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Behind the Scenes

Alex McDowell has digitally transformed the art of production design. His latest film takes a look inside the world of urban planning.

By Jennifer Kabat

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"So is that all the trees? We need more!" Alex McDowell laughs, waving his arms wide. "More trees!" The production designer stands one flight above a huge architectural model to which set dressers are adding dozens of little trees in contrasting shades of green for a scene in director Anthony Minghella's new movie *Breaking and Entering*. McDowell's three assistants have been at it for more than an hour, and he asks if there's any way they can lay their hands on 50 more. All this for something you'll see for maybe a moment. "I can tell you," Minghella says six months later during a break from editing, "it's probably less than five seconds."

Art Department
Alex McDowell stands next to architectural illustrator Paul McGill surrounded by location shots and images used as references for the production design of *Breaking and Entering*—a new film directed by Anthony Minghella and starring Jude Law as a landscape architect.
Portrait by Mischa Richter

Now take a look around you. If you work in design—and chances are you do if you're reading *Metropolis*—your office may look a lot like McDowell's set for the studio of Will Francis, the landscape architect played by Jude Law: Arco lamps, Eames aluminum chairs, Bruce Mau books, mesh trash cans. Seeing it copied so precisely makes it clear what a cliché design studios are; in fact, Minghella says proudly that the architects who served as extras kept walking through the set saying, "We have that, and that, and that," pointing to all the furniture, books, and design magazines they had in their own offices.

Downstairs, McDowell surveys the walls that have been hung with plans and blueprints in preparation for the final scene. He stands on the far side of the room and tells an assistant to remove a sheet of tracing paper that stands out too much. With an accent like Tony Blair's, the soft-spoken McDowell has the look of an aging surfer in loose cords and shirt, reading glasses tucked in a breast pocket, and tousled blond hair with a hint of gray.

The set for Law's fictional design studio, Green Effect, includes an abundance of slick Catifa chairs.
Laurie Sparham/courtesy the Weinstein Company

Using architecture to revolutionize movies, McDowell is taking tools from the most forward-thinking firms and applying them to production design. His work crosses genres from fantasy and sci-fi to costume drama and animation: Steven Spielberg's *Minority Report* and *The Terminal*, Tim Burton's *Charlie and the Chocolate Factory* and *Corpse Bride*, as well as *The Crow*, *The Cat in the Hat*, *The Affair of the Necklace*, *The Lawnmower Man*, and *Fight Club*. But his first fully digital design was Minority Report, where he sought out architects like Frank Gehry and Greg Lynn. Both were using Maya, the 3-D animation program that McDowell had integrated into his design process—he even hired Lynn's Maya artist.

McDowell has always been one to push boundaries. While he was studying at London's Central School of Art in 1975, he booked the Sex Pistols for their first gig. Glen Matlock, their original bass player, offered to play for free, and McDowell was hooked. When Matlock left the group to start his own band, McDowell set up a design company, Rocking Russian, to do the graphics. His early employees included Neville Brody and Malcolm Garrett, two of Britain's most influential designers. With the MTV revolution McDowell started making videos for the Cure, Siouxsie and the Banshees, and Adam and the Ants—all close friends and legends of the postpunk scene. Soon he was doing three a week, but after a Hall and Oates shoot he realized the video thing was over. He moved to Los Angeles and began working on commercials with David Fincher. Not long after both graduated to movies.

During *Minority Report* McDowell and Lynn became friends and collaborators. The latter says, "A lot of those things Alex cooked up for *Minority Report*, like the 3-D screens, have become real, so I try to bring him in on projects wherever there's a component of Vegas showmanship needed. He looks at technology, computers, and visualization in ways I find intelligent and creative." Minghella explains that he hired McDowell because of his interest in architecture: "His brother's an architect. Alex is fascinated by it and works with architects himself. It seemed like a good marriage of sensibility."

Breaking and Entering is set against the real-life redevelopment of King's Cross, the

largest building project in Europe. It follows Francis, whose master plan includes a barren plaza carved from the canal running through King's Cross. There's no human scale to it, no trees, and if you conceived the plaza with inlets from the canal as the movie does, "it would flood the Underground," McDowell says. But a Bosnian teenager, Miro, keeps breaking into the studio, forcing a change in Francis, his marriage, and ultimately his design. This is why the model below is getting all the trees: as the movie progresses it gets greener. The irony is that Francis's firm is called Green Effect, but he doesn't really like nature. When flowers are delivered to him at the start of the film, he directs an assistant to hide them.

For the set McDowell borrowed architectural models from Will Alsop, Nicholas Grimshaw, and Richard Rogers, and a model serves as a central focus for the plot. It had to be big enough for the camera to read, as the boy steals its miniature people, so it was built at 1:50 scale, an almost unheard-of size for architects. But instead of employing a company specializing in film models, McDowell commissioned A Models, the same firm used by Zaha Hadid, Alsop, and McDowell's brother Jonathan, a partner in McDowell + Benedetti. As Alex started developing ideas, the brothers talked about the issues of development and gentrification bound up in King's Cross, a neighborhood that's evolved from drugs and prostitution to the fancy offices of architects and designers.

Like an actor, McDowell gets into character to understand the rules of his fictional landscape so it becomes second nature. Prior to *Breaking and Entering* he spent time with his brother and the lead architects at Richard Rogers. He also went to the real site and talked to the disparate parties involved. "And," he says, "we studied massive urban-development schemes to find a language to use." To develop Francis's design aesthetic, McDowell began with the protagonist's own garden, which helped him articulate the character's approach to space.

He repeats this process for all of his movies. For *Charlie and the Chocolate Factory* it involved visiting mill towns in the north of England; for *The Terminal* he toured dozens of airports. "In the end there was a moment when I stood in different airports and had enough knowledge already embedded in me so that I could let go of the facts and breathe the atmosphere. It's this revelatory moment that goes beyond research, when you 'know' your world," he says and turns away from the set below, still holding on to the steel handrail he created for the fictional architect's studio. "Once you're in the throes of production you can't start looking up to find the answers; you have to have the rules, the answers, in you."

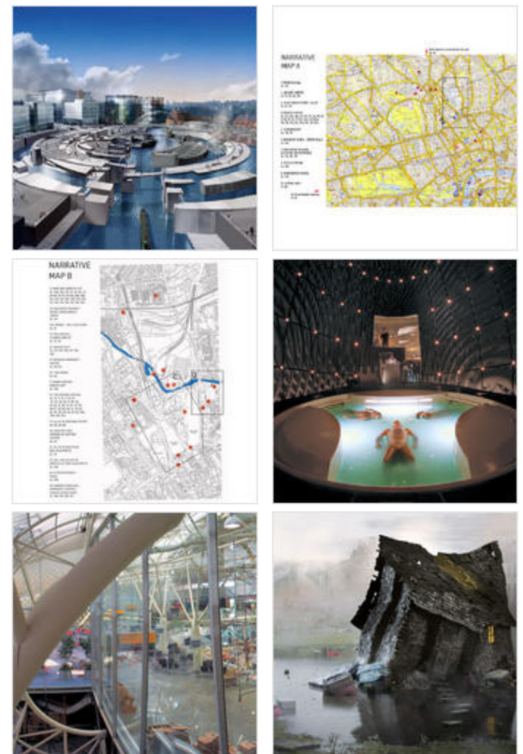
To establish rules for *Breaking and Entering*, McDowell felt he needed a guiding manifesto. When he asked Minghella to write one, the director responded with a polemic on how all urban public space is unnatural and man-made, how public space is more important than architecture because it's what the public uses. Minghella showed the document to landscape architect Martha Schwartz, who served as a script consultant. "She loved it," he says. "She said she was going to borrow it, that she'd been looking for me the last twenty years!"

The manifesto helped form the fictional scheme for King's Cross. "It made it easier for me, even though it's the opposite of what I've been taught about architecture," says Paul McGill, who created the movie's master plan. He migrated to movies from Grimshaw's office, where he was responsible for the Rolls-Royce headquarters, and after *Breaking and Entering* he went to work for Rem Koolhaas in Beijing. Asked if he'd rather work for Grimshaw, Koolhaas, or Jude Law's character, McGill chose Will Francis without hesitation: "He's mad and maniacal, but he doesn't have any restrictions. There are no concerns about money, so it's all about creating this pure, indulgent space."

McDowell leads me to the garage that serves as the North London production office. With its graying carpet and mismatched desks, it's considerably less glamorous than the fictional studio. The walls are covered with images of grim London housing projects and various kinds of barbed wire. McDowell fiddles with his glasses, takes them out of his pocket, and puts them on before deciding to take them off again to look at me. "The big part of my job is creating a history for the sets, to make sure people feel like there is enough grit and texture to occupy the world. So you invent the limits and constraints for the world, and it's all done in the first two to three months."

Then almost at the speed of Genesis a design team gets to play God creating a film world. For the production to work, McDowell needs people to believe that world is real. In part

Urban Planning
An existing building in East London was completely gutted and rebuilt for the set of the architect's office. Martin Freeman, Ray Winstone, and Jude Law (left to right) are dwarfed by an oversize architectural model in a still from the movie.
Photo, Laurie Sparham/courtesy the Weinstein Company



he engenders such faith by photographing each location and arranging the images on the production office walls in narrative order. "It's a viral thing. From these pictures"—he waves behind him at hundreds of photos—"you're creating a sort of visual infection. If you lay them out correctly, everybody from the PAs to the cinematographer starts with a subconscious notion of what the film is. They get the landscape of the movie. They see and believe it, and then they're in that head space."

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Even though the movie is set in the present day, the visual space doesn't necessarily conform to the real world. They couldn't find a building in King's Cross that worked for the Green Effect office, so McDowell had a location scout follow Regent's Canal east: "I thought Bow [in East London] would work because there's an intersection of roads, rail, and water like you have in King's Cross, but it's not been redeveloped yet." Finally they found a building that fit the script. The office needed skylights through which Miro could break in (a jumper, he enters from above).

Once they found the building, they had to alter it completely. An old foundry, McDowell explains, "it was full of old equipment. The floor was wrecked, and we poured three inches of concrete slab floor, sandblasted the walls, which were old brick, and replaced the glass in the ceiling so we could see the actors through it." He even put in extra skylights for more light and built a large steel staircase and a glassed-in conference room. (The great irony now is that the building will probably be demolished in London's next big development after King's Cross, the 2012 Olympics.) The work wasn't as extensive as *The Terminal* set, which took five months to construct and included marble floors and required an engineering firm to consult on the steel girders.

McDowell points to a photo of Francis's office and a large photocopied map of North London. "This is our two-mile radius," he says, drawing his finger to the exact street where the office is located in the film. He carved out this fictional world and mapped it precisely, overlaying it on the streets of King's Cross. To make sense of this new landscape, he created what he calls a "narrative map." Almost Borgesian, it transposes the movie's world onto the real one. After finding the building for the office, he walked the streets to scour the area for the connective tissue of roads and landmarks, figuring out how it tied to Regent's Canal so he could link the sequences together visually.

"From that we made a fictional North London map," McDowell says. "We relocated the building just off York Way on the canal. We did the same with each location, creating a fictional map but a real geography, with locations placed in a believable relationship to one another, to the compass and the light." He created a similar geography for *The Cat in the Hat*, *The Terminal*, and *Minority Report*.

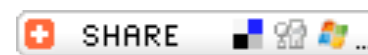
"*Cat in the Hat* was a fantasy that had to be set, at least in the beginning, in a relatively real world," McDowell explains. After he found a site in Simi Valley, near L.A., he had it surveyed with LIDAR, a laser technology that quickly maps and models terrain. He then placed a subdivision onto the 3-D map so his team could plan the exact number of houses they needed, how the subdivision's streets would be laid out, and the sun's position on their shooting days. For *Minority Report* they didn't just map out the relationship of the vertical city to the actual geography of Washington, D.C., but also worked out how it would function. They based it initially on Tysons Corner (an edge city built around a shopping mall) and determined how it all connected, how people traveled in it, and precisely where the schools and services were on the different strata, even though they never appeared in the film.

Minority Report marked a major change in McDowell's career. It was Hollywood's first fully digital production design. Using what the industry calls "previs"—short for previsualization (which sounds like the film's fictional police department, Precrime)—he replaced painters with Photoshop and started using 3-D animation programs such as Maya and SXI. With a high level of detail, they simulate what the film-production space will look like. You can populate them with actors and camera equipment and run the arc of a storyboard through them so it relates closely to the sets you'll build. Directors can block out complex shots in advance. Previs saves time and money, but the technique also has another benefit. Blockbusters inevitably have digital effects and computer game tie-ins, both of which need visual information from the set. Now they can get the data straight from the production designer early in a shoot instead of waiting for the film to wrap. McDowell found another reason to use previs: "It became pretty clear that Spielberg wouldn't read an illustration as a finished piece, but if you did it in Photoshop and created a photorealistic environment he focused differently on it," he laughs.

On *Breaking and Entering*, however, McDowell used the previs tools that he'd borrowed from architecture for architectural designs. McGill created his King's Cross plan in CAD; those details were then sent to A Models to create the model but also translated into Maya to create a fly-through. "As we were researching, we found that big projects always include a video of the virtual space, so we made one as well," McDowell says. It plays on the TV screens in the Green Effect office during the party at the start of the movie—and on the computer Miro steals from the office later.

All this architecture and design does make McDowell "itchy to do it for real," he said in Los Angeles this past spring. It's a cold April day. We're sitting in a courtyard outside the Dreamworks campus, where he's working on *Bee Movie*, Jerry Seinfeld's animated feature. A group of schoolkids walk past single file on a studio tour, and McDowell explains how after working on *Minority Report* he formed Matter, a think tank dedicated to pursuing the edges of science and art through continuing collaborations with the scientists whose work informed the movie. This year he was appointed artist in residence at MIT's Media Lab, where he's designing a robotic opera with Tod Machover. Matter works like the film industry, where everyone can be called together quickly. He started the group in part to create work that exists in the real world because production design is brutal: nothing lasts, it all gets torn down; it's about anonymity. Or as he is fond of saying, it is "only meant to reflect and absorb light."

"Of course I envy architects and designers," McDowell says. "There is something fantastic about building something that has a function, a social political function." Soon Matter will launch a five-year series of installations at the Long Beach Art Museum; but as it threatens to rain, McDowell says, "You know, *Metropolis* doesn't give out an award for production design. People just don't see it." You can hear a hint of mournfulness in his voice, and it's possible that sometime in the future he will create products that aren't just about contributing to the narrative. Still, in the next breath McDowell says he's excited about the idea of bringing production design to video games and animated features. He wants to keep exploring the new. Just then, improbably, a group of ducks lands next to us in the sculpted pond on the faux–Spanish grounds.



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