

2010  
**EDUCATION**  
SPECIAL



*Image from Ringling College  
of Art and Design student  
Jennifer Bors' animated CG  
short film "Departure of  
Love," winner of the 2010  
Student Oscar.*

# Embarking on a New Journey

*Possessing the proper skills and knowledge  
will lead to a successful journey*

# Innovators in Education

*Schools increasingly deliver novel courses, speakers, events, and techniques to expand learning*

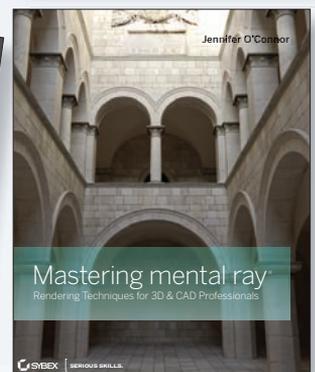
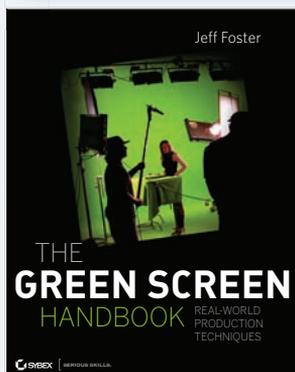
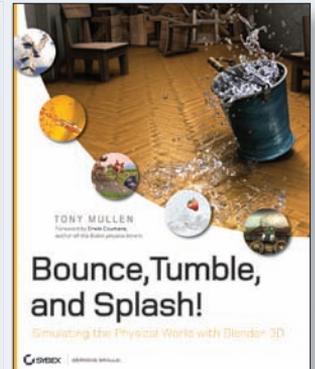
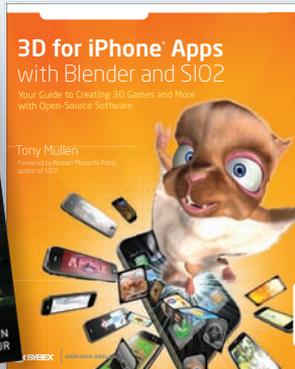
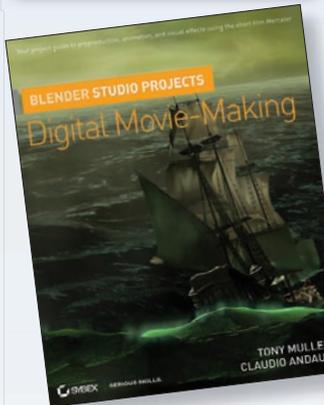
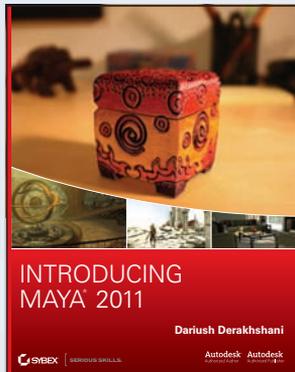
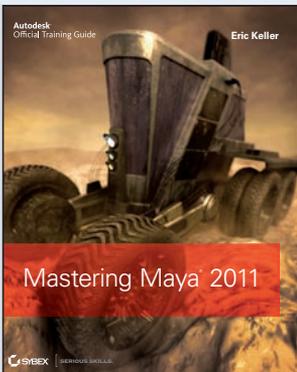
**By Courtney E. Howard**

The CG and postproduction entertainment industries thrive upon imagination. It is through the unbridled imaginations of today's artists that we experience the breathtaking graphics and awe-inspiring effects in the latest digital creations, be they on screens large or small. The individuals and institutions educating these skilled artisans are no less imaginative; in fact, educators are enhancing students' education with unique learning experiences.

Dorien Caleb Gunnels, a Savannah School of Art and Design student, created this image, from his short film "M221," which he created while working on a BFA in visual effects.

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## Atypical Education

Today's educational institutions are pushing the boundaries of tradition, going above and beyond typical, lecture-based classes. A number of schools are compressing a comprehensive education into an abbreviated timeline spanning one or two years. "Vancouver Film School's one-year Game Design program goes well beyond traditional educational models," says Dave Warfield, head of Game Design at Vancouver Film School (VFS) in Vancouver, British Columbia. "Over six terms, students are immersed in a learning environment that mirrors a professional studio, learning everything they need to hit the ground running after graduation."

In one year, Warfield maintains, VFS Game Design delivers a results-focused curriculum that outpaces most three- or four-year programs and ensures students' skills are industry-relevant. An advisory board and faculty of highly respected professionals help match the demands of the curriculum with those of the real world, he adds.

Gnomon School of Visual Effects in Hollywood, California, also offers programs engineered to meet the needs of aspiring CG artists in little time. "Our signature program is the two-year Digital Production for Entertainment Program, which is designed to create well-rounded, production-ready artists who are versed in digital and traditional skills," explains Brian Bradford, Gnomon's director of admissions. "Unlike conventional curriculums, this is not a diluted program with courses that simply fill a program's roster; these are specific courses that develop students into professionals and ready each student to work in the field of their choice."

For experienced artists wishing to hone their skills further, schools such as VFS and Gnomon offer specialized courses. Whereas VFS boasts summer programs, Gnomon delivers an advanced nine-week crash course in Autodesk's Maya.

## Studio Similarities

Graduates, as well as the studios that hire them, understand the benefits of learning in an environment that closely mimics that of a real-world studio. Students gain real-world experience, become better equipped and prepared, and increase their chances for rapid placement at a reputable studio—fresh out of college. Studios also benefit, as new graduates' familiarity with production tools and processes often reduces the learning curve upon entering the workforce and translates to a smooth workflow, fast time to market with quality results, and a mutually beneficial experience. For these and other reasons, modern educators increasingly are infusing

school curriculums with tools and techniques common of today's production studios.

"At VFS, we provide a simulated production environment," says Alastair Macleod, head of Animation & Visual Effects at Vancouver Film School. "With students working closely alongside instructors and mentors from the industry, they are able to learn and become well-versed in the language of the industry."

VFS Animation & Visual Effects students take part in regular screenings, called "weeklies" and "rounds," in an immersive curriculum of one year or less. Experiences such as these ease a student's transition to a professional production environment, Macleod explains.

Full Sail University in Winter Park, Florida, has embarked on a unique program of study for students in Game Development, Game Art, and Game Production, according to Rob Catto, director of Game Studies. "In an effort to provide the students with an environment that enables them to apply



**Full Sail aims to provide students with an experience that closely resembles what they will encounter in the real world. To this end, students learn to use state-of-the-art tools and techniques, including working with motion-capture setups.**

their education in a realistic atmosphere, we have combined the final project courses in these three programs, allowing them to take on the roles of producer, artist, and programmer in the development of a computer video game," he says. The final project is a five-month game cycle designed to provide each student with the experience of working in a team-centered studio.

This summer, Full Sail is opening a new building that will include a game studio designed to replicate the environment an employee would encounter in an actual game studio. As a result, Catto reveals, students in the last three months of their program will be able to work on their final projects in a professional work environment.

Students in the Computer Animation and Game Art degree program at Full Sail also follow an industry pipeline that is common of industry studios and which takes students



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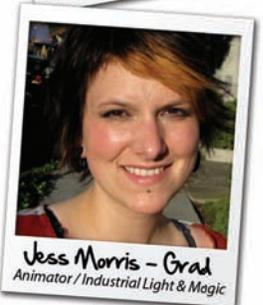
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through each step, from preproduction to postproduction and completed assets. During the degree program, students get access to Full Sail's on-campus motion-capture studio, Motion Analysis system, and Autodesk MotionBuilder, similar to what they will be required to use in the industry, notes Pete Bandstra, director of Computer Animation and Game Art at Full Sail.

In addition to the simulated production environment, the Animation & Visual Effects programs at VFS place a strong focus on individual results. While students may gain help from their peers—such as a modeler assisting an animator in the creation of models—the final projects are not group-based. “The end result is an expression of each student’s individual abilities, as demonstrated in [his or her] mastered demo reel—the ultimate calling card.”

## Production Projects

A large and important aspect of the Game Design curriculum at VFS is the final project, Warfield admits. Guided by a project mentor drawn from the industry, Game Design students at VFS collaborate in a production studio space and develop a playable game from concept through to completion. In doing so, students have access to a motion-capture studio, where they can track various moves and learn to work with motion-captured data. “At the end of their year,” he continues, “they have the opportunity to present this polished game to an audience of recruiters, designers, and other game-industry insiders. It’s not only a chance to receive valuable feedback, but a chance for students to get noticed by the industry as they’re about to graduate.”

Students at The Dave School make four films each year as part of their curriculum. “The Dave School is ‘The School that makes movies,’” says Jeff Scheetz, founder of The Dave School at Universal Studios Plaza in Orlando, Florida. Instructors, who serve as producers and directors, “lead the class through a production as though the students are working at a studio.

We believe there are more career options for people trained to work for a studio than there are for people trained to direct their own films.”

Full Sail also delivers the production studio experience in Project LaunchBox, a Full Sail initiative that provides all students with Apple technology to help them create music, film, game, animation, and design projects.

“Project LaunchBox complements Full Sail’s programs by providing students with access to a complete mobile studio for use throughout their school career and after graduation,” Bandstra describes. “With Project LaunchBox, students of all levels will be able to utilize their own personal MacBook Pro notebook computer loaded with Apple’s complete line of creative software tools, as well as degree-specific sets of pro-level applications.” The initiative enables students to have not only uninterrupted access to the tools they need, but also their portfolio conveniently at their fingertips at all times, he adds.

## New Tools and Media

The effective use of and ready access to industry hardware and software tools are part and parcel to a comprehensive education in digital content creation.

“An education at an Art Institutes school in a graphics-related field—such as Media Arts & Animation, Game Art & Design, and Visual Effects & Motion Graphics—in part, relies on technology as a tool to support educational outcomes,” imparts Josh Blazer, assistant vice president and regional director of technology at The Art Institutes. “We strive to get industry-relevant tools into the hands of the students and to maximize the time spent with these tools.” In teaching 3D animation, The Art Institutes deploy dedicated rendering clusters. Some schools even pool all the desktop workstations at night to deliver between 500- and 1000-node render clusters, according to Blazer. “We believe in the desktop systems and the software tools as enablers of quality outcomes.”

Warfield adds, “As technology is always evolving in the game industry, our curriculum and tools are constantly changing to reflect that. This includes new game development tools, such as Unity [from Unity Technologies] and UDK [Epic Games’ Unreal Development Kit], as well as looking at new and emerging gaming platforms, such as the iPod Touch, iPhone, and iPad.”

More and more, students are expecting to work with multiple tools and not a single tool set, admits Matthew Maloney, associate dean for the SCAD School of Film, Digital Media, and Performing Arts. “It used to be that Motion Media worked mainly in Adobe After Effects and Maxon Cinema 4D. Now, we’re adding courses like Alternative Methods and Digital Form, Space, and Lighting to their toolbox. In addition to the traditional software, a new Motion Media student expects to be able to work with Modul8 [from GarageCube] for non-traditional surface projection, Autodesk Maya for more



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cinematic 3D animation and motion capture, and even Stop Motion Pro to create handmade stop-mo aesthetic." Students also want to work with software development kits (SDKs), "for technology that isn't available to the public; we do this for a number of mobile and desktop devices."

Macleod and his colleagues in the Animation & Visual Effects program at VFS have been receiving increasing requests for matte-painting instruction. In response, the school is providing more focused workshops in that area. "We are always looking to provide support for learning new skills and keeping our eyes on software that can help develop core, transferable skills," Macleod says. "VFS's curriculum is flexible and fluid enough to embrace and adapt to new and emerging areas. One of the ways we have achieved access to the latest tools and software is through our partnership with Pixologic, which provides us with its ZBrush digital sculpting software."

Gnomon works closely with relevant software developers, and it is something Bradford considers a "notable feature" of the school. "Pixologic, the makers of ZBrush, have offices right

tion, and for illustration, says Blazer. Another development is the deployment of Vicon optical motion-capture systems to allow students to experience the performance and manipulation of motion-captured data for projects within the school's Media Arts & Animation and Game Art & Design programs.

## Industry Involvement

Today's educators aren't just partnering with top software and hardware vendors; they are also hosting and providing access to some of the top names in the industry. Experienced artists working on or having worked on some of the hottest films and games are increasingly teaching at public and private universities—whether joining the staff, delivering a onetime instruction, or presenting at a special event.

Located in Hollywood, home to hundreds of film, game, and television studios, Gnomon's curriculum is developed, tested, and taught by some of the most recognized CG professionals working in the industry, says Bradford. "Our instructors and advisory board members work and consult for studios, such as DreamWorks, Sony Pictures Imageworks, Sony Interactive, Digital Domain, Electronic Arts, Activision, Rock Star Games, and Blizzard, to name a few."

"While we often leverage partnerships to arrange guest speakers from various industries in our schools, it is our faculty that truly represents the professional industry to our students," says Blazer of The Art Institutes. "The diversity and industry experience of our faculty

exemplifies our strength and helps to provide our students with the knowledge and skills needed to pursue a career in a computer graphics field."

Another school, Animation Mentor, today has 77 professional animators from top animation studios instructing students. "What continues to be innovative and unique about AnimationMentor.com is our approach to mentorship in that we have been able to attract professional animators working at top studios to help us design our curriculum and teach our students," explains Bobby Beck, school cofounder and CEO of Animation Mentor. "We created a model for passing on information from the top talent back to the people who are on their way to becoming the next superstars—real-world experience and wisdom."

Animation Mentor created a proprietary tool, called the eCritiqueR, which enables mentors to critique each frame and draw directly on a student's work to correct lines of action, blocking, and movement; it also provides visual direction for how to improve the animation. Students also participate in live, interactive, weekly Q&A sessions with their mentors and up to 15 other students. "Our assignments are structured like shot assignments animators would receive in the real world, with feedback and critiques, much as they would get on the



**Gnomon School of Visual Effects focuses on exposing its students to the latest software being used in the industry.**

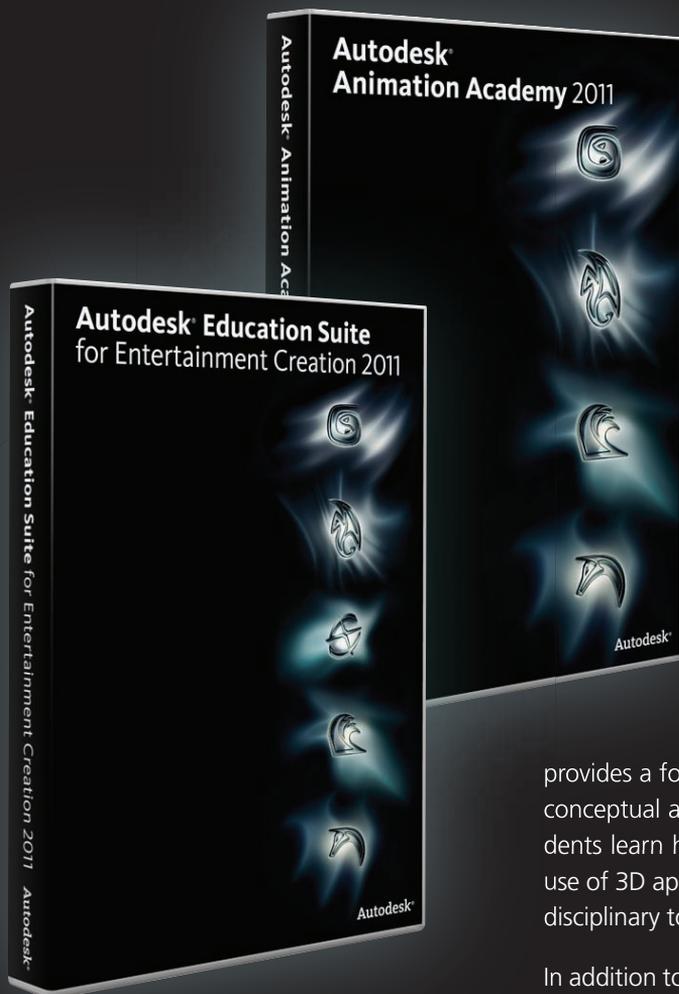
next door to ours. Being this close to one of the most cutting-edge VFX software packages used today definitely has its advantages as we continue to revise our curriculum in an evolving industry," he says.

Blazer at The Art Institutes finds that the schools' relationships with HP and Apple, in combination with its large installed base, enables instructors to provide feedback on products that benefit students. "While we leverage many tools," he says, "it is the Adobe and Autodesk suites of products that provide the core instructional tool kits for computer graphics-related programs. Participation on advisory councils with these hardware and software companies has been beneficial to both The Art Institutes students and our partners."

This year, the staff at The Art Institutes is focusing on desktop workstation upgrades, as well as embarking on new initiatives. Among them is the installation of Wacom Cintiq labs in many of the schools to assist with animation, general graphics design, and illustration courses. The tool provides a unique drawing experience for creative professionals and has been particularly effective for interactive sculpting and painting of 3D models within the animation workflow, for 2D cell anima-

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job,” Beck describes. “By the time they finish the program, they are ready to step into a production job.”

In addition to having industry professionals and veterans on staff, many schools invite guest speakers from the entertainment industry to share their knowledge and experience with students.

Once a month, Gnomon brings in some of the visual effects industry’s most talented specialists to share their production process on recent film, game, or broadcast TV projects. The school’s most recent event, *The Making of Avatar*, featured more than 20 artists, many of whom were lead designers and effects supervisors for the film. “Aside from being immensely inspirational,” explains Bradford, “these events provide an exclusive peek into the techniques used by the very best in the industry.”

According to Bandstra, Full Sail constantly welcomes guest speakers from the industry to share their expertise with students. In the past, the school has welcomed professionals

today’s groundbreaking studios. For example, the VFS Game Design program hosts the annual Game Design Expo, where professionals from the game industry in North America are invited to share their experience, passion, and knowledge of game design trends over a day of engaging presentations to industry professionals, aspiring game designers, and game enthusiasts of all stripes.

“These shared insights often help us make adjustments to the curriculum to reflect how the role of the game designer changes with new technologies and techniques,” Warfield says. In fact, 2010 marks the fourth year that VFS has hosted the consistently sold-out event.

SCAD’s Savannah Film Festival brings world-renowned filmmakers, producers, actors, and journalists, as well as other film enthusiasts, to SCAD and Savannah for eight days of feature films, lectures, workshops, panels, and competition films from a range of genres. Now in its 13th year, the festival was started by SCAD president Paula Wallace to provide students



Photo: Dane Sponberg.



**Students from the Savannah College of Art and Design (left) and Full Sail (right) learn the necessary tools and techniques that will enable them to compete for jobs after they graduate.**

from Industrial Light & Magic, Blizzard, Digital Domain, Blue Sky, and Electronic Arts. “Bringing industry professionals to Full Sail to speak is a great way for our students to not only learn, but make great industry connections before graduating and becoming professionals themselves.”

Full Sail University offers a residency program, whereby an industry expert can do a sabbatical at the university as a mentor in the final project courses. “Full Sail strongly believes this residency program is an important tool in the educational experience of our students,” Catto explains. The program, open to a variety of industry disciplines, provides students with the opportunity to come in contact with people working in fields that directly relate to their career interests.

Gnomon also offers customized training to studios seeking to enhance the artistic or technical chops of their production teams. “Having industry professionals not only teaching courses, but taking them, creates an environment very conducive to industry networking and increased exposure to what’s really happening in the studios,” adds Bradford. “It’s through this exposure to the industry that Gnomon students become educated in how to successfully market themselves to the studios and get hired right away.”

A few schools have orchestrated extensive, annual industry events that attract guest speakers from the highest ranks of

with opportunities to network with, meet, and learn from entertainment industry leaders, and to showcase the university’s students and unique resources.

## Broad Fundamentals

Educators continue to enhance and expand the learning experience for today’s students and tomorrow’s industry superstars. Yet, at the same time, schools are ensuring that graduates possess strong fundamental skills and the flexibility to keep up with this fast-paced industry.

“Technology moves too fast. Training specifically for something like virtual reality or mocap (hardly new technologies) is a good way to render all your graduates obsolete by the time they enter the job market,” SCAD’s Maloney says. “While we embrace these concepts, the only way to keep our students relevant is to make sure they have strong fundamentals.”

Maloney and his colleagues found that they needed to teach students how to think and adapt so that they can self-train in virtually any software application in a matter of days.

Further, the industry is consolidating and technology is merging. “We have been training our students to be creative



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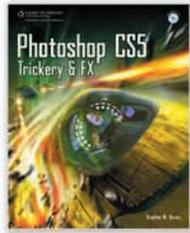
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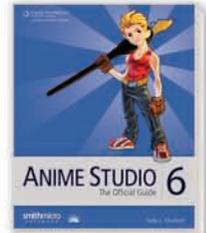
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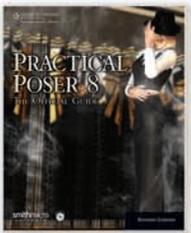
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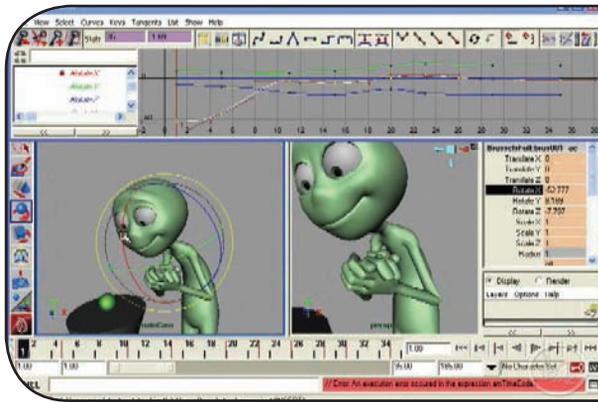
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thinkers in this world of consolidation by exposing them to methods and techniques in outside areas that will augment their main area of study," Maloney explains. For example, SCAD photography students are studying motion and procedural modeling, television producers are studying social media and interactivity, animation students are studying professional writing and writing for new media, and everyone is studying game designs and how to migrate content into the world of interactive applications and casual games.

And Maloney, like a number of other educators, is on the right track. Indeed, the computer graphics and postproduction entertainment industries will continue their rapid evolution

**Animation Mentor (AM) takes a unique approach to education with distance learning. AM is an online character animation school that pairs students with professional mentors boasting years of industry experience, who advise and critique students' work.**

well into the foreseeable future. New graduates and seasoned artists will see to that, as they continue to think out of the box and find new ways to create awe-inspiring art. Thankfully, these educators are likewise pushing the envelope and keeping their finger on the pulse of the industry and, in doing so, are helping to prepare tomorrow's graduates for greatness. ●

**Courtney E. Howard** is a contributing editor for *Computer Graphics World*. She can be reached at [cehoward@twitchinc.net](mailto:cehoward@twitchinc.net).



## In and Of the City, In and Of the World

Established in 1934, the School of Continuing and Professional Studies (NYU-SCPS) is among the 15 colleges and schools that comprise New York University, among the nation's largest private research universities. Through its faculty, curricula, and vibrant professional and academic networks, NYU-SCPS captures the expertise of key sectors where New York leads globally—including the communications media, design, and digital arts fields.

## Practice and Theory in the Classroom

The Division for Media Industry Studies and Design at NYU-SCPS offers innovative graduate and continuing education programs in design, film, graphic communications, and publishing. As media convergence and multiplatform publishing, marketing, and entertainment become increasingly prevalent, today's professional must keep current with the latest trends, technologies, and strategies for success in these constantly evolving fields. In a supportive, dynamic environment, NYU-SCPS students—the vast majority of whom work fulltime—acquire the skills they need to blend creativity with technology, break into a new field, or take their careers in new directions. The faculty are talented professionals and artists drawn from the creative sectors and industries that drive New York City's economic and cultural life.

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Further opportunities for graduate study include the M.A. in Graphic Communications Management and Technology program which is designed for communications professionals seeking expertise in both management practices and the utilization of technology. Also, the B.S. in Digital Communications and Media program—within the NYU-SCPS Paul McGhee Division—allows students to continue working fulltime while studying on a part-time, flexible schedule and in a learning environment designed especially for adults returning to complete their undergraduate degree.

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# Never-Ending Education

**Today's artists continue to hone their skills with the help of training offered by studios, software vendors, and content providers**

By Courtney E. Howard

Entering the CG and post markets has been likened to jumping on a treadmill going 60 miles per hour; and yet, veterans will testify that it doesn't ever slow down. As a result, fresh new graduates and seasoned industry veterans alike must continually educate themselves to keep pace with the fast-moving markets. Luckily, schools and universities are not the only ones dedicated to educating digital artists; high-level studios, popular software vendors, and longtime content providers are equally devoted to helping artists sharpen and expand their expertise and skill set.

## Paying It Forward

"At DreamWorks, the very fabric of the studio is built on the assumption that one pays back," says Gail Currey, head of studio at PDI/DreamWorks Animation in Redwood City, California. "There is a deep studio commitment to mentoring; it starts at Jeffrey [Katzenberg, CEO], and it goes all the way down."

Everyone who walks into the studio receives a mentor and a specific time frame for training, which includes fundamental classes on the studio's proprietary software and an orientation to the studio. That mentoring continues throughout a person's career, Currey explains. "You don't necessarily need a specific

mentor once you've gotten up to speed on how the studio works, but we do have a very strong sense of 'if you've learned this skill set, we want you to be challenged on learning more.'"

Virtually every week, DreamWorks holds open, artistic development classes in which anyone can participate. In fact, more than 1900 people work at the studio, and everyone takes part in education and training in some way. Its character effects people, for example, recently attended a class on how clothes drape, taught by a clothing person in the real world and designed to help artists think about cloth when they are creating it in the computer. DreamWorks' education program is very robust, says Currey, and it rests on one fundamental value: "We want to keep people learning."

The continuing education and training provided by DreamWorks, from the point of view of the artist, are definitely considered a benefit or perk of working at the studio. From the studio point of view, the classes have demonstrably increased people's skill sets. As artists worked on flying dragons in *How to Train Your Dragon*, DreamWorks held classes in flight to help its animators better understand the physical properties

**This project, part of the free NewTek LightWave 3D instructional tutorials, was created to help users better understand the production pipeline. The tank model is provided, and the user learns how to texture the object, focusing on the camouflage technique.**

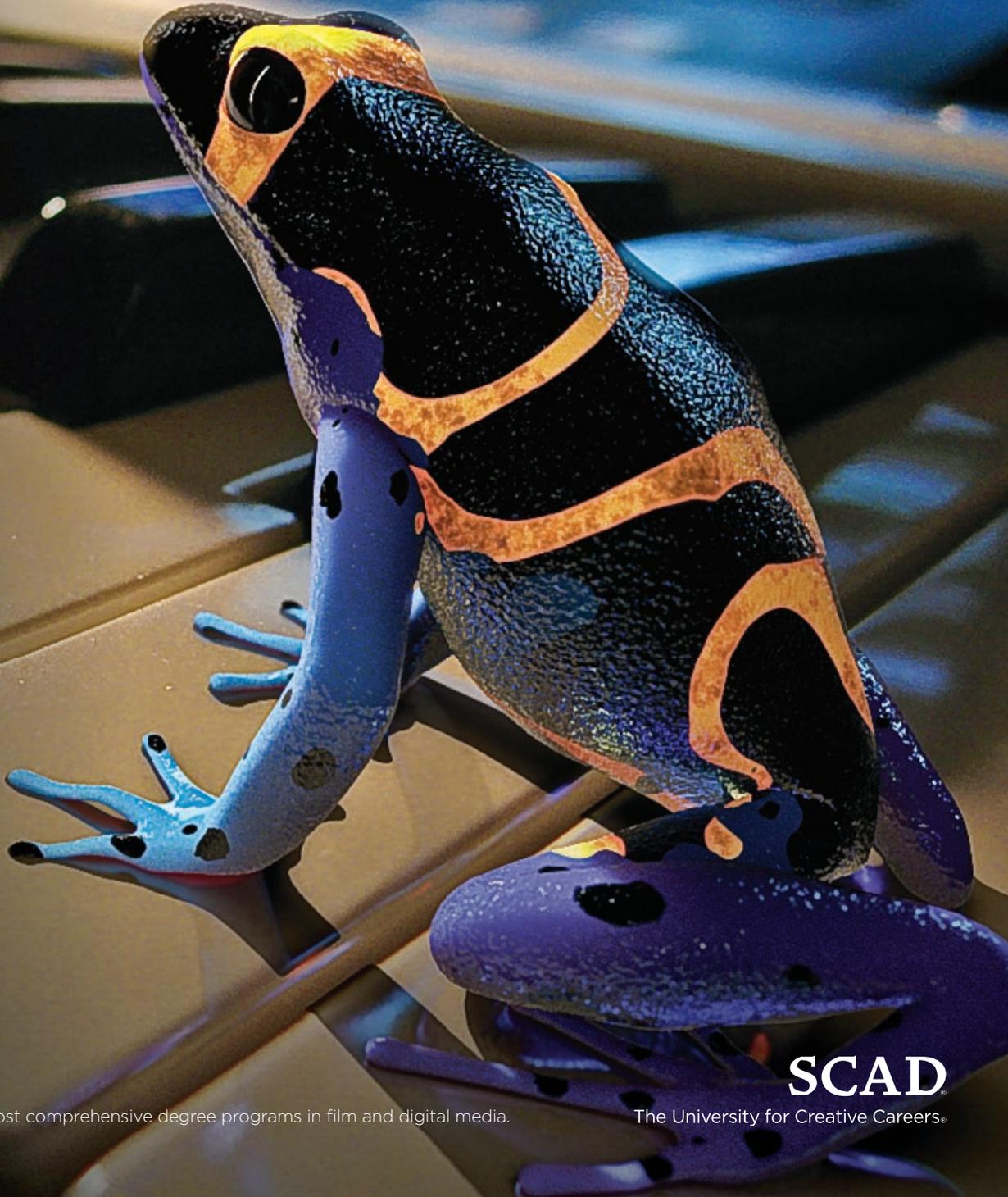




scad.edu/visual-effects

Jared Reisweber, undergraduate visual effects student, Amherst, New York. ©2010 SCAD

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of flight. "We got a lot of feedback on how well the animators learned from that process and how it really helped the actual nature of the animation," Currey admits.

## Artistic Development

According to Sony Pictures Imageworks, one of the best ways to establish new industry standards of excellence is through developing and nurturing a well-educated and competitive group of artists capable of creating world-class imagery and animation. To that end, the studio launched the in-house Imageworks Technical Training and Artist Development program, a dedicated training center integrated directly with production. Instructors in the program train new hires, conduct continuing education courses on various phases of production, teach usage of third-party and proprietary software and techniques, provide career development and career-path opportunities, and offer special events and screenings.

The Imageworks Training Program, under the guidance of executive director Sande Scoredos, provides more than 30



**At DreamWorks, the staffers can attend weekly artistic development classes to improve their current skills or help them develop additional ones.**

courses on such topics as life drawing, sculpting, and acting. Specialized task-oriented classes are also offered on rotoscoping, matchmoving, animation, particle effects, compositing, color and lighting, and other production methods.

The Imageworks Professional Academic Excellence (IPAX) program, meanwhile, is designed to build stronger relationships with established academic curriculums and to nurture and grow future generations of digital talent by working directly with academic faculty, explains an Imageworks representative. IPAX is focused on educating and exposing IPAX member schools' faculty to real-time production issues, and helping them develop standards for training future digital artists.

Imageworks executives provide the faculty of IPAX member schools with the opportunity to attend in-house training programs and experience a real-world production environment, so they can bring the resulting skills and production knowledge into the classroom. The program is also intended to review curriculums annually to ensure that the latest developments in technology and techniques being used throughout the visual effects and CG animation industry are being taught.

## Software Skills

Just as innovative production studios are investing in their artists, technology companies are dedicated to the continued education and training of their customers. Companies such as Adobe and Autodesk, for example, are concerned with helping educate not only students, but also instructors tasked with molding and shaping artistic minds.

"In an increasingly competitive world, students and instructors need to be more than familiar users of digital communications technology to be successful," says an Adobe official. In response, the company launched the Adobe Certification program to enable students and instructors to validate their digital media skills. Educators and students can be certified for entry-level skills as an Adobe Certified Associate (ACA) and professional-level skills as an Adobe Certified Expert (ACE).

Autodesk Professional Excellence Program (APEX) offers software training, professional development, and accreditation to educators involved in games, broadcast/television, film, and design visualization. APEX enables virtually anyone who teaches Autodesk Media & Entertainment software or creative finishing systems at academic institutions or Authorized Training Center sites around the world to enhance their product expertise, instructional skills, and industry knowledge. Educators in APEX can achieve Autodesk Certified Instructor (ACI) or Autodesk Approved Instructor (AAI) status; or participants can attain Master Trainer status as an Autodesk Certification Evaluator (ACE), who can coach, mentor, and evaluate candidates who pursue the Autodesk ACI program.

As part of APEX, Autodesk also provides community resources for networking, learning, and sharing knowledge within the Professional Instructor Community, a portal for educators to network, exchange knowledge, and share best practices for teaching Autodesk Media & Entertainment software products. The company's Train-The-Trainer courses also deliver industry-oriented learning opportunities for professional educators.

"Education and training are particularly important for Autodesk," says Jennifer Goldfinch, marketing manager for Autodesk Education at the Media & Entertainment division. "More than two million students are trained on Autodesk software each year, and we partake in a variety of educational activities."

## Online Resources

A wealth of software companies are taking advantage of the Web to deliver training, tips and techniques, and product information to their user communities; and, today's artists are quick to take in virtually everything available.

The Autodesk Education Community boasts more than one million members worldwide. It provides free software licenses to students and teachers, as well as curriculum resources, such as Industry Careers Framework (ICF), a tertiary curriculum solution created by leading industry professionals and influential academics in the global arts and animation community, reveals Goldfinch.

Autodesk's The AREA is an online resource for anyone inter-

# A University for Creative Careers



DAVID LEWIS, VISUAL EFFECTS GRADUATE STUDENT, CANFIELD, OHIO.



DAVID LEWIS, VISUAL EFFECTS GRADUATE STUDENT, CANFIELD, OHIO.



JARED REISWEBER, UNDERGRADUATE VISUAL EFFECTS STUDENT, AMHERST, NEW YORK.

According to the *Los Angeles Times*, SCAD's interactive design and game department is among the top 10 mentioned by industry recruiters. Activision (Blizzard), Areae, The Cartoon Network, Disney, DreamWorks, Electronic Arts, ESPN, Firaxis, LucasArts, MTV Networks, Pixar, Blue Sky Studios, Red Storm Entertainment and Rhythm & Hues Studios are just some of the top companies that send recruiters to SCAD each year in search of fresh talent.

But SCAD students don't wait until graduation to embark on professional careers. The university's strong business partnerships with such companies as Electronic Arts, Disney Imagineering, Rhythm & Hues and DreamWorks provide ample opportunities for students to build solid portfolios.

In addition, SCAD fosters an environment of collaboration in all its locations: Savannah, Ga.; Atlanta, Ga.; Lacoste, France; and now in Hong Kong. Students frequently work together on original films, animations, interactive games and more—and many of their projects garner awards at film festivals, game competitions and industry conferences.

The university's cutting-edge facilities feature a Vicon motion-capture system, two green screens, a powerful render farm, Pro Tools labs, surround sound mix/mastering rooms, a state-of-the-art recording studio, two Broadway-quality theaters, two high-end AVID editing labs, RED One, Panavision, Arriflex cameras and much more. Every day, students use the same software that sets the standard in the digital media world.

As if all that wasn't enough, SCAD students study with award-winning professors who have garnered recognition from the Oscars, Emmys, Golden Reels and BAFTA Awards, as well as myriad other competitions throughout the world.

Add all that together, and it's no wonder that SCAD students move seamlessly from the classroom to the professional world—where they launch creative careers.

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ested in learning more about how Autodesk software is used in the industry. "At every major trade show (GDC, NAB, SIGGRAPH, IBC, and so forth), we broadcast our own and our customers' presentations live from the booth, streaming to the Web so the whole world can enjoy them," Goldfinch explains. "After a show, we'll also host the content for our community to watch at their convenience."

The AREA is also home to Autodesk's online Master Classes, where visitors can learn from industry experts. "There are hundreds of online tutorials for all our products, and there are galleries where artists can post their work and receive feedback. Our Autodesk experts (application engineers and product managers) also use their blogs to communicate with customers—you can find out some great information that way," says Goldfinch.

Adobe education and industry experts conduct free eSeminars and OnDemand Seminars about using Adobe software. During live sessions, Adobe experts impart new ways to prepare engaging curriculums, teach essential digital communication skills, empower students to creatively express what they've learned, simplify complex concepts, and improve communication, says a company representative. Further, Adobe has partnered with Total Training to provide online training to help educators and their students in K-12 classes and higher-education courses acquire Adobe skills.

Other vendors are committed to software training, as well. NewTek features free, online, Flash-based instructional videos on its Web site that provide LightWave 3D training.

Luxology, maker of Modo, boasts so many free, online training videos—more than 200, in fact—that its training Web site is Luxology.TV. More than three years ago, Luxology launched a dedicated training division, which is headed by Andy Brown. The company also offers roughly two dozen project-based, commercial training courses in HD video. More than 60 percent of Modo users take advantage of these commercial videos, which range from the construction of a shoe, to a cartoon character, to a race car.

Cineversity is the online video training site of Maxon USA, provider of Cinema 4D and other software solutions. Cineversity features more than 300 free video tutorials for all users, and more than 1500 video tutorials for subscribers. Cineversity 1on1, on the other hand, is one-on-one, online, live training provided in two- to three-hour blocks. "It is designed to combine the convenience of 'anytime, anywhere' training with the effectiveness of a hands-on approach," explains Paul Babb, president and CEO of Maxon USA. The fee-based, on-demand service also can be helpful for project assistance, aiding a user as he or she works through a production issue. Maxon's Cineversity Live involves bi-weekly, live Webcasts, each of which includes an overview of the newest tutorials on Cineversity, a live tip or technique, and interactive Q&A.

Graham Toms, 3D education specialist at NewTek, considers Webinars to be a great way to instruct and lecture students. "Using the TriCaster product, for example, NewTek can easily showcase tips-and-tricks scenarios in a Webinar environment to easily educate artists on the features and strengths of

LightWave 3D," says Toms. "Web-based training and Webinars are a vital component in education and an ideal way for studios and artists to share in the production pipeline."

## Added Innovations

Some technology firms are embracing new media, including social and networking outlets and handheld devices, to help enhance artists' expertise.

Each week, Luxology posts a "modcast" on the company Web site and iTunes. Modcasts, all hosted by Luxology president Brad Peebler, often present tips and tricks for using Modo. The company's Web site boasts more than 130,000 registered members and is home to the Luxology Forum, featuring a lively exchange of information and work-in-progress projects. "Almost any Modo topic imaginable has been discussed on



**Maxon's Cineversity provides online training videos for the company's Cinema 4D software, as well as other tools. The site offers many tutorials free of charge, in addition to a host of others that are available for subscribers.**

the forum at one time or another," reveals Bob Bennett, vice president of Luxology.

Maxon executives are harnessing the power of social media and promoting Cineversity news on Twitter. Cineversity educational offerings, such as new tutorials, are tweeted regularly.

"We use Facebook and Twitter to keep the Autodesk community up to date and informed about everything that is going on at Autodesk," notes Goldfinch, who recommends readers fan and follow Autodesk Media & Entertainment for all the latest info, including events, new product announcements, blog updates, and industry happenings.

## On-site Training

A broad range of artists still prefer more traditional educational venues, when schedules and budgets allow. Adobe, in partnership with Knowledge Network Solutions (KNS), offers instructor-led workshops that focus on integrating Adobe tools into school curriculums. "The KNS Create Course Series leads K-12 and higher education faculty through the process of using Adobe software in project-based 21st century classroom learning," says a representative. For the sake of convenience, KNS instructors will travel to schools to lead the workshops.

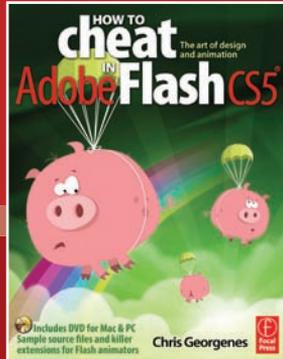
NewTek regularly hosts and is open to conducting seminars and real-world student projects at universities, art schools,

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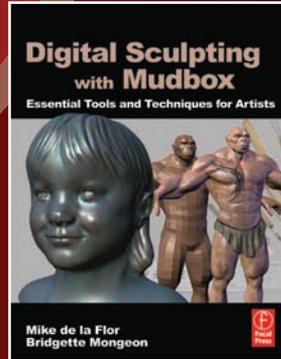
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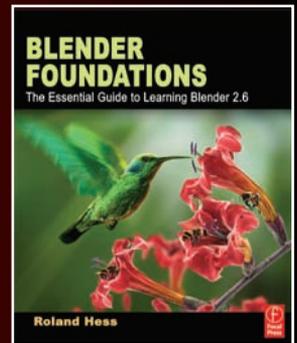
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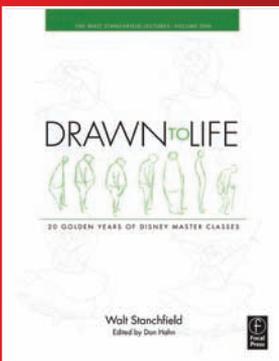
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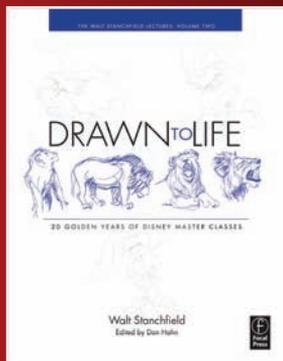
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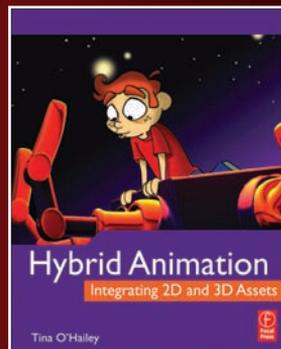
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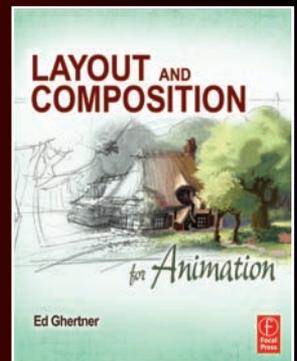
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and high schools to help educate students in the use of Light-Wave. One such project involved students at The Dave School in Orlando, Florida, who were working on a final project for graduation. NewTek's Toms worked closely with the students to develop virtual sets for the NewTek TriCaster portable live-production system. Toms, who previously worked at Disney, served as the art director, providing sketches and concepts for the students, guiding students to specific tasks within the project, and enabling students to gain real-world experience in the process. NewTek continues to work with universities and art schools on an ongoing basis to implement similar types of real-world student projects.

"Autodesk's goal is to host an education summit at every major trade show at which the company is present, bringing together customers and our top education partners for an opportunity to create dialog, ask questions, and network," Goldfinch explains. The company even offers a free, interactive curriculum created for secondary and post-secondary students. The resource can be used by instructors to enhance an existing curriculum, or it can be used by students to self-learn, she adds.

"Autodesk is active in supporting industry events for students all over the world," Goldfinch continues. "From CGCon and EvolveCG in North America, to Ancey Industry Night in France, to the Panorama event in Asia, we do our best to sup-



Artist Vinicius Valeiro, following an online tutorial by Luxology's Andy Brown step by step, created the above digital sports shoe using Modo software.

port student events whenever we can." Autodesk Education also supports several programs for secondary-level students, such as FIRST Robotics, Skills USA, and World Skills, where students are building projects using 3ds Max and Maya.

Several corporate customers have taken advantage of customized training from Luxology. "The courses are typically two days in length and class size is typically three to eight people," describes Bennett. Luxology resellers, such as Escape Studios in London, occasionally offer Modo training in-house. The company's Modo training is also available in Japan, Malaysia, Thailand, and China. In fact, Luxology has begun authorizing

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CGW will have an all-star panel highlighting some of their recent projects, discussing how they got started in the industry, and offering advice based on their own experiences. Immediately following the presentation, the panelists will answer audience questions.

#### Our 2010 Panel Includes:

**Craig Ring:** Visual effects supervisor on DreamWorks' 3D animated feature film *How to Train Your Dragon*.

**Rob Powers:** Animation technical director and virtual art department supervisor for *Avatar*.

**Les Ekker:** Creative director and VFX supervisor at Zoic Studios, where he leads the company's popular *Salon Series*.

**Paul Amer:** Senior technical art director at Microsoft Games.



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# ESCAPE

STUDIOS

Modo training centers throughout the world; one of the first examples exists in Augsburg, Germany. Lastly, Luxology recommends a book—*Real World modo: The Authorized Guide: In the Trenches with modo* by Wes McDermott—to aid in effectively applying Modo in real-world production environments.

## Self-taught

Project-based learning is a highly desired method among digital content creators. Sybex, an imprint within Wiley that publishes books for career technical professionals, recently launched the Maya Studio Projects series with that preference in mind.

“We developed that series based on feedback that we received from training centers and self studiers who really wanted project-based learning,” explains Neil Edde, vice president and publisher at Sybex. “For 3D animation and graphics, we have found that people really want to feel like once they have gone through a learning process, they have something to show for it.”

Books in the series—including the latest title, *Game Environments and Props*—take readers through various detailed steps; and, by the end, readers have completed a project of which they can be proud. “That’s something we are excited about; we see it as a natural evolution,” Edde adds. “These books also include a lot of video walkthroughs; they are our own blended learning solutions for the self studier.”

Many different learning styles exist, Edde admits. “Some people like classroom training, and some learn a lot from videos, but many still like to have a book at their side when working on the computer. It is maybe the clearest reason why books are still a very relevant part of the continuing education process, whether in 3D animation and graphics, postproduction, and any other field these days.

“Personal finances are also another reason,” continues Edde. “A lot of our books are for a broad audience, including the aspirational artist, who doesn’t know for sure they want to do this, so spending \$1000 on a sophisticated, and probably very effective, online training course is too intimidating. A book is generally an easy investment and, if they are disciplined and committed, they can get a lot out of it. I break it down to learning styles, personal finances, and aspirations.”

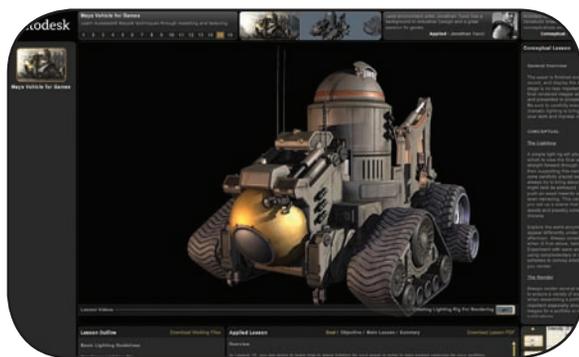
All new Sybex books are converted into various e-book formats; yet, says Edde, the jury is still out as to whether e-books are going to catch on, particularly with the design community. “Some of these small devices don’t really work well when you have customers who want to see beautiful pictures and a big screen to see them on,” he explains. “Our books provide that in print, but a lot of our books also come with downloadable files or CDs that include those visuals.”

Another publisher, Focal Press, offers a wide variety of books in media technology, says Amanda Guest, marketing manager at the company. “Most are geared toward professionals, but many are adopted as textbooks. There’s also a big segment of our market that are self-taught advanced amateurs,” she explains. These books have been employed by a range of artists, from indie filmmakers who used Focal Press books to shoot their first movie, to animators who were in-

spired by the company’s Digital Art Masters series.

Focal Press provides two big must-haves in animation. The first is the two-volume set *Drawn to Life: 20 Golden Years of Disney Master Classes*, which is a collection of the legendary lectures from longtime Disney animator Walt Stanchfield. “It was these very teachings that influenced artists like Tim Burton, Brad Bird, Glen Keane, and John Lasseter,” Guest notes. “We found last year that the books were a huge hit at graduation time—making a perfect gift for aspiring animators of all levels.”

Another must-have animation book, Guest contends, is Tony White’s *How to Make Animated Films*. “Back in the Golden Age of traditional animation, budding artists were paired up with master animators as part of an apprenticeship program; but over time, this practice was abandoned, and there hasn’t been anything to take its place,” she says. “White’s book allows artists to peek over his shoulder as he works at his animation



**Autodesk has been focusing on education for quite some time, offering a wide range of software training, professional development, and educator accreditation, among other things.**

light box. It’s the traditional apprenticeship, but in a book and DVD package. You can watch, listen, and experience an award-winning animator demonstrating everything you need to know, right at your own desk.”

On the topic of visual effects, the company’s biggest seller currently is *The Visual Effects Producer*, a compendium of all the industry-standard methods for effective VFX budgeting and scheduling, evaluating vendors, working on set and off (and overseas), data management, legal matters, and more. “We’ll also soon be publishing *The VES Handbook*, which will be the bible of the elite Visual Effects Society.”

Many Focal Press books include such ancillary materials as DVDs with project files and videos, as well as companion Web sites. Yet, “there’s still something so gratifying about holding a book in your hands and flipping through the pages that hasn’t been duplicated in the online realm yet,” Guest concludes.

No matter how artists prefer to learn, a wealth of educational options are available—many at no cost. To remain current and competitive, artists should continue to hone their skills and perfect their craft through the employ of a variety of methods—online, in books, and in person. ●

**Courtney E. Howard** is a contributing editor for *Computer Graphics World*. She can be reached at [cehoward@twitchinc.net](mailto:cehoward@twitchinc.net).



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