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OUT OF HIS HANDS

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Abstract

Throughout history, art and technology have maintained a symbiotic relationship. They develop together, building off of one another, pushing one another forward to the next stage of being. Art has begun the journey to a digital realm, from the classic ideas of paint and canvas or chisel and marble, to computerized drawing tablets and graphic design programs. This evolution has caused many artists to choose to use the computer as their means of creation. For the remainder, the option to continue to pursue physical rather than digital art is just that - an option. A choice. For some artists, however, the change is necessary to maintain relevancy in the modern world. One such artist is the architectural draftsman. Joel Farkas, an architect of 35 years, has been given the choice to either switch from pencil and paper to mouse and keyboard, or risk losing relevancy in today's computer-dependent society. His struggle is documented in a short film, in hopes of discovering how the change has affected his art, and whether it is actually necessary or only necessary in Joel's mind.

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View the Documentary

This thesis in made up of written and video portions. The written portion is a record of much of the process of the creation of the video portion, thus it is recommended that the documentary be viewed first:

Out of His Hands

Introduction: Art and Technology

Throughout history, art and technology have evolved together. Starting with bone and rock figures in pre-historic times, then moving towards bronze- and ironwork and later to chemically produced pigments, technology has created more ways for artists to create, as well as new modes of expression.

In 2003, the US Census Bureau found that 61.8% of American households had a computer and 54.7% had Internet use at home. Although the Census Bureau no longer asks for information about computer ownership, in 2009 it was recorded that 68.7% of American households used the Internet at home. This, of course, does not account for computer and Internet usage in the office. These new technologies are changing the way we work and create drastically, and are becoming common in nearly every line of work.

Computers have made a drastic change in artistic expression, moving sometimes-expansive physical workspaces to the compact world of motherboards and microchips. For some, this switch is welcome and seamless, and makes for an easier, more sensible workflow. For others, the switch can be unwelcome, detrimental to the artistic workflow, and even stifling to the Muse.

Making the Switch

My father – a 61-year-old architect named Joel – has, in the last 5 years, been working to make his two-person firm into a mostly computerized environment. Since the 1980s, my father's firm has been using computers to complete paperwork, write business letters, and compile spreadsheets. However, Joel was rarely the one to work with the computer. Rather, it was my mother who did his paperwork and maintained order in his

digital workspace. Though Joel has a great interest in technology, he still doesn't have the technical experience that 25 years of owning a computer might imply.

In the last ten years, Joel took greater control over his computerized life, and began to complete architectural models with a 3D Computer-Aided Drafting program called ArchiCAD. For his 2D or "working" drawings, which are given to contractors, Joel uses a 2D CAD program called AutoCAD. While ArchiCAD does have the capability of turning out working drawings, the interface is so complicated that Joel is only now beginning to work out how to create them with this program. This only serves to illustrate the huge learning curve for a program like ArchiCAD. For a man of Joel's age, it can be especially difficult to learn, but he sees learning a program like this as an opportunity to grow his business and turn out a better product. The switch to this program also allows Joel to run his business from home, save paper, and repair mistakes easily. By these standards, this product improves Joel's work experience. However, Joel struggles in the learning curve to get to the point where the program saves him time while also struggling with letting go of the ease and comfort of hand drafting.

Getting Involved

This past summer, Joel asked me to help him properly learn ArchiCAD – the program he had been working with for the past 5 years – and to get his digital life in order. This seemed like an easy enough task. When it came time to learn the program, however, I realized that Joel's issues were not specific to him; they affected users of ArchiCAD worldwide. For many issues, getting troubleshooting help from the manufacturer was a hassle. The online forums did not comprehensively cover the issues, and many user issues had not been resolved. The glitches in Joel's program were sometimes inexplicable, and the program's $4000 price tag had not included any form of template to help my dad get started. Fortunately, one of my father's interns created a drawing template for him, but it only accounts for a small portion of his total paperwork, which also includes schedules and lists of materials.

In essence, Joel either has to pay more to get the bare minimum out of the product, or he has to invest extra hours into figuring out how to both create and implement a template. One solution suggests paying $100 per hour to hire someone to help fix his problems. This person will come from his distributor in Georgia, and he will

also have to pay for their lodging or put them up in his home. That is quite the investment for some troubleshooting and organizational help, so it's easy to see why he decided to hire his daughter to do all of that at a fraction of the cost.

Gaining A New Perspective

After spending time sifting through Joel's troubles with ArchiCAD, I realized that his struggle was not only that of man versus machine. In many ways, it was also the unwillingness of an architect to part with the artistic technique he had employed for the first 30 years of his career. In our increasingly computer-centric work atmosphere, Joel was feeling pressure to leave behind hand drafting in hopes of a brighter, more productive future in the digital sphere. In some ways, Joel was looking for a new art, but he was hindered both by a love for his old art, and his difficulties with the new.

Architects tend not to gain notoriety until their autumn years; fittingly, Joel has just completed the first house he designed from scratch. He is reaching the height of his career, and at the same time, he is facing a foe that is partly the computer and partly himself. The impersonality of the computer can be jarring for him as he remembers a time when he wrote formally on a typewriter or by hand. Staring at a screen, for him, induces more of a zombie-like state than a feeling of interconnectedness with the world. This impersonality can lead to a feeling of disconnect from one's work, especially when the work involves drawing. While the computer allows him to advance his work with 3D models and instant sun studies, Joel has found that his artistic handiwork is no longer recognizable as his own. The loss of his signature, the look that makes his art specific to him, is troublesome in his mind.

It was this complexity of emotion in relation to the digital world that I saw in Joel and others around me – especially Baby Boomers – that pushed me to make a film about Joel's struggle as well as his passion for his work. I find that amongst young people, myself included, the lack of drive for adults to digitalize is seen as either a handicap or an unwillingness to move forward. In Joel's case, it is a bit of the former and none of the latter. Largely, it seems that he is in mourning over the loss of a friend. This friend, hand drafting, has been with him since he took it up in high school. Letting go of the tactile nature of hand drawing in favor of digital representation still affects his work to this day. Joel seems to doubt whether this loss will ever stop having a bearing on his art.

Research

Initial

I spent the early months of my research focusing on what I felt at the time was the issue of the film: the difficulty of use of 3D CAD programs and whether or not Joel was actually being forced to use the programs. The story could change dramatically based on whether Joel would actually become irrelevant because he didn't use 3D CAD programs. This was a tough subject to find my way around, but it would eventually lead me to the issue of Joel's artistic struggle.

Through conversations with architecture students at Penn State (of whom Joel lamented a portion aren't leaving school with the proper knowledge of 3D CAD) I came to see that designing in CAD is not a requirement, but an option. These students informed me that their professors do not require any particular format for presentation of designs, and that students can choose to work by hand or with any computer program they are familiar with. This presented an interesting challenge for me. Because, if the professors weren't requiring students to work with CAD, then it couldn't be the absolute standard for the industry. It began to seem that 3D CAD was not being forced on Joel by the industry, but perhaps by himself and a bit by his status as a small business owner.

In the short video "How is technology changing architecture?", architect Robert A.M. Stern explains that he still draws by hand and molds with clay and then passes off his work to the people in his office who Joel might refer to as "conversant" with CAD. Stern, as a designer, is not required to know CAD because he can afford to hire others who do. Joel tells a similar story that is not in the film about a man he met at an AIA (American Institute of Architects) gathering. This man doesn't fuss with CAD, he draws up a sketch for the plans, gives it to a computer guy, that guy puts it into the computer, and then the architect comes in and checks to make sure everything is okay. This process is similar for Joel, but the difference is that Joel doesn't have someone to hand his drawings off to, Joel has to work with the computer himself. This issue is where the problem lies.

Joel can operate 3D CAD at a level where he can create 3D models, but he needs to use a 2D drafting program to generate working drawings that he can give to

contractors. If he wants to use 3D CAD, at this point, he can only use it to represent an idea of what a space will look like, which is not a lot for the $4000 price tag. There are versions of ArchiCAD geared towards smaller architectural practices that cost less, but they also remove a degree of functionality and compatibility that can be useful instead of focusing on making the program more intuitive to a designer who cannot hire a person who works solely with the computer.

As evidenced in the article "Computer Graphics and Architecture: State of the Art and Outlook for the Future," CAD is not at the point where it can be effectively used as an means of initial creation, much as Joel explains about how things get lost while working on a computer in the initial stages of creation. The article even goes so far as to say that "most of the artistic and design challenges have already been resolved by the time the designer sits down in front of a computer" (45). While this article, written by Dorsey and McMillan in 1998, may not hit the nail on the head today in terms of when in the creative process CAD becomes of use, it was striking that so much of it seemed to apply to Joel. One quote in particular stuck out at me:

> "At what point do features become clutter? A pencil has relatively few features other than the hardness of its lead, the sharpness of its point and the orientation and pressure with which it is presented to the paper. Despite all of their menu options, there are few computer-aided systems with comparable flexibility." (47)

Joel stated this almost verbatim in an interview, and this seems to be something that architects feel and acknowledge pretty widely, especially those who are accustomed to working with a pencil and paper. So, what are the creators of CAD doing to fix it?

In the 2007 article "The Problems With CAD Tools: Vendors Address User Pain Points," which was featured on the NASA Tech Briefs Website, a variety of CAD marketers discuss what can be done to make CAD work better. This article cited ease of use, productivity, collaboration, more features, and performance as the main points that frustrate CAD users. There is talk of add-on tool boxes and cutting out features so that the product seems smoother on the surface, but this doesn't seem to touch on what

frustrates Joel. His main issue is with the artistic side of the program, and its lack of flexibility.

Experiential

After working with the program myself, I found that its design seems like it was created with only the technical in mind, rather than the artistic. This is a huge issue for architects who are, by and large, an artistic bunch. There is absolutely a level of technicality to architectural work, but, at least according to Joel, design should be the part of the process where the most time is spent. Automating as much of the technical side as possible seems to make sense, and opening up the creative side of 3D CAD would help to make the program more fluid and more easily learned.

As an example of a program that comfortably mixes the technical and the artistic, I like to point to Final Cut Pro, the program with which I have made most of my films since 2005. I have been working for almost the same amount of time with Final Cut as Joel has with ArchiCAD, and I have a facility with it that Joel hasn't begun to achieve with ArchiCAD. To further emphasize that point, I would like to point out that Joel uses ArchiCAD most every day. I use Final Cut Pro maybe two or three times a week if it's a busy week, and very little in the summer months. There is no doubt in my mind that he has spent more time with ArchiCAD than I have with Final Cut. So why is Final Cut so much easier to learn than 3D CAD? Final Cut manages to hide advanced options from and make the more important options stand out more easily to the beginning user. Final Cut also has a very clean layout that doesn't force anything too advanced on the user initially. ArchiCAD throws every option at the user, so it is up to the user to decide what's important and what isn't from the very beginning. To make a language analogy, Final Cut seemed to teach me the "hello," "goodbye," and "where's the nearest coffee shop?" first before sending me out to speak with the natives. ArchiCAD seems to have thrown Joel into a philosophical discussion in Swahili.

Of course, I had also been editing in iMovie prior to using Final Cut (both video editing products made by Apple), so this may have made a difference. But I have seen students pick up how to effectively manage their movies in Final Cut faster than Joel has picked up how to effectively manage his projects in ArchiCAD. The knowledge of my own industry's use of computers definitely helped me to see Joel's difficulties and relate,

while also giving me a sense of knowing when Joel was complaining about something that was obvious to advanced computer programs, rather than pointing out a change that needed to be made. Not only did this help me understand Joel, but it also helped me to make our conversation sometimes into a bit of a debate.

Films

I watched a variety of films to help me decide how to explore this subject, one that could easily become a tech-heavy rant if not treated properly. *Helvetica* (Gary Hustwit, 2007) was among the first films I watched. It helped me to understand how to take a niche topic and make it both visually and emotionally appealing to a wide audience. *Helvetica* influenced my use of technical visuals and enforced the importance of non-interview visuals (B-Roll) in creating a coherent piece.

Another film that influenced me early in my research was *My Architect* (Nathaniel Kahn, 2003), a film about a man's search for his father, an architect, in both the buildings he designed and the people he knew. The most important idea that the film imparted was that parents are people, and are therefore fallible. It is a lesson that I feel is particularly meaningful to college students everywhere. This was especially important for me because I am depicting my father on screen, much like Kahn depicted his parents. I realized that I had to honestly and meaningfully portray my father, while holding the opinion that he is a bit misguided in some of his beliefs about computers. While I had an underlying desire to not make my father look bad, I could not sacrifice the meaningfulness of the film in order to feed that desire.

The topic of honest portrayals is important in documentary filmmaking. I explored this issue in a project on ethnographic film for my Advanced Documentary course. The project focused on objectivity in ethnographic film and honesty in portrayal of different cultures. This study unwittingly helped me to focus the direction of my film and the manner in which I would portray my father. I found that, though filmmakers intend ethnographic films (films made in the name of anthropology) to be as objective as possible, they are unable to maintain complete objectivity. It is understood that even if a camera is placed down and allowed to record for an hour, untouched, there remains a tinge of subjectivity in regard to the direction and placement of the camera. Because of this, awareness of both my own and my father's subjectivity became very important for

me during the editing process. While I did not choose to make myself visible in the film (the ultimate in suggesting subjectivity), I did do my best to make it clear that the purpose of the film was not to be an authority on the subject of CAD and its inner workings. Rather, I strived to portray one man's struggle in compromising his art in the name of technology.

By chance, a friend of mine sent me a link to the short film *Up There* (Malcolm Murray, 2010), the story of a group of men who still hand-paint advertisements on the sides of buildings in New York City. What struck me about the film was the passion, along with the sadness, of a dying breed of artist. Even more impressive was the lack of pity it sought from the viewer. Instead of making me sad for these men, I was inspired by their talent and drive, and impressed by their abilities. No matter how dated their approach, these men were doing something truly fantastic and beautiful. *Up There* inspired me to change my approach to my film. I watched it between my first and second interviews with Joel, and it helped me to see that approaching Joel's struggle from a creative point of view. The issue presented in *Up There* was discussed, but more heavily inferred by watching these men at work and seeing how invested they were in their dying art. In the same vein, I hoped to discuss Joel's struggle, but focus more on his passion and how good he is at what he does. Then, through a small section, make a short example of the stress of switching from one medium to another. From that, my audience would hopefully be able to piece together Joel's deeper emotional frustration. Additionally, it would save my piece from becoming a ten-minute rant about computers, which would not depict Joel's struggle appropriately.

The variety of other films that I watched all helped to inform my film's design and structure. While I did not implement each film's technique, I found that every documentary that I watched helped to guide my process in one direction or the other. The process of the artist depicted in both *Capturing Reality* (Pepita Ferrari, 2008) and *The Burden of Dreams* (Les Blank, 1982) helped me to decide which questions to ask and gave me ideas about how to present my father as an artist. *Capturing Reality* in particular helped me decide what not to do for my father's interview. The use of darkness behind the interviewees focused attention on them, but it felt too blank for my subject. In

contrast, I decided to make the background more vivid in my interviews, to play up my father's art and his desire to add color to his design.

Man On Wire (James Marsh, 2008) makes use of reenactments of previous events in order to tell its story of a covert operation to put a tightrope up between the Twin Towers in New York City. This film and Errol Morris' *Thin Blue Line* (1988) almost convinced me to include reenactments in my film. To some extent, it could have been useful to have a few images of Joel smashing a computer, but then I didn't want to lose my film's sense of honesty in the process. Plus, that would have more than quintupled my film's budget. I scrapped the idea of reenactments pretty early on, but hopefully I will have the chance to use them in future films.

I watched *49 Up* (Michael Apted, 2007) because the format – that of a film that had be reedited and shot every 7 years – fascinated me. At the point when I watched it, I was into editing my rough cut, and I needed some direction in regards to editing together two interviews, and making them compliment each other. In the end, my interviews fit together fairly well, luckily my father hadn't changed too much mentally since the first interview, but it helped to see the way Apted's film pieced together 42 years of footage into something coherent about multiple peoples' lives. *49 Up* also encouraged me to cut out the fat in my film and to only use what clips were absolutely necessary to get the point across. In the entire film, very little was restated, and everything helped to explain the subject's life. As I began editing my next few cuts, I used this film as a model to help me keep things concise.

Production

Pre-Production

Before production on my film began, I formulated a sense of the way I wanted it to look and the direction I wanted it to take. While the direction could be changed based on editing and a second and third interview, I knew that the visual aspect would be hard to change on my seven-month schedule. Having the right look for the content was extremely important, and my adviser directed me toward a classmate named Ken Campbell. Ken is an extremely talented cinematographer. Luckily, he agreed to be the Director of Photography for my film.

To begin, Ken and I met to discuss the first interview. We talked about lighting,

set up, and even the colors that would be involved in the shoot in order be as prepared as possible. We also discussed B-Roll and equipment, making a list of everything we would need so that I could ensure it was reserved and available to us when needed. B-Roll is defined as the video captured to cover up the video of the interview. While some documentaries use only B-Roll, others may use little to none. It is useful because it can help to cover up cuts in an interview where the interview has been shortened or lengthened. It can also cover up moments where the interviewee gets distracted or where the video quality is poor.

The First Interview

The first interview took place in Pittsburgh. Before we made the journey from State College, Ken and I reviewed the equipment we had reserved. Through this process, we found that another student had checked out the lights we had asked for. Instead of having an already-assembled kit, we needed to pick out free lights. This ended up having a positive impact on the project; it was a lesson in how a filmmaker must always be able to adapt to adverse situations to accomplish a successful finished product.

For the first interview, we were very concerned with color, and making sure that Joel was in the best possible location to be interviewed. Ken and I spent at least an hour setting the location appropriately. Joel's chair was placed on thick books to enable us to include everything we wanted in the shot. These books were long outdated, since replaced by an Internet database; using them felt ironic, given of the mission of the film.

Following the first interview, Ken and I worked with Joel to film B-Roll. We collected footage of Joel working on hand drawings and with computers, making sure that we captured both sides of the spectrum. We then came upon a gold mine of old drawings and used them to illustrate the difference between hand drafting and computer-aided drafting. It was especially helpful to be able to view the drawings side by side to illustrate the differences Joel spoke of in the interview. The hand drawings truly were art, they had depth and shading and the details were incredible. The computer output was unfeeling and rigid, with no flourishes and no indication that a human had come in contact with it. The most useful example of the comparison between hand drafting and computer drawings came as a surprise; we found that Joel had some of each for the house he recently completed. He had been working on it since 2005, right at the point when he

was changing his system. Ken and I were able to overlap the drawings to show the contrast between them, which was very helpful in illustrating Joel's feelings about their differences.

The String Out

Following this interview, I put together what I call a "string out". A string out is an edit that focuses mainly on getting the audio where it needs to be, and very little on the B-Roll. This serves two purposes. The first purpose is that there is little point in taking the time to put all of the B-Roll in place when future edits will certainly be made and the B-Roll will definitely change with those edits. The second is that this edit allows for the editor to get an idea of what other B-Roll will be needed. Every editor has their own process, of course, but I found that this, as the first step in the editing process, worked best for me.

I treat my documentaries as essays. I begin by transcribing my interviews and any other audio I have, and I then pick out the best quotes to build my story around. As with an essay, a good documentary needs an introduction, support, and a conclusion. I built that structure using the quotes I had chosen from my first interview, and tried my best to create a sound argument with the material I had. My first edit was over 20 minutes long, and it was weighed down with technical jargon, explanations of software, and some mild complaining. It seemed that I had failed to capture his passion for hand drawing, and was left with negative passion toward some aspects of CAD and a mild resignation towards others. I knew that I needed to do more research by way of interviews and conversations with Joel.

An Advantage

I was fortunate to have my father as my subject; ample time with a subject outside of the film is uncommon for documentarians. This allowed for the conversation to continue well past interviews, and into informal discussions. These discussions enabled me to formulate future questions as well as get an idea of what Joel actually thought about the topics of discussion. This provided insight that only constant casual conversation can, and also helped clarify the conflict that Joel was feeling.

The Second and Third Interviews

In our second interview, which Ken also filmed, I decided to focus more on the emotional aspects of the switch from hand drafting to CAD. This change, as suggested by my adviser, made a big difference in not only the way Joel spoke, but the emotion he used. Instead of rage mixed with somewhat bland technical jargon, Joel was now talking about his feelings and experiences. This was a huge change, and those sound bytes proved to be a great help when it came time to edit my rough cut.

Before I could edit another cut, however, I had to capture more B-Roll. Ken and I agreed on a date for filming, but unfortunately, due to schedule conflicts, I was ultimately on my own to get extra B-Roll and sound bytes to fill in the gaps. I spent Spring Break and an extra weekend in March filming the houses Joel had designed, as well as him working with computers and drawing the end credits. The third interview, done only with sound, served to round out the narrative in the end. It also ensured that Joel only had me to focus on and talk to, which made him much more comfortable and prevented him from trying to make an good impression on screen or to Ken (intentional or not, I found this to be a small issue in previous interviews). Without the camera, I noticed that he spoke less in jargon and gave some wonderful statements on his work. Unfortunately, only a small portion of this interview fit the narrative, but it proved to be priceless where it was used.

The Rough Cut

In subsequent cuts of the film, I restructured my audio and cut my running time in half from 20 minutes to about 10. With each cut I could see my film getting more concise and – to be frank – less boring. What I find is that even the most interesting and exciting film can drag if it gets too long. My film, with its technical aspects and single interview, could not sustain itself for much more than 10 minutes with the interviews and the information covered. I think that this awareness helped me to keep the film from being drawn out, as well as make it more emotionally charged.

The Final Cut

For my final cut, I had a friend of mine with experience in scoring films create a musical soundtrack for *Out of His Hands*. This added a sense of playfulness to the piece, while maintaining Joel's sense of pride in his work and his sense of loss of hand-drafting.

This also provided a musical backdrop that the film could call its own, as opposed to the song I had been using previously as a stand in.

In addition to adding music, I decided to cut a few lines about Joel's education, because I felt that his work spoke for itself. It had become apparent that where Joel was educated was much less important than his passion for what he learned and how he uses it, which is true of any artist. The fact that I didn't have sufficient B-Roll to back up Joel's description of his education only further served to convince me that the few sentences were unnecessary. From behind those lines, I managed to bring the meat of the piece closer to the beginning.

In feedback from a variety of people, I found that many felt that the piece didn't go where they expected it to from the beginning. One of my friends even referred to the structure as "conversational," rather than structured as an essay (which is ironic, given that I go about mapping my films as I would an essay). I spent a significant amount of time considering whether I wanted to change the structure or not, but I decided to stick with the conversational angle. First of all, the goal of the piece by the end had become more about the struggle to choose between comfort and moving forward than about arguing for or against CAD systems. Joel is just a guy, a successful guy, but a guy nonetheless, who is passionate about his means of creating art and his final product. However, when it becomes clear to Joel that he can enhance his final product by leaving behind his means of creation, the choice is obvious. In fact, there is no choice, hence the title: *Out of His Hands*. Whether we think Joel has a choice or not, to Joel, there is no turning back and there was never a question about whether he should move towards the future or not. He made no decision because, in his mind, there was effectively no choice.

The conversational nature of the piece serves to make it less about the "right" and "wrong" choice, but more about discussing the ups and downs of switching from the tactile world of working with one's hands and the virtual world of the computer. Both have their benefits and setbacks, but, ultimately, it is nearly impossible to avoid a future with computers, and Joel accepts this willingly. The struggle is definitely cerebral, but it is a struggle that anyone who has worked with computers can understand.

Conclusions

3D CAD

CAD programs are not easy to learn, nor are they particularly cheap. As with most computer programs, they require substantial investment of time and money to get started. Age can certainly be a deterrent for architects who have been hand-drafting for their entire careers, but there is also the issue of ease of use and intuitive processes.

Though the program is difficult to use, causes him long nights at the office that he hasn't experienced since the beginning of his career, and does not provide him with exactly what he needs, the future Joel envisions for architecture will not include him if he doesn't begin working with CAD now. Simple programs are available to him, but he is neither able to put in the time and money to gamble on a new program nor to hire an intern to handle CAD operations (though he does have an employee who is his age). These financial setbacks do not help him to complete his best work possible.

In the end, his work on the computer, while it looks cooler and can help his clients better understand what they're getting, currently holds no significant advantage in time-saving when it comes to actually working with the product. Joel freely admits that he often finds himself thinking that he could draft faster by hand. Today, he continues to draw details in pencil because he cannot get the computer to accurately depict them and he finds himself spending hours working out computer glitches when he could be continuing with his drawing. Not to mention the fact that his creation of 3D models in ArchiCAD does not, at this moment, mean that he has created the actual working drawing that he will give to contractors.

These setbacks, while typical of any computer system, are a particular setback for one- and two-person firms, who do not have the money to hire an IT person to handle their troubles. It is especially difficult to hire an extra person for a firm that operates from a home. Therein lies the issue, while most computer programs allow users to work from home with ease and little time invested in learning the basics, it seems that CAD requires a significant workforce to make it feasible at this point in time, especially for those who have little experience with computers.

Joel is not alone in his troubles, and there is sure to be a solution out there for him if he is willing to invest the time and money into either getting a better grasp on

ArchiCAD or trying to learn one of the other 3D CAD programs on the market, perhaps even one that cuts out the aspect of creating working drawings altogether. The problem will be finding the time and money to do it.

Filmmaking

I feel that this project helped me both to grow and to find what interests me as a filmmaker. I have always had a deep interest in history, especially the history of my family. This film, while not wholly about my family history, did allow me to look deeper into the life of my father and to understand his goals and passions. As an audience, what moves me is a film's ability to make me see my life in a different light, and that becomes magnified when I am part of the process. I could have made a film about CAD programs or changes in architectural style and what they mean, but instead I decided to explore my father's life. This helped me not only to see my father's life differently, but to experience my own life differently. That self-discovery is much more important than learning that a large pricetag for a computer program is no guarantee for good support and troubleshooting.

I have often questioned whether or not it was a mistake to not include myself in this film, given that, for me, there is an element of personal discovery involved. I am unsure that what I feel comes across on the screen; I do not know if it is possible without showing my interactions with my father. This, of course, is small in comparison to the argument the film makes about pitting passion against technological advancement. So, would I include myself if given the opportunity to start over? Probably. Would it make the film any better? Possibly. Given that everything is relative to personal preference, perhaps that decision is best left to the reader. While it could have created more depth in terms of characters and emotions, it also may have strayed from the ultimate goal, which was to illustrate one man's drive to remain relevant in a technologically advancing society. In some ways, it was a better choice to let my father's passion speak for itself.

This project presented me with an incredible opportunity, one that I wish I could have properly represented in my film. I have always been very much like my father; we have a similar temperament and similar academic interests. Since I came to college, I haven't spent much time with him, really getting to know him as an adult. I could say that I learned a lot about architecture and computer programs and rattle off any number of

things about the future of computer modeling, but that wouldn't account for the value of what I learned. The value was all in spending time with my father, learning about his passion for his work, seeing the look in his eyes as he explained the choices he has made in his business life for his family, as he explained the way hand drafting makes him feel. It was powerful for me simply to get a glimpse of something that means so much to my father.

My journey became similar to that of Nathaniel Kahn in *My Architect*. While he sought to discover his father, he ended up discovering more about his mother in the process. For me, in my search for truth about why computer programs are so difficult for my father to learn, I ended up learning about my father, his life, and his goals. In the end, we both found ourselves realizing that our parents are more human than we could have imagined at a young age.

For me, this was a chance to mature and grow as both a person and a filmmaker. I learned that films do not always go as planned, but that doesn't make them any less beautiful or meaningful. Sometimes the best ideas are the ideas that come in the middle of production, and they end up being the defining themes. For me, realizing that this film was not only about technology, but also about passion, made all the difference.

Appendix A: Documentary Treatment

Working Title: Out Of His Hands

Director:
Abbey Farkas – Director/Editor
Ken Campbell – Director of Photography
Lidija Barbaric – Composer
(Sound TBD if needed)

Working Hypothesis:
Joel Farkas, an older architect, has chosen to switch to computer drafting in favor of its manual counterpart despite his passion for drawing by hand and his difficulty in learning the software. Is the idea of relevancy really worth giving up his passion?

Theme:
My father, Joel Farkas, born in 1950, is an architect who has owned his own business since 1982. For the first 30 years of his career he drew everything by hand but more recently has begun to use CADD (computer-aided drafting and design) for all of the work he presents to clients. As many people find, the technology that is supposed to make things easier has instead led to many late nights trying to figure out why the printer won't work or the drawing won't save or why he can't give his drawings the same life he used to. This is all compounded by the fact that, while change does have its benefits, Joel's difficulty in learning the new program seems to be hurting his productivity. I am setting out to find out why my father has chosen to make this switch despite his love for drawing and whether he feels that the change has had artistic and structural benefits to his work. I am also hoping to gain some insight into his psyche and maybe even make him think about why he has made the choices he has about his method of drafting. Above all, this is meant to be a look into the life of a structural artist who feels forced to change his method of work in order to remain relevant, and the effect that change has had on his creative process and his creations themselves.

Structure:
This film will begin with a clip that illustrates Joel's love of drawing and will continue to establish that, before introducing the idea of CADD. Once CADD is briefly introduced, we will briefly discuss what has been lost and the difficulties Joel faces in learning this new product. From there the reasons for the switch will be discussed, as well as the emotions involved, such as that of demolishing his old drafting table to make room for exercise equipment. It is here that I hope to make Joel's sense of loss felt, but also his sense of hope for the future and his desire to remain relevant. It is also at this point that his past work will be revealed, including a house that he designed both at a drafting table and on a computer. To wrap things up, Joel will make a statement of his desire to remain relevant and his hope that he will be able to grasp the computer programs in hopes of making his work better.

Style:
In the 1st interview, Joel will be well-lit and easily seen, to create a tone that this is a man that has nothing to hide and is willing to talk about his experiences. However, in the 2nd interview, where emotion will be more of concern, Joel will still be well-lit, but there will be more of a sense of darkness around him and more play on shadows. I hope to use mostly natural lighting for this interview if the conditions are right. The questions asked in the 2nd interview will focus more on Joel's emotions than his process, and the questions will be posed more towards how he feels about his work than what he thinks about it. Through pauses in the editing and the insertion of music, I hope to create an emotional air, and to convey the sense of loss that Joel feels. B-roll of Joel working late into the night will also show that Joel is a hard-worker and that he really does want to understand new technology.

Format: length and shooting format
10 minutes or less, High definition, 16:9.

Point of View:
The storyteller will be Joel Farkas. He has owned his architectural firm for nearly 30 years and is knowledgeable in all areas of architecture, from the design stage, to how the plumbing and ductwork are put together, to the way a cabinet is installed. He is always looking forward to the next great innovation to make his work better, but his current struggle with CADD has recently brought out a disappointment in him that seems almost like mourning the loss of an old friend.

Elements:
Picture:
Two interviews with Joel, both talking heads.
Possibly some archival photos of Joel working
B-Roll of Joel drawing at a table and working on a computer
B-Roll of work Joel has done in the past
Graphics from the CADD program to be contrasted with images of completed works.

Sound:
Original music
Voice from the interview.

Appendix B: Production Plan

Title: Out of His Hands

Production Team:
Director: Abbey B. Farkas
Camera: Ken Campbell
Audio: TBD
Editor: Abbey B. Farkas

Equipment:
JVC 100
Lavalier Mic
ME-66
Diva Light
Vid Kit
5 SD cards
500 GB HD

Hypothesis and synopsis:
Joel Farkas, an older architect, has chosen to switch to computer drafting in favor of its manual counterpart despite his passion for drawing by hand and his difficulty in learning the software. Is the idea of relevancy really worth giving up his passion?

Joel discusses his difficulty in learning drafting on a computer while contrasting his love for drafting by hand. His previous work is shown and his personality is explored through a conversation about why he beats himself over the head with computer drafting, and why hand drafting has become, to him, a less logical choice. The fear of becoming irrelevant and falling behind in a technologically advancing world are themes to explore in this film about a changing art form and a man who is trying to catch up with the art he once loved.

To do list:
Screen capture 3D models
Video of Joel drawing at night and during the day
Video of Joel at the computer during the day.
Video of models
Try to find photos of Joel at desk
Third interview
Video of Joel's finished work.

Calendar:
February 23: Interview with Joel/B-Roll shoot in Stuckeman
February 24-28: Transcribe interview.
February 28-March 3: Re-script
March 17: Complete string out with some b-roll

March 18-20: B-roll shoot in Pittsburgh
March 18-21: Insert new b-roll
March 22: Rough cut due
March 23-30: Re-edit, fine tune.
April 1: Send out cut for music.
April 1-12: More fine tuning, add music when it arrives.
April 12: Fine Cut Due

Budget:
Round-trip driving to Pittsburgh: $40/trip (in gas)
Meals (director + 2 crew + interviewee): $32-$40 per meal
Equipment: free
Total: ~$450 (including shooting last semester)

Filmography

49 Up (Michael Apted, 2005) 180'
A Man Called Bee (Timothy Asch & Nopoleon Chagnon, 1974) 40'
Exit Through The Giftshop (Banksy, 2010) 87'
The Burden of Dreams (Les Blank, 1982) 95'
Capturing Reality (Pepita Ferrari, 2008) 9'
Nanook of the North (Robert J Flaherty, 1922) 79'
Dead Birds (Robert Gardener, 1965) 85'
Helvetica (Gary Hustwit, 2007) 80'
My Architect (Nathaniel Kahn, 2003) 116'
Man On Wire (James Marsh, 2008) 94'
N/um Tchai: The Ceremonial Dance of the !Kung Bushmen (John Marshall, 1969) 20'
Chronique d'un été (Edgar Morin & Jean Rouch, 1961) 85'
Vernon, Florida (Errol Morris, 1981) 55'
Thin Blue Line (Errol Morris, 1988) 103'
Up There (Malcolm Murray, 2010) 13'

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CURRICULUM VITA of Abbey B. Farkas

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Pittsburgh, PA 15217
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EDUCATION
Bachelor of the Arts in Film and Video, The Pennsylvania State University
Minor in French Studies
Minor in History
Expected Graduation: Spring 2011

THESIS
Out of His Hands: A Documentary
Supervisor: Professor Barbara Bird, Department of Film and Video/Media Studies

HONORS
Schreyer Honors College
Phi Beta Kappa, Lambda of the Pennsylvania State University
President's Freshman Award

WORK EXPERIENCE
March 2011 – present
The Altoona Curve Baseball Club
Production Intern
Assist the head of video production in preparing video and graphics for use during baseball games.
Run video board at the ballpark.

January 2009 – present
ITS, Penn State University
Computer Lab Consultant
Assist campus computer lab users and maintain printers and other equipment.

Fall 2007 – Fall 2010
LaVie Video Yearbook, Penn State University
Filmographer and Editor
Filmed and edited sports events, homecoming, and other campus traditions for college video yearbook using Canon GL camcorders and Final Cut Pro.
Filmed on the field at the Capital One Bowl, January 1, 2010.

August 2010
Forensics on Trial, Providence Pictures
Production Assistant
Assisted crew in setting up, moving, and striking equipment.
Made sure consent forms were filled out by all interview and reenactment subjects.

2009
Onward State
Video Editor
Produced, filmed, and edited videos for a Penn State-centered student-run blog.
Filmed and edited a series of videos used for promotion of a local business in conjunction
with an advertising campaign through the blog.
Wrote entertainment-focused pieces for the "print" portion of the blog, as needed.

May – August 2009
Video Takes, Inc
Production Intern
Edited a trailer for the company's Alaska Wilderness League video.
Wrote and edited short piece about Wes Jackson and The Land Institute.
Assisted on interview shoots for Women in Film and Video's 30th Anniversary video.
Located, loaded, and logged footage at the National Archives II in College Park, MD for
documentary on Henry A. Wallace.

January 2009
ABC News NOW
Inauguration Weekend Runner
Stocked and prepared the Green Room for guests.
Welcomed and escorted guests from make-up to the Green Room to the studio.
Ran various errands around, and outside of, the Bureau for producers and the booker.

LANGUAGES
Conversational French
Beginning German