



„Crystals – Artwork of Nature“
Touring exhibition through Austria
in the „International Year of Crystallography“ 2014

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(Report by Dr. Robert Krickl)

Background

On the occasion of the „International Year of Crystallography“ (IYCr), proclaimed by United Nations (UN) for 2014, a touring exhibition through Austria was organised. Visiting all federal states, its aim was to disseminate knowledge of this science and show the relevance for our daily lives, for research and economy. Supported by the Austrian Ministry of Science, the Austrian Mineralogical Society, the Faculty of Geo- and Atmospheric Sciences of the University of Innsbruck and PANalytical B.V. Branch Austria, organisation and execution were to the author of this report, a crystallographer and science communicator.

Exhibition

Novel models, photographs and computer graphics were used to illustrate the internal structure of crystals, their physical appearance and properties. For effective communication, specially developed experiments, visualisations, activity stations and a lot of hands-on material were employed. Some impressions are provided by Fig.1. The content was adapted to regional and seasonal conditions at the respective sites. Primarily, the exhibition was visited in the course of interactive tours provided by the author, thus achieving a maximum degree of personal care and support, response to individual questions, adaptive adjustment to the situation – so ultimately „reaching“ people. Via an, at first glance, aesthetic access (for this reason, the title „Crystals – Artwork of Nature“ was chosen), knowledge of the following core contents was effectively imparted to the visitors:

- basic knowledge of crystallography, geo- and material sciences
- relevance to our daily lives
- related education, economy and research

Information and photos were published at www.r-krickl.com/kristalle

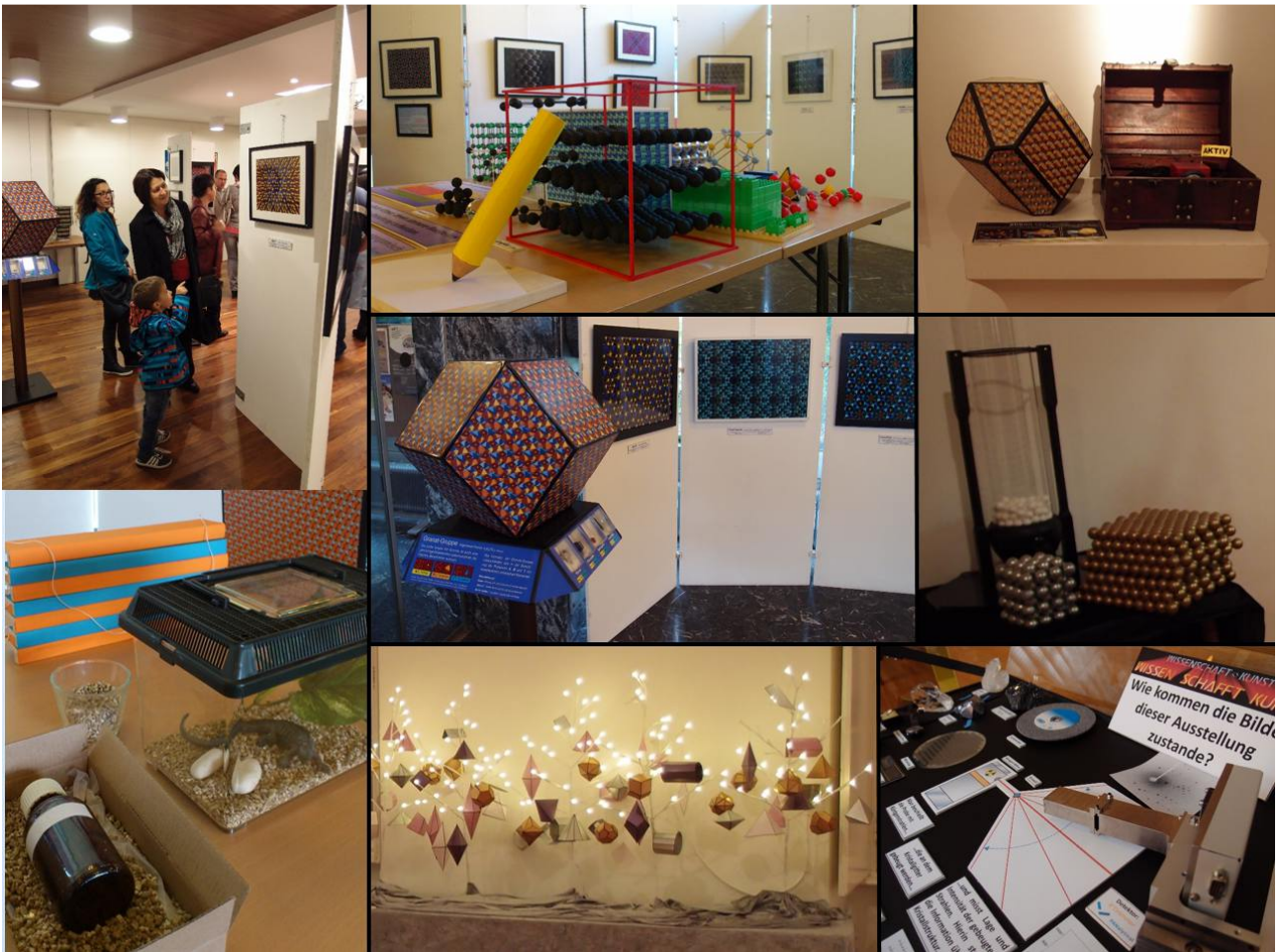


Fig.1: Some impressions of the exhibition with examples of graphics, models, experiments and demonstration material. Continued on next page with pictures of some visiting school classes.





The tour

Because of the assumedly high communication potential concerning IYCr in cities with universities and major museums, it was a declared aim of the project to visit places and regions with no related local infrastructure. The tour stops are summarised below:

04.04.2014 – Long Night of Research, Vienna – VIENNA

21.05. - 18.07.2014 – Federal Library, St. Poelten – LOWER AUSTRIA

18.-26.09.2014 – Town Hall, Leoben – STYRIA

22.09.2014 – Birthplace of crystallographer Felix Machatschki, Arnfels – STYRIA

30.09.2014 – Nature Museum Salzkammergut, Ebensee – UPPER AUSTRIA

01.-03.10.2014 – Town Hall, Gmunden – UPPER AUSTRIA

04.10.2014 – Long Night of Museums, Vienna – VIENNA

04.-05.10.2014 – Mineral fair „Mineralium“, Wiener Stadthalle – VIENNA

07.-10.10.2014 – Vinatrium, Deutschkreutz – BURGENLAND

22.-25.10.2014 – Town Hall, Schattendorf – BURGENLAND

04.-07.11.2014 – Carinthian College of Education, Klagenfurt – CARINTHIA

08.11.2014 – Annual Meeting „Min&Geo“ of the Carinthian Society of Natural Sciences,
PHK Viktor-Frankl-Hochschule - CARINTHIA

14.-17.11.2014 – Museum Fronfeste, Neumarkt am Wallersee – SALZBURG

20.-23.11.2014 – Scholar Center, Frauenkirchen – BURGENLAND

28.-30.11.2014 – Forum, Rum – TYROL

11.-14.12.2014 – Castle, Kittsee – BURGENLAND

17.-18.12.2014 – Elementary school Bregenz Schendlingen – VORARLBERG

Conclusion

Numbers:

9 federal states of Austria visited (i.e. all)

13 cities visited by the touring exhibition

224 school classes which received an interactive guided tour

442 hours of personally guided tours

~15.000 visitors reached in personal contact (conservative estimate)

International visit:

Some tour stations were located right at the national borders of Austria (Arnfels: Slovenia, Schattendorf: Hungary, Kittsee: Slovakia, Bregenz: Germany). There was a good number of visitors from abroad who were served with multilingual tours. The message of IYCr was therefore also carried to other nations, especially in the often neglected border regions.

Echo and impact:

The interest among the population was very high and the touring exhibition very well visited. The coverage in radio, print and online media was very satisfactory. Most prominent events were reported to IYCr headquarters with positive feedback. As indicators of the impact cf. some evaluation of the reports on the official website of IYCr in Fig.2 and 3.

52 Italy			
38 Austria	6 Uruguay		
37 India	5 Phillipines	1 Benin	
31 Poland	5 Venezuela	1 Cameroon	
27 Portugal	4 Egypt	1 Cambodia	
25 United Kingdom	4 Macedonia	1 Cape Verde	
23 Australia	4 Mexico	1 Chile	
22 USA	4 South Africa	1 Costa Rica	
21 France	3 Greece	1 Cuba	
20 Japan	3 Pakistan	1 Ghana	0 Bangladesh
18 Belgium	3 Sweden	1 Guatemala	0 Bulgaria
15 Germany	3 Switzerland	1 Ireland	0 China, People's Republic
15 Russia	2 Albania	1 Israel	0 China, Taipei
14 Spain	2 Algeria	1 Liechtenstein	0 Colombia
12 Brazil	2 Denmark	1 Malta	0 Cote d'Ivoire
11 Canada	2 Hungary	1 Moldova	0 Fiji
10 Argentina	2 Indonesia	1 Monaco	0 Finland
8 Thailand	2 Malaysia	1 Namibia	0 Latvia
8 Turkey	2 Mauritius	1 New Zealand	0 Netherlands
7 Croatia	2 Puerto Rico	1 North Korea	0 Norway
6 Czech Republic	2 Singapore	1 Peru	0 Saudi Arabia
6 Morocco	2 Slovakia	1 South Korea	0 Serbia
6 Tunisia	2 Slovenia	1 Vietnam	0 Ukraine

www.iycr.org
Events by
country

Fig.2: Number of activities on the occasion of IYCr entered in the „events by country“ section of IYCr-homepage (counted in January 2015).

As can be deduced from Fig.2, Austria was amongst the countries with most registered activities. This is a clear evidence for commitment and quality of communication – especially when considering country size, number of potentially contributing institutions and budgetary situation in the international context. Even more astounding is the number of entries broken down to persons responsible for projects (Fig.3). The significance of the result is even increased when not only considering the quantity but also the quality of the contributions*.

* when comparing for example rank 1 which includes the touring exhibition discussed in this report with many stations, guided tours, different public lectures, school projects,... (cf. section „Numbers“ on the previous page) and a lot of activities not entered on IYCr homepage (cf. section „Appendix“ on the next page) with the following ranks, almost exclusively comprising invited talks by different persons in the framework of seminar series and lectures at museums or universities.

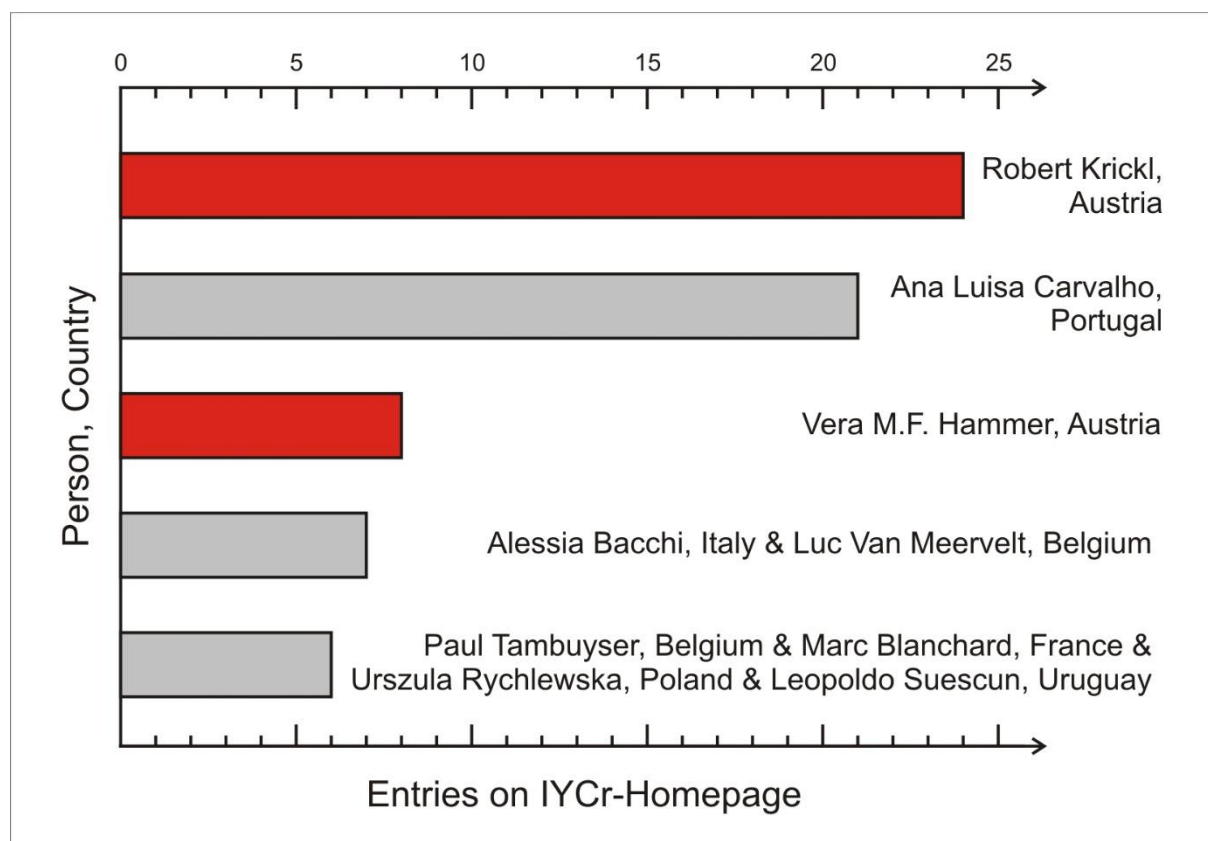


Fig.3: Entries of national activities on the occasion of IYCr (cf. Fig.2) broken down to responsible persons (only first five ranks shown; Austrians marked with red colour).

The project described in this report significantly contributed to the good performance of Austria in the statistics shown in Fig.2 and 3. In addition, there were some more activities, briefly subsumed in the appendix

Appendix

In addition to the touring exhibition, the author conducted numerous other activities in Austria to bring crystallography closer to the public. These include school and kindergarden projects, public talks, philatelic contribution, other exhibitions and outreach activities. These will be briefly outlined in separate reports.

Finally, there are still some ongoing major outreach activities, such as the construction of the largest crystal structure model of the world (registered with Guinness Book of Records). It will be used for science communication in public space in November 2015 to honour the 100th anniversary of the Braggs' Nobel Prize (<http://worldrecord.r-krickl.com/en/>).