

TRUE HORROR STORIES FROM THE 3D INDUSTRY: PART 2

Doug Stanley, formerly of C3D wrote to me to protest that he was really a fine fellow and should be removed from the C3D story in part one. He also said that he picked Miller as his assistant because he did not like my writing style and because he heard that I said something negative about him. He further objected to my reference to Liptonstein's sexual problems. Here is my answer--he never responded.

Re "True Horror Stories from the 3D Industry", I only tell the truth to enlighten and maybe prevent some of these white collar criminals from defrauding others. I don't recall ever saying anything regarding your abilities to anyone at C3D or elsewhere. I had no reason to doubt your competence as a video professional. Who told you that? If it ever came up I would just give my honest opinion--something I don't think you will often find in business or anywhere. You should remember that most of my competitors have been at great pains to spread disinformation about me for 20 years. Liptonstein, Miller, and all the rest have projected their own unlovely characteristics on me to their own advantage. This of course in spite of the fact that they (and you too!) would probably never have done anything in 3D without my help--not any ego here--just the facts. Regarding Liptonstein's sexual problems, we have been aware since Freud of the relation between disturbed sexuality and disturbed psyche's. Far from dwelling on it, I barely mentioned it, as it was entirely in context. I could have described his extreme promiscuity, numerous adulteries, STD's, and other aspects of his sordid personal life such as incessant obscene characterizations of anyone who displeased him or the physical abuse of his handicapped daughter. Most of these guys are not just bad businessmen but scum to the core.

Regarding C3D, let's recapitulate a few of the salient points here. Please correct me if I'm mistaken! Loran Swensen started C3D (then Chequemate Intl.) by visiting me and taking a multiplexer and some tapes etc and the idea for the RealEyes box away. I came to Salt Lake City at my own expense to guarantee his investors that I could supply the 3D shutter glasses at a low price. I think he sold them the 2D to 3D idea for \$1 million or so. He never paid me for this stuff and I was not the only one. 3D consultant Anthony Coogan had to threaten to stand in front of his house with a sign before he got paid. Loran refused to listen to my advice. He could have had a much better 3D conversion in the RealEyes 3D converter box, made it wireless, made it much cheaper and faster etc, etc. A Chinese company told him they would buy \$ millions worth but had to see a prototype. The idiot gave it to them and before the Realeyes box appeared they had made a much cheaper, better version, put my trademark name 3D Magic on it and sold it everywhere. In any case this early version of my idea was public

domain and not protectable (unlike the versions I did not show him, or you) so it would appear that his patent was fraudulent as was his acceptance of investor's money. When the company ran out of money they still owed me a lot of money (and countless others I'm sure). So of course I had reason to suspect anything coming out of Salt Lake! So, when the new C3D president Michael Heil called me to say he wanted to cooperate but did not offer to pay his bill and also noted that he had only one eye, so had no interest in C3D except to keep it going until he could sell his stock, you can see why I did not respond with enthusiasm.

Then there's the Michael Miller issue, hands down, the most notorious small time thief and con artist in the 3D and pc business. He's swindled dozens of people in major ways and hundreds in minor ways for over 20 years. In fact of course, virtually everyone he's ever known. I recall once walking into a San Rafael camera store to ask them about a 3D camera in the window. They guy asked me if I knew a Michael Miller as his friend had given him \$60,000 to start a company and he had disappeared. Another C3D founder Paul LaBarre has a great Miller story. Miller told him he had recently had lunch with the brother a Chicago gangster Paul used to know--a guy who had been found dead in the trunk of a car 3 years before! In addition to being a pathological liar and confidence man, he's a kleptomaniac. He has large storage spaces full of things he's stolen from people and companies. Naturally he denies it and is very careful to keep people he's victimized away from his house etc. In the old UME Corp days, he always found some excuse to prevent me from visiting his apartment on Magnolia in Larkspur, but one day his girlfriend was coming out when I happened past and she took me in. He became extremely agitated as I looked around the room and saw some of the things he had stolen from me. I picked up some items I brought back from Expo 85 in Japan that even had marks I had put on them. Of course when faced with any of his crimes he gets red in the face and starts shouting about how innocent he is--no matter how clear the evidence to the contrary. He copies or steals the original (he has a mania for originals) of every document, CD, videotape and piece of equipment he can get his hands on. He takes his briefcase into every place he visits and when nobody is looking he puts anything loose into it. I'm sure he has copies (or originals) of every document, software etc C3D had, and almost certainly some of the missing equipment that the new C3D staff is looking for. He then peddles any thing he can steal or talk people out of (he's talked hundreds of people out of prerelease prototypes of their hardware and software, which of course he refuses to return) to anyone who'll pay. He also is a chronic drug abuser and drug dealer, especially between swindles. Also, in spite of his great rap and name dropping, I don't think he has ever actually conceived and carried out any project on his own in 20 years and cannot seem to complete even the

simplest job as he's too distracted with drugs, girls, comics and his 200 other concurrent swindles. It would take a large book just to summarize all his crimes, yet, like the others. He has probably never been prosecuted. I'd love to see you stand up in front of all the investors, employees and clients of C3D and defend your choice of Miller as your assistant, provided I was there to correct any lapses of memory. Also of course your choice of an amateur boxer as another imaging expert. Then there was that other buddy of yours from Sacramento who had been hired by NuVisual Entertainment to shoot the 3D music videos. I think he shot something like 50 hours of 3D during several weeks of concerts, nearly all of it totally unusable due to grossly excessive parallax. He was characterized by someone who worked with him as "That stupid f***".

And, you spent over a year and millions of dollars to get C3D far short of the point where I could have gotten it in a week for a tiny fraction of the cost. First you said you didn't like my writing style and then that you thought I had made some negative remark. It couldn't be that, like most of the others in the 3D industry, you just wanted to keep anyone competent away from your investors and clients? Just bad judgment ---or criminal negligence? If it was up to me (and I'm sure all the people burned by all the criminals I describe) you would all have to pay back every cent (with interest) that they lost. Simple justice! Yes everyone makes mistakes and many deserve another chance, but if they have not changed then only a crazy person would trust them. All of them have lied and cheated many--just ask Paul about Heil for example. Knowing what you do, would you invest time or money in any venture run by any of them?

Admittedly, there's nothing special about these persons or companies--they are typical of how business, politics, academics and religion operate, but of course it's rare for anyone to try to tell the truth! I'm sure that what I know of their misdeeds is just the tip of the iceberg. As you say, I'm sure neither you nor anyone will ever publicly tell the whole and true stories as you would all get sued by countless investors, employees, clients, and indicted by state and federal govt. agencies for fraudulent representation, theft, embezzlement, fraudulent conveyance, patent fraud, mail fraud, tax fraud, securities violations etc, etc. Most of the officers would face serious jail time. And we are talking about first world business--in most of the world the rich are tied up with an utterly corrupt government, military and police so you just do whatever you want including extortion, theft, kidnap and murder. And all these guys would cross that line in a heartbeat if they could get away with it and if it inflated their ego or their bank account!

Speaking of Miller, one of the more bizarre stories in the 3D arena concerns UME Corp, started by Miller and some friends. After Loony Liptonstein calmed his paranoia a bit by throwing all the talent out of StereoGraphics Corp (1983), I gave Michael Miller and Bill Moulton some 3D hardware and software to help them raise money with the proviso that we share any money 50/50. Eventually, they found an investor, but when I asked for my 50%

nobody wanted to give it to me. Rather than suing, as I had every right to do and most people would have, I agreed to accept a small amount with some salary etc. We started what was possibly the world's first consumer Virtual Reality Project. Hasbro, the world's largest toy company, was to put out the system. We had top people doing graphics and chip design--like Loren Carpenter and his colleagues at a then little known LucasFilm offshoot named Pixar (later bought by Apple's Steve Jobs and finding fame and fortune with Toy Story and other films). We started with the Tektronix stereo LCD glasses made for the old Atari ST stereo system (this is 1985!), a Commodore PC, a true 3d drawing pen, and an early prototype DataGlove hand delivered by Jaron Lanier of VPL (then a skinny kid whom I had read about in a magazine and who seems to have gotten into VR via his friend and mine Howard Perlmutter). Things were going smoothly and we had a series of meetings with a team of engineers from Hasbro. However, these engineers were getting fat salaries which would disappear if this project failed, so they did the obvious thing and said no. The redesigned glove however was eventually sold to Mattel who put it out as the PowerGlove accessory for the Nintendo Game system.

Meanwhile, one of Michael and Bill's friends, Charles Stevenson, claimed to have invented a small flat panel satellite TV receiver that could hang on the wall and replace the huge dishes used then (this was way before the high powered satellites which permit the use of the tiny Direct TV dishes). Charles was a genuine genius who apparently went from high school to Lawrence Livermore Labs to work on H Bombs. It seems that after some psychedelic experiences he decided it was not cool to make bombs so he quit and perhaps the CIA is keeping tabs on him to this day. UME gave Charles a pile of money for his invention and he was supposed to file a patent application and build a working production prototype. Money for 3D essentially disappeared and Charles, who was very secretive and insisted on doing everything in his garage in Sacramento, got hundreds of thousands for high-end CAD systems etc, in addition to the huge advance on royalties. We had top visitors from many of the biggest companies in the world and from the US government, whom we were worried would classify the whole project and shut us down. They all went to Sacramento to see the demo in Charles' garage. Having given most of its money to Charles, UME refused to pay me my salary, expenses etc so I triggered the arbitration clause in my contract, turned it over to my attorney and left for Brazil. Six months later I returned to find that I had won the arbitration for ca. \$50,000 and UME, broke and unable to produce a working flat panel antenna, had been taken over by a Dutch bank. One of the strangest things was that at least some of the UME personnel wanted to blame me for the disaster because I had sued to collect the \$50,000 they owed me! This is spite of the fact that I could easily have sued to collect the \$200,000 or so which the original agreement called for, that they had spent lavishly on UME offices etc, that they had given nearly all the money to Charles for a fantasy that nobody had ever seen work etc, etc.

Eventually I was able to collect my money by attaching their bank account and I used it to start 3DTV Corp in 1989. What about Charles and the antenna? — The Dutch bank got an ex CIA man who used to work on antenna stuff and he visited Charles. His opinion was that it never worked and that Charles was fooling himself that the pile of electronics he had was really the

equivalent of a small flat antenna. I think the bank sued him. UME survived to this day and Steve Wolff did brilliant work for them in speech recognition etc, until recently when they lost two people in the 9/11 attack on the WTC and perhaps will shut down. Moulton and programmer Richard Wolton worked on various projects culminating recently (2002) in a company called Navagent and an awesome 3D search engine called Surf3D. It's hands down the most interesting and useful engine I've ever seen and gives a stunning graphic display of results. When they get the right partner it should make them rich and famous.

STEREO COMES TO KOREA

Since my original contacts with the now vanished KASAN Corp starting 10 years ago, (described above), there have been dozens of Korean companies in the 3D arena, most of them in, out and gone in a flash. Most have failed quickly due to stupidity, dishonesty and greed.

During the early days of KASAN I got some calls and a visit from someone from a company I think was called LiDong Corp. They desperately wanted lots of 3D tapes to sell and were especially interested in my 2D to 3D conversion methods. Mr. Lee seemed absolutely clueless about everything and I later learned why—he was a maker of women's underwear moonlighting in the 3D business! I sold him a few of the converted tapes and he left with a promise to return soon. I never heard from him again. Later I learned the true story from my Korean friends. Mr. Lee had gone to most of the video tape rental places in Korea (maybe 1000 or so), showed them a 3D kit and tape and promised to deliver new tapes every week if they would advance him something like \$300. Instead of working with me to deliver on his promise, he shut down his underwear business and left the country with his family and the money, never to be seen again. Last rumors placed him in Thailand.

One of my friends, Mr. Ko, decided to be the first to start the lenticular 3D photo business in Korea, back in the heady days of the Nimslo 3D lenticular camera. It had 4 lenses and the Nimslo Company in Georgia, USA, Hong Kong, and Europe would make 3D lenticular photos for ca 80 cents each from the film you sent them. So I went to Hong Kong with Mr. Ko and introduced him to my friend Allen Lo, inventor of the camera and printer. Mr. Ko went into partnership with a friend of his in Korea. He put a substantial sum of money in the company bank account to import the expensive lenticular printer (ca. \$300,000) but when the printer arrived in customs, the money and his partner had disappeared. He went to his friend's house and his wife said she had not seen him for weeks. I think the printer was sold by customs to pay customs and storage fees. Nimslo Corp went public ca 1994 and both Jerry Nims and Allen Lo made a substantial amount by selling their stock. I tried to convince Allen that he should diversify into 3D video but nothing happened. One day I got a call from a guy who was getting involved in marketing a new lenticular camera. He said his group was having a meeting nearby and would be happy to introduce me. It turned out that the camera was a new version of the Nimslo with a different name (Trilogy). I met the group of about 50 people and it turned out to be a multilevel marketing scam started by a quick buck guy who had no knowledge of or interest in 3D whatever. He fast talked these dodos into buying

cameras and trying to sell them to others, who would sell them to others etc. These are Ponzi schemes with some product as the basis. Lots of people were caught with lots of 3D cameras they had to sell at a loss. I bought some later for \$10 each.

Eventually Nimslo went bankrupt and at least partly sold to a new Nevada Company called Nishika who introduced the new 3 lens Nishika 3D camera. I tried to convince Nishika to put out 3D CDCROM, videos etc, etc but they saw no need. A couple years later they were bankrupt.

The fantastic 3 Eye/Daewoo debacle began in 1998 with various faxes, phone calls and emails from various Koreans, known and unknown, all asking me for prices etc for the dongle (stereo glasses pc interface device) that I make for the Neotek system. I gave them the info and in some cases sent samples. Eventually I agreed to sell them on an exclusive basis to my friend Mr. Ko. However nothing ever came of it. Several years later I was in China and was visited by some guys from a Korean/Chinese company named Gloma who offered to sell me some 800 kits called 3Eye (not to be confused with a similar kit from a Taiwan company called Eye3D!!). This turned out to be the kit that had resulted from some type of scam in which a division of the soon to be bankrupt Daewoo Motor Corp. had decided to put about \$2 million into a project to make a 3D game kit with LCD shutter glasses! They were going to buy the dongles from me but then K.P.Hong, a sharpie who often wheels and deals in the 3D arena, got wind of the action and convinced them that if they just let him handle it, they could make the dongles cheaper (and doubtless pocket the difference). So instead of buying my tiny, elegant, automatic (i.e. monitor goes in & out of 3d automatically) dongle and glasses which I could have sold them immediately in any qty they wanted, they spent all their money and at least a years time to make a huge, heavy inelegant box that you had to switch manually. Manual switching is a nightmare for 3D games, especially on setup. Perhaps Mr. Hong was influenced by the fact that he owed me (and still does) a substantial sum of money from previous deals and realized I would collect if he tried to do any deal with me!

This reminds me of another deal in which Mr. Hong called me from Korea with the credit cards of some friends in order to pay about \$5000 for some items. Some months later I was contacted by my credit card company regarding large chargebacks and learned that the persons involved had been harassed by Korean banks for spending too many dollars outside of Korea and so denied that they had made the charges. As a result the card company put on my record that I had made fraudulent charges and so far as I know there is no way ever to change this.

The game 3Eye CD seemed to work after much fooling around, but the other CD with some cute girlies always crashed. They told me they had made 1000 kits and had sold less than 200 in a year and I could buy the rest for ca.\$30 each (less than the cost). The company web page is still there, but of course everything else is history. Maybe Daewoo got back \$50,000 from their 2 or 3 million investment---maybe.

Mr. Ko, though he remains my friend, also greatly disappointed me when we opened a 3DTV

Corp office in Beijing in the mid 90s. I brought one of the rare Toshiba 3D camcorders, copies of the masters of many of my 3D programs and lots of other items with a total value of about \$30,000. After a few years he closed the office and moved and eventually I found that he had either sold or lost nearly all these items. This is one of four of the expensive and rare Toshiba 3D camcorders I lost to "friends" as I relate elsewhere here.

I have already told the story of Wooboo/Anotherworld/D3D above (as always, it is just a tiny fraction of the whole story). The final Korean story is not so much horrid but just sad. Mr. Ko's friend Mr. Kim started Dureevision ca. 1996. It seems he got several million from investors and loans from the government. He's seems a very nice man and a good engineer but has little idea how to size up the market or run a business. The only product I could see was some nice large size lenticular transparencies. He hired me as his tech. director in late 2001 and I tried hard to revive the company. However all the money had been spent and nobody there really had what it took to get some serious international business going. I wish him luck but I'm not optimistic.

VREX was started ca. 1994 by a brilliant scientist named Sadeg Faris. So far as I know he is a decent person and an honest businessman. He has made many inventions in many areas so 3D is something of a sideline for him. His main contribution to the stereo art is his use of lithographic techniques to create small arrays of linear polarizers. By matching these with the pixels in suitable active matrix lcd projectors and laptops, a cheap pair of plastic or paper polarized glasses gives flickerless stereo. Of course there is always a downside, such as a dimmer image, loss of half the pixels/eye, restrictions on head position (laptop), increased cost, suitability for only certain LCD's etc. The main impact here was the availability of a single portable projector with a silver screen to present stereo, provided you could pay the price and live with the limitations. However Sadeg decided to bring out yet another LCD shutter glasses system for pc and video (there have been about 30 in the last 8 years). This in itself would not be so bad, but making it incompatible with most of the other hardware, software, and glasses was not a good idea. But the really bad idea, for which I assume Sadeg must take the blame, is that the VR Surfer glasses are, hands down, the most inept design ever made, easily winning over such disasters as the Sega, Pioneer, H3D and StereoGraphics Models. They are bulky, heavy, uncomfortable, ill fitting and to top it off, have a large piece of transparent plastic in the front which seriously distorts the image. I have heard that they made about 60,000 VR Surfer kits and in spite of reducing the price to nearly free, still had some 50,000 left 2 years later. I've no idea of the company's balance sheet but I assume if it only involves their 3D efforts, they must have lost 5 or 6 million to date. Most of the 3D companies make virtually no money and many lose continually, but they can't shut down as this will be an admission to investors, friends, associates ,and families that they have failed. They just keep them limping along, sometimes for decades, so they can pretend that someday everything will work out.

This brings to mind the amusing story of Transvision - a company started ca. 1996 by Baxter Garcia. In 1996, he patented a method for creating 3d video real-time from 2D with a PC using horizontal field offset and field delay to convert temporal to spatial parallax. It's very

amusing as people have brought it up with me several times a year for almost ten years! I was doing frame offset and field delay and selling tapes made this way since at least 1989 (7 years before his patent) and Baxter knew this. Sanyo also has used it and patented it in the early 90's. I used various digital video boxes but does it really matter if anyone takes the board out of a box and puts it in another box called a PC and displays the image on the PC screen instead of a TV? Just possibly there might be a claim or two that could survive but certainly not the concept of creating a 3D effect using frame offset and/or field delay. Once I started selling those tapes and showing them at the CES in Las Vegas in 1990 the whole thing became public domain. If this is not the case then both of them could sue StereoGraphics for the parallax viewer they created in 2002 in a feeble attempt to copy my work.

I provided documentation on this proving I made and sold such tapes in my early 90's catalogs etc to C3D at their request ca. 1997, as they were concerned about the frame offset which I showed them how to do and which they used in their Realeyes box (this was the ENTIRE 3D effect of the box!). Like Sanyo, Transvision beat the idea to death, trying to sell it to everyone with two eyes. The fact that it was poor 3D and gave people headaches after a few minutes did not faze them. Both companies even tried to sell their fake 3D to doctors as a surgical assist! Conservative and often stupid doctors who could have been using 3D for 100 years to facilitate many areas of medicine and save numerous lives have not even been willing to use real stereo and these idiots actually thought they could get them to use fake 3D! And in the USA of all places, where far too many lawyers, with nothing to do but practice extortion, control virtually every aspect of life-- and above all medicine-- by the ever present threat of extortion, which stifles freedom of every kind and innovation in medicine to a degree unparalleled anywhere else in the world. Amazingly, most Americans are completely blind to this and think they have more freedom and the best access to good medical care!

Speaking of lawyers and 3D brings to mind my two encounters with the American judicial system.

The biggest problem many people will encounter in business is fraudulent use of the legal system to harass and extort them. The bigger you are and the more money you have, the more people will try to steal from you, at least in the USA, which, I have been told, has 90% of the world's lawyers and 90% of the lawsuits. There are some 45 million lawsuits on the books at any one time and about 15 million new ones every year. I'd guess that about 90% of them are only to harass and extort. The situation is totally out of control. Even prisoners can file any suit they like and the cost is born by the state. Some inmates have filed over a hundred suits for such monstrous injustices as having oatmeal for breakfast and not enough channels on the cable TV! The cost of all these trivial and fraudulent suits is ultimately born by the consumer and taxpayer and like the cost of environmental and health and safety laws and union wages, adds to the cost of doing business and making products and is rapidly pricing USA products and services out of the world market. Within thirty years or so, the US should have tens of millions of permanently unemployed, but considering the inexorable collapse of the world's economy and even the biosphere, this will be a minor consideration.

The first suit was filed against 3DTV by John Lamb for violating the copyright of a 1960's 3D adult film that he had made called "The Starlets". This was a real surprise as I talked to Lamb on the phone about licensing his film but I had never even seen it. What I had was a trailer of it. Trailers of that period were rarely copyrighted and were supposedly public domain (i.e., anyone can use). It turned out that John had grown wealthy from his pornography career and some real estate ventures and had a mansion and a very fancy car. However it appeared that he was bored and so he was going around finding little companies who were selling copies of old abandoned weird films like his, most of which had never been copyrighted. I think he extorted something like \$25,000 from Something Weird Video and several others.

I had a meeting with him and discovered that he was in his 70's and growing senile. During our short talk he had several totally inappropriate emotional outbursts. My lawyer was a specialist on copyright law and assured me that this trailer could not be copyrighted and that the Supreme Court had already ruled on my side in such cases. So it went to trial and when he pointed out that there was a clear ruling by the Supreme Court so this was the law of the land, the judge said "Not in my court it isn't!" In a sane country this moron would have been booted off the bench for such a remark but it's standard stuff in the USA. Subsequently, this asshole wrote a long opinion, trying to impress everyone how clever he was by citing various cases (all of course irrelevant as the Supreme Court takes precedence).

He awarded attorney's fees(ca \$30,000) and a small amount for damages to Lamb. I was going to appeal but this is where I had my next lesson in the moronic charade that passes for justice in the USA. I discovered that in order to appeal you have to post a bond in the amount of the judgment (i.e., only the rich can appeal). I also found that the judge simply ignored my attorney's request to quash the indictment against me personally as I was operating as a corporation. So all the money and effort I had spent to establish and maintain a corporation was worthless. In any case, my attorney had only been paid a few thousand so far, as I had no money at that time and he was unwilling to proceed. However I had seen this sort of thing coming so had previously dissolved the company and anonymized myself to avoid being robbed by such scum. I never paid anyone a cent and never will.

Curiously, my other encounter with American "justice" involved another pornographer, Mark Franks. At that time one of his many companies was Digital Media Group located near the Los Angeles airport. My connection with him was made when a trio of British lads came to see me with the idea of making adult videos. I gave them some advice and sold them a little equipment. A few weeks later they met Franks and though they tried to stay in the middle, he soon figured out that I was the real source of technology and reneged on his deal with them and began dealing with me directly. I wanted to help the Brits but there was nothing I could do and they soon departed- one of them, Stuart Firth, with one of my \$12,000 Toshiba 3D camcorders. I had treated him kindly, giving him money and loaning him thousands of dollars of equipment, but he stole anyway. A year later he was on trial in Britain for another scam in which he claimed to represent 3DTV Corp. He told his attorney to try to get a letter from me to help exonerate him! I'm a generous and forgiving sort so I actually did! I heard from him again several years later but of course he never offered to pay for any of the \$20,000 or so of

equipment he stole.

Franks soon made some 15 one hour 3D sex videos, boxing them with 3D shutter glasses which I sold him. He made a lot of effort to sell them all over the world but it took him several years to break even. He even had 2 meter tall cardboard signs of a woman wearing 3D glasses which he placed in the stores, and won the Adult Video Software Association's award for the best advertising campaign. He made the mistake of trying to sell the kits for too much (they started at over \$200) and also he made the films as cheaply as possible and it showed. Franks also did not take my advice about making an anaglyph paper glasses version, streaming the content on the web and other things. He was slow to pay his invoices and eventually owed me over \$100,000. He ignored my requests for payment so eventually I sued him. As he was in Los Angeles, I had to pick an attorney from the LA referral list whom I never met. Mr. Goldstein could not remember my name or the nature of my case after 4 months and told me his small firm of 6 had over 1000 active cases. Eventually he said he was just too busy and told me to get another attorney. I picked another one from the list provided by the Los Angeles attorney referral service. Richard Black sounded nice and he said he specialized in collections so this was a perfect case for him.

So I gave him all the documents and brought him up to date and a month later left the country on a business trip. About 3 weeks into my trip I got an urgent message from him telling me that I had to return immediately. I canceled the rest of my trip and met him in Los Angeles the next day. He was in his 70's, bald, and wore the thickest glasses I have ever seen. He mumbled and could not see very well and I immediately began to think of him as Mr. McGoo—the well known comic strip character who's poor vision leads to constant misadventures. He drove me to an attorney friend of his. It was a white knuckle ride as he continually strayed into the wrong lane and cars sped by inches from us, honking loudly. When we arrived at his friends, the real story emerged. Black was not a real attorney! He got his degree late in life, only did collections, and had never participated in a trial.

He had failed to answer some of the interrogatories (questions from the other side) and had not asked any of his own. One of the "brilliant" features of the justice system is that if you fail to ask for certain documents in the pretrial interrogatories, you cannot ask for them later. Even if the judges know the documents are essential to serve the interests of justice, they cannot ask for them. In this case e.g., we now could not ask for Digital Media Groups tax records which would probably prove that they had not lost \$300,000 but in fact made a profit. I say "probably" since these sleazoids undoubtedly are practiced tax evaders and they have numerous companies in various countries and methods to make money disappear. Franks has companies in USA, Europe, and Australia etc. He had me ship merchandise to his California company but invoice it to one of his Nevada Corporations and eventually I realized this was to avoid the California tax and refused to do it.

It is now a standard part of the lunatic perversion that the American court system has become that almost nobody ever admits guilt in a suit. Rather, they file a countersuit claiming that you are the one who is guilty of fraud, misrepresentation etc, and may add that you also mugged,

and robbed them and beat their children, kidnapped their dog and raped their parrot. Rather than throwing them in jail for such obvious slanders, the judge has to sit there and listen to everything they say. So Franks got his attorney Richard Slivkin (office on Avenue of the Stars) to file a countersuit claiming that I sold him faulty merchandise and caused him a \$300,000 loss. With Slivkin's connivance, he forged 3 letters which he claimed he had sent to me during a period of about 6 months, over a year earlier. They were such obvious forgeries as to be laughable—they used legal language taken from Slivkin's countersuit and were clearly written all at the same time with full knowledge of the suit. They were totally unlike Frank's normal letters.

I had to find an attorney and prepare the case ASAP as the trial was due in two weeks. By luck I found a Southern Calif. Attorney who would take it, provided I paid him \$15,000 in advance in cash for the work. I emptied all my accounts, wired the money and drove to LA to meet him. He looked at the meter high stack of documents and said he was too busy but he had an associate who would do it. I met the associate the next day—a paraplegic confined to a wheelchair who had limited use of his arms. So he and I spent most of the next 4 days going over the huge pile of papers with me doing all the page turning and most of the organizing.

We went to trial a few days later before judge Victoria Cheney, a middle aged housewife who was obviously terminally bored with the whole routine. Franks took the stand and perjured himself at least 100 times. His assistant Dewey did likewise, as they had been carefully rehearsed to do by Slivkin. It could not have been more obvious that they were lying but such is the marvel that is American justice that the judge cannot, or at least will not, do anything at all. I later talked to a friend who is an experienced attorney and he told me that all the judges have only one thing in mind—to hear lots of cases and to have few appeals so that they are one day appointed as an appellate judge with a bigger salary and an easier job. So Vickie would not take any chances as it was really greed and fear and not justice that were the name of this game. So it was a forgone conclusion—she gave me my \$100,000 for unpaid invoices and interest but she also gave Franks \$300,000 for his purely imaginary losses and his \$30,000 attorney's fees. He had indeed produced the evidence that he spent that much but of course without his books or tax returns which neither of my attorney's had bothered to ask for, we could not prove (what he had told me several times) that he had made it all back. One of documents he presented to prove his losses was a letter in German from one of his European distributors complaining about bad sales but it actually complained mostly about the dismal quality of the videos. I read German so I translated it in court and made him look like a fool. Slivkin tried to attack my translation with various questions about the meaning of German words but I beat him easily. Again appeal was impossible as I would have to post the \$330,000. Neither could I sue Black or Goldstein for malpractice as I found I would first have to appeal and win!

One of my other illusions also turned out to be naïve. I had assumed that everyone -in the USA at least -has the right to due process of law and that you had to be notified by service of papers that you were being sued. However, lawyers can't stand a situation in which they can't sue so they have convinced the legislators in many countries to permit service of papers by

publication. This means that you just put a tiny notice in a newspaper somewhere! In this case the entity being sued has no idea and so the plaintiff wins anything they ask for by default! So it's easy not only to legally steal from a person who has moved or is out of the country or in a coma but even one who is dead! So it is no problem for someone to sue you after you die and collect from your heirs without their having any knowledge of it. It happens constantly.

Franks has grown very wealthy from his international pornography business and keeps his wife and two daughters in fine style on his LA ranch. He really did not need the money and he knew I had done my best to help him and that the judgment was a total fraud. He called me the next day and offered to settle for just the attorney's fees. By this time however I was broke and had little prospects for making any serious money in the near future. Mostly this was due to the copying of my products and whole business by a host of companies all over the world as well as the numerous rip-offs I have detailed here and some others which I will eventually describe in part 3 of True Horror Stories. Franks felt Slivkin was a genius as he had often helped him to steal from and outwit others, evade taxes etc., but he had committed the most basic blunders there are. He had failed to discover that the entity he had sued, 3DTV of California had not been in existence for several years as I had shut it down. So he had sued the wrong entity. This came out at the trial and the judge had correctly prohibited them from trying to include any other entity in the suit. Also, he had failed to sue me as an individual so they could never collect anything from me either.

In a sane country the judges are required to take an active part and to do everything possible to see that the truth comes out and justice is done. Not in the USA! More often than not it's just another idiot monkey game, but is there any social activity that is not?

These two fine citizens are allowed to get fat and rich by perverting the justice system. Slivkin's family and parents would certainly be proud to know that he makes much of his living counseling his clients to steal, lie, forge, cheat, evade taxes and spit in the face of the American system which makes their comfy life possible. These two sub humans should be stripped of everything they own and their citizenship and put on a raft at sea, but of course if that were possible this country and others would be nearly deserted. However it's all quite irrelevant to me as I had long before realized that one should view American attorneys as the largest and most powerful criminal organization ever to exist (arguably second or third to the US Govt. and California State Govt.!) and that a small entity like myself was extremely vulnerable. So, I eventually moved out of the country and gave everything away. All these criminals will have to find another victim, but of course they will as they have tens of millions to choose from!

In terms of actual dollars lost in the 3D and VR business, Virtual I/O takes first position. Greg Amadon had made good money in the mobile phone business and he was one of many who were overly impressed by the early demonstrations of virtual reality. He was one of dozens of individuals and companies who decided to make a VR headset which used two, small LCD TV's mounted in front of the eyes. Unlike most, he had good connections and V I/O I-glasses formed nearly the entire basis for raising huge amounts of money from the likes of

communications giants like AT&T and TCI (owned by AT&T). He and his wife Lyndon Rhodes ran the company and they had nice booths at numerous shows and pushed their headset hard. But, as a consumer product, they had to sell it for less than \$400 and they made very little money on it. Also it was obvious from the start that this market would be totally software/application driven and so a library of 3D videos and 3d games would be essential.

Greg did make some efforts in this direction, and there were a few games that did support the tracking pc version of I-Glasses, but strangely. Though he called me periodically to discuss 3D video and bought one of the \$100,000 Ikegami 3D cameras, he never released any real 3D content. The company lost money continually but Greg seems to have been a persuasive fund raiser and it was not until 1998 that it all came crashing down. I was one of the persons sent the confidential prospectus for sale of the bankrupt company.

It is a fascinating document as it details the loss of a total of \$56 million. The result was that AT&T/TCI gave or sold it to the Ferguson's, who had been involved in making the headsets. Thus, I/O displays came into being. Later I/O acquired Peter Olsen's bankrupt H3D Corp, source of the small, elegant LCD shutter I-glasses and then bought the bankrupt (or nearly so) 3D Video Corp to acquire their 3D video lens for camcorders.

3D video was started by Steve Kurzer who is a veterinarian. He was in the right place at the right time and had made some video camera equipment which he sold at a good profit and the 3D lens was his next idea. I told him at the beginning that I did not see how he could patent it as the idea of a 3D lens with mirrors and LCD shutters was well known and had even been marketed several years before by Azden. Also to make it small and cheap he (like Azden) had designed it to shoot one image direct and the other off a mirror. This created binocular asymmetries, vertical parallax and a difference in image size that got worse as you got closer to the objects.

I expect he lost money from day one and of course within a few months there were two copies of it on the market from Korean companies. One, the Stereo Cam (not really a usable name, as it's an existing US trademark) has been sold by 3D.COM of Tokyo, describe above, as they specialize in stealing others products as I have detailed in part one. The other was an elegant redesign with about half the size and weight by Wasol Corp. It also folds up so it fits in the pocket and is much more convenient to use. However this whole approach is just not a good idea... too hard to use, too many binocular asymmetries and crosstalk (ghosting). A far better idea is to make a mirror box which splits the video frame horizontally to give two wide aspect images. Such lenses have been made and had limited use for 35mm motion pictures and still photography. In the past, with analog video cameras and editing, with their poor resolution, generational losses in quality and cumbersome technology, this was not feasible. However we now have all digital cameras and editing and a top/bottom divided image is totally acceptable, especially in PAL with its 100 extra vertical lines. It can be easily converted to field sequential offline or real-time. Dr. Rolf-Dieter Naske has written software enabling real-time conversion between nearly any stereo formats and 8 stereo plugins for Adobe Premiere which permit input and output in most formats. The availability of such lenses for

amateur and professional use would make an enormous difference to the future of the 3D video medium.

One of Virtual I/O's problems was the competition from other HMD makers. Kevin was a Chicago boy who had made money starting small magazines and selling them. He came to me for help in making his HMD. Gordon Fuller and I connected him with Andy who had a small electronics company in Silicon Valley. Andy had been with the State Department for years and spoke Japanese and Chinese. We arranged for the HMD's to be made in Japan for about \$200 each. However one of the investors in Kevin's company was a Chinese from Taiwan. So it got made in Taiwan. One reason undoubtedly was that nearly any project done there provides numerous chances for skimming money off the top, bottom and sides and maybe no more than 80% of the money actually went for the HMD. In any case it almost certainly cost more, took longer and was a poorer design than would have been the case in Japan. Kevin struggled mightily but the lack of software, inadequate funding and competition from Virtual I/O, Astounding Tech., Forte and others and eventually Olympia and Sony was too much and he gave it up.

He owed me consulting fees etc and would not pay. I had put an arbitration clause in my contract so I sued and won. Still they would not pay but eventually they had to get some more investment and in order to make it happen they had to clear all old debt so I eventually got paid.

Astounding Tech. was started by Jack Robinson with his Malaysian connections. One of various investments in display technology, his HMD was not the most elegant, but it was early in the market and he was well on the way to steal a substantial share of the market from the competitors. However the Asian financial crisis appeared, his funding for this project disappeared and away went the little red HMD.

Unsurprisingly, the most elegant of the HMD's, and the ones with the best image, were those of Sony. At least 5 different models were available by the late 90's but there seems to have been no money in it or perhaps the liability issues were troublesome (especially in the USA) so they seem to have completely withdrawn, except maybe in Japan. I suspect they lost a lot of money on this venture but we'll never know. One could do a huge book just on the HMD market in the last 15 years but I'm not going to write it! Those interested should buy the SPIE CDROM on HMD's.

In part one I have described by my experiences with Loony Liptonstein at the very beginning of my business career. After 20 years, I thought I had learned enough about people that I would never be in such a situation again. However I was totally mistaken and exactly 20 years later I was in a very similar situation with another psychotic megalomaniac from a dysfunctional Jewish family. A guy we'll call Fred had a small video production company. He started doing some dubs and other work for me ca. 1992. He was just barely able to keep his business going and I had plenty of money at the time so I was quite generous with him. I sometimes paid well in advance and even loaned him \$5000 to buy some video equipment he urgently needed.

I began doing some work on converting 2D video to 3D in real-time at his studio. He suggested we patent this technique and I offered to give him 50% of the royalties if it ever made any money. The internet revolution was in full swing and Fred tried everything to make money. However he just lacked the resources, ability and personality to get out the hole he was in. Another big problem was that the rapid rise of nonlinear digital editing and tiny digital camcorders was making obsolete most of his equipment and talents. Thousands of video production businesses were going bankrupt or transforming themselves into digital media services. He saw the 3D business as his salvation. He was chronically broke and owed lots of money on his house, his car, his business and to the IRS for back taxes. I frequently bought office supplies, videotape and connectors and sent him clients. I gave him numerous pieces of video and computer equipment finally totaling over \$70,000. I was aware of his psychological problems and his limits as a technologist and businessman and even told him several times he reminded me of Liptonstein.

We eventually started a company with a couple friends. I was increasingly aware of Fred's major personality flaws but I was too busy to watch over everything he did and was spending most of my time outside the USA on 3D projects and consulting. However my consulting job with DureeVision ended suddenly when they ran out of money so when I returned in early 2002, I started looking at his activities very closely. I found that he was trying to defraud numerous persons by selling them technology he did not own (mainly mine) and signing his partner's names to fraudulent documents and then spending nearly all the resulting money for his own debts. He tried to blackmail me into signing a new contract, as the old one which gave the new company the right to represent my technology, had expired. The last straw was my confirming what I had long suspected, that he was spreading disinformation about me in order to discredit me to facilitate his total takeover of the company and my technology. He told our potential clients and business partners that I was crazy, dishonest, wanted by the police, incompetent etc, etc. In other words he was a Loony Liptonstein clone.

I discovered that he had never had any rights to my technology and he knew it. He made absurd promises to everyone which never had much chance of happening. Of course like Liptonstein, and all the other thieves and lunatics described here, he rationalized everything and would not admit a thing. All the people involved with him were so naive, believing all the lies and never checking up on anything. He'd tell four different versions of the truth to four different persons in the same day.

Just a couple examples to give the flavor of dealing with people like this. He told me we owed a banker about \$8000. I then called the banker who told me the total was \$20,000 and gave me the details to prove it. I talked to Fred and he admitted owing me over \$70,000 for the invoices I had given him. The next day he talked to others and told them he owed me nothing. We went to the NAB show in Las Vegas where I talked to an executive from Canon Corp who confirmed that they were not going to make the 3D camcorder lens they had shown me as it was not economically feasible. They could not even loan anyone the prototype due to liability issues and had sent it back to Japan. A few minutes later Fred told me he had talked to this executive and he had said he would sell or loan him several lenses. I went back to the Canon

booth and talked to the executive. He denied making any such statement and confirmed that the lenses were in Japan and would definitely not be released to anyone. Was Fred lying in order to impress me or just to confuse me or was he just insane? As I investigated further, it was clear that this compulsive lying happened continually with everyone he talked to. He literally could not put three honest sentences together without some lie or distortion. Just like Liptonstein or Miller, I don't think he can even tell what the truth is and in any case, after awhile, it does not matter if they are stupid, crazy or dishonest, you just have to say goodbye.

In addition to having all of Liptonstein's toxic qualities, Fred could barely see 3D. Here he was trying to replace me as a 3D expert and I knew from ten years of working with him that he could barely tell a stereo image from a 2D image. He could not reliably tell when the right and left images were reversed and could not see anaglyph stereo at all. One time he made a stereo demo tape which had the right and left images combined so you saw blurry 2D. He had been showing this to clients for months before I happened to look at it one day. He was a pigheaded moron and this is just a factual description. Near the end of our cooperation, he said he had received calls from Michael Miller and from StereoGraphics and both wanted to visit. I told him repeatedly they were thieves and absolutely untrustworthy and to stay away from them. He ignored me and after I found that Miller had been there I told him I was sure he had stolen something. He said there was no chance and then he stopped and said—"Just before he left I got a phone call and Miller said he had to go back in the demo room to get something." That was a standard Miller ploy to steal papers, CD's etc.

Soon after, Liptonstein visited to see our 2D to 3D converter and 3D Media player which converted between stereo formats on the fly. He also saw that we were providing a 3D media server to a big projector company and had one of their \$120,000 projectors. A few months later StereoGraphics (Liptonstein's company, which readers of part one will recall that I started) announced an "innovative" new 2D to 3D converter and 3D media player and a 3D media server on their page. The converter gave no 3D but only offset images so they were setback into the monitor, which I had been doing for 10 years and selling tapes which used this method. However it's just possible that Garcia's patent cover's it in which case he should sue them. The converter was equally bland and still used the ancient red/blue anaglyph glasses method, which has been obsoleted by Li Gang's SpaceSpex. Predictably, Liptonstein presented papers at the next SPIE conference on these "new" technologies "invented" by himself and his coworkers. Of course they were neither new nor created by Liptonstein as he is a computerphobe who could not write a line of code to save his life. His name should not even appear on these papers. He also got his flunkies busy on the projector company and a few months later, when Fred arrived (as prearranged) at the NAB meeting with all his equipment he found that StereoGraphics was already set up in the their booth.

Fred was so inept that his employees used the term "Freded" to mean broken, lost, or missing parts, which is what happened eventually to nearly everything he put his hands on. One example—I left one of my rare and expensive Toshiba 3D camcorders with him. He told me he could not make it work and that it had no video out. When I returned I found that it was missing several accessories, that he had been trying to get video out of a cable marked "video

in” and that he had destroyed the videocassette transport which, since these camcorders could no longer be repaired, reduced its value from some \$12,000 to very little. Of course he totally denied everything.

Even after discovering Fred’s utterly stupid, unethical and illegal activities, I still made him generous offers (e.g., 50% of any deal he found and 49% of a new corporation) but he would only settle for total control. His paranoia, greed and mental instability forced him to go for absolute domination. He was clearly a major liability and I had no choice but to get rid of him.

Fred kept all the company documents hidden but I got to see some of them when I told him my attorney had to see them in order to draw up a new contract. I discovered he had defrauded a company for \$200,000 by selling him technology he did not own. He also got some \$200,000 in loans and probably other money. Some had gone to others and a small amount to me but about 75% he took. He got more money that I know of (there could be lots that I don’t) than everyone else combined and of course rather than paying his debts to me and others, he paid all his company and personal bills and even bought himself and his girlfriend new cars. A total asshole. I was ready to give the whole thing away for free rather than let him take it and abuse everyone in sight for the next 20 years, as Liptonstein has done. However I persevered this time and in the end, the programmer and I made a little money, others were saved from a fate worse than death (Fred as a stockholder and business partner) and it looks like people will mostly get what they deserve.

These experiences and countless others I saw or read about were the reason I usually avoided any partnerships or any investment in 3DTV Corp. Many persons offered money over the years but I declined. One time in 1996 someone called for an appointment and even though I did everything possible to discourage visitors, many from all over the world persisted. Two guys showed up and as I recall, their names were Nakamura (a representative of the Toyota family) and McKenzie, a VC from Texas. They spent several hours looking at my stuff and discussing stereo. They offered me \$1 million for 30% of my company with the proviso that I get a real office and a president and a secretary. I never called them back.

Finally we come to an entity we’ll call Asia Co, and its president, who we’ll call Mr. Wang..

I started business with him ca. 1993 and we bought and sold to each other several hundred thousand dollars worth of 3D glasses, interfaces, etc. I respect him as he is very bright, hard working and in many ways likeable. However, as time passed, I came to see more of the dark side of his personality.

In 2000 I had decided to complete my move to Asia and wanted to be sure my unique 30 years collection of 3D items would be preserved and not simply disappear. Wang had said he would start a museum for 3D and that he would do a trade of my 3D collection for various items he would sell me. He also said he would set up a R&D facility where I would have assistants and all his and my equipment. So I brought about 30 boxes of my collection which I valued at about \$100,000. In addition I left with him most of my 3D equipment and software

that I used to run 3DTV Corp. I opened all the boxes and explained what the items were. He provided an apartment and I spent several months there waiting for some collaboration to start. He and his staff told me at various times that they were paying rent for the apartment (and I signed a lease so stating), that he owned the apartment, and the government owned the apartment and let them use it for free. The real truth is undoubtedly convoluted and perhaps so convoluted that nobody even knows what it is! I long ago learned not to even try to get to the bottom of things in the third world, as there often seems to be none!

In any case, months passed and nothing happened. I asked for various items to be returned to me as I needed them for my work. Eventually some were delivered to me but the most useful and expensive (such as my \$12,000 Toshiba 3D camcorder and my \$22,000 Solidizer Pro) were not. He told me he could not find them! One day I looked at his web page and saw the Toshiba 3D camcorder there! Much of the hardware and software, schematics for interfaces etc which I give to him so he could make them for me, wound up on his web page. I never got paid a penny for it. He never even mentioned it to me.

It took me 28 years of hard work and hundreds of thousands of dollars to put the 3D collection together. In those days you could not search the literature or patents online and even now most of it earlier than the late 70's is not databased. So I spent thousands of hours hand searching books, journals and the patent gazettes in libraries in the USA, Europe and Asia in addition to incessant correspondence with people worldwide. A part of it was used by Liptonstein in our book on 3D filmmaking and some appeared in the articles I have on my web page and the photos on my old DOS 3D Magic CDROM, issued in 1995. Most however was never published and nearly all of it is now in Wang's storerooms, along with countless rare items of historical interest. Although I could sue to try to get these things back, my chances of justice, are slim. So, I belabor the point in the hope that one day, perhaps long after we are both dead, someone will recover this collection and put it in a university or museum, as I intended.

Among the vanished items I will probably never see again are dozens of VHSC 3D videotapes which I shot with the Toshiba 3D camcorder in museums, zoos, expos etc all over the world. Some of these were to comprise the first volumes of my Great Zoos and Great Museums of the world. Particularly painful is the loss of the 9 hours of tapes I shot at EXPO 92 in Seville, Spain. I arrived in Seville in the middle of the August heat, during the last 2 weeks of the EXPO. I had thought the crowds would be gone as the EXPO had been running for 6 months. I was dead wrong—the town was jammed and there was not a room to be had within an hour's journey at any price.

I decided to rent a car and sleep in it—no cars to be had anywhere. I took a train to Cordoba and spent several days shooting the Roman ruins, the famous Alhambra church etc. A disaster happened—the battery charger for the camcorder batteries burned out. I rented a VW beetle, drove to Seville and parked across the river from the EXPO site. I spent an entire day searching for a right kind of battery charger with no luck. I was ready to give up and go back to the USA but just then I looked in the window of a small video/photo shop and there was

exactly the charger I needed! I got up early the next day and spent the whole day going to the various country pavilions shooting 3D. I managed to beg the folks at the Canadian Pavilion to let me recharge my batteries there, though the guards were very paranoid, as they were all over the EXPO. They feared attacks by the Basque separatists and the Palestinians, as Israel had a pavilion.

One of the largest buildings had been destroyed in a fire before the EXPO opened and it stood black and empty. Fully armed soldiers everywhere and tanks at the park entrances. The second day I was delighted to find a small photo shop that would charge batteries for a small fee. In addition to walking most of the day in the heat, carrying about 25kg of camera stuff, I now had to return several times a day to the extreme end of the huge EXPO site to get fresh batteries. I must have walked 10km a day and by the time the EXPO closed at 9pm I was exhausted. They had installed mist sprayers at many places to cool the air a bit but after a few hours walking in the sun I had to find some relief. The Guadalquivir river ran along one side of the EXPO and there were some trees and some rushes in the water, but the EXPO train ran along the edge and it was patrolled by guards who refused to let anyone near it. Also, there were patrol boats and tourists on the river. But I had to cool off, so every day I snuck across the tracks, undressed in the rushes and slipped into the cool water for a couple minutes.

It was extremely uncomfortable sleeping doubled up in the back seat of a VW beetle and to this day I appreciate stretching out my legs when I sleep. Every night I crept down to a dark part of river to take a quick bath. For 6 days I shot everything at the EXPO—the original charter to Columbus from Queen Isabella, the 3D movie at a provincial pavilion, the folk art and dances from around the world, the OMNIMAX 3D movie I had already seen in Tokyo, and a marvelous environment in the French pavilion consisting of a big pit with special lighting, out of which issued various images and sounds. I intended to edit this into a series of DVD's but now it's all lost in the bowels of Asia Co.

Wang got involved with another company who took a seat on his board. One day he told me that his new board of directors would not approve the trade we were doing. I arranged to visit his office to pick up some items and when I got there his accountant presented me with a bill for invoices totaling \$25,000! On looking it over I realized in addition to things which he had "traded" me, were items which he sent to me at 3D.COM in Tokyo when I was the technical director. These invoices belonged to them. There were also invoices for items that were defective and useless (as I had told them) and also large charges for airfreight when I had told them repeatedly to send things by sea. One item was for airmail shipment of several thousand 5 meter stereo headphone extension cables. I had shown Wang and an assistant the cables I wanted and carefully explained that they needed the stereo male on one end and the stereo female on the other. I pointed to each as I said this. I also requested then and via email that they send only a few hundred by air and the rest by sea. They all arrived soon-- by air. They had a stereo male on one end and bare wires on the other. Totally useless and of course I told them so. Nevertheless, the cables and the airfreight appeared on the bill over a year later.

The actual total I owed was at most \$15,000 and of course this was supposed to be in trade for the items he still had which were worth at very least \$50,000 and which I'm pretty sure I could auction on Ebay any day for much more than that. In addition he was supposed to give me a 10% commission on the \$75,000 advance he got from 3D.COM for the Solidizers he made for them from my design. He later told me they sent them all back and told him they did not work. I later got some from him and when I tested them I found that they were tuned for PAL TV so of course they would not work on the NTSC TV in Japan! All you had to do was open the box and turn a pot slightly while watching the TV. Apparently, no one at Asia Co. or at 3D.COM had tried to figure this out or even to ask me about it. So they sent some 1000 of these Solidizer boxes back and the whole project died.

And then there's the strange tale of George Zozzaro and the House of Wax and Dial M for Murder—the most famous 3D movie's of all time. In 1991 I was contacted by George who had decided he was going to get into multimedia, and 3D television. He had a large office in San Francisco and had just finished a successful venture putting out some kind of yellow pages directory. He had a crazy Russian working for him designing computer animations for a TV series George wanted to start. This project ran into a snag when the police showed up looking for the Russian who seems to have had a liaison with a very young girl. As we talked about 3D I told George about the lack of software and about my efforts to get the rights to some of the Hollywood 3D films. George said that maybe he could help as he had a relative in Hollywood, though he had never met him. The relative turned out to be an Italian banker who, with some associates had recently bought Warner Brothers studios! So I urged George to go see him. A week later he got back from Hollywood with great news—his cousin Carlo, head of Warner's had treated him royally and given him permission to put out House of Wax and Dial M for Murder in 3D! I started to work furiously and soon had both the films on tape with some boxes made up and started selling them. I kept asking George for the contract from his cousin. Weeks went by and I hadn't heard from him so finally I got hold of him late one night. "Well George, what's the story with Carlo---wasn't he really your cousin or didn't he really mean what he said or what? George—"Well I've got good news and bad news. The good news is that he really is my cousin and he really meant what he said but the bad news is that there's been a big banking scandal in Italy and he's been indicted. He's being deported to Italy in a few weeks." So that was the end of bringing Wax and Murder to the world in 3D!

And this story brings to mind another tiny horror story involving a Russian. Mr. Ezhov is an excellent engineer and good friend who occasionally does work for me in Russia. A few years ago he was visiting for several days and so when I went to his hotel I took him about 30 big volumes of proceedings from various 3D imaging conferences that had taken place over the last 15 years. Some of them were irreplaceable. I suggested he look them over and I could make copies of any articles he wanted. I returned the next afternoon to find only a small pile of articles that he had torn out—the rest had all been thrown away! He thought I was discarding them.

One of the most interesting and brilliant persons I've ever met in my 30 years of traveling the world in the cause of stereo imaging is Robert Collender, inventor of the Stereoptilexer, which

I document in the article on my page Stereoscopic Imaging Technology. Bob works for a major aerospace company but has a clause in his contract that his inventions in 3D belong to him. Like hundreds of others, he set out to solve the problem of displaying stereo without glasses. Unlike them he actually came up with a totally original and brilliant invention that will give perfect 3D without glasses from anywhere in the theater.

The stereoptiplier works by projecting (in the original patents) multiple images on a special screen that vertically diffuses light but is horizontally very direction selective. I made a trip to Southern California just to see his working prototype. It was made in the 60's with the technology available then—a rotating glass polygon, 16mm film and a vertically brushed stainless steel screen about the size of a playing card. You could walk around anywhere in a large room and see an excellent 3D image. Bob is a first rate engineer and does the whole patent himself, including the drawings. He has continued to think about it for over 30 years and has figured out how to do the whole thing without any moving parts. I got him to travel up to San Francisco to show it in the late 80's when I put on a 3D show at The Future World Expo. I had a huge room with state of the art 3D of the time. Bob's stereoptiplier, Lowell Noble's hyperstereoscope, my 3DTV systems, a Sega Subroc 3D video arcade game with the back removed and the game projected on a big screen. Dual hi-brightness army surplus large format slide projectors on a 5 meter silver screen with Polaroid glasses—the slides made by me of mostly historical things such as a stereo frame from the first stereo film in history — William Friese-Green's 1893 walk in the park. Tables full of things now long gone such as the Vectrex color 3D videogame system with its own small vector graphics monitor etc, etc.

Thousands of people came through. Lowell Noble is another horror story for a variety of reasons. A very creative guy who's many inventions included a stereo endoscope and a dual density CDROM system that was stolen from him by Philips and Sony (he sued and won but got very little). His career in stereo seems to have been stopped recently when he was attacked by a friend's deranged son. He suffered brain damage which has so far prevented any real business activity.

Unfortunately, the stereoptiplier will probably never be built. It's neither technology nor the even the few million he needed to make a fully solid state modern version. As with most of life it comes down to personalities. Bob is a somewhat shy, retiring sort with some odd intellectual quirks and his wife Sylvia is sweet, but strictly from Mars. The second time I visited him I stood talking to him in his study where he was making the drawings for a new version of the stereoptiplier. On the desk was a thick document he had brought home to work on with the word "CLASSIFIED" in large letters stenciled across the top. The title—"The relevance of the ideas of Nicola Tesla to the development of high altitude weapons"! Tesla was the brilliant Yugoslav inventor and contemporary of Edison who did pioneering work with dynamos, motors etc and was 50 to 100 years ahead of his time in his conceptions of the use of electricity. I visited the Tesla museum in Belgrade on my 1986 European 3D tour.

Bob's study was lined with bookshelves and when I started looking at the titles I was stunned---hundreds of books of the most infantile kind on fundamentalist Christian religion.

Mostly books that even an intelligent grade school kid would laugh at and here this guy with maybe 180 IQ and advanced education was actually reading them! And he took them all to heart too, as I confirmed when I discussed the matter with him. Obviously some bad influences before he was old enough to defend himself. I think it was Bertrand Russell, once the most famous philosopher, who remarked that "inside even the most brilliant minds there are nests of furry caterpillars"! So Bob clearly lacked the personality to promote his invention which left it in the hands of Sylvia. She told me that she had managed Bob's invention carefully to prevent it from being misused. Antichristian 3D? Once a Japanese company had offered to finance it but she had turned them down since "I don't want to start a trade war".

On another occasion a gentleman from Florida turned up and got very excited by the demo. He offered to finance it immediately. After he returned home, Sylvia sent him a letter saying he had to make a complete disclosure of his finances as the government could seize the invention if he had any illegal funds such as drug money. She claimed she later received an anonymous postcard with a picture of a gun pointed at someone's head! Nevertheless, I made several attempts to connect them with financing only to be rejected by Sylvia and I finally gave up. I think what is really happening is that Sylvia is very little interested in seeing Bob get rich and famous from 3D and very much interested in preventing the world from getting to Bob, who is the center of her somewhat shaky universe. So, what is perhaps the most wonderful invention in the history of 3D imaging has never been built and perhaps never will be. Much effort is directed to auto stereo displays and there are new patents every year. I have yet to see one that has the merits of the stereoptilexer and most of them are just stupid for either technical or commercial reasons.

For the first time in years, I have just looked at the Spirit of Quality, one of several 3D videodisc projects featuring the famous actor Vincent Price of House of Wax fame, done for the US military in the 1980's by stereographer Rudy Bender.

It reminds me of his sad story. Rudy was a stereophoto fanatic and I first saw him about 1979 when I went to see a lovely panoramic stereo slide show that he presented at the San Francisco Art Institute. After I started 3DTV Corp in 1989, I asked him for the dual laser disk programs "Looking for Perfection" and "Spirit of Quality". Made as promotional pieces for the military, they had still stereo slides and only short 3D video segments with Vincent Price.

Rudy was a very intense guy with a kind of wild look in his eye and notable anguish in his voice. I did not know him well but he told me several times about some troubles with his family. Several years after I was stunned to read in the paper that he had killed his wife and fled down the coast of Oregon to a motel where he killed himself. I assume his stereo slides still exist but perhaps the only thing of his that will survive with his name are these two programs which I transferred to tape and hopefully one day will put on DVD.

Readers of my IMAX articles on my web page may think that IMAX Corporation also belongs here as another 3D horror story. In view of their business problems and poor stock performance their shareholders may think so. In terms of their inadequate stereo films there are separate reasons for inclusion here. I talked to their engineers various times over the

years but they were powerless to make any changes and also had little or no control over the theaters or the filmmakers who used the IMAX cameras. I had some very brief interactions with one of the main 3D IMAX filmmakers, Noel Archambault, and we made arrangements for him to purchase some of my equipment and to meet for detailed discussions. Several months passed and I did not hear from him. I then read that he had died in the Galapagos Islands while making an IMAX film.

Finally we come to the strange story of Sanyo Corporation, the multibillion dollar Japanese electronics giant. As any serious stereo patent research or reader of my bibliographic stereo articles will know, Sanyo has been one of the most active major companies in the world in the 3D arena. They have patented and research numerous devices relating to 3D TV for at least 20 years. Unlike many (IBM, Philips, Siemens, Casio, Canon etc) they have actually marketed a series of products. They were among the Japanese companies that put out a version of the now long vanished VHD videodisc system with LCD glasses and 3D programs on disc. After long research they issued in Japan only, ca 1997, a 3DTV set that converted 2D video to 3D video by changing temporal parallax into spatial parallax. The set incorporated a field doubling circuit and an infrared transmitter to display the fields at 120Hz without flicker for viewing with wireless LCD shutter glasses. They developed a custom LSI chip that looked at the speed and direction of the objects in the video and used that to determine how many fields to delay the video for making a stereo pair. The remote let the user set the field delay.

It was very innovative and I suspect about 20 engineers worked 3 years on it and R&D and production costs totaled some \$30 million. This could be a low estimate. There was just one little problem—these guys never bothered to ask any stereo experts what they thought! I would have told them what a little testing with people not used to seeing stereo for hours every week would have told them—that it gave you a headache after a few minutes and you didn't want to see it again! The major problem is that when you see real stereo everything is pretty much identical for the two eyes, except their horizontal position which creates the stereo. However when you make an artificial pair using field delay, there are binocular asymmetries of size, illumination etc which get worse as the delay gets larger. The biggest problem is probably the vertical parallax due to vertical components in the movement of objects and/or the camera which is never present in the real world and causes severe problems in fusion.

Sanyo sold the set in Japan only for about \$3000 but it was a horrible flop and they withdrew it soon.

Their next venture into 3DTV was not only more careful, it was too careful! They spent even more money and time developing algorithms which could convert 2D into 3D that did not depend on field delay. Basically any such venture enters the realm of pattern recognition and image processing, which is a huge field of great interest in cognitive psychology, robotics, automated navigation and target recognition, etc. Some of the best research is financed by the military and is classified. They produced a large (ca 200 pins!) chip that needed a bunch of support chips, including a fast microprocessor which they included in a new double frequency TV set. They made a very small (under 200) run of these chips and TV sets which they again

sold only in Japan for ca. \$3000. The effects were nice but subtle. They achieved object recognition but were so afraid of eyestrain that they did not give users the ability to make objects come out of the screen—stopping the parallax just at the screen. They also should have used some field delay or better (as Dr Naske and others in the IP field did) field synthesis in addition. I even had one meeting with some of the engineers at Sanyo's headquarters in San Jose, California in 1998 and showed them some of my preliminary 2D to 3D conversion. They were very interested and signed an NDA in order to view it and may have learned a little but I refused to explain anything unless they signed a contract and paid and I was near certain they would never do it.

Most companies big or small are arrogant and paranoid and so far as I know Sanyo did not bother to ask anyone or at least to pay consulting fees or form joint ventures. This is especially a problem in Japan where corporate culture is mostly feudalistic (we stay in our castle, you stay in yours—we both happy) and the weird culture and language and island isolation make for extreme xenophobia. Just about the time of introduction, the Asian economic collapse happened, followed eventually by worldwide slowdown, and like many companies they seem to have stopped all R&D that is not directly profit related, so 3D at Sanyo, Ikegami, Canon etc. seems dead. Maybe Sanyo spent \$100 million on 3D in the last 15 years and have maybe \$2 million income. Sad indeed. I feel that I could have changed the whole situation if they had just asked me but of course we will never know.

One of the major problems in 3D is that people just lack experience with it and even most that are professionals in the 3D business or in industry or academia, have limited ability to judge the quality of stereo images. One of the most basic skills is to be able to tell a 2D image from a 3D one and to know when the right and left images are reversed. A reversed (pseudoscopic) image is telling your brain that that the background is in front of the foreground! Also if excessive horizontal parallax is present, which gets worse as you get closer to the screen, the eyestrain gets severe and it's impossible to see any 3D. These differences are very obvious and you would think that anyone could immediately see them. Not so! Just a few stories from an endless list.

In the earliest days of my stereo career, when there were no consumer camcorders and super 8 mm film was the low cost medium of choice, Liptonstein and I drove to Los Angeles from Northern California with a car full of super 8 projectors and screens etc. to show our short 3D film to our attorney Nick Davidson's dad. His dad had retired after making money in the plywood industry and had ample money and some useful connections in the film industry. We arrived after dark and set up the cumbersome projectors and screen for the usual dual polarized projection system that uses linear polarized glasses for viewing. Without the glasses both eyes see both images and you get blurry 2D. We ran the 20 minute film and his dad took the glasses off every few minutes. It ended and Nick asked his dad how he liked it. He said "It's very nice, but I don't see what you need the glasses for."

Chris Condon told me that once he gave a screening to some film distributors of a 3D film he had made called "Surfer Girls". At the end, one of the guys said "The 3D was very

good—especially those shots of the waves.” The shots of the waves were the only ones in the film done in 2D.

Hitachi made a short 3D computer graphics film for EXPO 85 which was done by several well known USA CG experts. It was screened many times prior to the expo and by the time I got there millions of people had seen it. I knew there would probably be excessive parallax so I sat in the back row. The parallax was so severe it was not possible to see any stereo in more than half of the film even from the last row and I pity those in the front!

I went to see the 3D film Parasite in San Francisco in 1983. I saw that it was pseudoscopic so I talked my way into the projection booth. I showed the projectionist that it looked better if you turn the glasses upside down and told him all he had to do was adjust the framing knob. He couldn't see any problem. He went downstairs with me to stand in the theater and took another look. A little girl next to us said “That's right you have to turn the glasses upside down.” He still couldn't see the problem and the whole film was projected pseudo that night and undoubtedly many other nights.

I went to Disneyworld in Florida ca 1995. Outside the 3D Theater which was playing Captain Eo with Michael Jackson, they had about 20 stereo slides mounted in the wall with stereo viewers. About half of them were pseudo.

In the early 80's Matsushita (Panasonic) was investigating 3D and I met several of their researchers at a screening of Murray Lerner's horrid film Sea Dreams. Sea Dreams has such excessive parallax that you'd have to sit maybe a kilometer away to view it! Nevertheless, it was shown for years at Sea World and other venues and even blown up and shown at a large 70mm theater in France! I went to Matsushita's headquarters in Japan a few years later and to visit the guys I had met. They proudly showed me a 3D unit they had been showing all over Japan for several years. It was a 1M diameter ball with several sets of stereo shutter glasses mounted in the side. It had a 3D video of eye surgery. I look in—it was pseudoscopic.

The most experienced stereo consultant to industry and the military is undoubtedly John Merritt. One time he was called by Honeywell engineers who were building a stereo video system for military use. They had been working on it for some months but were not impressed by the stereo. He went to see them. He looked at the image—it was pseudo. He reversed the cables from the two cameras and they said “that looks much better” !

This kind of thing happens to any stereo expert constantly.