“VISUAL SCIENCE”

Fine Art as method of scientific visualization & museums didactics

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No other institution in Austria has such a long tradition of visualization of scientific content as the Natural History Museum Vienna. Thanks to its dual function as scientific institute and public educational institution, the NHM Vienna holds large collections of scientific illustrations and models used for scientific purposes and for museums didactics. Although these objects are not only of historic but sometimes also of very high artistic value, they are still “hidden treasures.” Seen as unexciting research tools, they are often consigned to the shadows. Already in the 18th century, scientific illustrations and models were created by the means of the fine arts. Before the invention of photography this was the only way of visually documenting scientific discoveries. But even beside photography, which still has a very special position in the natural sciences, the fine arts kept their function. To date scientists are often working closely with artists. Each artistic representation is the result of a knowledge process, thus adding to the textual interpretation a new meaning. By this, these art works not only document scientific discoveries, but also provide the basis for further creative scientific thinking. Under this new perspective, a completely new field of art historic research opens up, in which the authors of these art works can be categorized in four groups:

1. Many of the illustrators, painters and model builders are not seen as real artists. Their work had to be realistic and scientifically exact instead of artistically innovative.

2. Some scientists were able to carry out high-quality illustrations of their scientific research subjects. They had trainings both as painters and as scientists. Examples for this category are the butterfly pictures by the researcher and collector Josef Mann1, the underwater scenes by Eugen von Ransonnet-Villez2 or the paintings by the artist-explorer Julius von Payer. In many cases, however, scientists have sought cooperation with well-known artists. These include, among others, the artists who were involved in the decoration of the NHM Vienna. The paintings and sculptures created by them for the exhibition rooms had didactic function.

3. A category in itself are the artists who define themselves exclusively as artist and do not want to assign any scientific purpose to their work. They take up scientific topics and use the collections as inspiration. Examples are the fantastic works by Daniel Spoerri, or the photos of Irene Andessner.

4. Colephora ballotella by Josef Mann (1834–1843)

