

Zeitschrift: Geographica Helvetica : schweizerische Zeitschrift für Geographie = Swiss journal of geography = revue suisse de géographie = rivista svizzera di geografia

Herausgeber: Verband Geographie Schweiz ; Geographisch-Ethnographische Gesellschaft Zürich

Band: 42 (1987)

Heft: 1

Artikel: Zur Talgeschichte zwischen Domodossola und Locarno : Valle d'Ossola, Val Vigezzo (Prov. di Novara) - Centovalli (Kt. Tessin) : 1. Teil

Autor: Hantke, René

Kurzfassung: Valley history between Domodossola and Locarno : Valle d'Ossola, Val Vigezzo and Centovalli (Prov. di Novara and Ct. Ticino)

DOI: <https://doi.org/10.5169/seals-872672>

Nutzungsbedingungen

Die ETH-Bibliothek ist die Anbieterin der digitalisierten Zeitschriften auf E-Periodica. Sie besitzt keine Urheberrechte an den Zeitschriften und ist nicht verantwortlich für deren Inhalte. Die Rechte liegen in der Regel bei den Herausgebern beziehungsweise den externen Rechteinhabern. Das Veröffentlichen von Bildern in Print- und Online-Publikationen sowie auf Social Media-Kanälen oder Webseiten ist nur mit vorheriger Genehmigung der Rechteinhaber erlaubt. [Mehr erfahren](#)

Conditions d'utilisation

L'ETH Library est le fournisseur des revues numérisées. Elle ne détient aucun droit d'auteur sur les revues et n'est pas responsable de leur contenu. En règle générale, les droits sont détenus par les éditeurs ou les détenteurs de droits externes. La reproduction d'images dans des publications imprimées ou en ligne ainsi que sur des canaux de médias sociaux ou des sites web n'est autorisée qu'avec l'accord préalable des détenteurs des droits. [En savoir plus](#)

Terms of use

The ETH Library is the provider of the digitised journals. It does not own any copyrights to the journals and is not responsible for their content. The rights usually lie with the publishers or the external rights holders. Publishing images in print and online publications, as well as on social media channels or websites, is only permitted with the prior consent of the rights holders. [Find out more](#)

Download PDF: 03.05.2026

ETH-Bibliothek Zürich, E-Periodica, <https://www.e-periodica.ch>

Summary

Valley history between Domodossola and Locarno: Valle d'Ossola, Val Vigezzo and Centovalli (Prov. di Novara and Ct. Ticino)

In the Miocene, the drainage of the upper Toce river with the Antrona, Ogliastra di Pozzolo and Vigezzo valleys as southernmost source branches, took place northwards to the Gries and Grimsel passes. As a Miocene Aar river, the upper Toce deposited in the Swiss Lowland – as gravels testify – the Molasse fan of the Napf mountain area. The continental divide was located between Monte Rosa and Gotthard farther south, in the Ossola valley between Domodossola and the Anza river mouth, in the Vigezzo tributaries near Malesco.

In the younger Miocene the forming of the Helvetic nappes at the Pennine front, their advance and sliding northwards with uplifting of the Aar massif interrupted this river course: the drainage was reversed. At the former divide S of Domodossola a lake was dammed. Along joints its outlet, cut the rock bar. From the rising Monte Rosa it took up the Anza river and followed its lower course.

During cool phases, first at the Miocene/Pliocene boundary, the Toce glacier entered the Vigezzo valley. From Locarno Ticino ice entered the lowermost Maggia valley and directed Maggia and Onsernone ice into the Centovalli. Therefore the Vigezzo ice was pushed to the southern slope. It could only reach the Ticino glacier as a small ice flow with reduced erosion power.

Beside Würmian moraines and erratic boulders, the maximum extension of the north-alpine glaciers gives indications of older maximum stages also in the south-alpine areas. Uppermost carved rocks and transfluences in the Vigezzo valley show the highest ice level at 1900 m in Rissian, Mindelian or even older glacial times, at 1700 m in Würmian.

From Malesco Vigezzo ice flowed over the Finero pass to the SE and reached the Ticino glacier. From the Lago Maggiore basin Ticino ice entered the lowermost Cannobina valley, dammed the overflowed Vigezzo ice and caused the formation of roches moutonnées.

Rissian till, cemented debris flows, interglacial lake deposits with a thermophilous flora, overlying Würmian gravel and till represent the Pleistocene sequence in the Vigezzo valley filling. The youngest deepening of the Melezze river ends in Rissian till. Still in the early late-Würmian, Toce ice entered the Vigezzo valley as far as Malesco and took up the Melezze and Loana glaciers. From the Gridone mountain hanging glacier tongues descended into the Centovalli; Onsernone, Maggia and Ticino glaciers had become independent.

Für die Durchsicht des Summary danke ich Herrn Dr. J.-P. Beckmann recht herzlich.

Eine Literaturübersicht wird im 2. Teil, voraussichtlich in Nr. 4/87 erscheinen.