**Top of the class: Computer Graphics World talks to studios about who, how, and why they hire.(Students in animation)**

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'Tis the season when graduates are stepping out of the classroom and, if all goes well, into the studios to begin their careers. Whether you're fresh out of school or an experienced digital artist, it helps to know what studios are looking for when it comes to new talent. In our feature titled "Better Be Good," we take a look inside recruiters' offices at a number of **animation** facilities for the inside story on what constitutes a good hire. And in "Academic Achievement," we highlight some of today's brightest stars who have gained a competitive edge with school projects that already are turning heads at the professional level.

Better Be Good

Looking for a job? Computer Graphics World recently surveyed principals and recruiters from major digital content creation studios about their hiring practices regarding artists and **animators**. The news, in a nutshell: Studios are hiring, but you have to be good and nice.

The days when simply knowing how to use a 3D modeling and **animation** package meant a job at a studio are long gone. The graduates emerging from CG **animation** schools each year are better trained than ever, and competition for jobs is fierce. At the same time, studios are learning that those who play well with others make the best hires.

Here's what recruiters from Blur Studio, Digital Domain, DreamWorks **Animation** SKG. Kleiser-Walczak Studios. Luma Pictures. Rhythm & Hues Studios. and Sony Pictures Imageworks have to say about the process.

Talent and Experience

Studios were asked to rate the difficulty of hiring talented artists and **animators** on a scale of 1 to 5, with 5 being the hardest: Three of the studios, or 50 percent of the six responding to this question, chose "3," meaning they encountered a medium level of difficulty in hiring talent.

One of those studios said the process had been getting tougher, however, and would soon be edging into "5" territory. Two other studios, or 33 percent of those responding,

selected "4," or "4/5," meaning they have a medium-to-high level of difficulty in finding talent. And one company, or 17 percent of those responding, chose "5," the highest level of difficulty. One studio, Rhythm & Hues, didn't select a range at all, explaining that it looked for experienced **animators** first and raw talent second.

In answer to a question about which experience level was the hardest to fill: entry level, intermediate, senior, or supervisory, 86 percent of the studios reported that senior-level people were the toughest to find. The reasons, however, varied.

"Those with the most experience are going to be booked, either in staff positions or in long-term freelance positions, which could make them unavailable when we want them." says Barbara McCullough, manager of recruitment at Rhythm & Hues.

"Good resumes are somewhat easy in come by," notes Payam Shohadai, visual effects supervisor with Luma Pictures, "due to the fact that many people are hired based on who they know, which leads to more lobs and better resumes for certain people who don't necessarily have the talent. Many people can appear to be senior artists. Very few actually are."

Just one studio reported that supervisory positions are actually the hardest to fill. As Blur Studio's Tom Dillon explains, "I think it is difficult to bring guys in over others who have be, in here for a while. It's hard to respect someone who hasn't proven themselves in the trenches alongside you. We have tried to bring in a couple of people at that level and it hasn't worked out well. So we pre r bringing up the supervisors internally."

Entering at Entry Level

Five out of the seven studios queried said they hired artists and **animators** straight out of school. According to Rachelle Lewis, manager of recruiting at Digital Domain, hiring young people is one of the best ways to snatch up talent before other companies do.

Other studios also like the opportunity to develop their own talent. "The methods in which work is done differ from shop to shop. It's easier to train someone coming from school because we can introduce them to our methods first," says Luma's Shohadai.

At Kleiser-Walczak, opportunities for entry-level hires are even rarer, notes Tom Leeser, executive producer for visual effects in the Hollywood office. "Because we're a small shop, we don't usually have that ability to mentor."

Adds Blur's Dillon: "We tend not to hire people directly out of school. We have done it, but they tend to have a big learning curve to go through. The issue usually isn't talent: It has to do with being able to take direction and having a good attitude about making the changes necessary to please the client."

Traditional Arts Background

Opinions were divided on whether a traditional art background was necessary for CG **animators**. A few recruiters pointed out that it depended on the position. "It certainly is an important foundation for any person pursing a career as an artist or technical director in digital production," says Diane St. Clair, director of Digital Productions at Sony Pictures Imageworks. "Exposure to the elements of traditional art, such as volume, translucency, refraction, density, etc. will be involved in achieving the look a director is seeking."

Says Kathy Mandato, head of human resources for DreamWorks **Animation**, "Many of our artists have traditional or fine art backgrounds, and we believe it only makes their animations more beautiful. However, it is not a requirement for an applicant to have a background in traditional art."

At Luma, it's less important, Shohadai points out, though he believes that traditional artists tend to work a little faster if they have experience rendering with tools other than a computer. According to Digital Domain's Lewis, this is an area where philosophical opinions are divided. "My personal opinion is that a traditional art background is so important," she says. "If someone has done straight CG [rather than going to CG from traditional **animation**, for example], the person doesn't understand key poses as much, and tends to let the computer do a lot of the work. [As a result] the animations are floaty. And the acting doesn't pop."

The Bottom Line

What is the one special factor that can make the difference between being hired and being sent on your merry way? Talent is a must, of course, but nearly every recruiter interviewed supplied an answer that could apply to any job anywhere: be a good team player.

"If I have two artists and only one position, it's not just what you do, it's who you are," says Digital Domain's Lewis. "I would rather hire someone who wasn't amazing (though still very good), but who had more enthusiasm than someone whose work was a little bit better and had an attitude." Luma's Shohadai echoes this sentiment: "Along with talent, a good personality is extremely important. A great artist who can be humble is the best type of artist."

Says Kleizer-Walczak's Leeser, "Back when very few people knew computer graphics, you had to deal with all sorts of personalities and temperaments. Now it's sort of commoditized--the labor pool is huge. We don't have to tolerate that anymore. We're looking for people who are easy to get along with."

Academic Achievement

Student works use simplistic **animation** styles to weave tales of surprising complexity.

If there's a common thread shared by the following four student films, which hail from

different parts of the world--France, the US, England, and Korea--it might be simplicity. From the 2D collage look of "La Migration Bigoudenn," to the minimal 3D world of "Food for Thought," to the pen-and-ink documentary style of "East End Zombies," and the boldly stylized lines of "Chohon: Calling Back the Spirit," these films eschew effects for effects' sake, and instead use 3D tools to tell a story. In this effort, the student directors of these films have been so successful that each of their works was among those chosen for the 2005 SIGGRAPH Computer **Animation** Festival. Both "Food for Thought" and "Chohon" are appearing in the **Animation** Theater, while "East End Zombies" and "La Migration Bigoudenn" are featured in the Electronic Theater, with "La Migration" receiving Jury Honors.

La Migration Bigoudenn

In "La Migration Bigoudenn" (The Migration of the Bigoudenn), a band of elderly **women** gathers near a sea cliff to participate in some highly ritualized cooking and dancing. Their dress and behavior are based, in part, on actual folk traditions from the Bigouden region of Brittany, in France. The **women** wear the traditional Bigouden costume, which includes a black dress decorated with lace, and a tall, narrow, cylindrical headpiece made of lace, called the bigou.

These Bigoudenn go to great lengths to cook crepes--a signature Breton dish--that are delicate enough to suit the eldest of their number, the one wearing the tallest hat. The background music, composed by Alexandre Dai Castaing, has a Celtic flavor, as does the dancing, punctuated by the symbolic Stonehengetype formation made by the **women** as they form a circle by the sea.

Almost everything in this French student film references the Celtic heritage of this remote, northwest corner of France. Even the movie's end points to real-life events in the way it playfully, yet poignantly, suggests why the Bigoudenn seem to be dying out.

But you don't need to know any of this information to appreciate "La Migration Bigoudenn," which works on its own sweet, mystical level, apart from any knowledge one might have of Breton culture and history. In fact, children especially appreciate the movie, maintains Alexandre Heboyan, one of the film's three directors. He, along with Eric Castaing and Fafah Togora, all created the film last year while they were students at Gobelins, l'ecole de I'image, in France.

The two-and-a-half-minute film even looks a bit like a children's picture book. The characters, objects, and scenery have a collage-like appearance. Though the film is 3D--modeled and animated in Alias's Maya--the appearance is often 2D, as was intended, according to Heboyan.

"I think the biggest technical challenge was to use 3D in the way we wanted," he says--to create that flat, collage-like look. The directors combined 2D backgrounds, "silhouette" style **animation**, and special shaders with compositing effects in Adobe's After Effects to achieve the flat look they were after. In general, the characters are 3D and the

backgrounds are 2D, though the composition varies throughout. "It's a '5D' movie," says Heboyan with a smile.

He, Castaing, and Togora made "La Migration" as a final project after three years of **animation** studies at Gobelins. (Heboyan is now an animator at Mac Gulf Ligne; Castaing is an animator at Deff2shoot; and Togora is a storyboarder at SIP **Animation**.) All three worked on the script together, created a storyboard, and from there, an animatic. In parallel, says Heboyan, they developed character designs and color concepts.

The team used Maya to model and rig the characters, then took on what Heboyan says was the most time intensive task: character **animation**. In order to share the workload, each director handled **animation** for one part of the movie. Heboyan painted backgrounds in Adobe's Photoshop, and Castaing and Togora helped supply textures. Combining all the elements--characters, rocks, cooking tools--in After Effects was the big challenge, says Heboyan, because of the mix of 2D and 3D.

An important partner in the film's creation was composer Castaing (brother of director Eric), with whom Heboyan says the team worked "interactively,'" and whose musical concepts became an integral part of the creative process. Heboyan, in fact, describes the music as "half the movie."

The end result--an eerie, yet pleasing mix of the poetic and the humorous--has delighted audiences, and earned Jury Honors at SIGGRAPH. But perhaps the biggest honor of all was that an authentic Bigoudene contacted the team last month. Her evaluation: "She told us she liked the movie," says Heboyan.

Food for Thought

Ian Yonika's "Food for Thought" is a deceptively simple film, "grown" in the US, with a cautionary message. Two creatures-the hulking and somewhat dimwitted Mugtor, and his companion, the nimble and quick-witted Nishu--happen upon a tree laden with tempting fruit. Neither creature is tall enough to reach the fruit on his own, but working together, they have some measure of success--until one decides not to share with the other.

"Food for Thought" is only two minutes long, has no dialogue (just a lively musical background by Ben Garceau and Andy Bianchi), and features relatively uncomplicated scenery and characters.

"Keeping the characters simple allowed me to keep their expressions simple as well--yet effective," says Yonika. "I tried to make the thoughts and feelings of the characters evident on their faces at all times." In fact, the film "works," in large part, because of the interactions between Mugtor and Nishu, and especially because of their facial expressions, which are by turns sweet and sinister.

Yonika was a student at the Ringling School of Art and Design when he devised the idea for "Food for Thought." (He graduated in May and is now working for Electronic Arts.)

His primary inspiration was to create a film that viewers would enjoy, but that would also convey a message.

Once he'd mentally formulated the plot, he drew storyboards, and then arranged them into an animatic in order to visualize timing and logistics. He modeled Mugtor and Nishu in Alias's Maya, and began roughly blocking out the story. As this happened, he started to diverge from the action of the original animatic, coming up with new movements and expressions that he discovered along the way. He animated the characters in Maya, and textured them with simple color maps painted in Adobe's Photoshop, using random fractals for bump mapping.

Yonika employed similar techniques to model and texture the fruit tree's leaves, and used a tiled, photo-based image of bark for both color and bump mapping the tree bark. As for the fruit, which look a bit like apples and a bit like oranges, they are default polygon spheres. "I had meant to use these as placeholders [for realistic textured fruit of some kind], but I ran out of time and people didn't seem to care," says Yonika. The generic spheres work just fine, in fact, because their deliciousness is conveyed by the way the creatures react to them, and by the wet, crunchy sound they make when eaten.

To assist him in creating Mugtor and Nishu's facial expressions and body language, Yonika used trial and error rather than looking in a mirror or watching videos for inspiration. "I modeled the blend shapes before beginning **animation**, then just used what I had," he says. One of the biggest challenges for the filmmaker was keeping the story fresh and funny, despite being so close to it for so long--about a year.

"**Animation** requires so much time that, after a while, you become completely desensitized to the story," Yonika says. "After watching it three billion times, even the funniest thing gets old."

Luckily, the film is fresh and new to audiences watching it for the first, or even the second or the third, time. "I like that it makes people laugh," the filmmaker says. "A year is a long time to devote to a single project, but the fact that it entertains people makes it worthwhile."

East End Zombies

"Deadpan horror" might be the best way to describe "East End Zombies," a short film made by Damian Hook while he was a student at Bournemouth University in the UK. The subject of the movie is not some metaphor for soulless urban denizens, but the very literal phenomenon of flesh-eating zombies roaming the streets of London's East End. Though the topic sounds horrific, and the short is indeed based on a short story by horror writer Ed Clayton, there's little that's horrible and much that's funny in the film.

The action is narrated in calm, measured, documentary style by Jan Weddup, senior lecturer at Bournemouth Media School. In one long tracking shot that moves us through different East End neighborhoods, we see zombies exhibiting behaviors the narrator

describes: hiding behind corners, attacking **women** and children. The catch is that the zombies and their victims are all primitive pen-and-ink figures whose interactions are anything but horrifying. Blood doesn't flow; there aren't any screams.

And this is what Hook aimed for in making his three-minute film. "I like the long tracking shot and how it passes by all the action in quite a voyeuristic way: as if you, the viewer, are just watching day-to-day events," he says.

This is all helped by the narration, which sounds as if it's not a big deal that zombies are roaming the streets; it's just part of life.

When Hook set out to make his film, he wasn't looking for a piece to show off technical skills, but rather to tell a story. He did a lot of searching through abstract and surreal stories on the Internet before he hit on Clayton's "East End Zombies." The first time he read it, he says, he could visualize it and immediately began drafting ideas for styles and storyboarding.

Even though "East End Zombies" is rather primitive and 2D looking, it was modeled and animated in Alias's Maya and still required a lot of work, according to Hook. He drew the characters in pen and ink, scanned them, then "cut them apart," putting each body, leg, arm, and so forth on planes that were attached to a simple rig so they could be animated in Maya. Even though the characters look 2D, they are actually 3D.

The lines on the buildings in the background are also a separate Maya model that was rendered using the Maya vector renderer. All seven or eight layers were composited together using Apple's Shake. At this point, Hook also added backgrounds from Geographer's A-Z Maps for each of the areas through which the action passes. He scanned in pages of the A-Z, stitched them together in Adobe's Photoshop, then composited them behind the action using Shake.

The biggest challenge, according to Hook, was the long tracking shot that had to be done in a single scene, but which contained upward of 30 characters, plus numerous other elements. Given more time, he'd have liked to add more action in the background-- "things happening in windows, down the side streets, cars and buses passing on the road." But like most student **animators**, Hook had other course work to attend to as well. (Since graduation, he has worked at a London-based **animation** and graphics company called Blue Zoo Productions.)

Though the film's appearance is rather basic, its flat lines and muted tones also make it somehow compelling. "East End Zombies" has a look and a feel that are different from most other CG films. "The film obviously has a dry, satirical humor," says Hook, "and most people chuckle or at least smile ... it's pleasing to get the reaction you had hoped for."

The artist's favorite part of the film is Clayton's story: "To him I owe a lot," Hook says, because it provided the inspiration and the ideal narration. "I must admit," he adds, "that

my favorite bit is the part I am not really responsible for."

Chohon: Calling Back the Spirit

Epic in length (more than 13 minutes) and subject (a supernatural love story between a Japanese geisha and a Korean resistance fighter), "Chohon: Calling Back the Spirit" required a student production effort of epic proportions as well. The film had six directors: Eunju Kim, Jung Sun Choi, Junsang Yoon, Kinam Kim, Youngju Park, and Youno Park, all graduate students at GSAIM, the Graduate School of Advanced Imaging Science at Chungang University in South Korea. Altogether, the group used three modeling and **animation** tools: Autodesk Media and Entertainment's 3ds Max, Alias's Maya, and Softimage's XSI, and completed the film in two years: a year for preproduction and a year for production and post.

But the effort was worth it, says co-director Youno Park, to realize their artistic vision of depicting Korean culture and history, and, in particular, an aspect of it that is unfamiliar to many people. Chohon is the Korean word for a kind of ritual used to call back a spirit, explains Park. "It's a Korean ceremony that the rest of the world doesn't know about--and even young people in Korea don't know about."

The film's hero, Hyun, is fighting against the Japanese occupation of Korea in 1940 when he is injured. Hee, a Japanese geisha, helps him. The two fall in love, but later separate as a result of misunderstandings and a betrayal. Hee is later killed, but the two experience a supernatural reunion after her death.

The setting for "Chohon" is dark and textured, and the characters are highly stylized. "The negative historical issues between Japan and Korea were a bit of a tough subject, so we gave [the characters] symbolic looks," he says, to give the film more of a distanced, fictional feel rather than a representational feel. "We focused on simplification, stylization, but also represented Korean [style] imagery." The artists used square, linear shapes to build the men's bodies and make them appear stronger, while they built the female characters out of circles and curves.

One of the toughest aspects of making the film was getting all the files from the different programs to work together, says Park. (The film's many directors were proficient in different programs.) For the most part, the models were created in 3ds Max, textured in Adobe's Photoshop and Corel's Painter, then imported into XSI. Everything was composited in Apple's Shake and Adobe's After Effects, then edited in Avid's DS. "It was difficult to transfer between programs," says Park. "We learned a lot from it, though."

The filmmakers also struggled to create some of the effects. One, in particular, involved a main character at the end of the film who must "scatter" through the sky as particles. To figure out how to create this and other effects, the team used a variety of references, such as the Internet, books, magazines, and people. For funding, they were fortunate enough to have a one-year grant from the Korean Film Council, which helped cover costs, but also impelled them to get a certain portion of the film finished by the one-year deadline. (All

six directors are still graduate students and will be going on to produce solo works in the future, according to Park.)

Initially, the team worried that non-Korean audiences wouldn't appreciate or understand "Chohon." "But they appear to love the stylized characters and the colors," says Park, who likes the idea that the film is exposing both Koreans and non-Koreans to Korean themes. "**Animation** is getting bigger here," he says. "But there are not that many works on Korean culture."

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The Reel Deal

How important is that demo reel?

"It's critical. This work will tell us a lot about who the applicant is and what he/she is capable of."

--Diane St. Clair Sony Pictures Imageworks

"For those positions that require it, a demo reel is extremely important. A resume and a cover letter are always needed, but the demo reel is the key to the applicant's ability. We look at every demo reel that is submitted, and we keep them for reference."

--Barbara McCullough, Rhythm & Hues Studios

"It's the most important tool you have to market yourself as an artist. You've got about 30 seconds to a minute to get someone's attention, so put your best stuff first."

--Rachelle Lewis Digital Domain

"While it depends on the position and discipline, having a demo reel certainly helps and may give you a leg up on the competition."

--Kathy Mandato, DreamWorks **Animation**

Unforgettable ...

Recruiters talk about their most memorable hiring experiences:

"This reel came in unsolicited from a kid in Michigan who didn't have much formal training, just a few community college courses. I watched it--just doing my due diligence. And I could see that he had natural talent--everything that you look for. I had to call the bicycle shop where he was working and they didn't want to let him take the call at first! And I was able to hire him. That's why I do this: to find some natural, raw talent that

hasn't been seen yet."

--Rachelle Lewis, Digital Domain

"We hired someone the other day right away because he had a really strong recommendation. It was funny because when we saw his reel afterward, we weren't as enthused--we didn't see the work we wanted him to do. He turned out to be a great member of our team, though!"

--Tom Leeser, Kleiser-Walczak

"We had contact with a student who wasn't production-ready after graduation, but through encouragement, he got some experience with smaller companies, which eventually equipped him with the skills he needed in order to be hired by us. That student was really highly motivated. He knew what he wanted, and went out and got the experience that eventually brought his skills up to a professional level."

--Barbara McCullough Rhythm & Hues Studios

"We interviewed an animator with [just a basic] demo reel, and not a lot of production experience. He told us, 'I guarantee I will be your best and fastest animator, hands down.' His confidence was so high; we decided to give him a shot. He is now one of our lead **animators**."

--Payam Shohadai, Luma Pictures