



Newsletter No. 5 – September 2016

The 2016 hydrological hiking season started off in the Valais with low temperatures and light rainfall: some images from the launch of the new excursion guides in Saillon on 15 April.

The Kultur Casino in Berne was the venue for the unveiling of the new HADES online Atlas together with the Atlas of Switzerland on 20 June.

The «Understanding Water» learning programme won a Worlddidac Award for 2016. The second module will probably be available at the end of the year.

And in an interview with Prof. Rolf Weingartner he explains why he has championed the Hydrological Atlas of Switzerland for over 30 years and how it might develop in the future.



15 April 2016 – Excursion guides series 7

At the launch in Saillon the three latest excursion guides in the series «Tracks along the Water World» were presented to the media as well as a small group of invited guests. We could have had better weather but hardly a better location for our event. Further information and order forms can be found at www.hades.unibe.ch/produkte/exkursionen.



Some images from the launch (photos: Matthias Probst, Tom Reist, Mirjam Stawicki)



20 June 2016 – «Cartography in three dimensions»

The weather in Berne on 20 June was a totally different matter, however. Under azure skies over 130 participants met at the Kultur Casino Bern to learn more about the future of digital Atlas cartography.

Map-reading is for women – at least that is the impression one might have had when the meeting opened. In her speech Sarah Springman, Rector of the Zurich Federal Institute of Technology, expressed the hope that the new online atlases would carry the same fascination that she had for classical maps into the digital age. Subsequently, the multiple world champion in orienteering, Simone Niggli, explained why, even in the age of Satnav, maps are still essential for her sport. Finally, with a symbolic «unveiling of the Earth», the new Atlas-Platform was released on to the World Wide Web. We hope that both atlases will be consulted with enthusiasm because, as Sarah Springman put it so well, they are «useful to almost everybody and for almost any purpose».

Both atlases have a long history: the first Atlas of Switzerland dates back to 1965 and the Hydrological Atlas of Switzerland to 1992. After many additions and new editions, the new AtlasPlatformSchweiz, developed by the Institute of Cartography and Geoinformation at the Zurich Federal Institute of Technology, provides a practical software programme for the three-dimensional representation of different map themes. The software for both online atlases can be downloaded from the corresponding [websites](#).



Simone Niggli (left), Sarah Springman (centre) and Marc Chardonens, Head of FOEN, unveil the Earth.
(photo: Tom Reist)



Thomas Häusler, scientific journalist at the SRF, leads the meeting in the Burgerratssaal at the Kultur Casino in Berne.
(photo: Tom Reist)



The «Understanding Water» teaching material

worlddidac
A W A R D 2 0 1 6

Since the publication of the first module entitled «Hydrological Extreme Events» in May last year, the learning programme designed by Matthias Probst has proved its worth both in teaching geography and in the world of special didactics. Understanding Water was judged by an international jury to be «an innovative and highly suitable teaching aid [...] for use in schools», and was one of the winners of the 17th Worlddidac Award 2016.

We should like to congratulate Matthias Probst and express our delight that he won this award. It will spur us on in our work on the second module: «The Valais and the changing use of water», which is due to be published in the near future. Further information at www.wasserverstehen.ch.





Knowledge and Awareness of Hydrology in Switzerland

Interview with Prof. Rolf Weingartner, Joint Leader of the HADES project

HADES: There are two grey HADES binders in many libraries and offices, including here in yours. Do you still use the printed maps?

Weingartner: Only this morning I looked up something in the HADES, but on the computer. But I regularly use the printed maps when I am working on a topic with a group. The analogue maps have the great advantage that everything can be seen at once. We can't achieve that yet on the computer screen, which means that the maps are entirely complementary.

HADES: Your career as a hydrologist is closely bound up with the history of HADES. How did that come about?

Weingartner: As a geographer I have always been fascinated by maps. When the possibility of writing my doctoral thesis as part of the second National Research Project entitled «Fundamental Problems of Swiss Hydrologic Cycle» arose, I set about researching the discharge regimes in Switzerland with Hugo Aschwanden. Subsequently the focal point of my project shifted to mapping the results of our research and setting them out together in the form of a hydrological Atlas. That was in 1985 and three years later the Federal Council took a decision that set the political and financial wheels in motion. Since then, for almost 25 years now, we have been busy implementing the Federal Council's decision.

HADES: What an incredible success story, but what made you think of mapping the water resources of an entire country?

Weingartner: I was able to use an example and some good support: the idea was originally thought up by Prof. Reiner Keller, who produced the first Hydrological Atlas of Germany. Thanks to Christian Leibundgut, the former head of the Hydrology Group, we had good contacts and he was also keen to establish something similar for Switzerland. It was on his initiative that I then developed the idea.

HADES: What motivated you at the beginning and across all those years to continue working on the Hydrological Atlas of Switzerland?

Weingartner: As a geographer there are two things that are really close to my heart: spatial analyses and overviews, and the practical application of scientific knowledge. Science has reached an extraordinary level today, but there is always the danger that it gets lost in the detail. In this respect, the Hydrological Atlas acts as a counter-balance insofar as it provides comprehensive overviews of certain topics that researchers, students and workers in the field can all use.

HADES: The Hydrological Atlas of Switzerland is the result of a collaborative effort by Swiss hydrologists – how did the project leaders manage to get people from the many different specialised areas, the federal authorities and the rest of the team on board?

Weingartner: In the 90s we managed to persuade the directors of most of the main federal authorities and heads of research groups such as EAWAG, MeteoSwiss and the SLF, to join the Atlas committee. The Hydrological Atlas thus became a sort of «main project» for the institutions involved and a broad basis for productive cooperation was established. It is still astonishing to see how much work was achieved at that time if you consider that we were able to publish the first 17 plates after only three years. The time was ripe for the Atlas since there was a mass of data and knowledge available that was just waiting to be published in such a work.

HADES: Over the past few decades you have been able to celebrate some major successes with this project. In your view, what were the main milestones in the development of HADES?

Weingartner: The field of hydrology in Switzerland was very productive; more than 60 plates were produced over this period. In addition, we managed to develop the Atlas from a simple collection of maps into an information platform for a broader public. Now, with our teaching material and the series of excursion guides, we can broaden the interest in scientific information even more. Finally, going into the digital age has been another important milestone. The Hydrological Atlas was quick to recognise the signs of the times and selected data were also made available in digital form. Two years ago the maps were also digitalised and today most of the contents of the Atlas are available electronically.



HADES: The launch of the new online Atlas on 20 June was no doubt another milestone. What were the greatest challenges in this fundamental change?

Weingartner: The Hydrological Atlas was designed for a specialised field. The aim has always been to make information available quickly and efficiently. In the case of the online Atlas, the style of presentation has become the focus in an almost ludic way and we need to find out to what extent the users want these functions, if at all, and whether the simple provision of information in map form – with the support of digital data – should not be our main aim.

HADES: The Atlas was once termed the «hydrological conscience of Switzerland». Can you take something from this description?

Weingartner: Yes, the Hydrological Atlas has gradually developed into just that. Five to ten years after the publication of the first plates you could see that the Atlas was being quoted. In lectures, for example, you would hear «According to the Hydrological Atlas of Switzerland, annual precipitation in XY catchment area is 1250 mm». This means that over time the Atlas had developed a binding character and become a true reference work. The Atlas provides the most important hydrological information about Switzerland in a compact and efficient form.

HADES: The Atlas is not just a compendium of knowledge, however, it generates knowledge too. For example, is the division of Switzerland into catchments of different surface based on the Atlas?

Weingartner: Yes, it is. Hydrologists work in catchment areas. We quickly came to realise that it would be much easier to compare data if we had a homogeneous spatial concept. Consequently, our idea was to define small, basic areas that were as homogeneous as possible. We combined these into balance zones for which run-off data, in other words «hard facts», were available. Finally, the largest units were the classical river basins of Switzerland. Today we can see that this spatial structure has stimulated a good deal of development, way beyond the Hydrological Atlas itself.

HADES: What topics will become important in the near future?

Weingartner: We have a good number of plates with data for the period 1961–1990. It is high time that we dealt with the same themes, but including new data, and then drew up a comparison as to whether there have been changes and if so, in what way. The Atlas could also include a look into the future: new maps could portray hydrological conditions from 1850 up to 2100, for example, i.e. a comprehensive representation of the theme «past, present and future».

HADES: How would you hope to see the Atlas develop in the future?

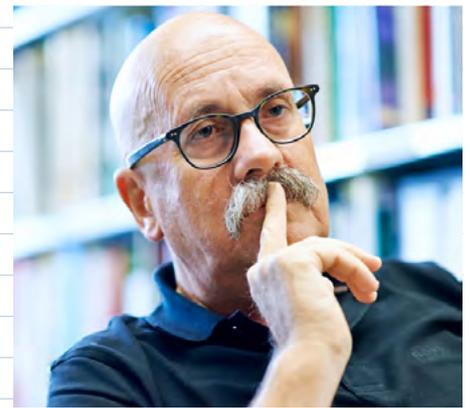
Weingartner: I'd like to see an Atlas where the topics covered are the most important aspect – presented in a clear, comprehensive, easily absorbed and efficient way. I hope that the Atlas will remain the reference work for decisive information on the hydrology of Switzerland. And I should like to think that Swiss hydrologists will continue to contribute topics in the future.

HADES Project Management, September 2016

Rolf Weingartner

Felix Hauser

Tom Reist



Rolf Weingartner is a Professor of Hydrology at the Institute of Geography of the University of Berne. With his doctoral thesis entitled «Theoretical and practical studies for a Hydrological Atlas of Switzerland» (1985) he laid the foundation stone for the Hydrological Atlas of Switzerland (HADES), a project which was started in 1989.

(photo: Manu Friederich)