A DISCIPLINE TRANSFORMING – **COMPUTER DESIGN OF JEWELRY**

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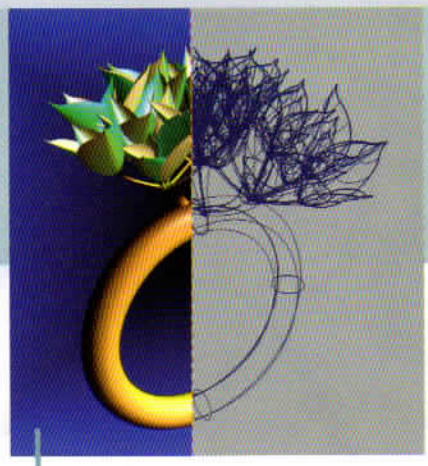
Professions and professional skills change over the years. In this context, it is an undeniable fact that computers have revolutionized the world of communication. So people still unfamiliar with basic handling of a mouse and software programs have a rocky path ahead. Although jewelry design by goldsmiths and designers is characterized by unique pieces, unlike the industrial production of jewelry, ever greater numbers of jewelry designers are starting to tap the possibilities of computer-assisted design technology. This does not take away any of the value of the unique item of jewelry, but it does offer a clear increase in the methods of designing innovative jewelry.

There is a widespread opinion that CAD is only a solution for jewelry firms with series production. The high investment costs that an individual goldsmith or designer cannot capitalize are certainly important arguments. For some years now, various manufacturers have offered 3D software versions for PCs under Windows. Large workstations with high-volume memory capacities and an expensive graphics card do not have to be purchased. However, the user should boast basic computer literacy skills. Going straight from zero to a modeling system is barely conceivable. Software that provides the desired result at the push of a button is simply not available. Many systems offer integrated learning programs in order to acquire the initial skills. Working through the manual is laborious, so a course appears to be the most suitable method in this respect. User forums by the software providers are good sources of information concerning the current version and software features. But how can a goldsmith get hold of a CAD system and which investments are necessary? Most of the users decided to purchase a CAD system due to the necessity of presenting their designs in a better form. Smaller series will also reap the rewards of having the model ready as a data set for rapid prototyping. It can also be advantageous to use the CAD system for individual items of jewelry, provided that the presentation is deemed very significant. Subsequent saving of the data means that subsequent changes or a redesign are possible in a more precise fashion than would be the case in changing a basic model made of wax. The 3D design enables a more precise and realistic presentation of the model than any drawing would normally be able to. The icing on the cake in this context is the possibility to present scenes depicting an entire collection or a comprehensive design, as this can also be used as a marketing instrument.

The groundwork of modeling is found in three-dimensional space, so as to speak. Within a 3D system, the users can choose between four viewing windows. The models can be examined with the utmost precision using the frontal, lateral and overhead views in a perspective window.

Watch design and the matching case by Atelier Simon in Rhinos

A curvy jewelry design by Till Baacke



The rendered model and wire model by Horst Meinzer