

The Reutte Sundial Competition - A Personal Perspective

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The Sundial Mailing List has become a most valuable forum for sundial enthusiasts. The wealth of knowledge and wit shown by the participants is outstanding. Thanks should be given to Daniel Roth, currently at the University of Cologne, for setting up and maintaining this list (send "subscribe" to Majordomo@rrz.uni-koeln.de). Among the many items shared with the world was an announcement in June 1998 of a sundial competition open to the public in Reutte, Austria. Because of the use of this list, it became an international competition.

After I read this announcement, I went to their web site. Fortunately for me, it was in both English and German. There it listed the important information. The dates: submission by September 25, 1998 and judging October 3. Entries could be by mail or e-mail, in drawings, pictures, models or web pages! For their purpose they stated, "The aim of the competition within the framework of the "KulturZeit" - festival is to receive the most artistically creative and original designs for a sundial. The technical components should also be taken into account as well as the feasibility of the finished design."



Figure 1. The Isserplatz

The position page showed three choices, two vertical walls and a space on a plaza called the Isserplatz. (See figure 1) When I saw this picture, I wondered why the people were sitting at the edge of this plaza. After looking at their maps, I noticed that there was a space for pulling off the street. This must be a bus stop. Looking back at the picture, the mountains in the background and the warm clothes of the people suggested that what they needed was a *shelter* not a sundial! I began to think that here was an

excellent place to try my ideas for a skylight sundial. A skylight in a shelter for those waiting for the bus.

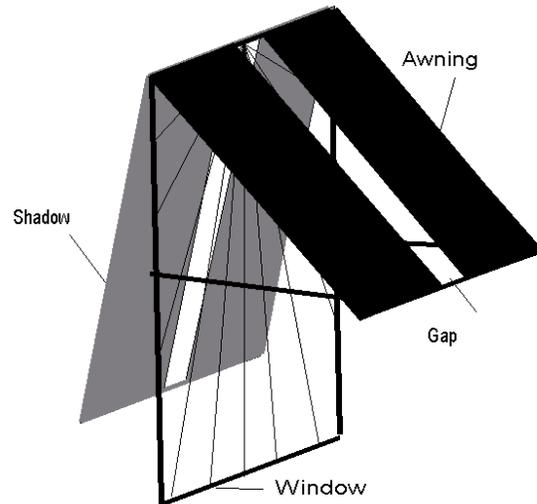


Figure 2. Shaded Window Sundial

My skylight and window sundial designs began back in 1996 in my search for a better way to display the position of the shadow. I had wanted a beam of light rather than a shadow line. This led me to the use of slotted shades. (See figure 2.) For the freestanding bus shelter, the shade would be the roof of the shelter. For the mountainous region of Reutte, this roof would offer protection for the skylight, and people under it. In addition, the north end of the shelter could be arched high and provide a space for a stained glass window. Instead of another sundial, this could be a picture on which the beam of light shows the time in some other way. (See figure 3.)

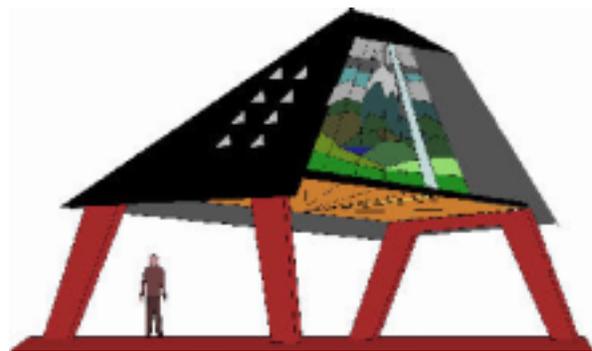


Figure 3. Shelter Design

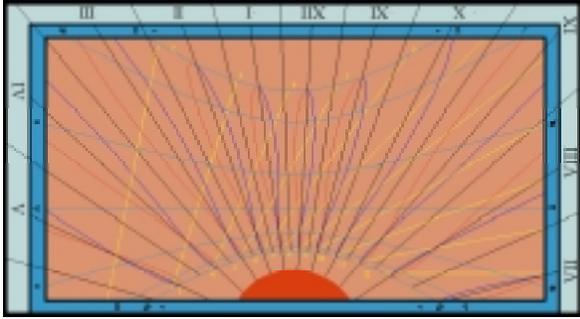


Figure 4. Skylight Sundial

The skylight sundial was straightforward in design. Simply a horizontal sundial as seen from underneath. (See figure 4.) It includes Italian hour lines, numbered backwards in order to mark the number of hours until sunset. When sunlight comes through the gap in the roof, it makes a striking beam of light across the skylight to mark the time. Figure 5 shows the model I constructed when placed in sunlight. You can see the streak of sunlight across the horizontal skylight as well as the vertical window. For increased accuracy, the eastern edge of the gap is the style.



Figure 5. Reutte Shelter Model

The shadow of an arrow pointing at this edge serves two purposes, marking the nodus and the edge which is the style. The model had only a crude slot. The improved design of the slot, shown in figure 6, shows the upper part is wider for the window picture. Blue glass is used in the lower half in order to not interfere with the lower skylight dial. Because the background color of the skylight is reddish, this widened slot is less visible when it strikes the skylight in spring and summer.

The roof also needs to admit additional light in order to illuminate other parts of the skylight and the window. For this, I pictured in the drawings small windows in the roof (see figure 3). The

model had larger windows with louvers for control

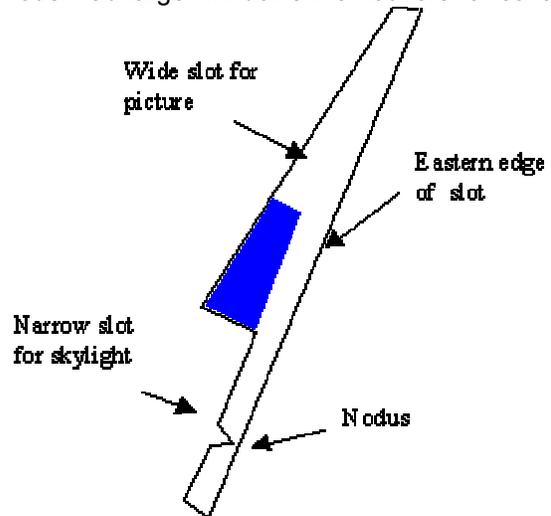


Figure 6. Improved Slot Design

of the light. Note that the roof is fully glazed to protect the interior of the window and skylight. The pitch of the roof is the same as the latitude of the location since the edge of the slot is a polar style. The high latitude of Reutte, 47.48 degrees, would allow snow to run off quite readily.

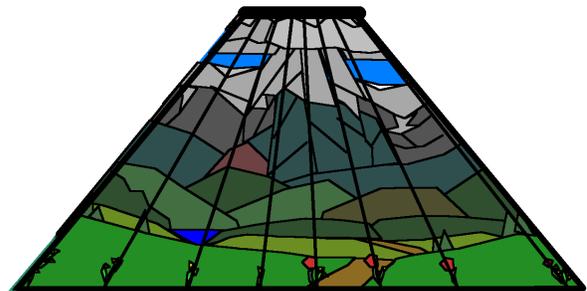


Figure 7. Leaded Glass Window

For the picture window, I went to several web sites to see if I could find some local theme. Reutte is in the north west part of Austria. It is a gate way to the Tyrollian Alps. Their web sites stress the skiing venues and hiking trails. Therefore, I picked such a scene for the window. (See figure 7.) I tried to show how colored glass panels could make the picture. Much of the appearance can be improved by the leaded glass artist's choice of colored and textured glass. The picture shows rays of sunlight breaking through clouds over a peak in their mountains. The rays are outlined by the lines of lead caning between the glass panels. These lines are spaced for the hour lines of a vertical sundial. Flowers in the foreground note the hour. Like roman numerals, large orange flowers count tens and small yellow flowers ones. Only the hours from 9 am until 4

pm can be marked. When the sun shines, a streak of sunlight from the roof slot strikes the window. This makes the appearance of a strong beam of sunlight coming through the clouds. (See figure 5.)

Competition Results

On October 13, I received a message from the chairman of the jury.

Dear Mr. Hartman, Congratulations! You have won the 2nd prize in the sundial competition of Reutte! KulturZeit 98

This was quite a delightful surprise! I am very grateful to the jury. In November, they made a presentation in Reutte which I was unable to attend.

First prize went to Sybille Vogel (Vienna), assisted by Dr. Karl Schwarzinger. Two third prizes were given to Eva Dragosits (Reutte) and Jean-Michel Ansel (St. Georges-Le-Gaultier, Frankreich)

Later, I received e-mail from Dr. Karl Schwarzinger, Chairman for the Working Group for Sundials of the Austrian Astronomical Society. He was able to give me some additional information.

Dr. Schwarzinger's comment was that the jury consisted of artists, business people and politicians and that most prizes were for artistry rather than gnomonic values. As their aim had described, sundial details were of secondary importance. This can be seen in the pictures of two prize winners he sent me.

The first prize entry of Sybille Vogel, Vienna, (assisted by Dr. Karl Schwarzinger) has numerous symbolic references. The photograph in figure 8 shows the dial face for four vertical sundials declining slightly to the East. Symbols are added to each in order to indicate the spirit of different epochs of time. At the upper left is an ancient type of sundial marked in temporal hours. The owl is used to indicate the "high estimation of knowledge and wisdom" in ancient times. At the upper right we see a sundial with a triangle and eye. This indicates a period of "spiritualism and mysticism". The hours are marked in the monastic prayer times further symbolized by the sign of the fish.

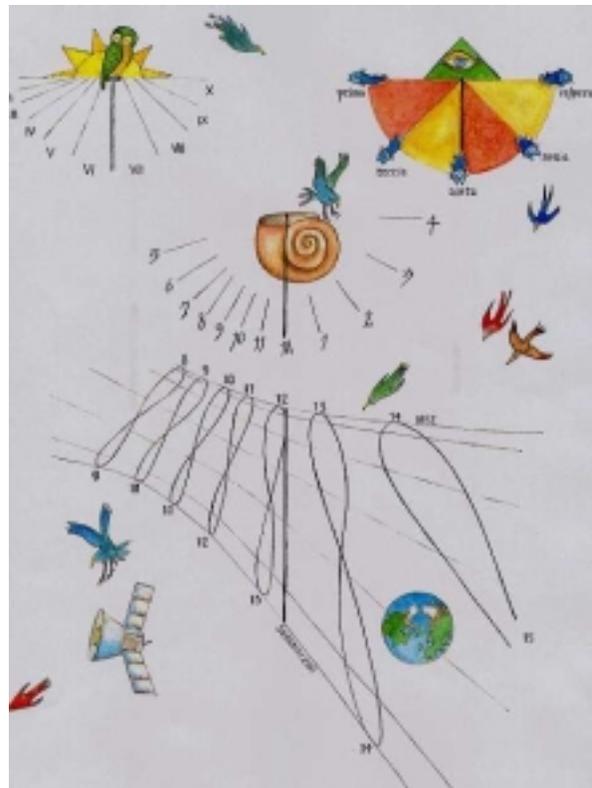


Figure 8. First Prize – Sybille Vogel

In the middle we see a dial with modern equal hours but marking local or sun time. Its symbol is a snail shell, representing the renewal of recent centuries and interest in worldly values (cornucopia). The lower sundial shows a satellite and a world – it marks the modern era and use of zone time. Here the hours are marked with the longitude correction for Reutte in order to read middle European time. Furthermore we see the analemma figures which can be used to read mean time. Note also that daylight saving, or summer time, is marked along the lower edge.



Figure 9. Third Prize – Eva Dragosits

The third prize entry of Eva Dragosits, of Reutte, is seen in figure 9. In each of the 12 sectors made by the hour lines is the stylized picture of a building in Reutte. Note that the town name, Reutte, is placed in the style.

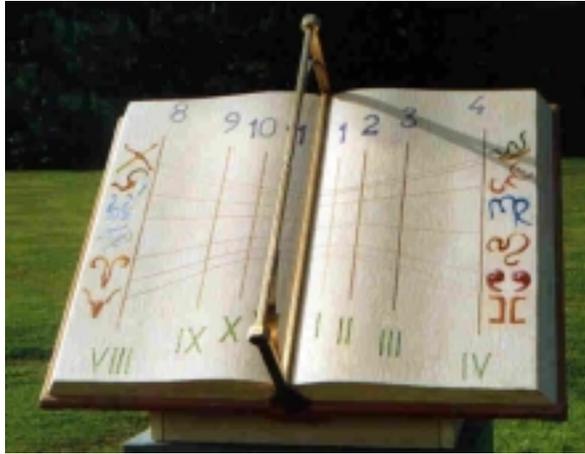


Figure 10. Third Prize - Jean-Michel Ansel

I received separately, a picture from Jean-Michel Ansel of St. Georges-Le-Gaultier, France (figure 10). This could have been the other third prize.



Figure 11. Soler's Bifilar Model

I am very grateful to Dr. Schwarzingler for his information and pictures from the competition. Forty dials were submitted; that alone must have made quite a sight. However, he was able to send me pictures of only the Austrian prizewinners and one unusual dial. This was the design of Rafael and Sebastian Soler, of Palma de Mallorca, Spain (figure 11). Soler called his design "bifilar". The only reason I can think for this name is that the time is read at the intersection of the shadow cast by the round horizontal piece and the vertical rod holding it.

Another entry has been shown on the web site of Paul Field:

www2.netcom.com/~abraxas2/reutte.htm.

This showed a design for an obelisk whose shadow marks time on a horizontal dial laid out on the Isserplatz. The obelisk's four faces have time related features. The South face has a noon marking analemma. The West face has an unusual diagram for determining sunrise and sunset times. The East face is a description of the horizontal dial. The North face has an "acrostic" using the letters of the town name.

Conclusion

This was a most interesting use of the Internet and the Sundial Mailing List. I hope more competitions will be done in this way. Certainly, it makes such competitions available to many otherwise isolated individuals, to the benefit of us all. Apparently, all the forms allowed for entry, mail and e-mail, drawings, pictures, models and web pages, were used! However, an intended report on the Internet was never made and it is not known if any of the designs will be built.

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