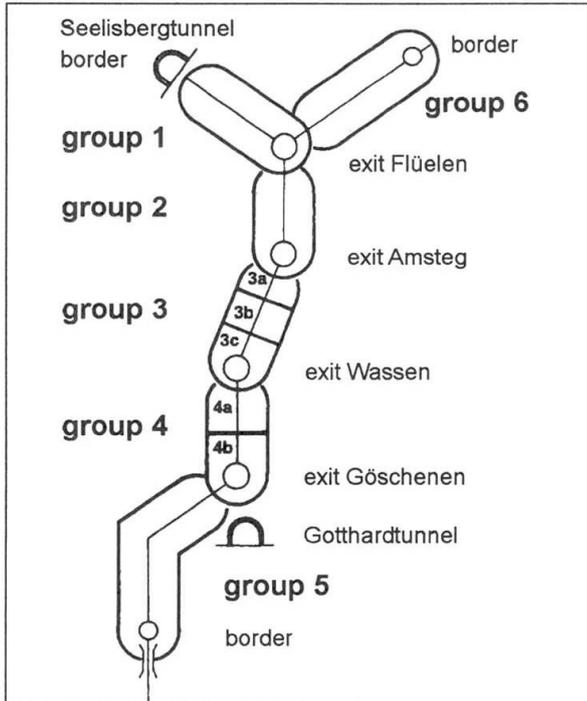


Fig. 1 Grouped net of federal highways of the Canton Uri

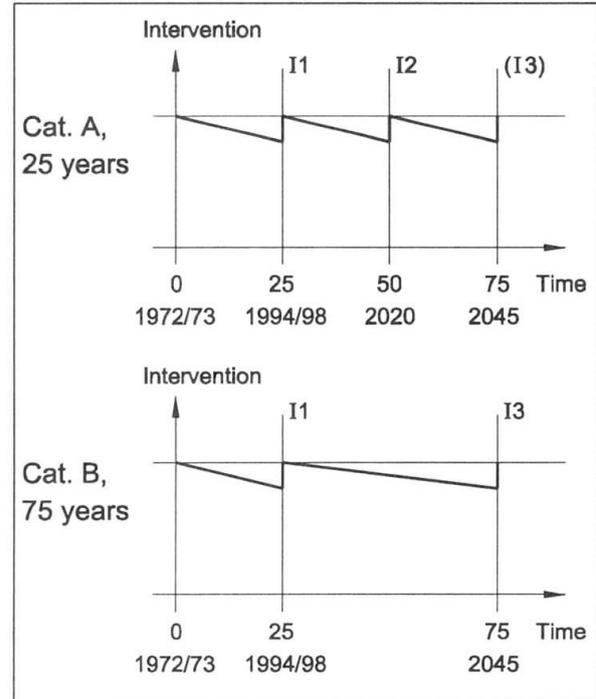


Fig. 7 Categories of interventions

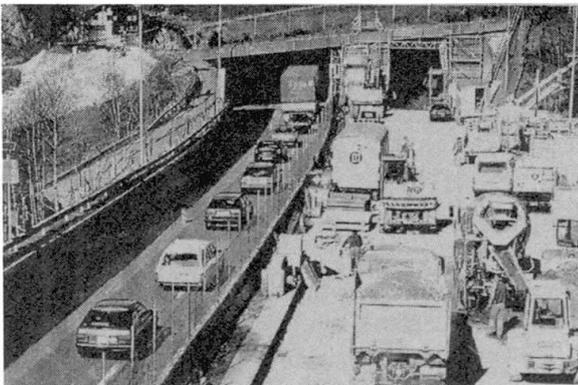


Fig. 5 Highly congested construction site

5.2 References

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5. Conclusions

On important roadways with no possibility for detours, preservation programmes and consecutive rehabilitation activities are governed by the needs of traffic. All activities on site have to be planned carefully in order to be able to reduce restrictions and interruptions to a minimum. Rehabilitation measures need a clear goal expressed as the duration of a trouble-free period.