

An aerial photograph of a dense forest with a winding path. The path is a dark, narrow line that meanders through the green and brown foliage. The trees are densely packed, and the overall scene is a rich, textured landscape. The word "TRACES" is overlaid in large, white, sans-serif capital letters in the center of the image.

# TRACES

**VERA AREDAL RUNDBOM**

Master Thesis FS22  
VOLUPTAS Chair Charbonnet / Heiz / ETHZ  
Chair for the Theory of Architecture Prof. Laurent Stalder / ETHZ

I  
PROLOGUE



JAMES PATTISON COCKBURN, VIEW BETWEEN SION AND BRIEG (1820)  
UNKNOWN, ZIGNAU (1987)

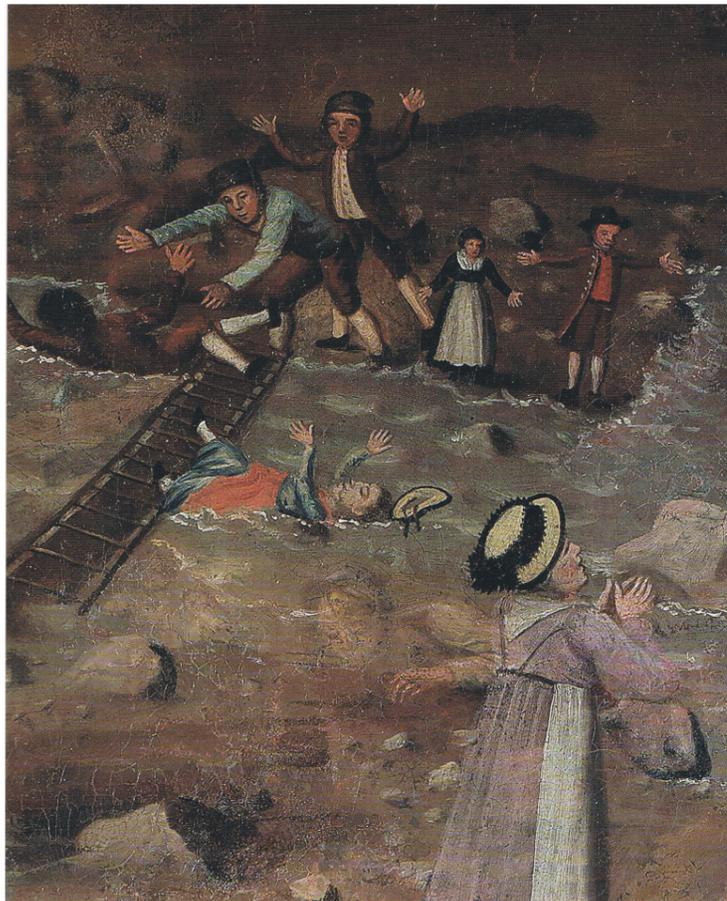
A river flow carries a tractive force. The flow creates the riverbed. The force moves sediments with erosions, transport and deposition - and like this the river changes its course. The path of the river is the trace of its force. This intrinsic energy of the river Rhône subdued humans to its deceitful course and since settlement along the river began, measures had to be taken to protect oneself from this power.



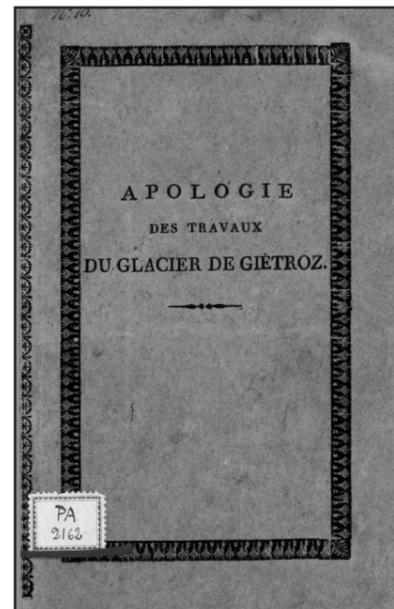
EX-VOTO FROM THE CHAPEL OF SAINT ANNE AT AUF DER FUREN, LÖTSCHENTAL (1856)  
R.SCHMID, PROCESSION TO ASK FOR AN END TO THE TREMORS OF AN EARTHQUAKE (1946)

How societies related to natural catastrophe and how they shielded themselves from their dangers differed. In alpine cultures, nature was subjected to the will of God in the same way as humans. A catastrophe was understood as a warning or punishment from the almighty. So securing Gods favors was essential to prevent disaster, but this does not exclude other actions to protect oneself from danger.

'I come from an ancient noble family. I leave it to the antiquaries of Valais, if they ever exist, to research the number of Grand Bailiffs, Grand and Petit Bannerets, etc., that our family has produced for several centuries. So I am the descendant of a Grand Bailiff. However, when I was born, my father was a carpenter, a cabinetmaker, miller, baker: a poor devil whom misery pursued to death'



FELIX CORTEY, EX-VOTO OF THE DEBACLE AT GIÉTROZ GALZIER (1818)  
IGNAZ VENETZ, APOLOGY OF THE WORK OF THE GIÉTROZ GLACIER (1825)

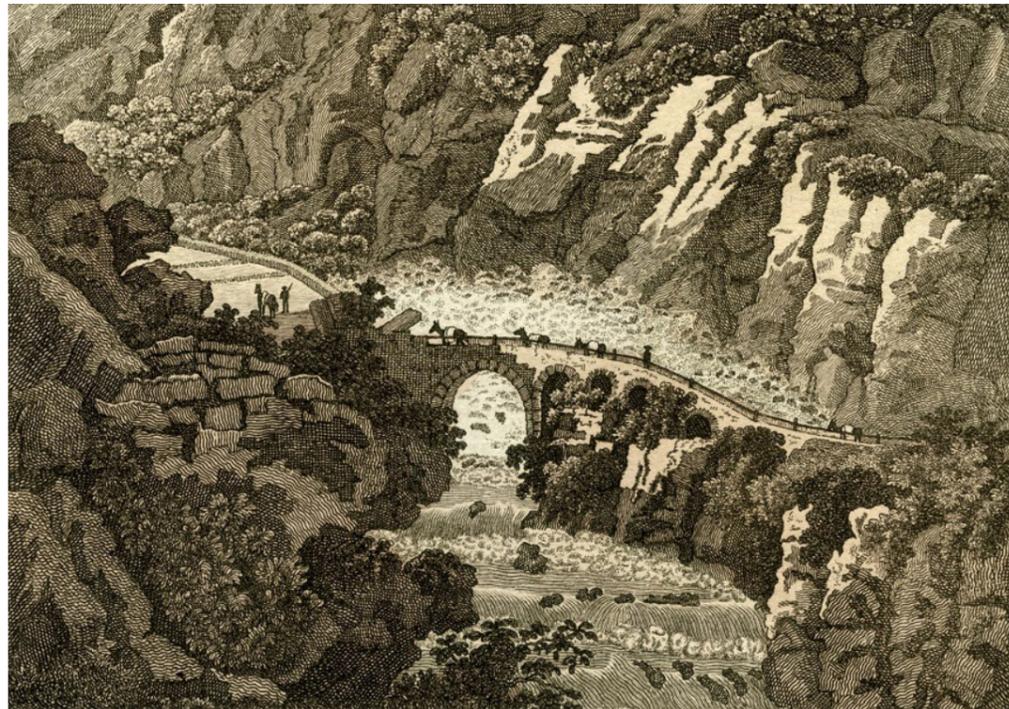


NICOLAS CÉARD, PLAN TO CONTROL THE BAYE DE CLARENS (1793)  
K. ZIMMERMAN, STUDENTS ADMIRING THE "DENKSTEIN" OF VENETZ (1948)

In 1816 Valais is incorporated into the Swiss confederation. The young canton of Valais immediately created a post of cantonal engineer. The post was attached to the Department of Bridges and Roads. Without any formal education a man by the name of Ignaz Venetz is hired to fill this post. Venetz was borne into simple conditions but nurtured a will to re-establish his family name. His father showed his intelligence by sending him to college in Brieg. During his career several debacles unfold. The first as early as 1818, with the disaster at Giétroz. Venetz was passionate about glaciers and had new and provocative ideas on how to solve the crisis of a lake forming in the glacier. This later became a catastrophe that caused several people their lives and the obstruction of houses, bridges and roads.

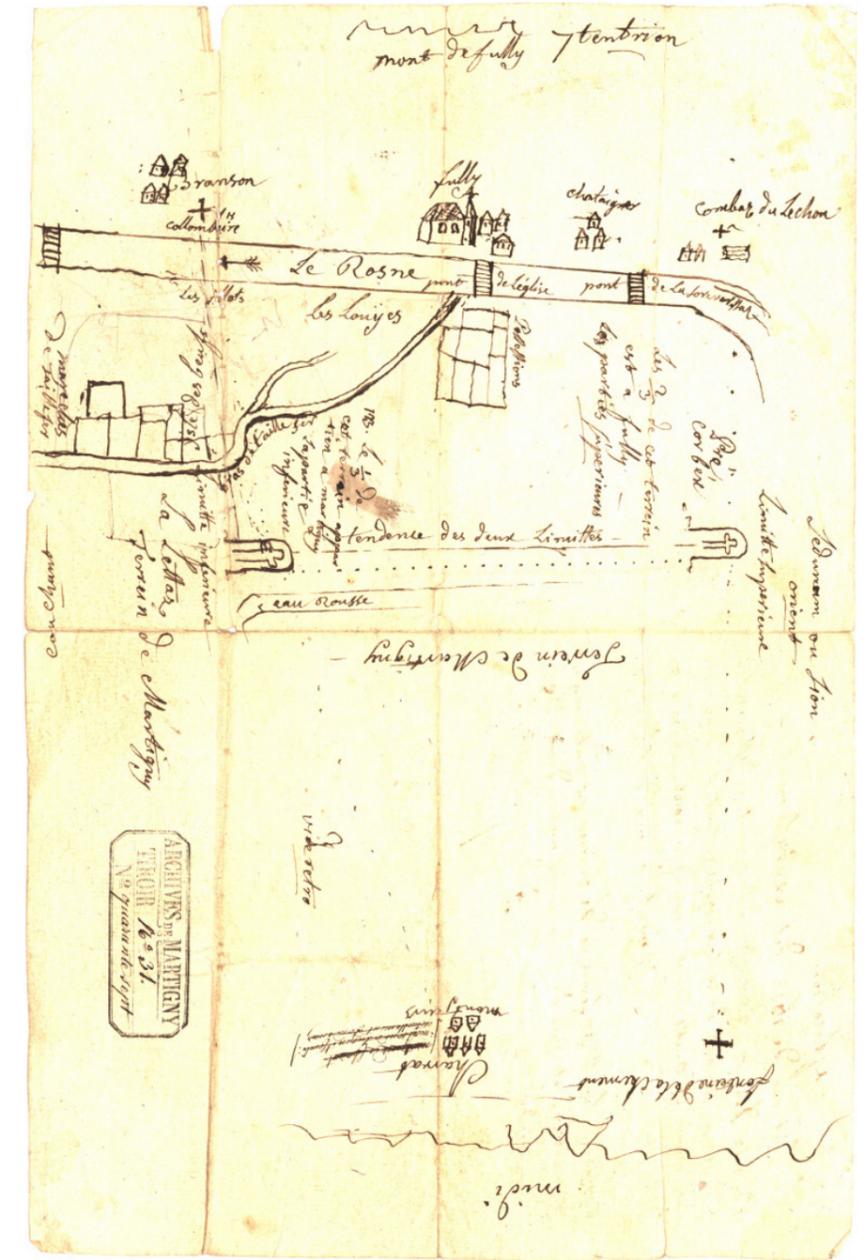
In 1823 Venetz takes over the work of damming of the Biaye de Clarens, a work that in the end would turn out to be impossible. The damming breaks repeatedly, but Venetz does not give up. In 1846 he is discouraged after repeated failures and asks to be relieved of his duties of damming the Baye de Clarens. The case of force majeure was obvious. Still, it is in this man the communes of Valais put trust in for correcting the Rhône - a project Venetz started in 1829 and that did not become reality until four years after his death. The work is begun in 1863 and would continue until 1894. By then several floods have ravaged Valais. The main costs of the correction lands on the communes, since the canton only pays for the dykes that are directly protecting the main road and the bridges it crosses.

**II**  
**SUBJECT AND SUBDUE**



VOLKSKUNDE DER SCHWEIZ, VALAISIAN FAMILY (18XX)  
 JACOB XAVER SCHNUZER, BRIDGE OVER THE RHÔNE (1810)

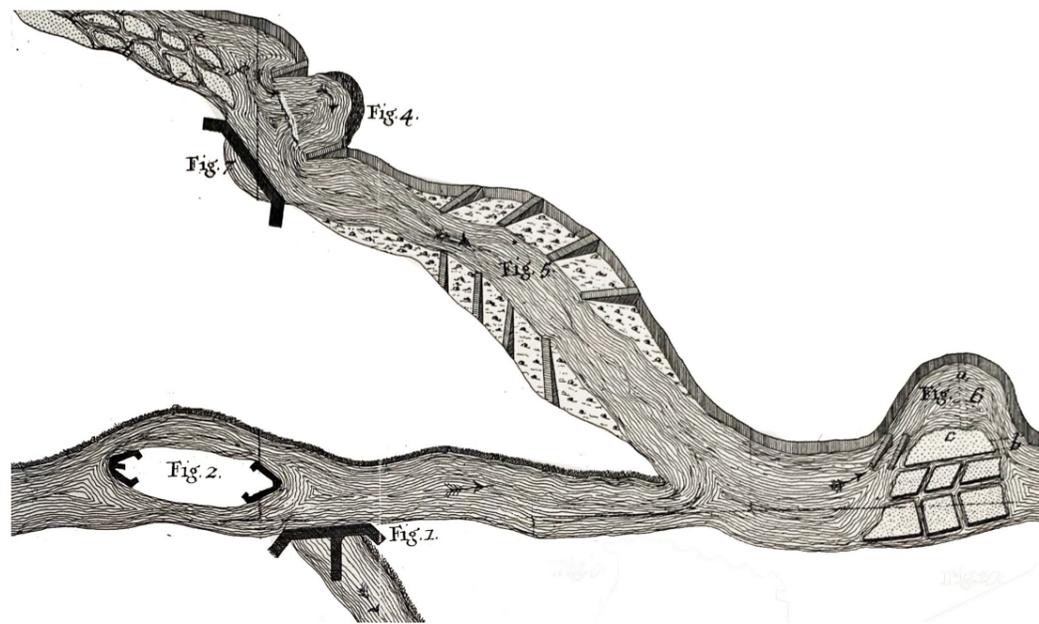
Before the first corrections the plains were far from the marshy and unusable valley floor sometimes described. And neither was it a frightening river that had to be avoided at all costs; the inhabitant's lives were defined by agropastoral practices that had integrate the varied resources of the Rhône plain. But the migrations of the course of the Rhône caused lasting problems for the inhabitants of Valais. A displacement of the river could place land out of reach of its users and hand it to the greed of the opposite bank. Hence problems of joint ownership or common use were sources of neighborhood disputes. The bridges over the Rhône, vital for commerce and trade, were often swept away by the floods. The funding of these expensive works was also a source of conflict between the neighboring communities



UNKNOWN, THE SEPARATION OF COMMONS BETWEEN FULLY AND MARTIGNY (1618)

Upstream of Martigny, six municipalities argued over riverbanks of approximately 13 km: Martigny-Charrat, Saxon and Riddes on the left bank; Fully, Saillon and Leytron on the right bank.

From the end of the 17th century up until the 19th century the river had three different courses in the area. The upheavals of the rivers course during these times caused poisonous relations between the two shores. The goal was to keep the river as far away as possible from your lands, and therefore as close as possible to those of the other shore. To achieve this, they used treacherous works that generated conflicts: offensive barriers.



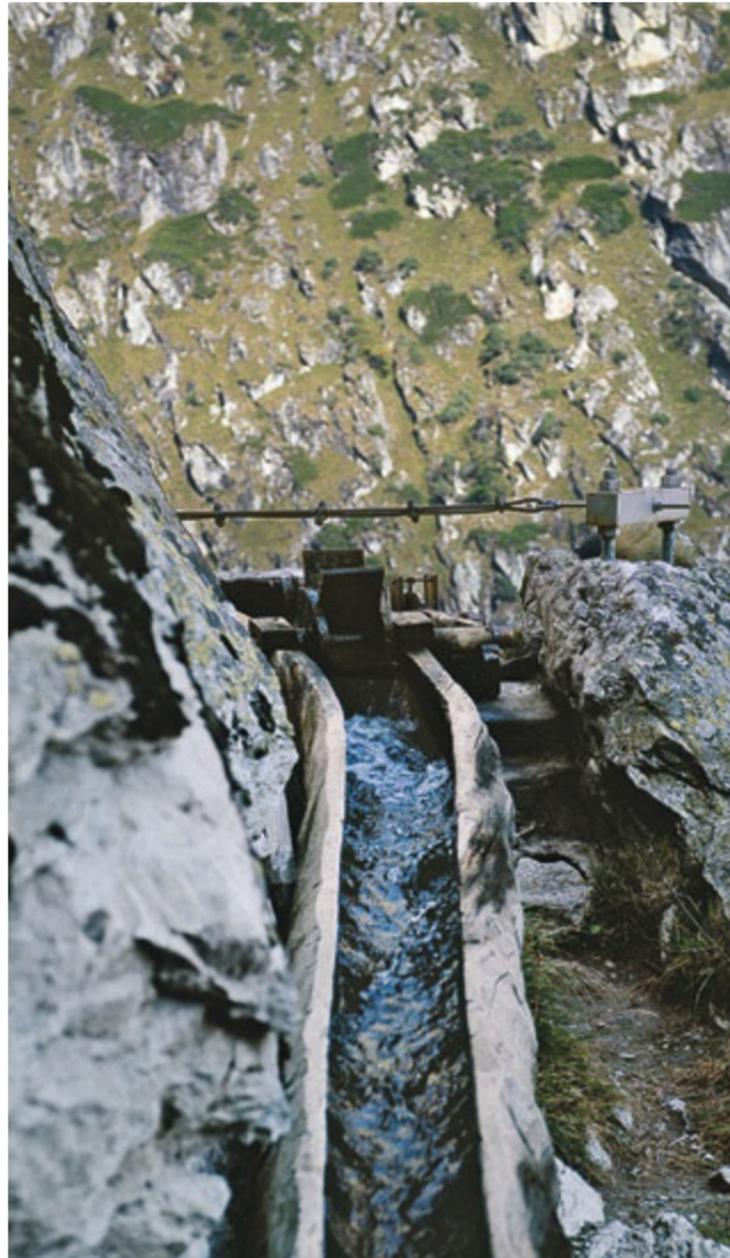
L. VOCH, INSTRUCTIONS FOR THE CONSTRUCTION OF TRANSVERSE AND LONGITUDINAL RIVER WORKS (1767)  
DER VOLKSKUNDE DER SCHWEIZ, CARRIERS OF A HEAVY BEAM (18XX)

The defensive dikes, made of entanglements of wood ballasted with blocks of stone and gravel, required major work from the communes. The shorelines were therefore very vulnerable, and the defense of some was often done at the expense of others. This work was carried out by the men of the villages, in proportion to their use of the land. The scale of the work did not frighten the inhabitants, who feared the damage that might be caused to their property.



DAVID ALOIS SCHMID, FLOOD IN VALAIS THE YEAR 536 (1806)

In this tense context, a strong flood caused disagreements, then the desire to resolve them. 'La grande irruption' of 1782 saw the course of the Rhône change again between Saillon and Saxon. Following this, the 1790s were filled with disputes, especially between municipalities on the opposite bank. The will to force the river back to its 'old' course was expressed by the communes who had lost valuable land to the river's 'new' course. These are years of argumentation between the communes and the Diète on how to finally put an end to this dispute.



UNKNOWN, BISSE EN VALAIS (2004)

Across Valais the system of Bisses show how collectives could form in the area when necessary. The people of the valley created commons for managing these irrigation systems which were then overseen jointly by the inhabitants themselves.

Despite conflicts between the banks, there was an internal communal spirit within the communes. All work with the dikes were done collectively – each man worked in proportion to how much land he owned. Through long and close contact with the Rhône, the residents have built up a wealth of knowledge about it. This knowledge has given the local people a certain confidence and enough assurance to try to keep the waters at bay using various techniques.



UNKNOWN, DRUMMERS AND WHISTLERS IN THE VILLAGES OF THE VAL D'ANNIVERSER NEAR SIERRE (18XX)  
UNKNOWN, COMMUNAL WORK, FUELED BY WINE AND CONTINUOUS MUSIC (18XX)

The communal spirit is noticeable in other areas as well. In the agropastoral practices, joint forces were need. For the growing of grapes and the making of wine, the use of common land was typical. The work was often accompanied by music and joint singing.

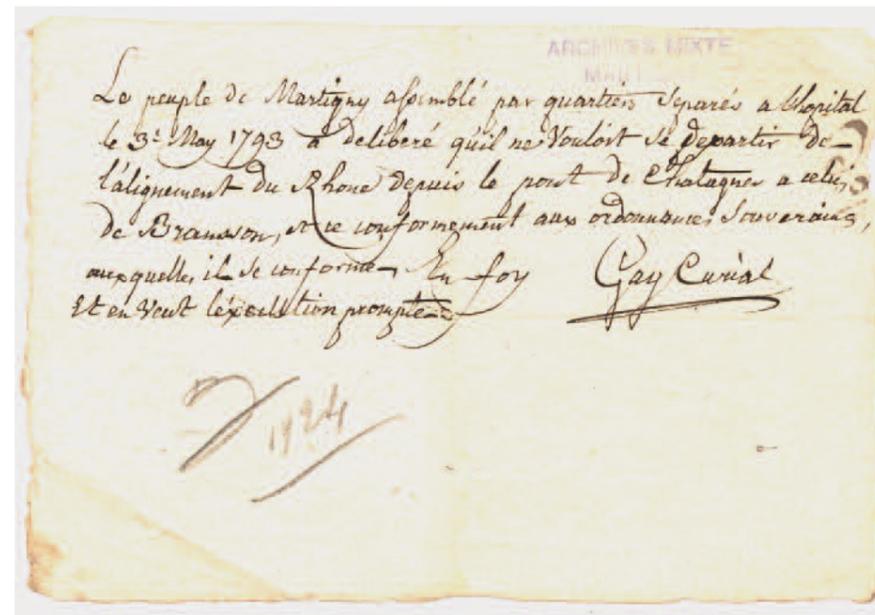
But regardless of how much knowledge the Valasians had about water management and the Rhône. And despite the well anchored knowledge of communal work, the view of the river was never as a joint problem, a 'Common Enemy'. In the eyes of the neighboring communes, it remained a border, never a shared resource.



UNKNOWN, FLOWERING ALMONDS, FULLY (1907)

M.T. BOURRIT, A.R MOITTE, VUE DU VALLAIS ET DU RHONE (1783)

In 1793, the Rhone was becoming very threatening. On 19 April, the vice-bailiff of Valais, Antoine-Théodule de Torrenté, is sent a mandate to the commune of Martigny. In it he learns that Fully has opposed work that Martigny has begun, a proposed new route of the Rhône that would cut a considerable part of Fully's property in two and would even swallow up some of it. In particular, the woods of Fully would end up on the Martigny side of the river. The vice-bailiff then accused Fully for its 'various prevarications and steps to evade the execution of the alignment of the Rhône' In order to 'prevent the imminent danger of an irruption of the water of the Rhône and the incalculable damage which will result from it', the Grand Bailiff ordered the immediate execution of this alignment on the 3 of May 1793. 'And to put an end to all procrastination and delay



ARCHIVES DE L'ETAT DU VALAIS, DELIBERATION OF THE PEOPLE OF MARTIGNY (1793)

'The people of Martigny, assembled in separate quarters at the hospital on 3 May 1793, unanimously declare to comply with the sovereign ordinances concerning the alignment of the Rhône from the Châtaignier bridge to the Branson bridge and this in accordance with the sovereign orders, to which it conforms and wants its prompt execution. In witness whereof (Signature:) Gay, curial'

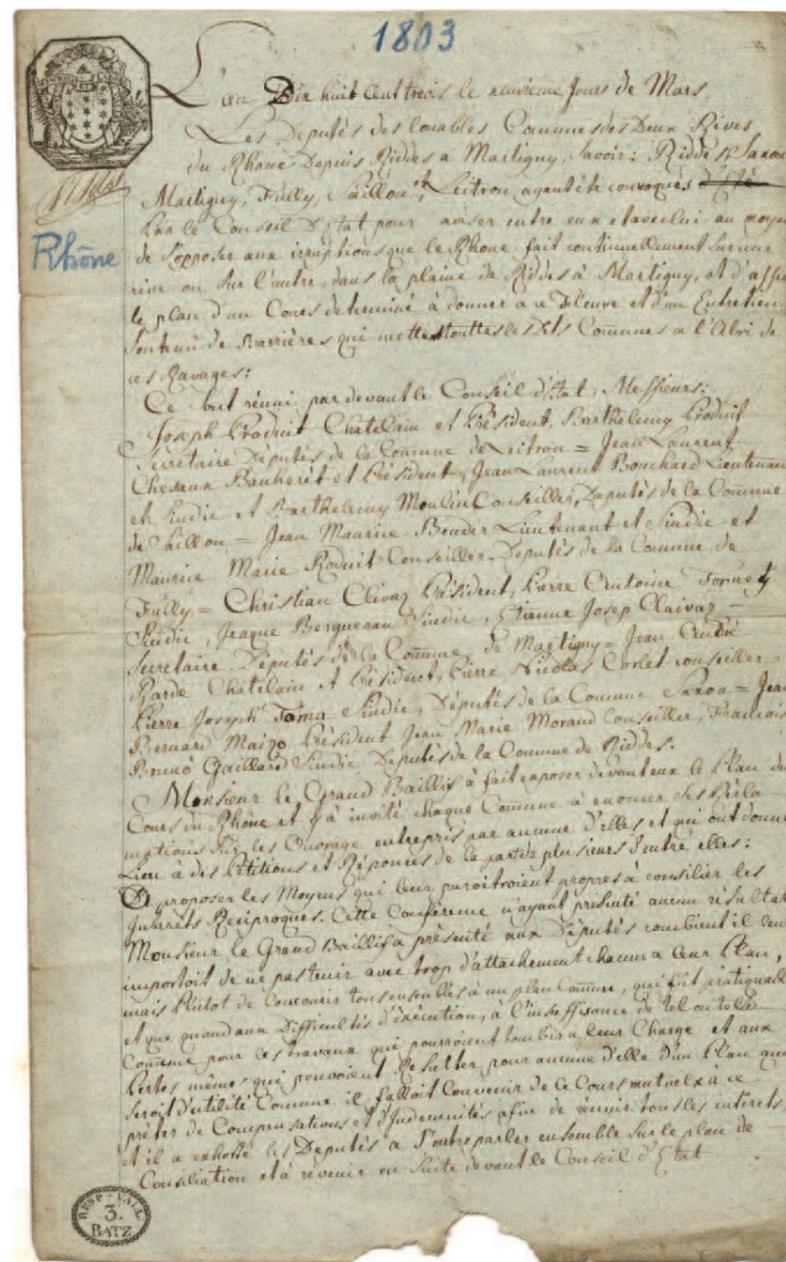
of this salutary and urgent work that you [Fully] could bring to it'. This is one out of many disputes that raged the area during this period.

In February of 1803, when Valais has just become an independent republic, a memorandum is sent to the Diète. It states: 'if the Rhône were to return to its former course, it would be extremely high above the countryside of either bank; as a result, no one will conceal from himself that it is close to fall on either side; and it is obvious that it will not be able to replenish its bed, for an old bed is too hard and composed of too many layers of gravel to be easily carried away'. The conflict has led to many years of neglect towards the rivers dangers and there is a need to act.



KRENN, TRADITIONAL FORM OF DEMOCRATIC GATHERING IN SWITZERLAND (19XX)  
 ARCHIVES DE L'ETAT DU VALAIS, LE RHÔNE DE RIDDES À MARTIGNY/ DEFENSIVE SPURS RIGHT BEFORE RIDDES (1803)

On the 7th of March 1803 the Diète calls for a meeting since they have recognized how 'urgent it was to deal with this matter'. All parties involved are invited to a debate, in order to 'advise amicably with you on ways to reconcile your respective interests and to defend all against the Common Enemy who in the midst of your disagreement ravages or threatens the territory of each of you'. The Diète has long propagated for a full correction of the rivers course - this idea is discarded by the communes who are then invited 'to propose the means which they consider appropriate to reconcile the reciprocal interests.



ARCHIVES DE L'ETAT DU VALAIS, COMPROMISE OF THE 9TH OF MARCH (1803)

- .1 The State Council will appoint the three arbitration commissioners.
- .2 Their powers are defined as follows: to definitively determine, after hearing the communes, the course to be taken by the Rhône from the Riddes to the Dranse, and to fix it by markers.
- .3 to decide on the barriers to be built and maintained to bring the Rhône into this bed and to keep it there, and to designate those which will be built immediately, and those which will be year after year.
- .4 The arbitration commissioners will have the competence to bind all the contracting communes, even if the works do not take place in their not take place on their territory .
- .5 they will organise the maintenance of the barriers by all the communes, in a spirit of mutual aid.
- .6 They will assess the damage that has occurred during the works, or as a result of them, as well as the necessary compensation to the injured parties.
- .7 Most importantly, the communes promise to renounce any other way than arbitration to settle their conflicts, and in particular, to judicial proceedings; they will submit to the arbitral decisions of the commissioners.
- .8 Once the overall plan has been established by the three commissioners, its proper application will be monitored and directed by two inspectors, one per bank. In the event of a dispute between these inspectors, the State Council will decide.
- .9 These decisions must be ratified by the communes themselves by the evening of 14 March; latecomers will be considered to have approved.
- .10 The compromise will enter into force once ratified by the communes and the Council of State.

On the 9th of March 1803, after centuries of struggles, the cantons Saillon, Leytron, Martigny, Saxon and Riddes ratified a plan to correct the Rhone only partially. The argument is: 'to finally put an end to the disputes which agitate the riparian communes and disturb the union that has long existed between them'. It was necessary to find 'some means of conciliation, arbitration, exchange of land and sharing of charges between them'. Unified around the fact that correcting the entire Rhône is not an appropriate option. On the 26th of May 1803 a law is ratified by the Diète that compromises the peoples say in the legal matter of the Rhône and its course. Switzerland enters a period of political turmoil, and the compromise is never carried out.

**III**  
**EQUILIBRIUM**



MAX FRANCIS CHIFFELLE, VUE SUR LE RHÔNE (1940)

What if the compromise of 1803 had been realized? The accumulated knowledge of the inhabitants of Valais was overlooked in the first correction of the Rhône. Instead of trusting the knowledge of the people you looked elsewhere for solutions to the problem. Had the compromise been completed, the works of Ignaz Venetz might not have been needed and he would have been admired solely for his works with infrastructure and glaciers.



HANS PETER KLAUSER, VERWILDERTE RHONE VON LENK (1941)  
OLIVER LASSARE, SUPERIMPOSITION: THE OLD TRACES OF THE RHÔNE (20XX)

The river would still meander through the plains, regulated were needed and managed by the communes. The knowledge and traditions regarding techniques to keep the river at bay would have continued to be adapted with new inventions, giving the inhabitants of Valais an even greater know-how on how the river could be controlled.

Would this give an equilibrium where both man and nature\* could leave traces along the plains?

\*Understand: the Rhône

