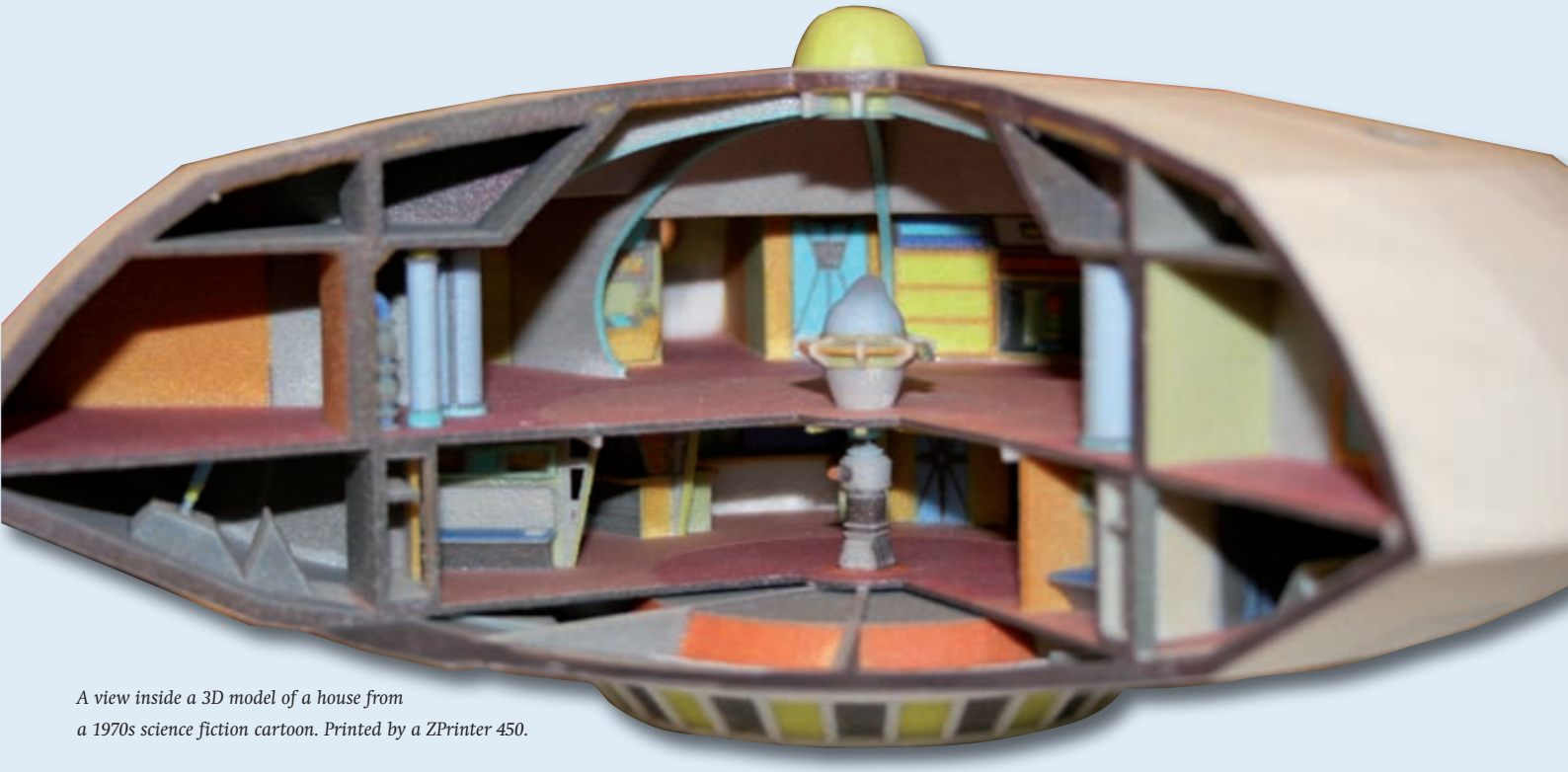
Comparing
Large Format and 3D Printers

In this issue of GeoInformatics we focus on printing with large format printers and 3D printing. We asked some manufacturers and resellers for information and specifications on their printers and put the information into tables so you can make the comparisons yourself.

By Job van Haaften



A view inside a 3D model of a house from a 1970s science fiction cartoon. Printed by a ZPrinter 450.

Latest Technologies

Comparing printers is certainly difficult. Cost and speed are not the only things that matter. The reasons for choosing a certain printer can be complex. With this information we hope to assist our readers in choosing the printer that best suits their requirements and circumstances. Every specification can matter: paper width, the media that can be used, supported print languages, drivers, minimum line width, print resolution and compatibility with, for instance, scanners and folders.

From Canon and Océ you can read about the experiences of a user of one of their printers. HP's worldwide Product Manager for the Designjet T-series, Carles Magrinyà, tells about the company's latest technologies and developments in the market. Also included is a table with specifications of two KIP large format printers which use an LED-laser technology that is quite different from the technology used in inkjet printers. Nevertheless, they are large format printers and we very much wanted to include them in our article.

2D not Always Sufficient

Using GIS-software for capturing mapping and surveying data means that 2D hardcopies are not always sufficient. That is why we also include 3D printing in this issue of GeoInformatics. This technology is becoming more popular as models improve, speeds increase and costs decrease. With Z Corporation's ZPrinter 450, prototypes can be printed in full color from almost every kind of 3D data.

There are many advantages to printing in 3D compared with traditional 3D modeling. The original data can drive the printer directly. Using current techniques the printer can produce parts that can be fitted together, for instance a roof on a building. It enables the user to make larger models than the printer can handle. The printer can also print multiple models at the same time by stacking and nesting parts.

The model is built in layers using a high performance composite powder, a liquid binder and ink. It is fast, and that reduces costs. The printer has no problems with parts that hang over, protrusions or chains. The printer can even produce a structure like medieval chainmail.

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