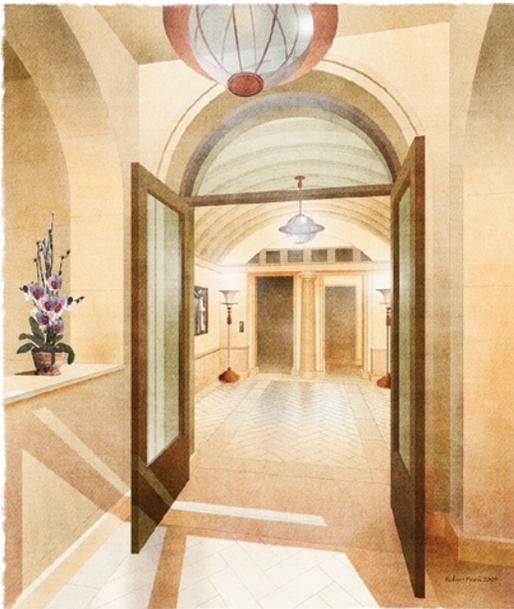ROBERT FRANK

The poetry of architecture

Leading architectural illustrator uses Adobe® Photoshop® CS2 software to create painterly architectural illustrations

When something doesn't exist yet, it can be difficult to imagine. This is one of the main challenges that architects face daily. They must help people visualize buildings—or even entire cities—that have not yet been built. Of course, it's best if they can also help people understand how buildings will look in the context of other buildings and the surrounding landscape. Using Adobe Photoshop CS2 software, Robert Frank helps people visualize the whole picture, down to the smallest detail.

"My job is to paint a picture of projects while they are still on the drawing board, but I specialize in using traditional approaches that convey the poetry and atmosphere of each project," says Frank.

Adobe

Frank's detailed, accurate renderings created in Photoshop CS2 help people visualize proposed structures as well as their surroundings, down to small details such as café umbrellas and pedestrians.

Frank understands that every element of a design must be understood and clearly articulated to clients, engineers, contractors, review agencies, and others involved in design and building processes. Without visual clarity and accuracy, obtaining approval from review agencies and marketing development projects becomes far more difficult. He also understands that conceptual design images are vital for conveying the feeling of every project.

Artistic flair

An architectural illustrator since 1986, Frank provides his services to architects and developers of projects ranging from single family homes to entire cities. His illustrations are used to facilitate approval from review boards, as well as for marketing projects. Using Photoshop CS2, Frank achieves the time-honored look of traditional watercolor or charcoal drawings, but with the enhanced capability of manipulating the lightness and darkness of color.

> "Photoshop CS2 allows me to do what I had always been doing with traditional media, just faster both in creating a finished product and in experimentation."
>
> Robert Frank, architectural illustrator

"Photoshop CS2 lets me create illustrations with all the advantages of digital artwork. For instance, I can make changes quickly so that my illustrations evolve along with the design process," says Frank. "At the same time, my illustrations convey the poetry and atmosphere of architecture because they look like traditional media."

Efficiency, creative freedom

While pursuing a degree in architecture from the Rhode Island School of Design (RISD), Frank worked for Richard Lovelace, an architectural illustrator in Boston, Massachusetts. Lovelace's passion for drawing greatly influenced Frank's thinking about the profession of architectural illustration. After graduation, Frank worked for several years as a designer for the architectural firm Carrasco & Associates in Palo Alto, California. These experiences influenced his unique style of architectural illustration.

"A life drawing class exercise at RISD taught me that trying new things brings a freshness to one's work," says Frank. "The exercise involved using a tree branch dipped in ink as a drawing tool. Today, I view my computer and Photoshop CS2 as a tree branch. Photoshop CS2 allows me to do what I had always been doing with traditional media, just faster both in creating a finished product and in experimentation."
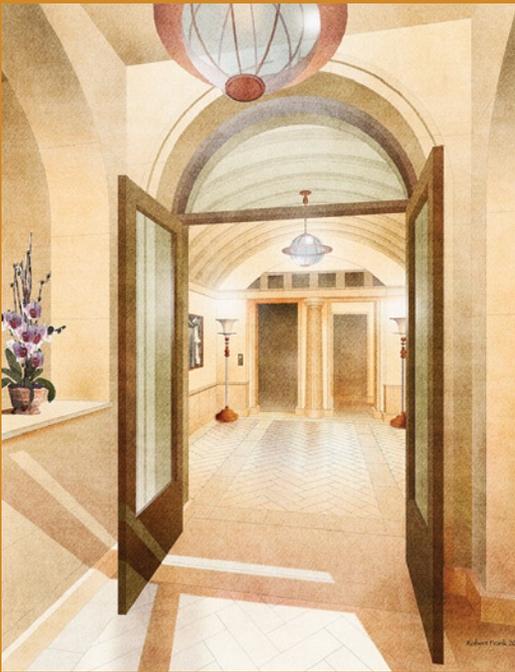
Rather than trying to achieve photorealistic perfection, Frank often strives to convey the poetry and atmosphere of proposed architectural projects. Photoshop CS2 lets Frank communicate this by using the time-honored, artistic look of traditional media, such as watercolor or charcoal, with the speed and editing flexibility of digital media.

Company
Robert Frank
Novato, California
www.rfassoc.com

Challenges
- Create digital illustrations that look as if they were executed using traditional media
- Enable illustrations to evolve along with the design of each project
- Produce multiple versions of illustrations, without the time-consuming effort of creating them by hand
- Make it easier for clients to comment on work-in-progress

Solution
- Quickly clean up wireframe perspectives using Illustrator CS2
- Illustrate using Photoshop CS2, keeping colors on separate layers for quick experimentation
- Use blend modes and opacity levels in Photoshop CS2 to apply colors for a painterly effect
- Convert 3D wireframe views in CAD to Adobe PDF for client review

Benefits
- Allowed Frank to illustrate just as he did using traditional media and with a similar look
- Enabled faster experimentation and completion of projects
- Pleased clients by providing more options and views of projects
- Enabled speedy, easy client reviews

Tool Kit
- The Adobe Creative Suite 2. Components used include:
  - Adobe Acrobat Professional
  - Adobe Bridge
  - Adobe Illustrator CS2
  - Adobe Photoshop CS2
- auto·des·sys, Inc. form·Z
- Apple Power Mac G5 running Mac OS X

Technology streamlines the process

Frank's work looks traditional, but the process for creating it is mostly digital. A typical illustration process in traditional media involves making a black-and-white pencil drawing, photographing and printing it, and rendering the print with colored pencil. This is very time-consuming. It is also difficult to make changes to meet client demands.

Using Photoshop CS2 and other tools, Frank can create drawings that evolve throughout the entire design process, to quickly produce alternative studies, and to incorporate changes as needed. For instance, when an architect wants the illustration to have warm colors and the developer prefers cool, it is possible to do both versions in digital media without the lengthy process of preparing new illustrations as would be required with traditional media.

Traditional, yet digital

To create his illustrations, Frank uses form·Z, Adobe Illustrator® CS2, and Photoshop CS2 software. Typically, Frank receives an Adobe Portable Document Format (PDF) file of plans and elevations to use as a base. He extrudes the 2D drawings in form·Z to create solids in a 3D wireframe model. He then chooses three to five perspective views and prints them for review.

When Frank is creating wireframe views, he often obtains interim client review and approval. He converts his 3D CAD files to Adobe PDF and emails them to clients. The platform- and application-independent Adobe PDF files can be reliably opened and easily commented on by clients using the commenting tools in Adobe Acrobat® software.

He saves each wireframe perspective as an Illustrator CS2 file and cleans it up by removing duplicate lines. He then imports the file into Photoshop CS2 for rendering. For projects that require a sketch-like quality, he does all of the line work in pencil. Frank then scans the pencil-on-vellum drawing into Photoshop CS2 using the grayscale setting. This is the base drawing for the rendered perspective.

Frank starts with the project building and creates a separate layer for each material in Photoshop CS2. This enables him to quickly experiment with various color and lighting schemes. On separate layers, he uses various blend modes and opacity levels in Photoshop CS2 to apply additional colors that create a translucent effect. The approach is similar to painting with thin washes of oil or watercolor.

Frank's conceptual design images are accurate, yet they convey the feeling of every project. His architectural illustrations blur the line between structural realism and fine art.

Taking efficiency to the next level with Photoshop CS2

Frank has been taking advantage of several features in Adobe Photoshop CS2 to streamline the process. For instance, Adobe Bridge, the next-generation file browser in Photoshop CS2 and the Adobe Creative Suite, lets him sort through a vast amount of images before opening them. He adds creator information noting that he generated the file before sending it out to clients.

The Color Replacement tool in Photoshop CS2 enables Frank to edit colors in his images more easily than in the past by letting him change a color, even if it is not on its own layer. Optical Lens Correction is another boon for Frank in creating illustrations. He often receives photos from clients that are three-point perspectives. He can use this tool to correct them for use as a background for tracing. He has also begun experimenting with Vanishing Point to automatically correct the perspective of building materials applied to his illustrations. "The next time I need to add floors to a rendering, Vanishing Point will be the first tool I go to," says Frank.

A more realistic approach

In addition to his hand-drawn approach, Frank uses a technique that involves combining manual value drawings and digital color. Frank creates a 3D wireframe view as the base drawing in form·Z and Illustrator CS2. However, instead of rendering the values as color in Photoshop CS2, he does it freehand as a grayscale charcoal sketch. Only the color is added digitally as a wash. This produces illustrations that are more photorealistic.

The result and intent of the two processes are very different. The line/digital process is effective for presenting images to communicate design and context more clearly. The sketch/digital approach is great for conceptual design images to convey the atmosphere of the project.

Although Frank applies different techniques for different purposes, one thing remains the same throughout his workflow: a heavy reliance on Photoshop CS2. "I literally would not be able to accomplish my work without Adobe Photoshop CS2," he says.

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Robert Frank,
architectural illustrator

Adobe