REALIZING EPIC FILM ENVIRONMENTS: MINIATURES

By Oliver Zeller

1998 | Special Visual Effects have been used to create grand scale environments since the beginning of ýlm. Dark city streets to towering skyscrapers, þeets of spaceships to massive sea vessels. As far back as 1898 during the dawn of ýlm, ýlmmakers used miniatures (a.k.a. models), a special effect technique still used today, to create key events that had recently occurred in the Spanish-American War. Notably he sinking of the battleship, Maine. Other techniques, matte paintings and now in the past decade computer generated imagery (CGI) have been widely used to represent grand scale environments in ýlm. In recent years the rise of CGI and sophisticated animatronics and puppetry from Stan Winston Studios to Jim Hensonôs Creature Shop, has led character modeling and animation to the forefront of the special visual effects industry. This can be witnessed in landmark visual effects ýlms: *Terminator 2*ôs morphing terminator, *Jurassic Park's* dinosaurs, the titular character in *Dragonheart*, *Babe's* talking animals and the vicious aliens in *Starship Troopers*. With such future potential still visible, many clearly see 3D CG characters as the highlight of visual effects. In addition the depiction of pyrotechnics and fantastic science ýction effects, has somewhat taken the spotlight away from the use of special effects to create grand scale environments. Furthermore the creation of such environments using visual effects techniques is often overlooked and under appreciated. Understandably though, if the effects crew has done its job well, the integration of effects and other live action ýlm elements should be absolutely seamless and realistic. While CG character animation may be heralded as the future of visual effects, the creation of grand scale environments can be just as difýcult with great future potential. The demands placed on the effects crew have become increasingly challenging and the sheer level of detail and epic scope demanded by some directors for environments, as seen in James Cameronôs *Titanic*, highlights the difýculty involved of handling such as a massive task.

Miniature Scene from Fritz Lang's 1927 Film, *Metropolis*

The use of miniatures, matte paintings and CG imagery to create grand scale environments has always been necessary and will continue to be. The primary reasons involve monetary constraints and control over the ýlmmaking process. Producing actual full-scale sets is a costly process, and when the director wishes to show the action on a large canvas, special visual effects techniques come in. The ability to alter models, matte paintings and CG effects allows greater freedom and changes to take place, for creative or bureaucratic reasons. Even ýlming at certain locales in recent years has become more problematic, and special visual effects have provided the answer. With the greater capability available in this arena of effects, the demand of these techniques has produced more elaborate and realistic means to simulate these large scale environments. It all began with miniatures.