



PRESS RELEASE

Vienna, 8 June 2007

Michael Klein - Producer

Production report: Kelten Dürnberg / Hallein - Hallstatt

At the instigation of the current Director of the Keltenmuseum in Hallein, Mag. Kurt W. Zeller, the project with the working title "Kelten Dürnberg / Hallein" was begun in Spring 2006.

Other scientific partners included the Natural History Museum Vienna, in particular Director Dr. Anton Kern, Director of the Department of Prehistory, and Johann Reschreiter, who both oversaw the montane-archaeological illustrations in an advisory capacity.

The success of this project was also ensured by the support of Kulturland Salzburg and the company M-real Hallein AG.

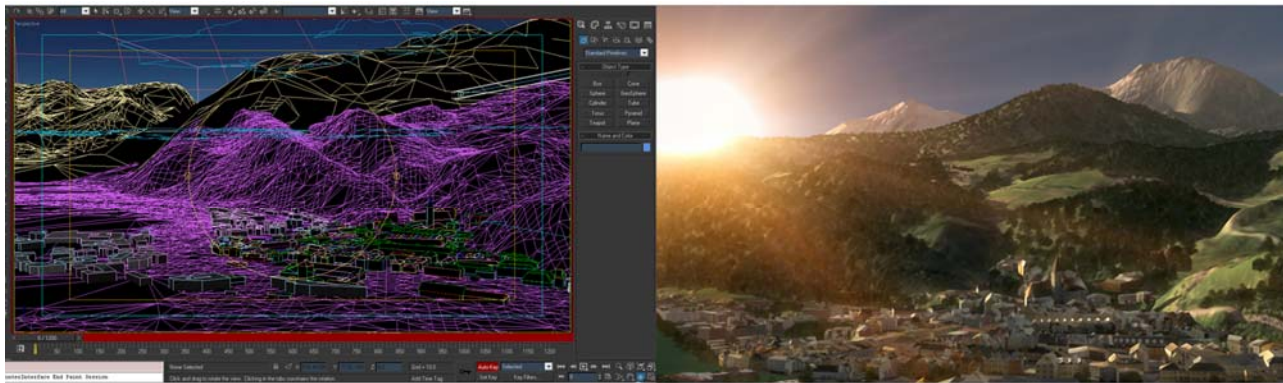
Furthermore I should also like to take this opportunity to thank Mag. Karina Grömer, Mag. Doris Pany, Helga Mautendorfer and Mag. Stefan Moser for their valuable scientific contributions.

The aim was to illustrate a number of archaeological publications concerning the last decades in Dürnberg, as well as the depiction of mining activities during this period in Hallstatt. The purpose was to put prominent finds - mostly those that were on display - into the context of their original surroundings in order to show the observer the function and use of these objects. An additional aim for me was the generation of high quality film material and illustrations.

The production of *Kelten Dürrnberg / Hallein* has been our most lavish work in the series "Archaeological reconstruction/illustration". This could be seen at the start of work in April 2006 when I began to take stock and view the scientific papers and features.

Compared with the illustration of classical archaeological subjects, where large-scale architectural objects dominate, the emphasis here was placed on the depiction of details, which immensely increased the workload.

The task of depicting the landscape was a special challenge for us. The terrain we wished to show covered about 200 km, and some of these areas needed a very high resolution.



Landscape scene as model in 3D program and as completed illustration

The large amounts of data and computing power necessary reached the limits of our present capacity. The solution of the problematic situations which occurred during creation of the film can be seen as an innovative part of our work and will certainly be used in further projects.

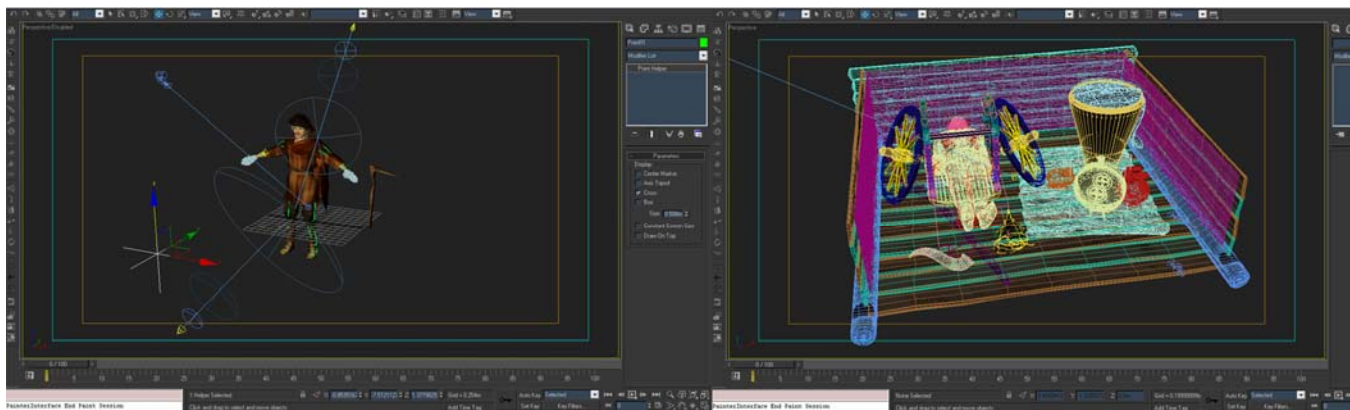
The know-how thus generated can be placed at the disposal of interested institutions at home and abroad (without, however, compromising our competitiveness) and thus increases the value of our work in this specialized field.

A few examples of day-to-day life during production will now give an insight - along with a short general introduction - into our working methods.

We make our films in so-called digital three-dimensional settings, in other words computer programs that are able to reconstruct objects and scenes from real life and to record them with the help of virtual cameras. Usually the aim is to simulate the real object as accurately as possible, in order to convince the viewer of its plausibility.

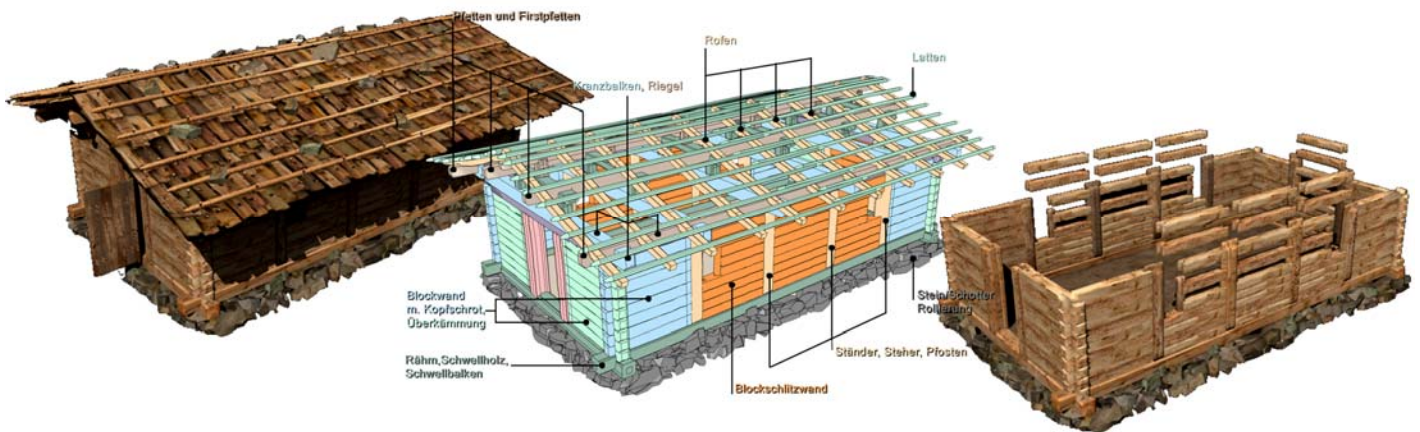
A 3D scene thus created is designed and choreographed rather like a scene in a play. First of all the scene - landscape or room - is set. This is peopled with "props" and characters (the virtual actors) and illuminated before finally being filmed by the 3D program's cameras. Animation of characters and objects and the movement of cameras then breathes life into the scenes.

Each object - or even each prop - within these scenes has to be modelled with such programs and finally provided with a finish (colour or texture). As you can imagine, a vast amount of work is thus involved in the creation of just one scenic setting.



An example of such a production can be seen in the timber planked buildings in the craftsmen's settlement in Ramsautal on the Dürrenberg which was excavated from 1982/88 and in 1989 by Mag. Kurt W. Zeller. Because the wooden features were conserved by the wet earth, scientists were able to make suggestions for reconstructions. Here we must emphasize the excellent work carried out by Mag. Wolfgang Lobisser who publicized the wide range of finds from this excavation in his book, and reconstructed working conditions (tools,

transportation, etc) which were tried out in practice, giving us valuable insights into how these objects were made and how useful such methods and materials actually were.



It was our job to illustrate these scientific findings and to offer some variations of these models to choose from.

Starting with the foundations and threshold sills as well as partially preserved elements of timber planking, we made modules of huts with timber planked walls, tongued and grooved wall elements as well as corner elements, using carpenter's joints as seen in the features. As the upright parts were only conserved up to quite a low level, some suggestions regarding the architectural history of the originals were made, which deviated from the accustomed picture of thatched Celtic houses, but with roofing and roof pitch that strongly brought to mind today's Alpine huts. The choice of these variations corresponded with the practical use of this architecture in the climate of this region.

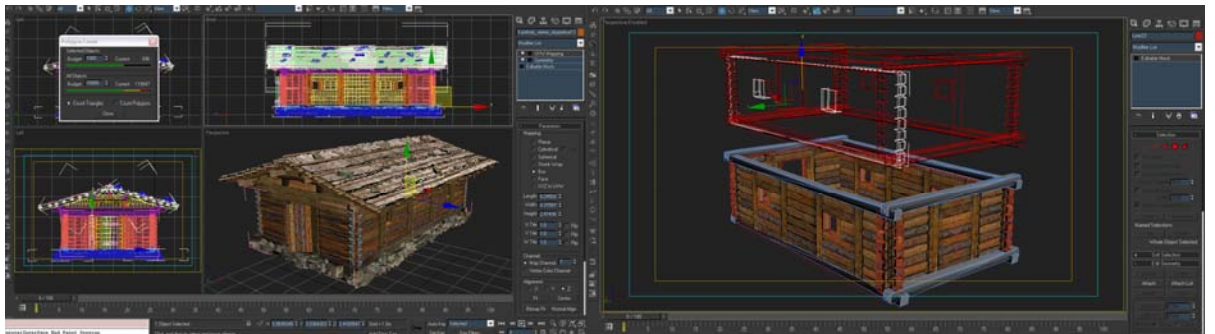
All the building elements, including the joints, were modelled by the computer and provided with realistic finishes (textures), and then worked into different layouts or types of houses. These were then distributed throughout the presumed settlement area on the terrain model which had already been constructed. In this way we obtained the basis for the craft settlement in Ramsautal on the Dürrnberg. Four types of residential

buildings, one smithy, one stable and 3 storehouses were thus created with a high degree of detail.



In order to give a complete view of the settlement (by including, for instance, terrain and plants) the house models had to be reduced in size quite considerably as the capacity of our computers was not able to show such highly detailed scenes.

However, detailed pictures of all views of these buildings were made and protracted onto geometrical planes with much lower resolutions. Thus objects with a subset (number of polygons) of about 500,000 ended up with 20,000. About 40 such buildings were thus reduced, leaving about 5% from the original mountain of data, despite retaining the possibility of showing the objects close at hand, as they were replaced in close-up by high resolution models. This method was also used in many parts of the project in a similar way and thus made its completion possible.



High resolution (left) and low resolution (right) model of house

A quantification of the project shows how important it was to focus on such methods in order to save resources.

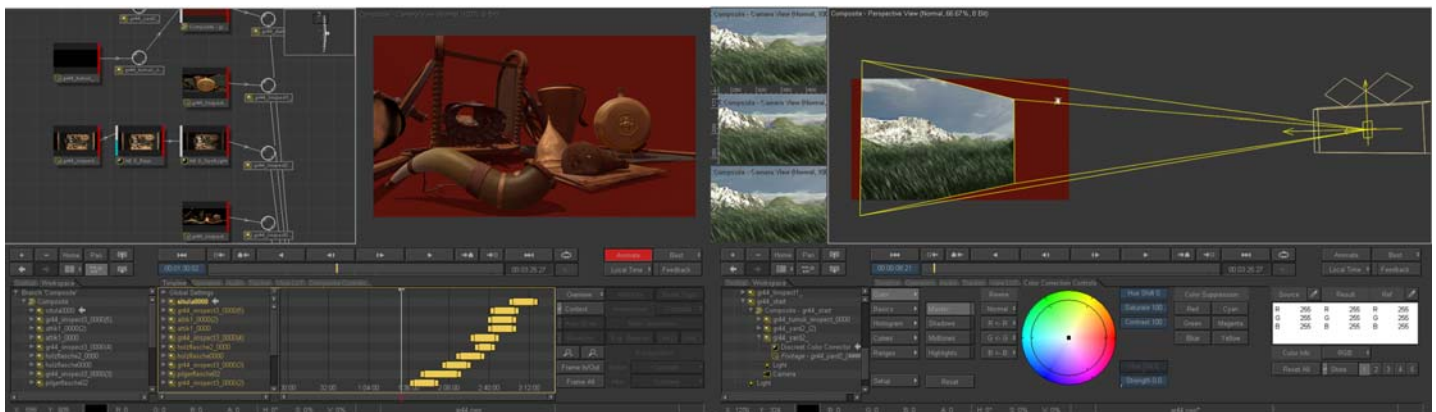
About 3,600 hours were required for the modelling and texturing of more than 580 objects.

Putting these objects into a total of 64 scenes and subsequent animation took about 780 hours.

The resulting computation finally allowed us to make coherent films with logical sequences: about 130,000 individual pictures were created. The computers were in use for a total of 4,300 hours - not including time that was used to solve technical problems.

About 640 hours were necessary to cut and add sound to 200 separate film clips, as well as 420 sound clips for the complete film and for the different versions.

About another 320 hours were required to produce the final DVD, creating hundreds of pictures, panorama views and real takes for a viable multimedia DVD.



It is impossible to describe the administrative work of the team, such as sales, public relations, research and cultivating contacts, as well as normal day-to-day work, but it began long before actual production and will last much longer too.

Looking at the list of our production team it is clear that this project could only be realized by the tremendous

dedication of all those involved in the project, and it is also clear that commercial interest was not a priority.

We therefore hope that this DVD will be a tremendous success and thus help to reimburse all those concerned.

Looking back, I have to state that although some parts of the original proposals were unable to be carried out because of lack of time and budget restraints, we are convinced that this production will prove to be a trailblazer throughout Europe.

Michael Klein
Producer

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Latest text and pictures are to be found on the project's web-site:
www.kelten.co.at

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