

Speaking Bodies

Overview

Name: Hans-Jürgen Stoffels

Company: Institute for Forensic Medicine

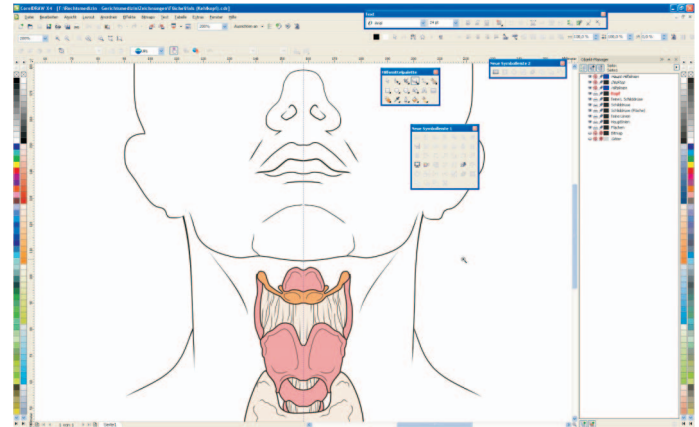
Location: Cologne, Germany

Industry: Medical

Product: CorelDRAW® Graphics Suite

Bestselling authors Patricia Cornwell and Kathy Reichs made us aware of the enthralling life of a forensic doctor. However, few know about the important role that the graphics software CorelDRAW Graphics Suite plays in this profession. Here is a peek behind the scenes.

Every day, the Institute for Forensic Medicine at the University Hospital of Cologne receives numerous requests from the police, the Office of the District Attorney, judges, lawyers and private persons in matters such as child abuse, murder, paternity suits or insurance disputes. Every now and then, cases involve corpses disfigured beyond recognition. Every time a human body comes to harm, the staff members at the Institute for Forensic Medicine are in demand. They are able to determine whether a head injury originated from an accident or a deliberate blow from a weapon. They decide whether a fall from a window was suicide or murder. And they identify an unrecognizable drowned body by means of DNA analysis, as was the case with the tragic crash of the Air France plane in early June 2009.



Every year, the 24 staff members at the Institute for Forensic Medicine perform about 500 postmortem examinations. They know that meticulous documentation of size, age, nature and appearance of lesions is critical in order to draw correct conclusions about the progression of events. The site of the trauma is also documented: Where are the bullet holes, cuts and fighting wounds located? As this comprehensive documentation will be filed with the court records, it is important that they be recorded accurately. Until recently, the sketches were done manually, leading to inconsistency amongst the various documentations. The Director of the Institute, Professor Markus Rothschild, decided something had to change.

The solution came from MedizinFotoKöln, the central photographic laboratory of the University Hospital. Twelve people work here, among them nine photographers and two graphic artists. One of them is Hans-Jürgen Stoffels, a graphic artist by birthright (his father was a freelance graphic artist). Mr. Stoffels learned reprography and later studied art in Cologne. He has worked at the University Hospital of Cologne since 1977. And for decades, he has been using the graphic software CorelDRAW.

"The good thing about Corel is that they always quickly introduce innovations for the benefit of Corel users. For example, CorelDRAW early on displayed a preview of the selected font type, a feature still missing in some of the more expensive programs. I know that these kinds of enhancements are described as 'user friendly,'" he says.

As a veteran graphic designer Mr. Stoffels has step by step taken part in the evolution from manual drawings to computer graphics. No matter which medium he works in, for more than 30 years he has been striving for the highest quality and precision in his work. "Whether on the computer or directly by hand, precise work is essential for quality and authenticity," he says. His area of responsibility is diverse. "I create graphics for medical students, educational brochures for patients, flyers for medical conventions and graphical

descriptions of surgical techniques," he recounts. "I have even made numerous cartoons and animations." In the past, when he used to work exclusively for neurosurgery, he also attended surgeries to photograph or draw all the steps. But now, because he works for many institutes as a graphic designer and illustrator, and due to time constraints, he is no longer able to work as a photographer.

For the Institute for Forensic Medicine, Mr. Stoffels was assigned the task of making linear drawings of bodies of different ages for examiners to use when charting lesions during forensic examinations. "That means I had to draw the front, side and back of the body, and create detailed drawings of separate body parts, such as the head, hands and feet, and all the organs and bones," he explains.

Mr. Stoffels proceeded methodically. First, he had to collect the required material: photos of organs, drawings, even models. The Web proved to be a fertile ground for research. He downloaded a drawing of a skeleton and used it as a template. He then had to standardize and adapt all the material. "If the postures of a man and woman were different in a photo, I adjusted them using CorelDRAW Graphics Suite," he recalls. The ultimate goal was to create freely scalable linear drawings of bodies, skeletons and organs that could be exported to EPS, WMF or PNG file formats for presentations or forms.

From the beginning, Mr. Stoffels knew that he would use CorelDRAW Graphics Suite for this task. He has used CorelDRAW since version 2. "Corel is fast, easy to handle and customizable. Functions such as Zoom or Copy are easy to use," he says, in explaining his rationale for choosing CorelDRAW. "Corel has shortcut keys for all essential functions which speeds the work process." The speed factor was especially critical for him. "I am so fast that my colleagues say there is no computer yet able to measure up to me," he smiles. "Only Corel [software] lives up to my expectations regarding speed and ease of use." No wonder he managed this huge task from the Institute for Forensic Medicine single-handedly. In describing how he proceeded, he explains: "Since the drawings had to be clear and easily alterable, I focused directly on vector drawings, which can easily be corrected and adjusted." He sketched the outline of the model and, in the final version, transformed the bitmap images into vector objects. "This way the proportions are maintained regardless of whether the printout of the drawing measures 10 centimeters or a meter," he explains.

The Institute for Forensic Medicine uses the PNG files provided by Mr. Stoffels in Microsoft[®] PowerPoint[®] templates and WMF files that can be linked to Microsoft[®] Word files. The medical examiners can mark up these files and print them, or vice versa. In answering how long it took him to complete this project, Mr. Stoffels shrugs and says he was not permanently working on this specific project. Occasionally, more essential projects arose and took precedence. But it was completed in a few months. Mr. Stoffels speaks as fast as he works. His next project, a flyer about the dysfunctions of the larynx for a major HNO convention, is already lining up to be carried out. His sidekick: CorelDRAW Graphics Suite, of course.

