

Report: International Winter School on Wood Anatomy of Tree Rings 2010

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The 10th International Winter School on Wood Anatomy of Tree Rings was given in Klosters Dorf, Switzerland from Sunday-Saturday 11-17 April 2010 by Dr. Holger Gaertner and Dr. Fritz Hans Schweingruber of the Swiss Federal Institute for Forest, Snow and Landscape Research (WSL).

Attesting to the school's continued popularity this class largely consisted of overflow students who could not be accommodated in the 9th School in late 2009 and this 10th School was also full. (The number of participants is limited to about 20 due to space and equipment limitations.) Attesting to the usefulness of the course to a wide variety of people, the participants were technicians, graduate students, and postdoctoral researchers from the fields of forestry, ecology, archaeology, wood science, climate research, and from 10 countries on 4 continents.

Sleeping accommodations and all meals (both included in the school's 550 Euro fee) and lecture and laboratory space were all well provided by the Schweizerhaus Hotel in Klosters Dorf, as they had been for the last couple of years. Klosters Dorf, and Switzerland in general, is well-suited for the study of wood anatomy given its abundance of trees and woody plants in varied terrain and climate. However, due to the closing of the Schweizerhaus Hotel, as well as a belief of the instructors that a change might be good, the next school will be given in Lisbon, Portugal in October 2010 (www.wsl.ch/staff/holger.gaertner/Woodanatomy2010.ehtml)

After arriving, unpacking, dinner, and the evening introductory presentation on Sunday, each of the 5 weekdays that followed were very full. Starting at 8 AM, after breakfast,

there were 4 hours of lecture/demonstration of wood anatomy basics. Starting at 1 PM, after lunch, there were 5 hours of laboratory practice preparing wood sample slides. And starting at 8 PM, after dinner, there were a couple of hours of participant presentations and discussion. The total number of hours of the school thus approached that of a one-term university course.

The morning lecture/demonstration of wood anatomy basics was remarkable pedagogy. Each participant had for his individual use an advanced microscope, a 278-slide reference collection, the book (to keep for free at course end) Gaertner et al. (2009) "Dendroecological Wood Anatomy - Scriptum to 'Wood Anatomy of Tree Rings'" (3rd edition, Swiss Federal Research Institute WSL) describing each wood sample slide, and the book (purchasable at course end) Schweingruber (1990) "Microscopic Wood Anatomy" (3rd edition, Swiss Federal Institute for Forest, Snow and Landscape Research). Each of the reference collections were nearly identical so as a wood sample slide demonstrating a particular phenomena was discussed in detail, each participant could microscopically see the same details. The discussions by Schweingruber and Gaertner were enthusiastic and very knowledgeable, given their many years of experience and their having made the reference collections themselves.

The afternoon laboratory practice preparing wood sample slides was also an excellent experience. Participants could use wood samples they brought with them or get some from a couple afternoon excursions to the surrounding mountains, which were also used for very informative field lectures. The wood samples were then microtomed using one of the several GSL1 lightweight microtomes provided; these were designed by the instructors. There was then the staining and slide affixing pro-

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cedures. An excellent reference for both the morning lectures and the afternoon laboratories was the (purchasable) book Schweingruber et al. (2008), “Atlas of Woody Plant Stems - Evolution, Structure, and Environmental Modifications” (2nd edition, Springer-Verlag, Germany).

The evening participant presentations and discussions were an opportunity to see the wide variety of research for which the course was considered valuable. It was also a chance to discuss a controversy: the overuse and misuse

of simple tree-ring width measurements and statistics in climate research, where wood anatomy studies, or their addition, would be more appropriate. The last evening was for each participant to present his/her best and worst slides made during the afternoon laboratories.

Saturday was just the day for departure and travel home but this was made difficult for many participants because of the grounding of most European flights at the time due to the eruption of the Icelandic volcano Eyjafjallajökull.



Fig. 1: Participants of the 10th Winter School on an excursion to the Gotschnagrät in nearby Klosters. From left to right: standing - A. Bast, M. Mahlberg, A. Müller, E. Uetiman, J. Bjoerklund, C. Vaianopoulos, R. Veal, L. Schneider, K. Seftigen, G. King, P. Pyttel, B. Megna, D. Thresher, F. Schweingruber; kneeling - S. Poljansek, P. Prislan, B. Ohse, A. Seim. Photograph by H. Gärtner.