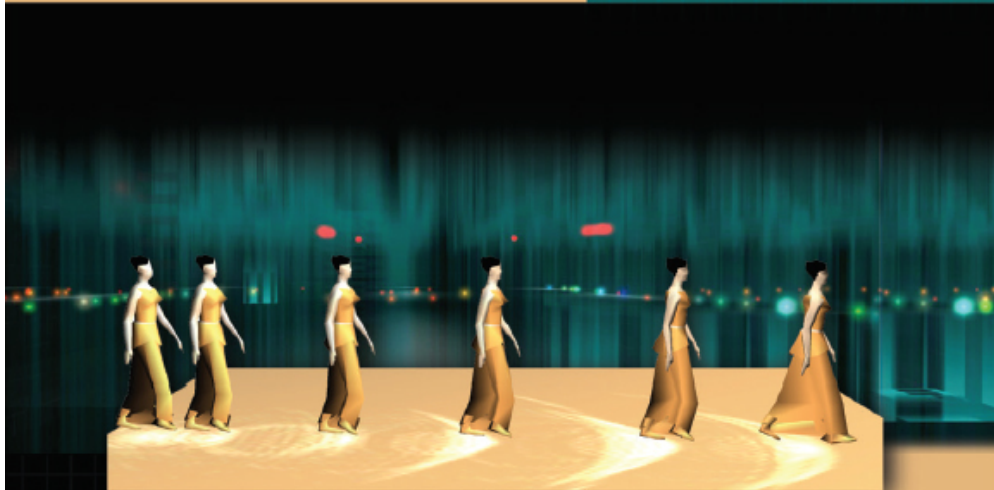




# Building Interactive Worlds in 3D



Virtual Sets and  
Pre-Visualization  
for Games, Film  
& the Web

Jean-Marc Gauthier



I have found ways to express myself as a writer, a moviemaker, a photographer, and architect but still felt the need to communicate ideas that did not fit into any of these domains. New possibilities for expression emerge in the design of virtual spaces. Designing virtual spaces helps me convey ideas in ways that cannot be expressed the same way in writing, movies, photographs, architecture or other visual art. Surrealist artists from the twenties, Man Ray, Marcel Duchamp, Louis Bunuel, felt that movies could tackle situations or emotions that could not be depicted in writing or in the traditional visual arts of their times. For similar reasons, topics covered in this book stretch beyond the strict domain of virtual spaces. They relate to larger concepts like the future of cinema, the place of virtual spaces in tangible public spaces, how to define new experiences for the viewer of a virtual space, or how to develop new types of

associations between several media that may involve both the virtual and real. I hope that this book will help you to look at virtual spaces as an immense territory for experimentation where you can build, explore and play more easily and faster than in the physical world.

Jean-Marc Gauthier

# ***Building Interactive Worlds in 3D: Virtual Sets and Pre-visualization for Games, Film & the Web***

**Jean-Marc Gauthier**

***Create functional and artistic virtual worlds!***

Virtual sets are redefining the way film directors, dancers, scientists, medical researchers, architects, TV producers and web designers can develop simulations in relationship to a real world situation.

*Building Interactive Worlds in 3D: Virtual Sets and Pre-visualization for Games, Film & the Web* is a tutorial-based, step-by-step book containing sophisticated, professional-level tips and tricks to help designers, programmers, and 3D artists create simple 3D interactive environments and virtual sets relevant to film and computer game direction, animation, and web development.

Inside the book, you will find turnkey tutorials that detail all the steps required to build simulations and interactions. 3D artists and developers can learn to build a fully functioning prototypes that utilize virtual cameras, virtual actors (with self-determined behaviors), multi-screens displays, a wide array of input devices, artificial intelligence and real-time physics. The book is dynamic enough to give both those with a programming background as well as those who are just getting their feet wet challenging and engaging tutorials in virtual set design, using Virtools. Other software discussed are Lightwave, and Maya. Each tutorial provides insights on particular interactive 3D techniques, from user, designer, artist, and producer perspectives.

The companion CD Rom includes a free trial version of Virtools 3.0, all the files you need to complete the book's tutorials and even more tutorials in pdf format.

**Jean-Marc Gauthier** is teaching at New York University in the graduate studies department of Interactive Telecommunications and the author of *Interactive 3D Actors and Their Worlds* (Morgan Kaufman Publishers 2001). He is also a consultant at [www.tinkering.net](http://www.tinkering.net) and award-winning 3D artist.