

ANIMATION AND MULTIMEDIA: INTERVIEWS AT FIVE LARGE LOS ANGELES FIRMS

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Developments in digital media have created a myriad of tools to help architects communicate ideas. Three dimensional graphics software has revolutionized our ability to visualize our ideas. With the advent of animation and advanced methods of real time video presentation seem to have substantially upgraded the architects' tool chest. Significant advances have been made recently in bringing animation capabilities to the architectural desktop. To discover the level of integration of animation and multimedia in architectural firms, a series of interviews were conducted at five large Los Angeles firms. The interviews were structured with open-ended questions to allow the firms to emphasize their interests and capabilities. This document depicts the status of the current thinking at Gensler, Jerde, NBBJ, RTKL, and DMJM.

The interviews would be drawn from existing large architectural firms in the metropolitan Los Angeles area. We hoped that firms with more than 100 people might to some degree also be able to afford the luxury of devoting time to addressing the evolution in digital technology. The firms were also selected to cover the spectrum of large office types here in Los Angeles.

The individuals interviewed were company representatives who not only understood the technical elements of how digital images and videos are created but also were able to explain how this medium is being integrated into their firms.



GENSLER

The Gensler firm has a branch office located in Santa Monica. Surrounded by the MGM corporation, their offices have a decidedly corporate feel. With over 160 employees the office is highly specialized. Jim Lefever has been with the company for many years and offered a clear depiction of how computers and digital media have effected and have been integrated into the Gensler office culture over the years.

"Currently digital media is used heavily in the marketing department, to showcase Gensler's abilities. However, in the design department it is typically only used when requested by the client. Designers who are facile with the tools use them to explore design ideas. But it is by personal choice that designers decide to use these tools."

Jim explains how often the expectation for 3D visualization and animation are set very high and how clients take for granted or don't realize the time and expense needed to cre-

ate these images. Jim stressed how at Gensler it is important to maintain profitability, and that the use of digital media can never be allowed to get in the way of Gensler's profitability.

The strategy of how this new media is being integrated into the future at Gensler is very direct. They have devoted a group of individuals who take a very specialized look at the market, trends and software and utilize their skills when there is work needed. Currently the leader of this task force type approach is Mark Brigg. Mark formerly worked for Thom Mayne at Morphosis. With considerable past work and background in the digital arena he has become an noted expert in the field. His knowledge is indispensable and he has created many of the images and animations at Gensler. Mark explains that designers in the firm will often take the lead in starting to model a project and that he lends his knowledge during the later stages of development; stages when the model reaches a level of complexity that Brigg understands well. Almost no one image or animation goes through the office without at some point touching the screen of Mark Brigg. This specialized approach seems to work well at the firm.

Jim feels that since the market changes so rapidly it is not reasonable for a company their size to try and standardize or specialize in any area of digital media. He firmly believes that this type of work should be done in-house. The reason for this centers around Gensler's desire to keep design decisions within the firm, and how the process of consulting creates a second generation vision of a concept. He admits that at times some work is consulted out but for the most part all 3D visualization is done in-house.

Gensler is blessed with excellent hardware and software. At the time of the interview they were testing the latest Intergraph computer that included one gigabyte of operating RAM memory. They currently model for the most part in Form•Z and render images and animations in 3D Studio Max, Viz and Alias. They are also investigating a move to the Softimage software package.

Jim feels that for young people in the profession, talent is the main ingredient that enables them to truly take flight with this type of visual communication. He stresses that CAD understanding is fundamental and that a young students abilities to visualize is the most important element that these new tools facilitate. Jim feels that with these sharper tools we will be able to create and communicate a more accurate image of our minds eye.



JERDE

The Jerde Partnership is a 130 person firm based in Venice Beach. The firm can be categorized as focusing on projects involving retail and entertainment. They design what some would call "themed architecture" and their process works well with the capabilities of 3D visualization. Their trademark focus is not so much

about the "architecture as building" but rather "architecture as it relates to experience." This close relationship with experience is a major reason why Jerde devotes a great deal of attention to the development of animated walkthroughs that bring these "experiences" to life. Thus the use of the digital media and 3D Visualization has found not only a home at the firm but is fundamental to its future.

Currently digital media is used very heavily in the office and it is intended to be used even more in hopes of streamlining design teams and designing buildings in less time with less people. Tom described how several years ago the Mall of America, a five million square foot project. Took 30 people to complete. Today the same job can be done in less time with better results with only five people.

Tom observes that over two-thirds of the projects in the firm now receive some form of digital attention; ranging from still computer images, 2-dimensional and 3-dimensional plans, sections and elevations, to real time narrated animations.

Tom has a very clear and specific plan for how Jerde will address and capitalize on the budding technological era. The key word is "empowerment" says Jagers. On any given day Tom or one of a number of experienced computer users can be found training new hires and young architects on subjects like e-mail, AutoCAD and 3DStudio Max.

This internal education system is what Tom believes is the key to unlocking the power of digital media. "Teaching is the best way to learn." "Provide the user with a bigger paint brush" and they will be able to cover more ground. These ideas are not only spoken but practiced daily in the firm. Tom believes that if you can teach team members a system of thinking that is calculated, not generic, then they can not only work more efficiently they can work together. "People are our strongest tools" says Jagers "empower them with the right knowledge" and the company can achieve at higher levels.

Tom believes that computer progress in architecture moves in cycles and he feels that the evolution of 3D software will experience the same learning curve that AutoCAD users once experienced. In time, Tom is confident that given the right training every member of the Jerde team will be able to use 3D visualization tools with the same facility as AutoCAD today. Furthermore if you train users in a like manner one person can start a project while another finishes it without any downtime.

Technically the office harbors a superior network and a full time information technology expert is ready to lend his expertise to the digital challenges that the office faces daily. The firm is devoted to the use of 3DStudio Max for modeling and animation purposes.

Tom believes computer literacy is something that every student entering the work force should be facile and comfortable with. Being a quick learner and even quicker optimizer will provide limitless opportunity for many young architects. A faculty member himself at Cal Poly San Luis Obispo, Jagers believes that computers need to be introduced in grade school. "The sooner young people start attempting to learn the computer the further ahead they will ultimately be."



NBBJ

NBBJ was founded in Seattle Washington, the Los Angeles office focuses on mainly sports and entertainment design. Peter Samarin is in charge of the majority of the offices animation work but stresses that the structure at the office is extremely loose and that the

power in the company lies in the expertise of its employees.

Nearly all the projects in the office are digitally communicated. Animations are done for the big budget projects and the range of technical knowledge in the firm is excellent. Peter could not really define the specific plan for how NBBJ is integrating digital media into the office in part because I think the office is inherently digitally integrated. Peter explained how any type of training is done under a mentorship plan. "Every six months or so the office elects a candidate that I mentor and train over about a six month period."

There really is no formula for the future, merely that "all these innovations in digital visualization should be seen as tools in an architects tool chest." Peter feels that the more tools architects are facile with the more power we have. Peter also feels that in a changing technological field it is better to know a wider range of software so one can be well equipped under any situation.

Well equipped is exactly what NBBJ is. From a technical standpoint NBBJ had the most diverse and most powerful set of tools seen at the five interviews. From 5 SGI O2 machines, to high end PC's to power Macs, NBBJ prides themselves on being a truly cross platformed network of knowledgeable architectural users. Peter himself actually began his career in the entertainment industry, working with computer related special effects. It is his exposure there and from his years at the GSD that he became facile with the Alias software which he believes is the most powerful 3D visualization tool. The office uses nearly all the currently used 3D software packages including Form•Z and 3DStudio, but for final production images and animations they use Alias on the SGI machines. They also make extensive use of many of the multimedia software like After Effects, Avid and a simple but superior program called Media 100 which pieces together various animation clips.

Currently the corporation is making a move to convert all users to Microstation. When I asked Peter why the firm had made the decision he simply answered, "To be honest, I'm not sure. It is a corporate decision. Coincidentally it works well with Alias because it's a good surface modeler."

Although the corporate decision is to move to Microstation, Peter noted that nearly all the users in the office are AutoCAD users and that in all truth it will take quite a while for the changes to be fully implemented, if ever. He noted how the Los Angeles office "has a high level of autonomy from the Washington office". Peter commented briefly on how costs are calculated by pointing out that,

"Most of our efforts here are marketing efforts, so the budget isn't the largest concern, our concern is whether or not it is possible to get the work done, then it just goes into our marketing budget. Again things are very loosely structured here. When we do have a request we give them a flat fee based on our hourly calculations."

The offices approach is an innovative one that is both refreshingly open and frighteningly loose. With such a competent group of users they can afford to be pretty open and still be at the cutting edge of 3D visualization.



RTKL

RTKL is a large corporate operation with over 800 employees and five offices nationwide. The Los Angeles office totals over 120 where Joseph King is in charge of not only local 3D visualization and digital design but is also being asked currently to consider managing

all the organizations, management and planning for how digital visualization is to be coordinated and approached corporate wide.

Five years out of graduate school, Joseph King has found himself at the epicenter of RTKL's future. In part due to his expertise and understanding of digital trends Joseph has exhibited a mastery in digital multimedia that has warranted RTKL, as a corporation, to invest their future direction to him.

RTKL uses digital presentation and multimedia on nearly 90% of their projects and with every animation that Joe has produced RTKL now has a satisfied client to go with it. This overwhelming success in digital visualization and animation has opened the eyes of many of RTKL's upper management. Joe realizes that if they don't develop a strategy of how to integrate this media corporate wide then they risk losing potential projects further down the line.

Joe is now in charge of creating a specific plan for how digital media is to be synthesized into RTKL's future. He is currently striving to locate employees in every office that can act as digital leaders to help coordinate future efforts. He is building networks for each office and actually also doing much of the physical modeling. Joe cherishes the opportunity to formulate a corporations' growth yet his attention is demanded constantly to focus on the daily demands of specifics like how to light a 3D modeled space or coordinate the modeling efforts of some designers in the Baltimore office. Clearly it is an difficult task for one person. Joe is strongly supported by his higher level executives but their understanding of what time, effort, and expertise is required is somewhat underestimated.

From a technical standpoint many of the users in the office utilize Microstation software package. It is combined with two plug-ins, Masterpiece for rendering and Triforma for animation. Until Joe's arrival the bulk of the 3 dimensional images were created using these tools. He described how when he

first arrived at the office the staff were 100% Microstation users and that since his time there nearly 80% of users have switched to the AutoCAD platform.



DMJM

DMJM is part of a larger company called AECOM. DMJM has offices all over the globe. They have an extensive network that links all their offices and they currently use a Windows NT network with a extensive intranet connecting DMJM offices worldwide.

David Wood has been at DMJM for many years.

Digital visualization is seldom done in the office. David explains that "A client pays us for the building not the images. You won't see a lot 3D imaging until we can figure out how to get paid for it." He sited how at other firms the budget may be so large that they can bury the cost but at DMJM the principal is to make money and creating digital images at this stage is not a profitable endeavor.

He did describe how in the office "there is a debate in the upper management, some feel that we should have the 3D software on every desk and that everyone should learn it and the others feel the cost and learning curve is far to steep to justify it's worth."

So the answer lies for the most part in consulting their 3D imaging out. It is evident here that the sheer size and structure of the firm limits the amount of exploration the firm can attempt. The bottom line seems to dictate what the firm can or can't do. "It costs me ten grand to put one CAD system onto the office floor, you multiply that by 120 and the numbers add up pretty quick" David explains, showing the high cost of maintaining and funding the computer operations. Technically they are 100% AutoCAD users. When they do create 3D images they are often done in Form•Z. There is no plan to evolve the firm into 3D visualization. David explains how modeling is still just the creation of product not a creation of architectural features. He sees an ADE database format as being the future of architecture.

"When I'm able to build a database, a model database of the objects much like the AES software package then we might have something, until then it is simply not profitable." David feels that the excitement in the near future is how the projects of the future will be stored on the internet and not on local computers. Sites like Blueline online are paving the way for how the projects of the next generation are going to be managed and coordinated. As exciting as digital visualization is it will be some time before it catches on at DMJM.



The interviews were conducted in March and April of 1999 by Nick Price.