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GRAPHIC  
EXCHANGE

S U M M E R  
2 0 0 4

**Scriptomania**

TRACKING THE SCRIPT  
FONT PHENOMENON

FASHIONTV'S

**Jeanne Beker**  
TALKS TECH

**Dj Culture**

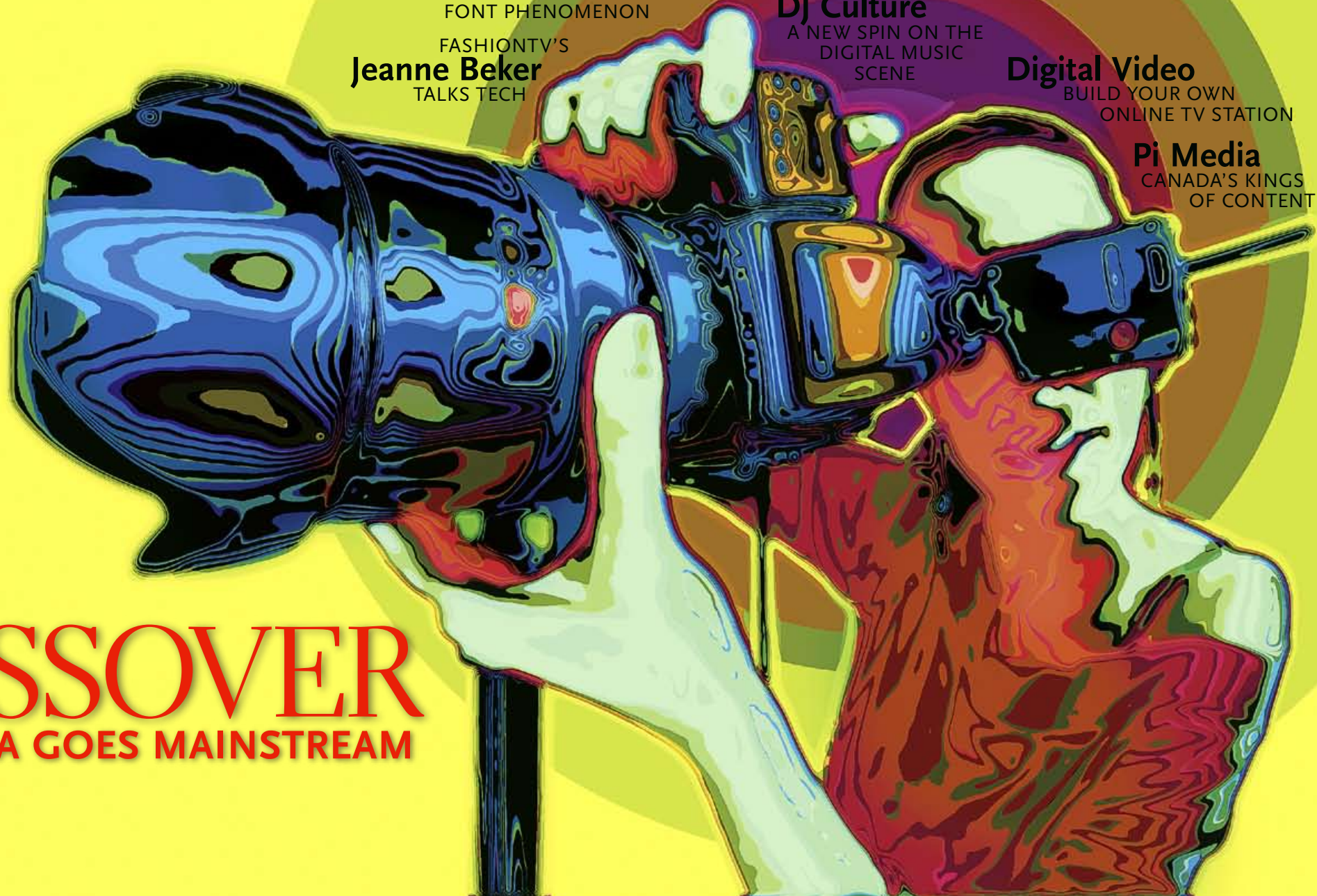
A NEW SPIN ON THE  
DIGITAL MUSIC  
SCENE

**Digital Video**

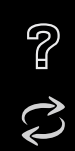
BUILD YOUR OWN  
ONLINE TV STATION

**Pi Media**

CANADA'S KINGS  
OF CONTENT



**CROSSOVER**  
CROSS-MEDIA GOES MAINSTREAM



# "The biggest advance in computing in recent years."

— **Peter Lewis**, Fortune

*"One thing that's for sure is that the G5 is the biggest advance in computing in recent years, and not just because it is the first personal computer to use a 64-bit desktop processor."*

— **Peter Lewis**, Fortune; 10/27/03

*"To say that the latest and greatest G5 screams does a disservice to the word. I can say flatly that if you have been waiting for the G5 to update your aging Power Macs, you need wait no longer. It will chew through any processor-intensive task you throw its way."*

— **Ken Mingis**, Computerworld

*"It will be the toughest temptation yet for Mac-Heads. A computer that has separated itself from the pack in terms of speed and performance."*

— **Jim Jamieson**, Vancouver Province; 9/17/03

*"The Power Mac G5 shatters the long-standing limits of expectation imposed by Intel and Microsoft."*

— **Tom Yager**, InfoWorld



*"Apple is out of the gates first, with a machine that will change the future of desktop computers forever. Independent testing showed that the Power Mac G5 blew away the competition (a 3.06 GHz Dual Xeon workstation) by a staggering 41 per cent margin."*

— **Chris Hogg**, Digital Journal

*"With the Power Mac G5, the increase in speed is three-fold over the old machine. Especially in my line of work, this means more rendered scenes in the same amount of time, more freedom to try different versions, or simply a chance to go home before midnight."*

— **Thomas Tannenberger**, Look Effects

*"The G5 is very appealing to creative professionals, e.g. graphic designers, 3D creators, directors, musicians or scientists, but is a powerful machine also for lovers of computer games. If you belong to none of these categories but feel tempted by the G5 idea, try and get consolation from the thought that even Adam could not resist biting the Apple."*

— **Alessandro Cancian**, Tandem Magazine

*"I wasn't prepared for the truly overwhelming performance of my new dual 2 GHz G5. The combo of this amazing hardware and OS 10.3 [Panther] adds up to a work platform that is not only astounding in its power but also in the joy that it brings to the user—just for the quality of work life that it offers those of us who spend hours and hours in front of our machines."*

— **Pat Metheny**, Musician





Ludwig Thoma

Der Münchner im Himmel

eBook-Edition



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## FEATURES



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**18 Building Your Own Online TV Station by Bob Connolly** Ubiquitous broadband services allow almost anyone to send digital video through the Internet, and wireless technologies and Internet appliances can deliver it to screens, handheld devices, and television sets.



**22 DJ Culture by Dinah Tolton** Nowhere are digital technologies having a greater cultural impact than in music, and the mash-ups and bpm's of today's music are directed by the cool DJs.



**30 Gallery** From the virtual reality photography of Jook Leung, to the architectural symmetry of photographer Denisa Mele, to the creative artwork of Branimir Zlamilik, these individual spreads present three very different types of imagery, each one a view through the eyes of the artist.



**36 Scriptomania by Nick Shinn** Script fonts abound, feeding rising demand in web design, posters, advertising and, of late, scrapbooking. They're everywhere you look, used by everyone you know, but how do you find them, and which ones stand out in a crowd?

## DEPARTMENTS

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(PRECEDING PAGE) Image by Picture Press, courtesy First Light ([www.firstlight.ca](http://www.firstlight.ca)), from its collection of rights-managed images



**COVER ART**  
gX Photoshop artist **Ron Giddings** played with the digital capture of Pi Media fashion photographer Adriana Canzio which accompanies our story on Pi Media (page 7)...brandishing **Nik Multimedia's** brand new Pop Art filter over it, he produced this summery retro effect, in mind-blinding colors which seemed to reflect our revised look—something old, but something new.



## Do not adjust your screen. We control the horizontal. We control the vertical. You control the rich media.

It started as a notion, evolved into a premise, and emerged as a conviction: in order to truly be the world's greatest publication on digital content creation, our publishing model would have to incorporate a digital format that was equal in depth and quality to the print version.

I have always held that the web is simply a delivery mechanism for providing content to an audience, and not in itself a satisfactory publishing medium for representing high quality graphics and editorial. It is a wonderful resource, a marvelous tool for searching out information and communicating with the world, but not an environment for publishing words and images with the fullest quality and integrity of color and detail.

However, a format and workflow for the creation of a superior digital publication was nowhere to be found—up until recently.

But first, what is a magazine?

According to my favourite online dictionary, [Dictionary.com](#), the word “magazine” is derived from the French word *magasin*, meaning “a storehouse”; it can be traced back more than three thousand years to the ancient Aramaic word *assen*, which meant “to possess or hoard”. Today's dictionary says that a magazine is “a periodical containing a collection of articles, stories, pictures, or other features”; but it is also “a television program that presents a variety of topics, usually on current events, in a format that often includes interviews and commentary.” Finally, it still retains its roots as “a place where goods are stored, especially a building in a fort or a storeroom...”

All of these are appropriate meanings for the approach we are taking to our publishing model. We have successfully lived up to the modern interpretation of “periodical” since 1991, when GRAPHIC EXCHANGE was first published in print. However, the second definition is intriguing from a different perspective, since the new potential of rich PDF, which we have adopted for our digital version, includes the ability to either embed or link high quality digital video in our publication, in essence providing the means to replicate broadcast television. The third of our definitions, the “storehouse”, embodies the function of a website—that is, a place to stockpile digital assets, the things which we wish to “hoard”.

In total, this describes almost precisely the formula which will allow gX to evolve into a cross-media publication. In a three-pronged connection analogous to a plug in an electric socket, we will main-

tain two live lines of content through our website and through downloads to the desktop, with print the necessary ground for both.

Along with this new model comes the concept of the cross-media page, now uniform in orientation and dimension across both print and screen. Each medium has its particular advantages and disadvantages in terms of user

experience and types of content, but in appearance and character they can now maintain a consistency never possible before.

Our central theme in this issue is exploring media crossover. So, for example, as you read our interview with Canadian television icon and FQ magazine editor-in-chief [Jeanne Beker](#) on page 14, you may also be interested in watching video clips from this interview and a broadcast television segment about FQ. Or if Dinah Tolton's article on [DJ Culture](#) (page 22) catches your interest, you can see and hear the band Kush performing their distinctive brand of music or watch a quick interview with Kush's Etric Lyons.

If the story of Canada's largest digital content creation company on page 6 ([Canada's Kings of Content](#), by yer humble servant) makes you want to find out more about digital workflows, our presentation on Pi Media's complete implementation of Mac technologies is right there for you to study in a pair of [QuickTimes](#). Or if delivering digital video through the Internet is your concern, learn more both in print and in digital form through reading and viewing [Building Your Own Online TV Station](#) by Bob Connolly, on page 18.

I also recommend the on-screen experience of Jook Leung's virtual reality photography, one of three features in our [Gallery](#) section (beginning on page 30), which also shows off the work of photographer Denisa Mele and digital artist Branimir Zlamalik.

Nick Shinn's [Scriptomania](#) on page 36 has a lengthy selection of links to supplement the subject of script font popularity. In fact, web links and rich media abound in the premiere cross-media issue of gX, not the least of which is an exclusive video preview of Robert Nichol's [Star Dreams](#) documentary (more about that on page 56). And a fresh addition to our [Resources](#) section (page 50) is a selection of must-have lists and live links, edited by Diane Erlich, and ideal for accessing through rich PDF. Also, a word in passing for regular readers who may notice the absence of regular contributor Lidka Schuch—she will return in time for the Fall issue.

In the meantime, I invite you to browse the pages of this interactive magazine, created through the video production and PDF programming talents of Toronto's [BC Pictures](#) by Bob Connolly and Jason Lee. You will notice web links highlighted in blue, but you should also look for the camera icon (📷) on the navigation bar and the QuickTime logos (🍏) which identify the videos on each page.

The world of rich PDF is ours to give—and now yours to enjoy.



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#### PRODUCTION

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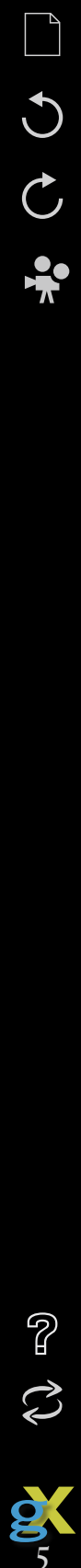
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# Canada's kings of content



Click here to see how Sears Canada catalogue pages are produced at Toronto's Pi Media using state-of-the-art digital cameras, Macintosh computers, and Apple server technology. (2:10)

From design, copywriting and photography to print production, website management, and interactive media — Pi Media's Mac-based cross-media content engine generates more digital pages than any other company in Canada. And they're ready to show their model to the world.

**by Dan Brill** Christmas is coming. It may seem like summer to the rest of us, but not for dozens of photographers and set decorators working in a sprawling low-rise building nestled into a quiet northwest area of Toronto. As far as this particular bunch of Santa's helpers is concerned, the Christmas season begins even before the last snow has melted, as they busily decorate Christmas trees and sprinkle white sparkles around table tops covered in mistletoe.

That's because each holiday season is the time when [Sears Canada](#), the country's largest retail catalogue sales operation, must ensure that Sears' mammoth [Christmas Wishbook](#) is in the hands of millions upon millions of families all across Canada, in time for the annual year-end shop-fest. With more than \$6 billion in sales each year, over 2,200 merchandise pickup locations, and close to 50,000 employees, Sears is the largest "multi-channel" general merchandise retailer in Canada, second in total sales only to the venerable Hudson's Bay Company. Close to a third of Sears' gross revenue is generated in the last quarter of the calendar year, fueled mostly by the annual Christmas shopping spree.

What turns the wheels on this multi-billion dollar enterprise are the thousands of pages of advertising that Sears delivers all year round—including 60 million individual product catalogues alone. Each year, more than 6,500 unique pages must be created for these catalogues, plus another 4,000 pages for Sears' multitude of flyers and newspaper ads. That's over 10,000 pages in total, a figure which has doubled in the last ten years.

Not only that, but the preparation of this many pages requires photographic images numbering in the tens of thousands and more lines of text than *War and Peace*. And all of this must be delivered to Canadian homes and offices on a tightly coordinated schedule—not just in print, but also online through the Sears website.

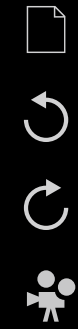
Is it any wonder, then, that the Sears Christmas catalogue is six months in the making?

## FOUNDATION OF THE CONTENT CREATION PARTNERSHIP

With an operation of this magnitude, one might expect that Sears Canada maintains enormous full-time creative and production departments working non-stop all year to deliver pages to press and to screen.

But in reality, it's just the opposite. Although Sears maintains control over its high level creative and branding, it takes almost no hands-on involvement in the creation and production of its content.

The reason? In September, 2002, in a landmark agreement which reverberated throughout the entire Canadian graphics industry, Sears signed a multi-year contract with [St. Joseph Corporation](#), naming St. Joseph's content creation division, [Pi Media](#), as "Content Partner of Choice" for all its retail, catalogue, website, and signage programs. No longer would Sears manage its own creative production, choosing instead to focus on its core strengths—retailing and marketing. With this bold



move, Pi Media assumed the title of Canada's largest content creation company, with output for all of its clients now totalling over 20,000 print pages per year.

But this was not a deal which was culminated overnight. In truth, it was the result of more than ten years of carefully orchestrated corporate moves by St. Joseph Corporation, led by CEO and executive chairman, Tony Gagliano, who in 1995 took over the reins of the family-owned company from his father, Gaetano Gagliano.

In 1993, St. Joseph became one of Sears' major suppliers of catalogue and retail production services, at the same time purchasing commercial photography studio Networks Studios. The following year, Networks was moved into its current 140,000 square foot location at 15 Benton Road.

Over the next few years, St. Joseph followed up with several more key acquisitions: Partners Imaging, a well-established provider of prepress services and digital imaging; Pi Media Inc, specialists in digital communications; and Partners III and Morris Studios, both of which further expanded its commercial photography and creative resources. By 2002, St. Joseph had also added publishing house Key Media Ltd. to its holdings, which made it not only the largest privately held commercial printing company in Canada but also the third largest magazine publisher.

With cross-media corporate assets ranging from commercial photography and creative services to document management, and from printing services to digital communications, St. Joseph was now in a position to take on the hefty responsibility of handling Sears' whole creative and production workflow through its newly amalgamated content creation facilities, operating with a total of over 200,000 square feet in two locations under the names Pi Media Networks and Pi Media Partners.

The decision by Sears Canada to grant Pi Media this exclusive "partnership" status was triggered in part by Sear's 2002 management re-organization, when all of its channel advertising responsibilities were combined into one team working from the Toronto head office.

"The best way to be successful with that was to have one content partner to supply content for those multiple channels," says Pi Media executive vice president Doug Templeton. "So, in 2003, we became their content partner of choice

for the Internet, the retail program, the catalogue program, and signage. That allowed us to utilize all of our processes for all the multiple channels, analyze them, come up with the best steps to reduce costs, reduce time, integrate them into the multiple channel platforms, and provide the best quality product in the shortest period of time for all of those channels.

"At the same time, it allows us to protect and maintain the brand integrity among those channels. I think with any retailer that uses a multiple number of suppliers, you'd find that's a very difficult thing to do."

But streamlining the production process and unifying the brand message aren't necessarily the biggest problems in getting the work done.

Templeton goes on to say, "In most companies, the majority of time spent in producing the work is probably in approving it, and shipping it back and forth to have a look

at it. There are so many steps of approvals, and so many sign-offs. Now Sears relies on us to create good content, and they can concentrate on their core business, which is selling merchandise. They have one or two double checks on the quality and accuracy of the product, and off it goes."

## THE PAGE MAKERS

Although Pi Media Partners handles a small portion of Sears' photography, it is mainly responsible for servicing the company's other clients, which include household names like Kraft, Labatt, Sony, Levi's, Blockbuster, and JC Penny.

As well, Partners does much of the prepress work for [St. Joseph Media](#), St. Joseph's new magazine division, which controls consumer magazines such as [Toronto Life](#), [Where Magazine](#), [Wedding Bells](#), and [Saturday Night](#).

Noticeably absent from the customer list are the names of any [advertising agencies](#). In a decision made last year, Pi







**In preparation for a digital photo shoot, camera, lighting and set adjustments are made and then checked on screen well before any shots are taken. Gone are the days of taking Polaroids or waiting for film to be processed.**

Media resigned all of its agency business in order to concentrate on its corporate accounts.

It is Pi Media's other facility, Networks, which is devoted almost entirely to Sears work, both for print and the web. This includes every function from creative and design concepts, to copywriting and photography, to page assembly and prepress.

With eighty thousand individual items represented in Sears catalogues and flyers at any given time, it is no simple feat to track, photograph, design page layouts, and output pages for all this merchandise. In order to facilitate Sears' multiple marketing requirements and tight time lines, a sample of almost every item in the catalogue lineup is warehoused at Benton Road, ready to be pulled off storage racks and moved into one of its thirty photo studios.

As each piece of merchandise is received at the shipping dock, it is individually labelled with an electronically readable bar code that identifies what it is, when it was received, and the exact location where it is being stored. Bar coding

is added each time an item is moved or returned, allowing both the traffic department and Sears product managers to check on the whereabouts of any piece of merchandise at any time.

At the heart of the operation, pulling the strings on this complex workflow, is the Pi Media creative department. It is here that all decisions are made regarding how merchandise will be presented visually, what colors will be used, what wording will describe each item, and the overall feel, look and character of every page.

"Every page that you see printed begins with some sort of concept, whether it's done electronically on a Mac or hand-rendered as a linear," begins Cindy Strugnell, manager of Networks' high level creative department. "Whether it's catalogue or retail, we produce communication packages based on strate-

gic thinking for each project, as well as a visual approach. When we combine strategic thinking as far as the target base with visual aids that help the businesses achieve what they're out to do, it all comes together in a strong communication package. This could be a photography direction, or a creative direction, in the form of colors, that supports the strategies that are developed early on."

Coordinating both cross-channel and cross-media promotion is a critical part of the process. Each creative decision must be weighed not only in terms of what suits the printed version, but also how this will translate to the screen.

"Every week there's a strategic meeting that takes place between the creative director at Pi Media and the specific Sears catalogue creative director," Strugnell explains. "The reason for that meeting is to discuss the creative objectives, and make sure that they're in line with the business objectives for projects as they come up, month to month, week to week. It's also to resolve ongoing production issues that come up with live work as well."

Meanwhile, down in the bowels of Networks, a fully-equipped carpentry department works away each day, building sets and manufacturing props for individual photo shoots. Whether called on to produce a realistic master bedroom or an outdoor patio—or even more fanciful settings—Pi Media's set builders must be ready to deliver any kind of backdrop or environment at a moment's notice.

## **DIGITAL PHOTOGRAPHY RULES**

Once page layouts have been fine-tuned, it's time for the photographers to swing into action. Photo assignments are usually determined by what kind of product is being shot. Pi Media has forty full-time photographers and a large pool of freelancers on call, each with their own specialty, whether it's shooting jewelry, household appliances, electronics, furniture, or live fashion models. For food photography, both Networks and Partners boast fully-stocked designer kitchens that would fit nicely into any upscale home.

As far back as 1989, Pi Media had experimented with early versions of [Sony](#) and [Leaf](#) digital cameras for its commercial work. However, more extensive testing began about four years ago with the new generation of digital photography technologies.

They started with what's known as "hard line" merchandise—electronics, bath and bedding, hardware, and other items with smooth, even colors. Because lighting and camera setups for these types of sets were easier to manage, it didn't take long to prove that the new technologies could handle the jobs, and after six months of testing, the company went ahead with two million dollars in equipment purchases, converting all its hard line studios to digital. This allowed them to shut down the Partners darkroom completely, while significantly reducing the amount of film processing being done at Networks.

However, changing the fashion photography workflow took a lot longer. The perceived objections to digital technologies from both photographers and clients covered the full gamut from doubts about resolution and quality to skepticism about speed and flexibility.

"We began running tests on the new [LightPhase](#) cameras as they came out, which hooked onto a [Hasselblad](#) front," Ballantyne recalls, "and we gave one to our toughest senior photographer. He was anti-digital photography at first, so we just gave him this [equipment] to work with, and let him go through the paces."

A few photo shoots were performed using both film and



digital captures simultaneously. Once the photographer saw the difference between seeing images come up on his screen instantaneously versus waiting two or three hours for film to be processed through Pi Media's on-site lab, the discussion was quickly over.

Still, there were a few technical difficulties to be ironed out. The sudden influx of hundreds of gigabytes of image data put a serious strain on the network and servers. As well, clothing tends to have more fine patterns and fine lines than hard line goods, which if left untouched can produce moires in print. And of course, there was the question of whether clients would accept digital photography for their final output.

"We had to work out any funny quality issues, so we ran tests right through to print and publication, just to make sure that all our separation settings were correct," Ballantyne says. "More than with the hard line stuff, we found we had some issues with moire. But again, in a digital darkroom, rather than do processing to film, we're doing things like isolating things that have moire, and adding a little bit of blur to it, so it won't create moire when it finally gets to print."

As for convincing clients, he remarks, "What we started to do was show them side by side images, and not say which was which. And nobody at the client side could tell what was an analog image and what was a digital image."

In March 2004, the company began eliminating all its analog photography. Now every single photo shoot is done digitally—including location work, where photographers go out with PowerBooks and portable LightPhase cameras.

"As cellular networks get better," Ballantyne continues, "we want to test Bluetooth connectivity from the laptop to Bluetooth phone, so that we can actually send the images from a location shoot—whether it be here in town or down in Florida when we're doing winter shoots—directly back to the server immediately."

Sears Canada and several of Pi Media's other accounts are major players in the clothing and fashion industry. So it's no surprise that every day a steady stream of models of all ages can be seen

coming and going at both Pi Media locations. Because of this, both studios have permanent on-site wardrobe and makeup facilities. In fact, Pi Media is the largest employer of talent in Canada, working regularly with as many as seven or eight different talent agencies to choose the models who will wear the latest fashions.

With models being called back in for reshoots if there were problems with the original shots, waiting for film used to inevitably add costs for hours of extra modelling time. So, in addition to savings on film processing, digital photography has also eliminated this expense. Over the course of a year, that now adds up to a sizeable reduction in Pi's production budgets.

In a digital photography workflow, where photographers, art directors and models can view the images on screen as they're being shot, the opportunity to adjust poses or lighting and experiment with different angles offers up big gains in productivity.

As one of Pi's senior fashion photographers, Luis Raposo, says, "We don't have to shoot Polaroids and check them—we have an instantaneous image. So you know exactly what it is that you're setting up to start with. When you work with models, you can shoot twenty or thirty shots, stop, go back, review it, actually show it to them—and they can see how they're doing, and go back to it. In other words, it's like a different take, as if you're shooting a motion picture. I think most of them find it quite helpful, because we don't have to translate what we want—they can see it right away."

It also makes the photographer's job easier. "Not having to worry about the expense of shooting film, you can shoot sixty frames or a hundred or two hundred, because you can always delete the bad ones," Raposo continues. "Time is not the issue, so you can do it until you think you've got it."

As well, going digital takes most of the guesswork out of judging the quality of the image captures.

"Digital photography is a great tool to work with," he says. "We know the capabilities of it. We can judge by reading the histograms or exposure warnings. You're not guessing what might happen in a lab, you've got all the controls right here. I think it's extraordinary."



Pi Media's digital photography workflow lets art directors and photographers instantaneously view, adjust and select images as they are being captured.





(top) In Pi Media's color centre, color retouchers do all their image work on the fastest Mac G5s; (centre) Networks' electronic page assembly department keeps more than fifty Mac operators busy producing over 10,000 pages for Sears Canada alone; (bottom) managing all the work which flows through Canada's largest content creation company also takes dozens of customer service, traffic control, administration and support staff.

## THE FINAL RETOUCH

Before they can be placed into pages, all images must be checked by a color retouching expert, who applies the appropriate color corrections, sharpening and digital manipulation in preparation for final page assembly. It is not an uncommon sight to see an operator at a workstation surrounded by portable clothing racks or boards covered in fabric swatches—for when it comes to matching colors, a trained eye is still the best throughput device.

With images and copy ready to go, rough layouts are sent to the electronic page makeup department, where a phalanx of Mac operators produces the final pages. To keep on top of production for all the Sears catalogue and flyer pages, Networks retains a full-time staff of fifty-one associates, working on fifty or more page layout workstations.

Completed jobs are then transferred to the prepress department for preflighting and proofing, ready to be delivered to press. (Ironically, although all Sears content creation is done exclusively by Pi Media, most of the printing is done by Quebecor, and not at St. Joseph Printing.)

Meanwhile, in the web department, an ever-changing weekly schedule keeps Pi Media's designers busy updating the Sears website. Directed by the creative department, with input from Sears, online pages at [www.sears.ca](http://www.sears.ca) are constantly refreshed with new images and copy to reflect the latest promotions and sales. Web designers work from a basic page template, swapping images and copy in and out as required.

Creating and producing this many pages of advertising requires a heavy investment both in technology and human resources. Pi Media Networks has a total staff of about 400 people, working two shifts a day, fifty-two weeks a year.

## COMING THIS CHRISTMAS—THE ALL-DIGITAL CATALOGUE

What may be the most fascinating project in this voluminous merchandising mix is the work under development in the interactive area at Networks. Programmers here are currently building a digital version of Sears' 1200-page Christmas Wishbook catalogue which is scheduled to be released in time for the holiday rush.

Not only can shoppers this year look forward to being able to flip through printed catalogue pages for gift ideas, but they will also have the opportunity to load an interactive CD-ROM into their computers containing the whole giant Sears catalogue in Portable Document Format (PDF)—allowing them to do all their shopping right from their home computer screens.

“Sears wanted a way to satisfy people who wanted a print cata-

logue, but were often disappointed when they called, because the catalogue was already out of print,” explains Ballantyne. “But they didn't think the website was the way to deliver that. So we started talking with them about making an electronic catalogue on CD. We've done our first test—a Sears Craftsman catalogue that comes out every year—and it's out on the street right now, all in PDF, with a Flash wrapper around it just to make it easier for PC users.”

According to Ballantyne, the new CD catalogue has been a real hit—not just with all the executives at Sears Canada, right up to CEO Mark Cohen, but also with the focus groups on which it was tested.

As a content producer, digital catalogue delivery is not much different for Pi Media than print production. In fact, in some ways, it may even be better.

As Ballantyne points out, “It's a lot cheaper for us to do CD reproduction of that whole 1,200 pages of content than print it on a massive web press and bind it and ship it. Sears hasn't decided this yet, but they're considering cutting back on the print run and offering to deliver more on a CD basis.

“Eventually that could mean that we do 100% digital catalogues for certain kinds of things—and that's great for us. We're really concentrating on being content producers, and we're not printing the catalogues, so we don't have a vested interest in maintaining that as print.”

## MACS DRIVE THE WORKFLOW

It will come as no revelation that the Mac is the platform of choice in Pi Media's design and prepress departments. However, what may be a bit surprising is that almost every other area of the company is driven by Apple technologies as well. Customer service, photography studios, traffic management, executive offices, and even the IT department are now almost entirely Mac-based.

The flow of data between Pi Media locations, as well as communication with its customers, also depends on Apple technology. Over the past six months, Pi has installed four new Apple Xserve servers to replace a gaggle of Windows boxes, and, although they occupy a very small amount of space in the Networks server room, their importance in the whole workflow is critical. Virtually every digital document that makes the operation run—including e-mail, image file storage and transfers, internal memos, sales orders, print pages, and web pages—is handled by the Xserves.

So, why choose an all-Apple solution?

“We realized, after comparing the prepress and design



workflows—which were always Mac-based—against the service that we had to give in other areas, that it was a lot less expensive to support Apple technology than Windows,” says Ballantyne. “At first glance, you might say that a PC clone would have a less expensive shelf cost than a Mac—but we started adding up the soft costs, the support costs, not only on ease of use and setup, but even the lifespan of the machine, and we found that we could keep Apple technology around longer, and there was less in the way of downtime and repair and maintenance. And when we did have repair and maintenance issues on the Mac, they were a lot easier and quicker to resolve than on the PC/Windows side. It turned out that it was just much cheaper to own Macs in here than PCs. So gradually we’re starting to move PCs out of every single area in the company.”

The wholesale Macintosh transition for all 650 desktops in both Pi Media locations has been happening in earnest since early 2003. At this point, Ballantyne estimates that the company is about 95% Mac-based—including even the company’s administrative and executive areas.

He adds with a sly grin, “Our executive vice president and general manager, Doug Templeton, is actually a weekend musician, and the other week I was showing him [GarageBand](#)—so he’s pretty much hooked. He’s already started borrowing his executive assistant’s PowerBook every night and weekend so he can play with GarageBand.”

Even PC diehards like production coordinator Daniel Lapadula seem to be happy with the platform switch.

“I’ve just been working with a Mac for the past few weeks,” says Lapadula. “It’s a lot nicer, it’s easy to work with—it’s very simple. I’ve been on PCs for a long time, and I know that unless you know a lot about a PC, you can’t make it run well. With a Mac, you don’t have to know as much. You just get into it, and you’re up and running. I’m actually thinking now about purchasing a Mac for photography. That way I don’t have to worry about viruses and definitions and all that. Macs are definitely very simple.”

Inside the photo studios, mobility and flexibility are the keywords, as upwards of fifty portable digital camera station setups are in use at all times. Each unit, custom-built in the company’s carpentry department, packs a Power Mac G4 or G5 with integrated keyboard rest, monitor and a LightPhase digital camera back on a [Hasselblad](#) or [Mamiya](#) body. These compact trolleys are on wheels so that photographers can move them around according to the configuration of the studio. And each can be hooked up to the network through



fast Ethernet—although Ballantyne looks forward to the day when those long cables can be eliminated entirely.

“One thing we’re looking at doing is converting some of them over to Airport,” he says. “We’ve done some testing with Airport and [Airport Extreme](#), and they’re just about there, speed-wise. We’re just waiting for that next speed bump to bring it up to 100 megabits. At that point, we’ll jump all over it, and convert every single one of our digital photography stations to Airport-based so we can have complete freedom of movement through the network.”

Once a photo session is finished, high res images are moved across the network to the Networks server room, where up to fifteen terabytes of data can be stored at a time. This includes files from Pi Media Partners, which is hooked up through a dedicated T3 line. In many instances, the photographer doesn’t even know (or care) where the images are physically located. Even though the two facilities are many miles apart, they operate as one through their network.

The increase in file volume due to the recent changeover in fashion photography hasn’t had any appreciable effect on the speed of the workflow processes, according to image quality control coordinator James Hylands.

“We’re shipping quite large raw files across the network, averaging thirty megs per file before conversion,” he says, “and we’re getting twenty captures per image, on average. The speed of the G5 is making it almost a seamless transition from when we were working with files that were already processed. Before, we would get two selects as opposed to twenty raw captures. Now we’re dealing with a lot more files and a lot more megabytes. I believe that the G5 is the computer by which all computers are going to be measured.”

Color retouchers are usually the most privileged on staff. Pi’s color centre is where you will always find the fastest Macs running the latest version of Photoshop. In a workflow

that demands quick turnaround times and which must pump out an average of two hundred finished print pages for Sears every week, producing final color images can represent a bottleneck. Dual processor G5’s ensure that there’s no time lost waiting for image editing and processing. When the image in question is a 300MB file to be printed out for a life-size in-store display supporting next week’s Sears in-store sales promotion, this becomes especially vital.

Of course, accurate color is a must when it comes to clothing and product photography. Pi Media standardized on [LaCie monitors](#), which must be recalibrated about once a month—one of the many functions performed by the IT staff of only six.

## APPLE AT THE CORE

Information Technology support is as important here as it is at any other company. However, as Ballantyne points out, the company’s ratio of desktops to IT staff is a lot higher than most operations, which he attributes to the fact that Macs are simply easier to maintain. He cites average industry stats of about thirty or forty desktops for every IT staff member; however, at Pi Media, that ratio is about one hundred desktops to one. “So we’re able to get two, or even three times the productivity out of our IT support staff than we would if we were running a Windows environment,” he observes.

The decision to replace Windows servers with Apple’s Xserves was even easier.

**(left) Pi Media VP Dave Ballantyne, like many Pi Media employees, is a multitasker—working on his PowerBook while listening to iTunes on his iPod; (centre) Pi Media now manages almost all its data and workflow through its four new Apple Xserve servers; (right) production coordinator Daniel Lapadula has just made the transition from PC to Mac.**





monthly. And the number of things we can do with this box isn't even comparable to a Windows box."

### QUARK TO INDESIGN IN A SONG

In the page assembly department at Pi Media Partners, most designers have moved from [QuarkXPress](#) to [Adobe Creative Suite](#) in the past few months for magazine production and other commercial work, with few problems or complaints.

"We've been doing [InDesign](#)

for a while now," says Partners Mac operator Allan Carle. "It took a little bit of getting used to, but it does have certain features that I like, like the print dialogue, and the way it remembers the last page that you printed. And I like the transparency features, and the way it will import layered [Photoshop](#) and [Illustrator](#) files."

At Networks, however, things have been progressing a little more slowly. Most of Sears' layout work is still being done the "traditional" way, using [QuarkXPress](#) in Mac OS 9. However, Ballantyne says that plans are underway to begin the migration to [InDesign](#)—and to [Mac OS X](#).

And it must be noted that Apple's influence on the company's production staff isn't restricted to computers. On any given day, a visitor to either location can wander past operators at color and layout workstations wearing headphones and nodding in time to their favourite [iTunes](#) as they work.

As senior color retoucher Bruce Hanna says, "With [iTunes](#), my productivity definitely goes up. It's nice to have [iTunes](#) available—it definitely helps. On certain projects, you'll have to do a lot of clipping paths, and sometimes that will get a little boring. But if you have [iTunes](#) going, with the right tune on, it can help get you through that stage of the retouching.

"I went and purchased an [iPod](#) about a month ago," he adds, "and I absolutely love it—can't live without it. It's a great toy to have."

In fact, Macintosh adoption within the corporation extends well beyond Networks and Partners. "Every single area of the operation is now using Macs, not only within Pi Media but all through St. Joseph Corporation," says Ballantyne. "Everything's touched by a Mac at some stage of the

game—even our accounting information. While a lot of it is done on PCs, most of the cost collection happens on the shop floor—like people's hours and time—and it's all done through Macs."

### THE FUTURE OF LARGE SCALE CONTENT CREATION

Just a few years ago, the idea that one company could look after every part of a client's graphics requirements from concepts right through to final production would have been regarded as impossible, perhaps even absurd.

And it would have been even more far-fetched to suggest that this could be done for the huge volume, multiple types of output, and different media which a company the size of Sears Canada demands. But digital technologies have changed all that.


As Dave Ballantyne says, "In the old days, a company like ours would have seen ourselves as a prepress shop. That's been evolving over the last ten years, but that evolution has sped up and changed like crazy over the past three years. We've really become everything—graphic designers, copywriters, editors, layout artists, photographers, distribution and logistic experts, software solution experts enabling collaboration with our customers. But all of this is centred around content—*digital* content. That's our core competency—building content. And that's been the key to us taking control of our own destiny."

The line dividing content creation and content production has been evaporating for several years, according to Doug Templeton, but never on a scale quite like the one that defines the partnership between Sears and Pi Media.

"We've created a model that I think is unique in Canada, and probably across North America," says Templeton. "It has opened up lines of communication [with Sears Canada] that we never had before. We are able to take part in discussions with them and understand the retailers' side of the business more than from just a supplier's perspective."

By bridging the gap between supplier and retailer, he explains, Pi Media can come up with ideas and processes that allow Sears to target its markets better than they have ever been able to do before. "This is a great model, and a great place for us to be. Ultimately, we want to take this to other leading organizations across Canada and across North America—to replicate this facility and do the same for other companies."

And then, it really *will* be Christmas every day at Pi Media.

 Click here to see Pi Media's workflow in action from start to finish. (3:16)

Scott Bradford, Networks senior production system support manager, says, "We started with trying to upgrade our mail—before, we were using the NT Exchange box—and the cost was extraordinary. The old system was going to cost us more than \$8,000 just to upgrade the mail server alone—and it wasn't worth it. Then we looked at Apple's platform and found that we could do the mail server, the FTP server, and the DNS server, with more functions for less [money], and for an unlimited number of users."

Up until about six months ago, Networks had one Windows machine just for mail, one proxy server, another for FTP, another for its Blue Chip digital asset management system, yet another for DNS, a pair of development servers, one more for print spooling—at least seven or eight various PC servers in total just to look after these functions.

All of these have now been replaced by a single Xserve G4 running OS X Panther.

A second Xserve, running Puma (OS 10.1), is used strictly as a file server for the digital photography departments. This machine is now serving up one terabyte of digital images a month, and—with three terabytes of storage on-board—Bradford estimates that Pi's new X RAID setup will let them keep those images live for at least two months before they have to start being archived.

As for maintenance and upkeep, Bradford's reply is short and simple. "It just runs," he says. "There's hardly any maintenance to it. Our Windows clients have been more impressed than our Mac clients at how well the mail has been running for them.

And how many times have the new servers crashed? "They *haven't* crashed. The old servers crashed almost

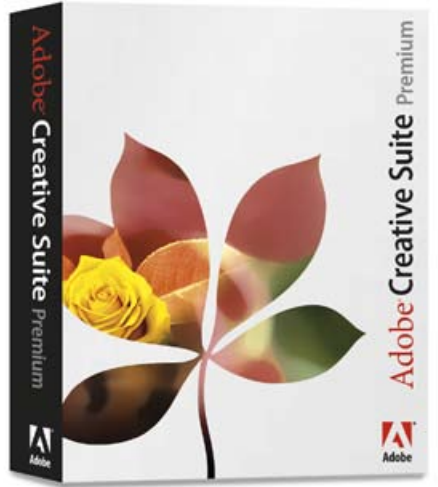




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# Jeanne talks tech

Jeanne Beker, host of FashionTelevision and editor-in-chief of Fashion Quarterly magazine, talks about the challenges of digital technologies, the rewards of magazine publishing, and the future of online television.



For the past twenty-five years, Jeanne Beker has been one of Canada's best known cross-media personalities. Throughout her career, she has mastered a multitude of disciplines, from mime, radio and TV to magazine, book and web publishing. Her credentials

include launching CITY-

TV's original NewMusic program in the early 1980s, followed by a lengthy tenure as host of [FashionTelevision](#), the internationally syndicated television show on the fashion industry. Her publishing credits range from fea-

ture articles and columns in numerous newspapers and magazines, to [Jeanne Unbottled](#), an autobiography published in 2000, to her current role as editor-in-chief for Kontent Publishing's chic new [Fashion Quarterly](#) magazine. We sat down with Jeanne in the back courtyard of her well-appointed home and invited her to discuss everything from new digital tools and technologies to the demands of adapting to an evolving multimedia environment. As she shared her feelings about what she loves about publishing and how she envisions the future of television, it was easy to see how the energy and passion that she exudes has kept her at the top of her industry. Quick with a wisecrack, while taking a direct approach to any subject we raised, she immediately dispelled any concerns we might have had about her willingness to tackle a broad range of technology issues.

**gX: Let's begin by reflecting on words that you're fond of quoting—your father's mantra, "Don't be afraid, and never give up." How do you apply that to the challenge of dealing with new digital technologies?**

JB: (*laughing*) Good connection there! As you always have to be, when you sit in front of your computer, don't be afraid, never give up, because so many people are so intimidated by their computers still—there are certain things that I know how to do, that I can do in my sleep. And then there are other things that (*recoiling in mock horror*)—*Oh, I don't do that!* I was just in San Francisco and met a *very* high-powered editor of a *very* famous magazine, and her husband told me that he is trying not only to get her to go digital, but just to send e-mails—she *dictates* e-mails!

I am totally joined at the hip to my [Blackberry](#), for example—I can't live without it. It's crazy, it's a sickness, it's an obsession—but it's certainly made my life easier, but more complex at the same time.

So don't be afraid—you can never give up. Because there have been times when (*wailing*)—*why isn't this working?? Everything's getting ruined! Stuff is crashing*—it's so frustrating! But very rewarding most of the time, too.

**gX: What digital technologies could you absolutely not live without?**

JB: My cell phone, my [Blackberry](#)—and when it comes to fashion shoots, I'm getting to the point where I really prefer the photographers who are using digital, because it's just magical. We just did a shoot for this current summer issue [of [FQ](#)] where we really wanted to take the models to a different location, but because of time and expense, we couldn't do it. The issue's theme was spirituality and sensuality, and I said, let's shoot them in an aquarium—because I'm a Pisces and I love fish. We work with Marco Glaviano, who has been using digital photography for years and years and years, which is great because the guy is 62 years old, and usually it's the older guys who are more resistant to this stuff, but he's been hip to it for years. We shot this in New York, and it just so happened that we walked into

[Splashlight Studios](#), and there's this huge aquarium right there—as though God was talking to us.

So he shot the fish, and then he shot the models in a plain white studio, and incorporated the fish with these fabulous garments, and the girls, and the movement—it was magical. But what was really great about it was that you don't have to wait for ages to see—you can see it right then and there. You know before you leave the studio at the end of the day whether you've got the shots that you want—so, what a blessing!

I know there are a lot of photographers who I'm now talking to—the purists—who say, "Yeah, but that's not really art, that digital thing." Yes, it *is* art, it's a different kind of art, it's high tech art. I just think it's brilliant. I think we have to take advantage of all of these tools that we're lucky enough to have been presented with.

And then, my laptop computer, of course—what a fabulous thing that is! Being able to e-mail people from all over the world, late at night in my hotel room.

**gX: Your television roots were in the music industry...so where do you stand on the debate over downloading music?**

JB: I know there have been times when I want to go to a store and buy a CD, and somebody says, "Don't bother, we can download it." No, I don't want to do that. For some reason, it's just the old me.

I talked to [Bono](#) about this a couple months ago when he was in Toronto. I showed him a copy of our magazine—we had a profile piece on him—and he looked at it, and he goes, "This is great, because this is *big*, this is *cool*, I love it...that's what really killed the record industry, when everything went to CDs, and all of a sudden it's small..."

There are some nice CD jackets, but not

like in the old days when you could lie back with your headset on and groove on the album cover, and album art was fantastic. So he was lamenting that. Everything's got too small now. In a way I can understand what he means.

I still like to go into a record store and buy the album, not just because, isn't it nice that I'm supporting the artist, and I'm not ripping off the system. No, there's just something about doing that—I don't want to *not* do that any more.

**gX: Have you ever downloaded a song?**

JB: No, I personally have never downloaded a song. I also don't like having to write down what's on the album...I'd rather pay the fifteen or twenty bucks [for the CD].

**gX: Okay, let's talk about your most recent new project, assuming the position of editor-in-chief of FQ magazine. Aren't you pretty busy as it is? What made you decide to accept this position—and how did you even manage to find the time?**



JB: Oh, yeah, I'm a glutton for work. If you love your work, you're passionate about your work, you're obsessed with your work—you just want more. It's what makes me come alive, and I've always been into this multimedia thing. It's not enough to be a slave to one medium, especially for me, in the rich arena that I get to play in which presents such fascinating eye candy. There's all this natter and chatter and wonderful things that you hear, and "Oh, darling!" and the intonation of the voice.

But then there's the intellectual part of it, the stuff that you really want to explain to people, or you really want to give people a chance to think about, that you really can't deliver by way of a twenty-second sound bite. I was never given a chance in all my



Click here to see all about FQ. (2:31)





years of [FashionTelevision](#)—which is nineteen years now—to really editorialize too much. I could give the camera a look (*making a face*), like “Gimme a break, can you believe this guy is *saying* this”—but it had to be quick, and I really couldn’t expand or reflect on anything—there’s no time to reflect. You gotta go, go, go. The story’s three and a half minutes—quickly! hurry up! wrap it up! it’s done. So I think that’s most of the reason I became so fascinated with print. It gives you time to digest it, and it gives other people time. It wasn’t like, “Oh, did you see the show?” “No, I missed it.” It’s over, goodbye, that’s it, and “Oh, well, I’ll send you a tape.” Now, it’s “Hey, I’ve got this magazine. Here, you can take it into bed with you, you can savour it.”

**gX: And do you take an active role in final production on the magazine?**



“...back in about 1994, I was the first person with a fashion site on the Internet...I remember sneaking down late at night, and getting into cyberspace—and there I was, and this whole world just opened up.”

JB: Well, the art department is pretty much in charge of that, and our CEO and creative head, Michael King, really has more of that technical expertise. He’ll go down to [St. Joseph Printing](#) where the pages get printed, and check out the color and make sure it’s right, and do all that. I usually get it when it’s pretty much happening—and then, of course, it has to get my approval, too.

**gX: But you’re involved hands-on with checking the pages and the layouts?**

JB: Oh, yeah, all the time, absolutely. Very much so. I get a lot of joy out of that.

**gX: So what is it about magazine publishing that stimulates you the most?**

JB: I love dreaming the dream, and then all of a sudden...it’s there. Like on the cover of our current Summer issue—one minute I’m in Paris at a [Christian LaCroix](#) couture show, seeing this phenomenal red and pink brilliant kimono come down the runway, and thinking—*that!* I want *that* for the cover. And then I’m into this whole feeling of eastern mysticism. Everyone’s running around to their yoga classes, and the [Dalai Lama](#)’s coming to town. And I think...for the theme of this issue, it’s time for people to really get inside their heads and collect themselves, and gear up for that new September season ahead—let’s talk about spirituality this issue. And somehow, the rest is just a blur. Then we think up stories, and assign them, and we decide we’re

going to go with an Asian model on the cover—which, again, is a very rare thing. I don’t know when the last time was that you saw an Asian girl on the cover of [Vogue](#) or [Harper’s Bazaar](#). Maybe never. They don’t even [show] *any* women with color. I’m proud that the first cover of [FQ](#) had a black girl on it.

So we’ve got this gorgeous Asian model, and it was like, hey! I thought of that—that was *my* idea! Obviously, it’s a very collaborative thing, too, but to have these seeds of inception, and then plant them, and before

you know it, there’s this product in your hand that you really had a great responsibility in coming up with—it’s just so satisfying.

**gX: And does working in various media also mean that you always find yourself having to think in different “modes” simultaneously?**

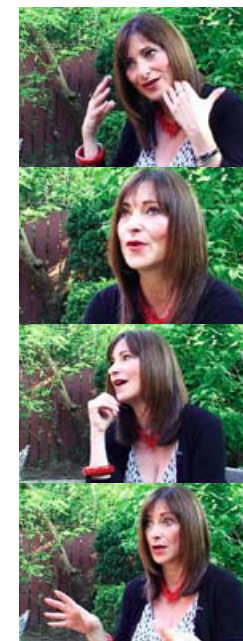
JB: Exactly—*exactly!* Which is so great. And it’s all that layering that’s so exciting, and how one thing bounces to another, and how ideas come to you, and how they grow, and how they touch so many aspects of your life.

I know when I was writing my book, you’re really living the book, because when you’re writing—as you know—you’re *always* writing. You’re always rehashing it. Even when you leave the computer screen and you’re doing something else, you’re thinking about what you’re going to put down, or what you did put down, or where’s it going.

With the magazine, you’re living with the issue. So I’m thinking, okay, I assigned this story—maybe I should assign another story, what about this idea? Or what about putting this color into it, or that energy into it, or using this artist? Or you get turned on to some new creative person that you want to somehow utilize in the magazine. It’s great. So every three months, you’re into this one project. Then it comes out, and you’re onto the next one.

**gX: When you’re writing, do you assume a persona that’s different from the Jeanne we see on television?**

JB: No—and I started as a mime artist—who then went into radio. So go make sense of that! And was I different?...Well, of course I was different, in terms of my performance—and the nature of my performance was different on the stage as a white-faced mime artist not saying a word as opposed to me on CBC Radio in [St. John’s, Newfoundland](#), talking about the new fiddler round the bay. But it was still me, still my energy. And that’s why I think that all these different multimedia projects that I’m involved in—they all just jive so



well together. They’re all really part of the same picture.

And then the Internet...I’m proud to say—I know this sounds unbelievable—but back in about 1994, I was the first person with a fashion site on the Internet. Now...you type in the word “fashion” and—*blah!* A zillion quadrillion sites come up. But back

then, that was *it*. It was a site that [MCI](#), that big telecommunications giant, approached me to do, because they wanted to get more women to use the net. So they thought, let’s put fashion up there—profiles of designers, interviews, and wonderful visuals, and trend reports—and we’ll call it @fashion, and you’ll be our cyberhost. You’ll be our editor of the whole thing. And basically, it was the first cybermagazine. Again, I embraced it, but I didn’t even know what it was. I said, “But I’ve never been on the Internet!” It took them a while to even explain to me what this was. They had to send someone over to hook me up. And, *wow*, I remember sneaking down late at night once, and turning on the computer, and getting into cyberspace—and there I was, and this whole world just opened up. I would call my friends over...come and see what I have, this new toy—and we would all be amazed. Now, we take it so for granted.

**gX: Let’s switch gears again. We have a piece in this issue on how Sears catalogues are produced, which invites the question: what are your thoughts on online shopping?**

JB: Well, in September, my clothing line, [Inside Out](#), is going to be in the [Sears catalogue!](#)—going out to four million homes across the country, so that’s pretty cool.

I *have* bought things on the Internet,



mostly eBay—I *love* eBay. I know there are some very successful shopping sites, no question. But I don't know about [online fashion shopping]—I want to feel it, and try it on. Look at me, I'm exposed to all these great shops all the time, everywhere in the world. So unless it's something really basic, I don't know that I would do a lot of shopping on the Internet—but I can see what a godsend it must be to some people.

Once I buy something, I want it—I'd hate to send it back because it didn't quite feel right, or fit quite right, or it didn't look quite like it did in the picture. So that's a problem. Shopping to me is a great adventure, and one of the last creative ventures we can partake in. It's the experience of it, it's not just about sending in your credit card number and getting the product. For me, there's just something about the process that I really like, so I don't feel shopping on the net is fulfilling.

**gX: So when are we going to see you talk about the most important fashion subject of all—geek fashion?**

JB: (*laughing at us*) We see it right here and now!... But, a few seasons back, [Miuccia Prada](#) sort of popularized that geeky fashion thing, where all of a sudden the prints were things from the 60s and 70s, and it looked like the prints we used to have on living room drapes. And the glasses—there was a period when *that* was the happening thing. Now, that look looks a little bit geeky to me.

**gX: Is any fashion design done these days using digital design tools?**

JB: Yes, it is done. Last year, we did a story on a Swedish girl who lives in New York who does that. You can take bits and pieces of different patterns that she presents on her website, and combine them in different ways, and she'll almost customize a garment for you that way. So it's very interactive and very interesting.

Is it done a lot? No. It's very obscure.

Every issue we have a paper doll with the

looks of the season, and some of those illustrators are really graphic artists. They draw the little paper doll on a computer, and all the clothes are done on a computer. Other people sit there with pen in hand and draw it out the old way. It's interesting to see. Honestly—the people with the hand drawn [illustrations], it's sort of hard to beat that. There's a quality to it that's pretty fabulous. But I've seen some incredible stuff done on computer, too.

**gX: What about the subject of television online? Might we see a version of FashionTelevision on the web one day?**

JB: Oh, yes. I envision a day when that's what's going to happen to television—I'm sorry—but I've been in TV twenty-five years this month, so I've seen a lot, and I think I've done quite a bit of trailblazing. Our style and approach, creatively speaking, was very unconventional, and we paved the way for a lot of people who do it that way. And I think we're pushing it to such a degree, it's almost as if we've gone as far as we can go. Reality programming—where do you go from there? That's it. Or the kinds of things we see on TV now, the way news is covered, which can be so horrifying—and stimulating in some ways, positive *or* negative. I don't really know how much farther there is to go with content.

Artistically, there will always be phenomenal films to be seen on television, and wonderful stories to be told. But I think



that the biggest innovation in television programming is going to be the way that we program our own mini-television “stations”. I think we're going to be in [total] control of them, and we won't *ever* have to watch commercials. There are going to be other innovative ways of sponsoring programming.

I honestly believe that it's going to be about the kind of programming that we choose for ourselves, and maybe the kind of interactive programming where you're going to be able to pick the ending that you want to see, or alternative endings.

But this is stuff Moses was talking about ages ago—I'm talking about Moses



Znaimer, of course, probably one of the greatest TV brains this country has ever produced. That kind of interactive television—he was talking about reality television way before anyone was thinking of doing it. Here we are twenty-five years later, and we're seeing it happen...

**gX: And could you imagine a 3D animated Jeanne Beker on a website?**

JB: Absolutely. I still don't understand why [Imax](#) hasn't done a [Victoria's Secret](#) show, so everyone can feel like they're right there, right in the front row—now *that* would be

entertainment. And I've often thought that would be a great way to do fashion shows—shoot them in 3D, to make you really feel like you're sitting in the front row. Because the experience is the thing. Yes, it looks great on TV, and the babes look hot, and the clothes look wonderful. But to be sitting there and feeling that—yeah, sure, 3D TV, without question, I'm surprised that we haven't seen it surface yet in everyone's home.

**gX: One last question—and this might be a bit tough to talk about—what would you like to say about the recent suicide of Kate Macdonald, your FQ executive editor?**

JB: We dedicated this issue to Kate—this Spirituality issue, which was the theme even before she passed on. It was almost coincidental. This is a woman who was so passion-

“...the biggest innovation is going to be the way that we program our own mini-television ‘stations’...I think we're going to be in total control of them, and we won't *ever* have to watch commercials.”

ate about magazines, and the whole art and craft of magazines, and about fashion. And that's not to say she was superficial [just] because she really loved the clothes—but she was such a romantic, she just had this wonderful esthetic that she just wanted everything to be perfect.

And I think that's probably the reason that she couldn't handle living in this world, because it was, in her case—for many reasons—far from perfect. It's such an irony—she was so lovely, so kind, so gentle, really a beautiful person. And it's totally surreal that she's gone.

This is a person that I worked with more closely in that concentrated period of time when we launched the magazine than I'd ever worked with anyone on a creative project before in my life. She was the last person I'd e-mail at night and the first person I'd e-mail in the morning—sharing that vision and bringing it to life. It's very, very sad that she's gone, really a great loss. She was truly someone who understood the power and magic of a magazine...



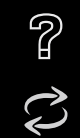


ILLUSTRATION BY RON CIDDINGS



# Building your own online TV station

New Internet appliances, improved video compression, and exploding growth in broadband services combine to make it easier than ever to deliver video on the web.





**by Bob Connolly** For the majority of North American Internet users, “broadband” is a fully ingrained term that everyone understands. But the rest of the world is also rapidly moving to high speed connections—even mainland China now boasts 10 million broadband users—and it won’t be long before on-demand digital delivery of video and educational programming is routinely flowing into homes all across the planet.

With the rise of broadband services has come a new product category called “Internet appliances”, devices which connect wirelessly or through Ethernet. A computer can now act as a digital hub to feed a television set, just as digital music is now supplied to mp3 players. Get ready for a wave of digital video content on the Internet—market forces are finally gearing up to take advantage of this opportunity.

D-Link, well-known for its wireless networking products, has just introduced a new addition to its family of multimedia products—the [D-Link DSM-320 Wireless Media Player](#). The DSM-320 connects your network to your home entertainment centre, allowing you to enjoy almost any kind of digital media in the comfort of your living room, whether it’s music, videos, or photos.

D-Link’s Wireless Media Player is located at your television set, with the outputs attached to the TV. Because the DSM-320 is wireless, it isn’t necessary to have the computer in the same room. It shows up on your computer network like any other remote device, and a hand-held controller lets you navigate on the hard drive. Once

you’ve selected a video, your computer then broadcasts it to the player’s video output.

What makes the D-Link Wireless Media Player unique is that it recognizes MPEG-1, MPEG-2 and MPEG-4 video files, in addition to Apple

QuickTime. Microsoft Windows Media is not supported.

### WHY ONLINE VIDEO IS ABOUT TO EXPLODE

It’s now confirmed—the Apple [iPod](#) is a runaway success, with 70 million songs downloaded from Apple’s [iTunes](#) store in the first year. And record companies are waving the white flag—it’s clear that they have decided that if you can’t beat ’em, join ’em. Instead of burying their heads in the sand and wishing that illegal music downloads would just go away, entertainment industry CEO’s are preparing for the next digital onslaught—mass market video downloads.

But with digital music, there are only two main formats—industry standard mp3 and Apple’s preferred iPod friendly codec, AAC. Digital video is another story altogether, with a host of incompatible file formats, ranging from MPEG to QuickTime to Windows Media—and the battle is still being waged.

However, there’s a solution on the horizon. A new video codec called [H.264](#) is gaining ground with hardware manufacturers, and most are now including this codec for video playback. Content providers often offer several different video formats and let consumers select the digital media that suits them. Now they will have one more option to choose.

If you’re about to enter the world of Internet digital video production or you’re just interested in becoming a knowledgeable user, here are a few tips that will make the voyage into digital video smooth sailing.

### DOWNLOAD VERSUS STREAMING

The most important thing to remember about making digital video is that you’re trying to provide the end user with a pleasant experience which resembles what they have grown accustomed to—conventional television. Users quickly get disappointed when the TV picture suddenly stops. So the name of the game is to compress and deliver video over a broadband Internet connection in a manner that allows users to view programming in one continuous uninterrupted flow. This is best accomplished by producing different video sizes for different high speed connections. Since broadband data rates range from one to seven megabits per second (depending on the cost and type of connection), it’s best to target the lowest average broadband connection.

In Canada, standard commercial broadband connection speeds are being increased at a rapid rate. It was only about a year ago that basic high speed cable or DSL was generally pegged at a maximum of 1.5 megabits per second. But now, in the Toronto area, for instance, Rogers Cable has raised the bar to three megabits per second, and is even offering subscribers the option to raise that to [five megabits](#) for a nominal one-time charge—sufficient to begin supporting video on demand. And there are a number of Ontario communities where new fibre optic upgrades are delivering even higher speeds, up to ten megabits.

What this means is that the ability to view high quality full screen video over the Internet in real-time, as we do through conventional television, is here today. But even average broadband is fast enough to let users download videos reasonably quickly and save them to the desktop for full-screen high quality viewing.

With Internet access to digital video growing, Internet appliances such as D-Link’s DSM-320 will come into play more and more.

However, recent online rumours would indicate that Apple’s iPod engineers have not been standing still either. According to the [AppleInsider](#) website, a fourth generation iPod will be released sometime in the near future which will connect to a TV and use its FireWire mode to enable users to play video stored in the unit’s Movies directory as well as display and manage photos. The latest leaks also say that the new iPod will sport its own color screen, which will serve as a mini-TV screen.

This new video capability is tied into another new feature, called [Home on iPod](#), which will be used to store and synchronize with the directory on your Mac. Assuming Apple works out all the bugs with this technology in time for the next OS X release, it may not be long before iPods will be capable of acting not just as music players but also as wireless Internet appliances that can connect the Mac to a television set.

### ARUBA GOES ALL-VIDEO WITH ARUBA.TV

Our company, [BC Pictures](#), has just produced a website for the island of Aruba which is completely dedicated to video. Instead of adding high quality video to [Aruba.com](#), we created a new domain—[Aruba.tv](#)—that is targeted at high speed Internet users. Knowing that our audience will be using broadband services lets us develop the site to play smoothly without worrying about the restrictions of tiny, highly compressed graphics and preloading Flash files. We can also launch the browser full screen, which allows us to use precious screen real estate to simulate a television screen. That annoying menu bar at the top of the Explorer window will be replaced by large header title graphics.

In the first phase of Aruba.tv, we will provide progressive-download QuickTime videos, both large and small, using the [Sorenson 3 codec](#) and [Q-design Pro’s audio codec](#). Progressive downloading allows you



Click here to see how online TV lets you visit the island of Aruba. (2:02)



Aruba.tv's Accommodations channel features 27 videos of the island's hotels in QuickTime and Windows Media formats.

to save video for offline viewing on Internet appliances. The Windows Media V7 codec, which is widely deployed, was chosen over Windows Media V9, which does not yet have broad acceptance; in addition, there is currently no way to produce this file on a Mac. Full screen Flash slide shows will be used for viewers who only have a slower "high speed lite" Internet connection. Future versions of Aruba.tv will include MPEG-4/H.264, once Apple releases its QuickTime upgrade.

QuickTime videos will be embedded into the page with the ability to save the video (as long as you have the Pro version of QuickTime). Windows Media videos will launch Windows Media Player, which also enables saving and full screen playback—although the data rate is not quite high enough for clear full screen pictures. If you stand back a few feet, the full screen picture quality is acceptable—but we don't recommend it. Once MPEG-4/H.264 is released, the data rate will be increased to match the quality of a DVD.

Wide-screen aspect ratio display sizing

for Internet video has become trendy ever since the release of high definition television (which is always wide-screen). To keep up with this "movie" trend, we are cropping the top and bottom of the videos (using Media Cleaner Pro), so that it fits a 16x9 ratio. This allows us to present larger videos at the same data rate as standard 4x3 versions. The top and bottom of the image is usually wasted in landscape beach scenes and indoor hotel rooms, but it is still important

to keep framing in mind when shooting videos for 16x9 aspect display, because people's heads might end up getting cut off when cropping is applied.

To simulate the television experience, eight specialty channels provide categories of various types of video. An "Adventure" channel will provide programming about island tours, such as the Atlantis submarines or outback jeep tours. A "Weather" channel will provide live webcam feeds. Shopping, History, Sports and Food channels will provide the usual content, except that, in this case, they will all be about Aruba.

The biggest challenge, due to the sheer volume of video, was to create a "Resorts" channel. Twenty-seven high-rise, low-rise, and time-share accommodations as well as other forms of lodging will be featured on Aruba.tv through a three- to ten-minute promotional video. Hotel bookings will also be available using a reservations link.

### SERVING UP THE CONTENT

Now that all the video is nicely edited, compressed and inserted into web pages, it needs to be uploaded to a server. If you have a lot of content, a dedicated server is highly recommended, because you don't want to share your bandwidth with other websites

that might cause your video to stutter.

We chose a dedicated Linux server that's hosted in Texas at a company called Rack-space, which has tremendous tech support and several fiber optic connections that allow for reliable quality bandwidth. It's important to use a hosting company which can guarantee that if there is heavy traffic to your site, your videos will still stream properly from the server without congestion. A dedicated Pentium 3 server with a gig of RAM and a fiber optic connection will provide simultaneous multiple connections of high quality streaming video at two megabits or less.

It's not uncommon to use 300 to 500 gigabytes of bandwidth per month on a moderately busy site such as Aruba.tv—and many service providers allow 100 gigabytes of bandwidth per month free; beyond that, you will pay a per gigabyte download fee.

If you're just a little guy who wants to get your three-minute video on the web, it's never been easier. There are now lots of service bureaus which will take care of compressing whatever your original content may be (whether VHS or BetaCam SP), for which you will pay about \$30 to \$100 per finished minute—but you can expect big discounts if you have a lot of video.

Keep in mind that if your videos are under ten minutes in length, there's no need at all for streaming video servers such as Real Media. Streaming servers are only required for live broadcasts, or if you want to allow users to quickly jump to the end of the video before it has been progressively downloaded. Http streaming will work on any server, with no extra software to buy or rent. Just don't fall into the streaming Real Media Server trap, as many websites did a few years ago.

### PROMOTING YOUR SITE

Our client owns the domain name Aruba.com, but in this case, we felt that a separate

Aruba.tv address would be a good marketing initiative. Of course, we are also providing a link to Aruba.tv from the Aruba home page. Advertising banners can then be placed on high speed service provider portals, such as Internet cable companies promoting sites that offer their customers video and other forms of high speed content.

A .tv domain name immediately flags the fact that the site features video or promotes television shows and offers more than just the usual text and JPEG images. And as more of the world becomes connected with high speed services, search engines which are specially dedicated to video content will undoubtedly spring up.

But be prepared for a hefty yearly fee for registering a .tv domain name. Domain names like sex.tv cost well over six figures per year, and news.tv, for example, costs US\$1,000,000 per year!

The .tv domain is owned by a tiny island in the South Pacific called Tuvalu (.tv stands for Tuvalu just like .ca stands for Canada). The domain is administered by VeriSign on behalf of the island's government, and a share of all money collected is distributed to the island.

Tuvalu is a very poor island which, aside from its other problems, is sinking into the ocean, and its government regularly calls on the United Nations for support. To get more attention, Tuvalu recently purchased a seat at the U.N. using its .tv proceeds.

It will be interesting to keep an eye on this tiny island—not just to see if it sinks into the ocean like Atlantis, but also to see if it flourishes with the royalties it will receive in perpetuity—all because it had the vision to take its domain name and market it to the digital audience.

Bob Connolly is a principal in BC Pictures, a new media production company creating content for TV, CD-ROM, DVD and Internet websites. He can be reached at 416-521-7462 or by e-mail at bob@bcpictures.com.





ILLUSTRATION BY GREG PASCOS

*“Once awareness is free, intent will redirect it into a new evolutionary path.” Carlos Castaneda*





# DJ Culture

## Kush and “The Scientist” Etric Lyons

by Dinah Tolton

Walking up the all-white staircase to Etric Lyon’s Toronto pad, I find myself wishing that I looked like Jennifer Lopez—not a usual thought.

We enter a gallery-like room—more white again, with sleek, modern style built-in sofas. They’re the only objects in the room, except for a row of five boutique bass guitars hung on the wall. The dining room, with its huge table, brings more of the same ultra-modish feel. Hanging on the walls are two very large photographs, taken by Lyons in his professional photography days. Floor to ceiling white draperies cover a television-music room and computer room.

Fluid in an animated elegant way, Lyons flips on a DVD which includes interviews of him describing the process his music creation takes, along with tracks of his band, Kush. Clearly, this interview is going to be about an artist in the real meaning of the word.

Lyons started playing music when he was sixteen. In 1999, after twenty years of playing traditional music, he joined the computer revolution, and two years ago produced *Temptation Sessions*, a down-tempo jazz CD which was done completely on a laptop.





Click here to see *The Beauty of Machines at Work* performed by Kush. (2:04)



Click here to see inside DJ culture, an interview with Etric Lyons. (3:35)



Click here to see *Plaster Paris* performed by Kush. (0:54)

“I was living and working together with my younger brother—he’s five years younger. I had a very strong understanding of the history of music, but my brother was deep into the current music scene. He helped me get in tune by taking me to shows, where DJ’s astounded me with their ability to use tension and release. At this time, there were very technical style DJ’s who were using turntables incorporating a lot of tricks, acrobatics and a high level of expertise. I found DJ’s creating a whole musicscape with their record choices by blending, creating a mood, and taking audiences on a journey.” The band Kush was created in 2001 to explore music’s digital implications.

These days, clubs and on-line sources offer a deluge of musical alternatives. In a recent Toronto *Globe & Mail* article, feature music columnist Carl Wilson mentions no less than sixteen genres of music that one can enjoy on any mid-week evening in Toronto. Visual art labels pale in comparison to the styles which fill today’s music scene: rap-underground, jazz-rock, punkish, alternative country, hard-core, comically-ecstatic, pop-punk, broken toy anti-pop, and—coin a name for this one—a meld of “absurdist political poetry plus dynamic interplay built on Euro free improv and global folk forms.” And the list continues: mainstream, no-stream, electro, electronic dance, Cuban, circus, down-tempo, break-beat...

Alain Mongeau’s [Mutek](#) festival of digital music and media arts in Montreal in the first week of June brought together some of the hottest names in DJ music. Now five years old, this event provides a breeding ground for minimal techno and electronic experimentation, featuring artists from around the planet.

Richie Hawtin, a renowned techno DJ/producer, staged [Plastikman](#) at Mutek with 25 gigabytes of media, including audio files, lighting cues, smoke machines, video clips and animations—enough to send audiences into sensory overload.

However, true DJ culture is really found in “house music”, the DJs’ realm where vinyl ruled until around two years ago. House music embodies the full experience of music and dancing. DJs seize voodoo-like control over a crowd, which anticipates “the builds”, often dancing till dawn. Although some come straight, the drug of choice for most dancers is Ecstasy, with its acknowledged truth serum qualities.

The secret to the experience, according to one DJ, is that at 120 to 140 beats per minute, the music synchronizes with the human heart beat, creating distorted time perception, a hallucinatory escape harking back to tribal roots—the ancestral dance.

### MUSIC SOFTWARE IS FOR EVERYONE

While sales of CDs decline, vinyl record sales are growing. These days it seems like everyone you meet is a DJ—or knows someone who’s a DJ. Hundreds of clubs play house music, and raves are big business.

And as computer power has increased, the number of pro-quality project studios in the home has risen astronomically. Now anyone can have the tools to make music. Apple now includes its iLife suite of [iPhoto](#), [iMovie](#), [iDVD](#), [iTunes](#) and [GarageBand](#) (its recording studio offering) with every new Mac. Apple’s acquisition of Emagic enabled the development of GarageBand, which has a monstrous collection of samples and loops, called [Jam Pack](#) (US\$99). The software has 1,000 royalty-free riffs in a variety of moods and genres, created by professional musicians. Just plug a guitar or a microphone into your Mac and extend a loop for any length of time you want.

Another option from Apple is [Soundtrack](#) (US\$199), which lets musicians develop projects at high resolution (24bit/96kHz), while synchronized in real time using MIDI time code or beat clock to Digital Audio Workstation (DAW) software or applications such as [Propellerhead’s Reason](#), the

ultimate rave-in-a-box. Soundtrack’s search engine lets you scour its 4,000 royalty-free instrument loops and sound effects by instrument, genre or mood, and it supports ACID, AIFF, and WAV, and Apple’s own Apple Loops.

[Digidesign](#), a division of Avid, offers professional digital recording with plug-ins which come free with the purchase of Pro Tools/HD. For around \$600 for MBox hard-

ware and Pro Tools LE software, you get an entry into the high end world where systems can run from \$10,000 to \$200,000. And Steinberg’s [Cubase SX](#) at US\$799 is the quintessential MIDI sequencing software with a full mixing setup for Mac or PC.

### WHAT KUSH IS ABOUT

The digital console Lyons affectionately calls the Kush 1.0 kit is custom-built, and

began with a Roland SP-303 sampler running Sony-Pictures/Sonic Foundry’s [Acid](#) musical instrument software (the PC equivalent of Apple’s GarageBand).

During a residency at a club in Toronto’s Little Italy, Lyons played with a collective that included Kevin Laliberté, David Barrett and Robert Sibony. Etric would ask the musicians for their ideas, then give them a beat per minute (bpm), and start recording.



ILLUSTRATION BY GREG PASCOS



**“Now I’m not a really big spiritual guy and I haven’t studied or analyzed that, but I am definitely somewhere else. I wish I knew a little bit better about where it is I went, so I could articulate it better, but all I know is that I definitely go somewhere and it is hard to come back.”**

These tracks, with Lyons on bass guitar, make up the loops and samples (drum parts, keyboard chords, bass guitar riffs) of the Kush 1.0 kit. For a time, he routinely spent four to five hours a day working with the kit. Now he knows this gear as well as any musician knows his instrument.

Taking elements from the console, which can be quite short, he remixes them, then plays them back in live performances with the band. With every bar of music, he is making choices. During live performances, he also captures improvised solos from the other musicians and remixes these, as well as playing bass guitar—a feat which calls for a lot of dexterity.

To a musician, digital tools are like paint brushes in the hand of the visual artist, he reminds us.

Lyons took these recordings on the road, and while touring, he created the CD *Temptation Sessions*. He worked on *Temptation Sessions* in a style comparable to DJs, who think about the tempo and key of the track, and because they’re mixing tracks together, have the option to speed up or slow down the beats per minute.

After completing his first CD in 2002—which took nine months to create—Lyons went on to create another collective.

“I wanted live musicians—I didn’t want to have to rehearse ideas. I wanted to get the best out of the players by incorporating their

most creative work,” he explains.

Together with Bryden Baird on trumpet, Eddie Bullen on keyboards, and Robert Sibony on drums and percussion (captured in glowing colors on the previous pages by Toronto illustrator Greg Pascos), he formed the band now called Kush. Lyons took their best tracks and merged them, “to the point where they were unrecognizable by the other players.”

The music moves from down-tempo instrumental to dance music, with its base originating in jazz. From there, it is improvised live by the band. There are no songs or chorus in the conventional sense; from moment to moment, it is unique.

In live performance, the creative energy with which Lyons conducts is intense, and it’s evident that there is a language between the players which has developed over time.

One of the things that he wanted to do when he formed Kush, he says, was to create music for women. Lyons observes that the testosterone-driven music of heavy metal and similar genres is all very male-driven.

“I didn’t do it (the music) to get women—I just wanted to appeal to their sensibilities. So I guess while I’m doing it [performing] there are certain things I am thinking about—I really like the idea of flow, I don’t like jarring people.

“Imagine that there are four people around a potter’s wheel, and you throw

a piece of clay on. Four people put their hands on the potter’s wheel, and they start to build a pot, but they can’t do it alone, they need the use of the other hands.

“You have to constantly have that kind of sensitivity, that kind of coordination, and that is what I conduct. That’s how I see myself, that’s the kind of connection you have to have with the group—and you have to know the moment.”

### THE TRANSPORTED “SCIENTIST”

The band calls Lyons “The Scientist”. However, Lyons describes the experience of performing his brand of music in almost mystical terms.

“I am definitely directing, I am definitely transported, there is no doubt about that—I am somewhere else. I have literally [finished] sets and come off, and I am in a complete dream-like state, and there is no way I can talk to anybody. And when I think about the night before, when I’ve done a show, it is all dream-like.

“Now I’m not a really big spiritual guy, and I haven’t studied or analyzed it. All I know is that I definitely go somewhere, and it is hard to come back. It’s good, and it’s a path to another level. I am very unaware of the audience visually—I can feel them, but I can’t really see them. I feel them as a collective, as one entity. I can feel the band as one entity. I feel them as an energy—I’m not concerned with the way they look.”

The process, he says, starts off in a static state, but by managing and manipulating that state in a musical way, a certain moment arrives when there will be swirl, a dance between the musicians and the machines. “There will be movement, and it will be a circular motion. And that circular motion, once it gets going, can get whipping around really, really quickly.”

As I listen to the music myself, I see explosions of sound, and feel swept up in a floating, rolling journey. Experienced live,

the band carries you to unexpected places, and your body and feet can’t stay still. Music is *the* drug, and Lyons is the Shaman administering to the collective, transfixing the audience, creating a tribal universal experience.

### THE ROOTS OF DJ CULTURE

Whether spiritual, blues, jazz, or the fast melodies of bebop from the 1940’s, or soul jazz of the 50’s, music can be uplifting. The progression of DJ culture can be found in everything from [James Brown’s](#) doo-wop to the political reggae of [Bob Marley](#). It can be traced all the way back to 1920 and the release of “[Crazy Blues](#)”, the first blues recording which captured the African-American musical tradition.

Music mixed with a message was born in sermons and church choirs, and carried through into country blues. The Roaring 20’s contributed the invention of electrical recording with microphones, and brought on comedy duos (such as Harris & Harris) who dropped manic rhymes over blues accompaniment.

In the late 1940’s and 1950’s, with the post-war boom, big bucks were poured into the recording industry, and R&B was perfected, to emerge as rock ‘n roll. Recordings from the 1950’s that used ancient African traditions of trickster rhymes were later revived by hiphoppers in the early 1970’s. Soul legend James Brown hired the best drummers in the country for his band, making them household names. With Brown’s 1969 recording of [Funky Drummer](#), [Clyde Stubblefield’s](#) drumbeat went on to become the most sampled track in hip-hop history.

DJ music from New York, however, originated in Jamaica, from Jamaican Dance Hall music, which used “toasting”. DJ’s used MC’s to pump up crowds by talking over the records and dubbing.

Acknowledged as the godfather of hip hop, [Kool Herc](#) (aka Clive Campbell) was



twelve years old when he left Jamaica and landed in one of the darkest ghettos in America, New York City's The Bronx. His workouts in the high school gym quickly earned him the nickname "Hercules".

Following a stint with a "writing crew" (i.e. graffiti artists), he bought a sound system for himself and set out to earn money to buy clothes for his little sister. His first DJ gig in the early 1970's was a party in a small recreation centre—rented for \$25—where he charged 25 cents admission for girls and 50 cents for boys.

Inspired by his Jamaican culture and the dub side of records, Kool Herc focused on the breakdowns of instrumentals and drum solos. He noticed that by extending the break, he could hold onto the crowd; and by stretching out a drum solo, he could keep the audience in that state. He started buying two copies of each record, and by manipu-

lating the turntables when the break ended on one turntable, he could carry it over to the next turntable—a technique which he called the "merry-go-round".

Herc began adding MC's, and break dancing followed. Latinos and African-American break dancers joined up with other famous DJ's, including the "man with a thousand records", [Afrika Bambaataa](#). Street and park parties featuring dance music, rapping DJ's, and break dancing became more popular than street gang fighting. [Kraftwerk](#), blending western European and African cultures, got heavy play.

Fast forward to 21st century cyber culture, and now we find DJ's creating complex digital mash-ups—taking bits of one song and splicing it with pieces of others (also very effective for prototyping). On occasion, they can create an international furor, such as what happened earlier this year when

DJ Danger Mouse (Brian Burton) decided to combine Jay-Z's *Black Album* with the Beatles' *White Album*—which produced *The Grey Album*. In just a single day, this mix chalked up one hundred thousand downloads from [www.djdangermouse.com](http://www.djdangermouse.com)—before EMI, which owns the *White Album* rights, issued a cease-and-desist order that forced Burton to yank it off his site.

[David Bowie](#) recently offered the chance to mash-up his music tracks by taking the vocals from any song on his new album *Reality* (which he made available in one minute samples from his website) and lay them over one of his classic songs. The winner of this contest received a brand new Audi and got to see his or her mash-up released as an mp3.

Sounds like found art, doesn't it?

Etric Lyons says the development of his music is constantly rolling around in his

head. "It's really about the ways to be free musically, and create music with a sense of freedom, and being creative. It's something that is constantly in my conscience."

Up until the end of June, Lyons was playing his music in the acclaimed stage play *Cookin at The Cookery*, on at Toronto's [New Yorker Theatre](#); Kush can be heard on Friday nights at [Potato Blues](#), 115 John Street, Toronto.

Follow these links if you're interested in finding out more about the band [Kush](#), the [Mutek](#) festival, or the [DJ and hip hop scene](#).

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*Many thanks to Toronto DJ/producer Bob Kim for his valuable contributions to this article and to Scott Ramsay, who shot video and stills at Potato Blues. In addition, sincere thanks to Vistek for providing a Canon GL2 video camera for our live recording and to Fujifilm for the use of a Fuji F610 digital camera.*



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Jode Thompson

John Fraser

John Martin

John Singer Illustration

Josée Masse

Joshua Leipziger

Karen Patkau Illustration

Karen Steyr Photography

KC Armstrong

KC Rasmussen

Kelly McLarnon

Kenton Palamar

Kevin Hewitt Photography

Kim Stallknecht Photography

Laura Bombier Photography

Lorne Bridgman Photography

Malcolm Jones

Marianne Hunt Creative Services

Mark Tellok

Martin Girard

Michael Visser Photography

Mike Carter Studio Inc.

Mike Webb

Nancy Ruth Jackson

Neil MacLachlan

Nicki Peters & Associates

Nicolas Ruel

Olena Kassian

Overbrook Studio

Peggy Collins

Peter Schafrick Photography

Pierre Arsenault

Pierre Manning

Richard Thompson

Rick Etkin Photographs

Robert G. Earnest Productions

Robin Wong

Rocco Baviera

Roger Hill

Ron Berg Illustration

Ron Elmy Photography

Ron Giddings

S T E E N

Sardinha Illustration & Design

Sharpshooter Creative Representation

Shelagh Armstrong

Shiny Pliers

Shoot Studio

Spyros Bourboulis Photographe

St8ment Communications

Stanley Wong Photography

Stephanie Carter

Stuart McLachlan

Studio Gargitter

Sylvie Daigneault

Terry Collier

The Spot Productions

Toy Twuk Studio

Vince McIndoe

Will Lew





Click here to see New Year's Eve in Times Square , New York, presented in 360-degree QuickTime VR.

## JOOK LEUNG, 360VR STUDIO

**New Year's Eve, Times Square, New York City**

**Web:** [www.360vr.com](http://www.360vr.com)

**Specialty:** Virtual reality photography

### What the photographer says:

“This image shows Times Square in New York on New Year’s Eve, 2003. This is an ‘equirectangular’ image, used to produce a 360° QuickTime VR Cubic movie. I was on assignment for Fujifilm and ABC to document the event, and a crew pass gave me access to the stage. But then I saw a better opportunity, when Dick Clark chose to stay down on the streets with the crowd. When the corner on the host’s platform became available, I grabbed the spot to shoot this panoramic photograph. A Fujifilm S2 Pro digital SLR camera with Nikkor 8mm lens was used to capture the image, set to 800 ISO, with lens setting at f4 and 1/45 of a second.”

### About VR

Virtual reality photography is often found on Internet websites featuring travel destinations or real estate. You can click and drag the mouse to navigate your way through a 360° view of a distant destination, usually rooms or places without moving objects. Since the process of capturing the scene often requires shooting a series of overlapping photographs, any object in the scene that moves can cause ghosting, doubling and blurring, because the overlapping pictures are ‘stitched’ or joined together. What makes Jook Leung’s virtual reality photographs so special is that he has eliminated these unwanted artifacts from the image, and actually thrives in a live action environment. Even in low light situations that require a long exposure, his images are frozen in sharp detail in all directions—straight up, straight down, and from all sides. Apple produces software that allows an image like this one to be wrapped onto the surface of a 3D cube, allowing users to navigate around and view the scene as if they were actually standing in the middle of Times Square.

You may also [download](#) Jook Leung’s complete PDF Picture Portfolio that contains several samples of his best work and details of the equipment that he uses to capture these award-winning images.

To view Jook Leung’s full QuickTime VR scene on screen, click on the previous page.



Click here to see Jook Leung describing his VR cameras. (0:28)

**Jook Leung and his 360° virtual reality camera setup**





**DENISA MELE, PERSONIFY PHOTOGRAPHY**

Title: At Dusk

Web: [www.personifyphotography.com](http://www.personifyphotography.com)

Specialty: Fashion, fine art, product, corporate  
and portrait photography

What the photographer says:

“This image was captured at dusk on King Street in downtown Toronto, a time of day when the light allows a light gradation. The technique of double exposing was used in order to create a linear pattern. The image was photographed with a 4x5 large format camera and captured on transparency film; use of Photoshop tools was minimal in creating the effects.”





## BRANIMIR ZLAMALIK, RGD

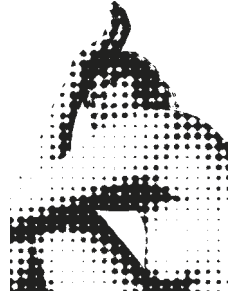
Eternal goddess reappears in ayahuasca induced hallucination

Web: [www.gbcom.ca](http://www.gbcom.ca)

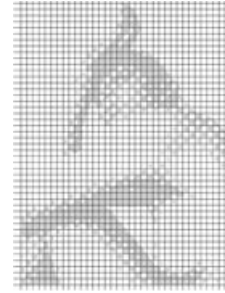
What the artist says:



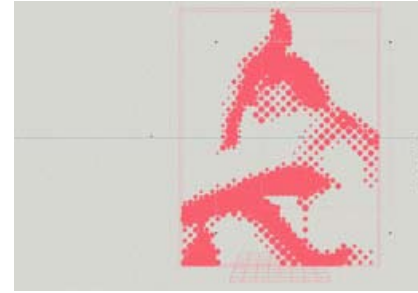
"This was a clipping from some magazine that was in my files since the early '80s. I liked the picture but didn't know what to do with it."



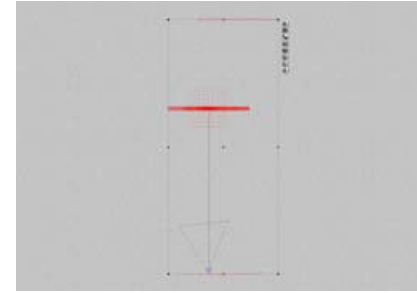
"When I eventually decided what to do with the clipping, the first step was to break it into a very coarse screen."



"The screen was laid over a grid to give me coordinates for the sculpture to be built in Bryce."



"In Bryce, the sculpture was built using highly polished chrome spheres."



"Top view of Bryce 'world': the thick line in the upper half of the picture is the sculpture, the triangle at the bottom is the camera, and the thin line right below is the original photo I started with; the thin line above the sculpture is a mirror to reflect the back side of the sculpture and the original photo behind the camera."



"This is how the final rendering looked."



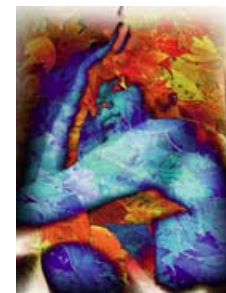
"To make assembly in Photoshop easier, I rendered a mask in which the sculpture's spheres were solid black."



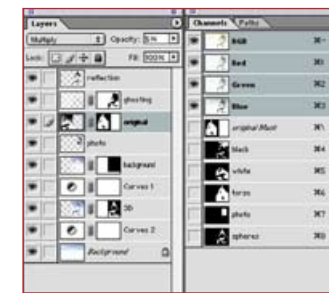
"I also rendered sky from the scene as a separate file."



"Leaves were scanned directly into the computer to make the background of reflection in a mirror."



"This is how I wanted the reflection in the mirror to look—the layer with the original is on top of the layer with leaves; difference blending mode was applied to the top layer."



"The final picture was a composite of nine layers with the support of five masks."



# Feedback?

We're eager to get  
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# Scriptomania

**In the digital age, the script font phenomenon obsolesces the look of letterpress**

by **Nick Shinn** Imagine a world where everyone reads print set in nice serified type.

That world is shrinking in the rear view mirror. People read less, they read online, and serified faces are declining in popularity. In print advertising, headlines that look like letterpress are out of vogue, with faux-effect lettering copping the top awards.

Reflecting market demand, online font retailer Veer recently produced two type specimen booklets: one dedicated to scripts, and the other to New Fonts, including scripts. Scripts are also big sellers at mass market distributors [Fonts.com](https://www.fonts.com) and [MyFonts.com](https://www.myfonts.com), where half the top ten are sans serif and half are scripts. Serified fonts sell poorly.

No mere fad, the vogue for script fonts represents a populist expression of digital culture, rumpling the stiff formality of mainstream, print-derived typography in legacy and new media.

SCRAPBOOK BY RONNA PENNER OF TYPADÉLIC,  
USING ESCRITA (T-26) AND GARAMOUCHE (P22) FONTS



Call it reality design.

It must be stated that all digital fonts (with the exception of a few by [LettError](#))—no matter how mechanistic in appearance—are composed of hand-made characters, the labour of designers manipulating a mouse or stylus. The difference with scripts is that their letters are (or resemble) writing or rendering which is freehand, made without copy-and-paste, and without orthographic tools such as rulers, templates, french curves, and compasses, or their software equivalents. High-touch for the high tech era.

Within this definition lies a vast range of motives and uses, concepts and executions. Here are some of the genres, with representative typefaces.

#### COLLECTIBLES

### Hucklebuck

Jason Walcott, Jukebox

“...They [collectors] love scripts and will grab pretty much anything that is a new release,” says Veer’s Grant Hutchinson. Veer loved Jason Walcott’s foundry, Jukebox, so much that they bought the company. Meanwhile, my own next release through [ShinnType](#) will be a script...

#### INTERNET

### Comic Sans

by Vincent Connare for Microsoft (Chalkboard is Apple’s rip-off). Just-plain-folksiness finds its epitome in Comic Sans. Made ubiquitous by free distribution with IE as a Microsoft Core TrueType Web Font, Comic Sans, clear and legible on screen thanks to its careful hinting, is the perfect voice to say, This ain’t no slick con job. Of course, it is detested by typophiles to the extent of inspiring the hilarious [www.ban-comicsans.com](#).

#### FAMOUS PERSON’S HANDWRITING

### Duchamp

The face that launched Richard Kegler’s [P-22](#), derived from the hand of [Marcel Duchamp](#).

### Gov Gov GSoob

Andrew Smith’s appropriation of John Lennon’s handwriting references the Beatle’s work as poet and visual artist.

### Houston Pen

Brian Willson’s digitization of the handwriting of famous Texan [Sam Houston](#) appeals to many, including Civil War re-enactors.

#### AND NOT QUITE SO FAMOUS

### Your own writing

At [www.fontifier.com](#), you can get your own handwriting turned into a font for an astonishing US\$9!

#### SCRAPBOOKING

### Schlub

Ronna Penner, [Typadelic](#)

Never mind not using classic typefaces—even fonts representing a formal writing style don’t look right for the true amateur; the desired look is deliberately hand-made. At the same time, it would be a mistake to dismiss the scrapbooker as naive. Font Diner’s Stuart Sandler observes, “There is a hungry market in competition with itself to create more sophisticated scrapbook pages... the audience that’s buying fonts is indeed looking for something nobody else has.”

Which is exactly what a foundry specializing in contemporary scripts such as Ronna Penner’s [Typadelic Fonts](#) has to offer (check out <http://www.typadelic.com/scrapbooking.html>). The lively invention and variety of her faces demonstrates the appeal of digital scripts over the more regimented, serious scripts of previous technologies.

In the preceding categories, many of these fonts are purchased by prosumers for personal use, and the consequent pervasive presence of script fonts within democratized graphic design, used by non-professionals, is one of the major forces which are casualizing typography.

It is also true that the quality of professional typography has been diluted by the advent of desktop publishing. Adobe Systems estimates that between the introduction of PostScript in 1985 and the millennium, the number of professional graphic artists and designers increased by a factor of 24, from 250,000 to 6 million.

So not only has the task of typography been entirely removed from the hands of specialist type houses, it has been delivered over to a profession in which the vast majority are vertical invaders who have had little opportunity to absorb the legacy of typographic lore from the few survivors of the old school.

In this context, the subtle distinctions in meaning that, over the past century, have become attached to slight differences in traditional type forms have lost their relevance. Who cares about the difference between a transitional and a didone? They’re both serif genres, and serifs are so default.

If the old nuances are not recognized, not pursued and exploited, then the old faces, set plain, are too dull to compete with the vivid personality of such fonts as Ms Penner’s.

#### CUSTOM



Jill Bell is the boss ([www.jillbell.com](#)). Jill Bell is Norah Jones.

#### RETAILING

### Mister Television

Stuart Sandler, [Font Diner](#)

In both packaging and advertising, retail is full of scripts. This is particularly true for packaged foods, where the naturalness of scripts disguises the unappealing factory-processed quality of the product. In retail advertising, the panache of classic commercial signwriter scripts creates instant buzz, and their gestural retro styling suggests a one-off in a friendly mom-and-pop store, not the slick merchandising of a megacorp. In the U.S., the largest market for fonts, House Industries’ script faces have captured the imagination of a youthful design profession whose nostalgia is not beholden to typographic tradition, but turns instead to retro commercial pop culture. This is the professional push for script fonts that complements the prosumer’s pull. Because scripts don’t have large families of stylistic variants, House and Font Diner sell them in thematic packages, such as the charmingly named “Casino Buffet” from FD.

#### POST-MODERN PLAYS

Although scripts, so resolutely hand-made, are resistant to mind games, there are a few script fonts that employ the conceptual rigour and novelty usually reserved for “type” forms.

### Ferox

Blackletter by [Miles Newlyn](#), inspired by Eyvind Earle’s work at Disney as a background painter for such animated films as *Sleeping Beauty*, but constructed with geometric elements, in particular ellipses.

### Zarzipar

[Gabor Kothay](#)’s spectacular mash-up is a “hand-drawn italic” which veers between orthodox typographic features and fanciful distortions and flourishes. Comes complete



with its own wordmark-glyph name [type “Z” in Alternates font].

*Aranea*

This is what happens when you spend several centuries too long in a coffin without trimming your nails. [Verena Gerlach](#) lavishes the amount of detail historically applied to decorated initials to a quite different purpose.

## THIS POINT IN TIME

The cultural task emerging: to think beyond the many centuries of Western typographic evolution, which started from the basis of the “scrittera umanistica” and developed into a complex system of meanings for printed typography—and come up with a more sophisticated “typography from writing” for script fonts.

Change is overdue, because the print typographic model, despite having been transferred to the Internet, is an anachronism. Based on the writing of a literate elite of 15th century Florentine scholars, it was derived at a time when few could read and then refined further. It was practised for five centuries by a tradition of skilled specialists.

In contrast, digital typography comes into being in an era where literacy is universal, and everyone with a computer is a typesetter. The media is commercial, mass and diverse, so commercial sign-lettering is a significant force, as are personal scribbles—while the letterpress tradition is bleeding meaning. Digital fonts do a so much better job of mimicking handwriting/lettering than the previously dominant technologies of metal and phototype.

John Hudson puts it in perspective:

“There is no logical reason why digital typographic technology should be based on a metal type paradigm (whether handset or mechanical); the fact that [it is], is due to historical exigency—it is easier to [re]model an existing technology than to invent new

ways of doing things in a new technology, especially when existing companies have a massive collection of design and metrics data that they want to leverage. But when the paradigm of the existing technology is based on the properties of a particular material—in this case, metal—does it really make sense to carry that paradigm over to a new technology from which that material is absent? Historical exigency is important in understanding why things are the way they are, but it should not be accepted as the way things must be, let alone as the best way things can be.” ([Typophile.com](#) post, “transitions from metal to digital”, May 6, 2004)

“What new paradigms can we create that take into account the specific material (bits and bytes) of digital typography?” asks Hudson.

There are two new paradigms that have emerged: complexity and mutability.

*caflisch*

*Thematic*

Plain setting.

*Thematic*

OpenType setting.

Only “m” and “a” are standard glyphs: the rest are contextual alternates, determined by their adjacent characters.

Modelled on the hand of mid-20th century typographer [Max Caflisch](#) by [Robert Slimbach](#) in 1993, and adapted to OpenType in 2001.

The new [OpenType](#) format accommodates vast numbers of contextual alternates,

enabling the “fontification” of (a) languages that have traditionally not been type-friendly, and (b) the messy humanity of script, i.e. its complexity and irregularity. In [Caflisch](#), [Slimbach](#)’s ingenious arrangement of alternate letter forms is used to simulate the classic “joining rules” of a fine script.

If [Hudson](#) has given a reason why digital types need not follow the forms of legacy media, [Slimbach](#) has shown how they may differ. And [Sandler](#) explains why they will differ, with the appeal of scripts:

“People want that...The script look is very human, very organic and relatable, and even a few letters sitting next to a very plain sans will reveal an even more potent wow! People connect with scripts faster and they evoke mood perhaps faster and more pointedly than any of the subsets of display typography.”

## MUTABLE TYPE OF THE FUTURE

Just as many have turned their backs on the letterpress look, favoring the organic quality of scripts, so, too, the digital dynamic has evolved from *Space Invaders* to *Counter Strike*—from flat, clunky metaphors to smooth, dimensional, real-time simulation.

The parallel trend in font technics is mutability—fonts that are not composed of pre-determined glyphs, but of letterforms that are subject to fundamental change during the typesetting process. It’s a marginal trend at best, but one worth keeping an eye on as it heads toward flexible, streaming, interactive typography, as individual as the reader.

Imagine panoptic feedback systems which monitor saccadic eye motions, analyze reader biometrics and behavior, and adjust the text accordingly. Scary, like *Minority Report*, but with Google ads—which respond to keywords in live text with purchase opportunities—we’re on our way.

Crucial to mutability is the concept of

the metafont, defined by computer guru [Donald E. Knuth](#) in 1980, wherein a range of sizes and styles are created from a common set of character outlines by modification of dimensional parameters. Knuth’s showpiece was a setting of the psalm *The Lord is My Shepherd*, with the typeface morphing from sans to serif, letter by letter.

[LettError](#)’s *Beowulf* (1989) modified PostScript font outlines with a randomization routine, so that its letters never set the same way twice.

Multiple Master fonts (discontinued by [Adobe](#) in 1999) were a limited commercial application of the metafont principle, allowing typographers to use sliders to incrementally vary certain parameters (i.e. “axes”) of a typeface, such as weight and horizontal scaling.

[LettError](#)’s “Twin” typeface, while not a true metafont, introduced the idea that the sliders controlling glyph alternates may be fed by a data stream, varying the appearance according to the weather, for instance. To get a better understanding of how this works, go to <http://design.umn.edu/go/project/TCDC03.1.TTC>, and “test drive” the new *Twin* (for “Twin Cities”) font.

It’s not readily apparent how the organic look of script fonts will eventually converge with the bio-mimetic trend in software development, but it seems like a natural destiny.

## FONT AVAILABILITY

*Caflisch Script Pro*: [www.adobe.com](http://www.adobe.com)

*Mister Television*: [www.fontdiner.com](http://www.fontdiner.com)

*Duchamp*: not commercially available

*Aranea*, *Ferox*, *Goo Goo Gjoob*,

*Hucklebuck*, *Zanzibar*: [www.veer.com](http://www.veer.com)

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*Nick Shinn, R.G.D. is an art director and publishes his typeface designs at [www.shinntype.com](http://www.shinntype.com). Telephone (416) 769-4198, email [nick@shinntype.com](mailto:nick@shinntype.com).*



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# Oscar nomination looming as Cannes, Annecy, Siggraph and Prix Ars all single out Canadian CGI short 'Ryan'

Artist Dave Bachelor offers an inside look at creating the 3D graphics for this 14-minute production on legendary Canadian animator Ryan Larkin



Click here to see a sample *Ryan* production clip, video only. (0:20)



for Best Short Film, which followed on the heels of winning the Sun Life Financial Award for Best Canadian Short and a \$25,000 cash prize at the May 2004 [Worldwide Short Film Festival](#) in Toronto. Most recently *Ryan* scored at the highly regarded [Annecy](#) festival in France, winning second prize. The film also took the Jury Award at the upcoming [Siggraph 2004](#) Computer Animation Film Festival (to be presented in Los Angeles, August 8-12) as well as the prestigious Golden Nica for computer animation and visual effects at [Prix Ars Electronica 2004](#).

Artist and GRAPHIC EXCHANGE contributor Dave Bachelor was part of the team of artists which created the striking graphics for *Ryan*, and he described his experience with the project.

"There is a term in this business called the 'wow' factor," Bachelor says. "It's what you find yourself saying every time you're blown away by all the amazing work that you see being produced, be it your own or someone else's. The more 'wow-ing', the better things are going. Well, there was certainly a lot of 'wow-ing' during the making of *Ryan*. Case in point, watching the evolution of Chris' [Landreth] visual effect concept, a style he labelled *psycho-realism*."

Bachelor first got wind of the production in the summer of 2001, when he got a call from Larry DeFlorio, head coordinator

(left) Production stills of scenes from *Ryan*. The film centres on three main scenes, one of which is this cafeteria in a Montreal mission that is populated by a host of weird and offbeat characters. Click on the images at right to view unfinished production video clips of these scenes. (Still images courtesy of the *Ryan* Project and Spare Change Films Ltd.)



Click here to see a sample *Ryan* production clip, video only. (0:19)



Click here to see a sample *Ryan* production clip, video only. (0:14)



Forty years ago, [Ryan Larkin](#) was a rising star on the Canadian animation scene. With the support of the National Film Board of Canada, he grabbed international attention with animated shorts such as [Cityscape](#) (1963) and a few years later, *Walking*, which was nominated for an Academy Award in 1969.

Today, he begs for spare change outside [Schwartz's Restaurant](#) on Boulevard St-Laurent in Montreal, and sleeps in a mission, an alcoholic and ex-cocaine addict.

Using a strange hybrid of documentary and animation, Canadian director [Chris Landreth](#) captured the story of Ryan Larkin in a short film recently released by [Copper Heart Entertainment](#) in cooperation with the National Film Board (see [www.nfb.ca/ryan](http://www.nfb.ca/ryan)).

*Ryan* has already claimed top honours at the [2004 Cannes Film Festival](#), where it took home the Kodak Discovery Award



at Seneca College's digital training facility, The Arts and Animation Centre. Landreth had formed an alliance with Seneca, and DeFlorio was now hunting on Landreth's behalf for the best talent available to work on the film's CGI sequences.

As a seasoned 3D artist, Bachelor knew Landreth's work through the 1996 Oscar-nominated short, *The End*, and *Bingo*, which won a Genie Award in 1999. So he realized that the chance to work on *Ryan* represented a very special opportunity.

"In March 2002, I was invited to attend a casting call of sorts, held for the purpose of assembling a production team for what would eventually become known as The *Ryan* Project," he recalls. "I was brought in for the position of texture artist, along

with modeling and rendering support. There we were, basically a room full of strangers. Chris didn't know any of us from a hole in the ground, with the exception of Dave Baas, who had worked with him previously on *Bingo* and who would be overseeing the production. I could sense Chris' apprehension as he looked around the room that first day—rightly concerned as to whether this group of unknowns would be up to the task for this project."

The next twenty-one month period would be a whirlwind experience of collaboration, invention and education for the entire crew. Working with a relatively modest budget—notwithstanding funding provided by the NFB—Landreth had a generous amount of help from friends and associates, who willingly volunteered support and services whenever they could. DeFlorio's Arts and Animation Centre at Seneca College served as a base of operations, putting current and former Seneca graduates to work on the myriad creative tasks required.

Modeling, texturing and animation in *Ryan* was done mainly in Alias Wavefront's CG animation package, *Maya*, with additional help from Adobe Photoshop for some of the texturing, and *Syflex* for cloth simulation. Compositing was handled through *Discreet's Combustion*. The production computers were Dell PCs with Quadro 2 video cards, dual Intel 1.7 Xeon processors, 1GB of RAM, and 80MB hard drives, with additional rendering performed on a "render farm" supplied by Hewlett-Packard, consisting of twenty rack-mounted Intel 2.4GHz dual processor PCs, with 512MB-1GB of RAM.

By the time the production finally wrapped up—on schedule—in December 2003, a unique spirit of camaraderie and mutual respect had been fostered between all the members of the team, such that Bachelor now says, "The amount of dedication and the quality of leadership throughout this production was unsurpassed—and that's what really got *Ryan* to the screen. When it was all finished, not only did I walk away with an immense amount of pride in what we had all accomplished, but I had managed to re-discover something that I thought I had lost a long time ago. This rare opportunity gave me back my passion for the creative, and I can honestly say that I love my job again."

After final editing and sound mixing, including music and vocals, the fully computer-generated 14-minute short, constituting a total of 110 shots, was completed by the end of January, 2004.

With *Ryan* now garnering critical kudos everywhere it's shown, it seems that the chemistry behind the scenes was every bit as important as the magic created on screen.

Dave Bachelor also wanted to make sure that his gratitude for the opportunity to participate didn't go unspoken. "Thanks, Larry, for inviting me to the party," he adds, "and thanks also to Chris and Dave, for allowing me to stay, and to all my other fellow *Ryan*-ites who shared the production trenches with me every day."

Next stop—Hollywood?

The position of the two figures at top right ("Mickey" and "Darcy") is known as the **RENDERING START POSE**. At bottom right are closeups of two other characters, "Froggie" and "Poleguy". Most of *Ryan's* CGI animation was done by a team of artists working at Seneca College's Arts and Animation Centre in Toronto. (Images courtesy of the *Ryan* Project and Spare Change Films Ltd.)

**3D PROPS (top), created by 3D artist Dave Bachelor, were used to accessorize *Ryan's* cafeteria scene (bottom).**



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## All Power Mac G5 models to include dual processors

Apple has just announced that every new Power Mac G5 desktop model will now be shipping with dual 64-bit PowerPC G5 processors.

The top model, featuring two 2.5GHz processors and advanced liquid cooling, starts at CDN\$4,199 and has a 160GB hard drive and front-side bus running at 1.25GHz per processor. The dual 2GHz version with 160GB drive carries a list price of CDN\$3,499, and the entry model, fea-



turing dual 1.8GHz processors and 80GB drive, starts at CDN\$2,799.

The Power Mac G5 line offers dual 1.5 Gbps serial ATA interfaces and AGP 8X Pro graphics and come standard with either the NVIDIA GeForceFX 5200 Ultra or the ATI Radeon 9600 XT graphics card.

The dual 1.8GHz and dual 2.0GHz Power Mac G5s are available now, and the dual 2.5GHz G5 is expected to be available in July.

To get further details on pricing and configurations, check [www.apple.ca](http://www.apple.ca).

## LaCie premieres new Double Layer 8x and 4x DVD burners

LaCie has announced that it is now shipping its new Double Layer Drives with double layer DVD recording technology. LaCie's new drives, created from a metal alloy called Zamac, feature speeds of 8x DVD±R and 4x DVD±RW for high-speed, dual-format recording.

The d2 DVD±RW Double Layer Drive can store and archive as much as four hours of high-quality DVD video, up to 16 hours of VHS video or up to 8.5GB of data, music or photos.

Retail pricing for LaCie's d2 DVD±RW Double Layer Drives starts at US\$249. For additional details, see [www.lacie.com](http://www.lacie.com).

## Viewsonic introduces thin 15" and 17" LCD screens

ViewSonic has added two slim bezel displays to its business LCD line-up, the 15-inch VX510 and 17-inch VX715.

With native 1280x1024 resolution and 450:1 contrast ratio, the VX715 supports both digital (DVI) and analog (VGA) signals to expand connectivity options. The VX510 provides a 450:1 contrast ratio and a native resolution of 1024x768.

The VX510 and VX715 will be available for estimated street prices of CDN\$579 and CDN\$699, respectively.

To find out more, visit [www.viewsonic.com/vxseries](http://www.viewsonic.com/vxseries).

## Heidelberg reports sales and profit down again

Press giant Heidelberg has announced its 2003-04 results, reporting sales of US\$4.3 billion, down 11 per cent from last year's US\$4.9 billion, and operating profit of US\$24 million, down from US\$122 million. The downward slide in net profit continued, with a loss of US\$834 million including restructuring costs and expenditures, following last year's net deficit of US\$165 million.

The company says it will continue cost cutting measures and work force reductions, targeting a global workforce of 18,500, compared to 24,181 last year. It will also skip dividend payments this year.

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### Toshiba lets slip news on 60GB drives in development

Toshiba says that it plans to release a 60GB version of its 1.8-inch hard drive, which could lead to higher capacity iPods later this year. The new drive, due out in late summer or early fall, will reportedly have two platters, each holding 30GB of data, a jump from the 20GB per platter in its current highest-capacity 1.8-inch drive.

Apple uses the 1.8-inch Toshiba drives in its iPods, although for the iPod Mini it relies on 1-inch 4GB drives from Hitachi. Apple has not commented on Toshiba's planned drive, although according to Mac site Think Secret, Steve Jobs was "livid" at the leaked news.

### Tighter JDF integration in new DynaStrip 4.2

Quebec-based Dynagram has just announced the availability of DynaStrip 4.2, which it reports includes even tighter integration with JDF enabled workflows as well as various interface improvements and tighter integration with workflows from manufacturers such as Artwork Systems, Dalim, Fujifilm Electronic Imaging, Global Graphics and Xitron.

Dynagram also says it has worked closely with R&D teams from industry prepress manufacturers to ensure maximum JDF compatibility between solutions.

To find out more, point your browser at [www.dynagram.com](http://www.dynagram.com).

### Update and upgrade for FlightCheck Pro and Designer

Workflow solutions developer Markzware has announced availability of both an update and a full upgrade to FlightCheck Professional and FlightCheck Designer.

FlightCheck v5.10 updaters adds alerts for two or more similar, but differently-named spot colors, and for fonts with the same name in the system or user-defined font path, plus application-specific sets for Ghent PDF Workgroup and expanded options for PDF/X.

Suggested list for FlightCheck Professional v5.5 is US\$499, while FlightCheck Designer v5.5 sells for US\$199. To obtain updates, go to [www.markzware.com/download](http://www.markzware.com/download).

### Adobe delivers Adobe Video Collection 2.5 for Windows

Adobe Systems is now shipping the Adobe Video Collection 2.5, featuring new versions of Premiere Pro 1.5, After Effects 6.5, Audition 1.5 and Encore DVD 1.5. Adobe's upgraded video line-up introduces more than 200 innovative new features, including advanced support for high-definition (HD) video in Premiere Pro 1.5.

Users can work between After Effects and Premiere Pro 1.5 with new copy and paste functionality and features in Audition 1.5, such as Frequency Space Editing. Encore DVD lets users send Photoshop menus to After Effects to create unique motion menus. En-

core DVD also recognizes timeline markers created in After Effects 6.5 and Premiere Pro 1.5 AVI and MPEG-2 files, giving users the option to convert markers to DVD chapter points.

Adobe Video Collection 2.5 is available in two versions, Standard and Professional. Standard includes Premiere Pro 1.5, After Effects 6.5 Standard, Audition 1.5, and Encore DVD 1.5. The Professional edition upgrades After Effects 6.5 to the Professional edition and adds Photoshop CS.

Standard and Professional editions for Windows XP are priced at about US\$999 and US\$1499, respectively. For more info on individual product and upgrade pricing, see [www.adobe.com/motion](http://www.adobe.com/motion).



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## Extensis releases Font Reserve Server 1.7

Extensis has announced a free update to Font Reserve Server, the first significant release since its acquisition of DiamondSoft in July 2003. Font Reserve Server 1.7 for Mac OS X, Panther and Windows includes new auto-activation plug-ins for QuarkXPress 6, Adobe InDesign CS, and Adobe Illustrator CS, with improved performance capabilities.

Font Reserve Server 1.7 is a free update for registered v1.6 or 1.6.x users. It is available for US\$1,200 per server, and US\$130 per client connection.

For more info, visit [www.extensis.com/fontreserveserver](http://www.extensis.com/fontreserveserver).

## Creo releases Preps v5.0 upgrade with OS X support

Creo has announced what it calls the most significant upgrade in four years for Preps software, its digital imposition software.

Version 5.0 introduces support for Mac OS X as well as a new SmartMarks feature which lets users create and edit templates much faster than with previous releases. Other new features include mark sets, support for Adobe Acrobat 6 and QuarkXPress 6, Xerox DigiPath compatibility, and JDF workflow enhancements. Preps can impose any combination of PostScript, PDF, EPS, DCS and TIFF source files. Get additional details at [www.creo.com](http://www.creo.com).

## Ghent PDF Workgroup releases 2004 specs

Following the first (v1) specifications launched in February of 2003, the Ghent PDF Workgroup has released version 2/2004 specifications for delivering print-ready PDF's regarding a full range of international printing standards.

The 2004 specifications update settings for support of recent changed spot color specifications, support for specific PDF/X-1a settings when using Adobe Acrobat Distiller 6.0, as well as including revisions for other PDF settings and directions for file creation.

New specifications and setting files are available at [www.ghentpdfworkgroup.org](http://www.ghentpdfworkgroup.org).

## New Canon 2.2 megapixel camcorders due in July

Canon's new vertically designed Optura 500 and Optura 400 Mini DV 2.2-megapixel camcorders, due for delivery in July, will allow users to record video to the SD Memory Card while capturing digital still images, without interrupting video recording.

Shorter and smaller than their predecessors, both feature a 10x Optical Zoom for both video and still photography, continuous shooting

mode, built-in flash, auto exposure bracketing, and selectable focus points. Both are Mac and Windows XP compatible.

The Optura 500 has a high resolution 2.5 inch LCD screen (211,000 pixels) plus a mini video light, letting users shoot in total darkness up to 4.9 feet away.

Street price on the Optura 500 camcorder is expected to be around US\$1199. The Optura 400 will sell for about US\$999. To find out more details on features and pricing, see [www.canon.com](http://www.canon.com).



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## NEWS

### Fahrenheit 9/11 lands Canadian distributor Lions Gate for U.S.

Michael Moore's controversial film *Fahrenheit 9/11*, winner of the coveted Palmes d'Or at the Cannes Film Festival, has finally found two distributors for the American market, and ironically one is Canadian.



Quebec-based Lions Gate Films ([www.lions-gatefilms.com](http://www.lions-gatefilms.com)) joins IFC Films as co-promoters for Moore's production, and a joint statement set a date of June 25th for release in the U.S.

A Canadian company, Salter Street Films, also produced Moore's Oscar winner *Bowling for Columbine*.

According to Moore, *Fahrenheit 9/11* would be opening on a record number of screens for a documentary. A trailer for the film is online at [www.fahrenheit911.com](http://www.fahrenheit911.com).

### Nikon CoolPix 4100 features 14.5MB built-in memory and 3x optical zoom

Nikon Canada has announced the introduction of the CoolPix 4100, a compact digital camera with 4.0-mega-pixel performance.



All controls on the new model, due in July, are placed on the back of the camera. Features include a 1.6-inch TFT LCD monitor and 14.5MB of built-in memory, as well as a 3x optical Zoom-Nikkor lens and 4x digital zoom. The 4100 also has a Macro mode, which can be used as close as 4cm from the subject to fill the frame.

Five color options include Standard, Vivid, Black-and-white, Sepia, and Cyanotype. A Blur Warning function alerts users of shots compromised by camera shake. The CoolPix 4100 comes complete with the EN-MH1 rechargeable battery and MH-70 battery charger. Visit [www.nikon.ca](http://www.nikon.ca) for details.

### AirPort Express streams music wirelessly to any room in the house

Apple has just unveiled [AirPort Express](#), the world's first 802.11g mobile base station that can be plugged right into the wall for wireless Internet connections or USB printing.

Airport Express also features analog and digital audio outputs that can be connected to a stereo and AirTunes music networking software which works seamlessly with iTunes, giving users a simple way to wirelessly stream iTunes music on their Mac or PC to any room in the house. AirPort Express features an ultra-compact design weighing just 6.7 ounces, and will be available to Mac and PC users starting in July for CDN\$179.

The AirPort Express mobile base station also includes a built-in combination digital and analog audio connector allowing users

to connect AirPort Express to a home stereo, powered analog speakers or the latest digital 5.1 surround sound systems.

AirTunes is Apple's music networking technology which works seamlessly with iTunes running on either Macs or PCs to let users create a wireless music network in their home. iTunes 4.6 automatically detects remote speakers and displays them in a simple pop-up list for the user to select. Once the remote speakers are selected, AirTunes wirelessly streams the iTunes music from the computer to the AirPort Express base station. AirTunes music is encoded to protect it from theft while streaming across the wireless music network and uses Apple's lossless compression technology to insure no loss of sound quality. AirPort Express provides a range of up to 150 feet, and multiple AirPort Express base stations can be bridged together to send music to extended areas.



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The development of the Internet has created the expectation of near-instantaneous access to virtually unlimited information on any conceivable topic. This has brought about a substantive change in the way that people acquire knowledge and in the way in which they incorporate it into their lives.

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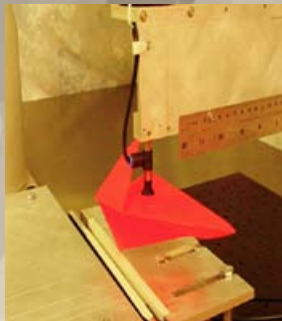




## The Shadow Knows



Digital cameras have the Chinese government worried -- a new law passed in Beijing cracks down on digital movie-makers, banning the broadcast of movies without government approval...Microsoft won't give up on its losing battle to overturn the US\$613 million fine levied by European courts over tying Windows Media Player together with the Windows OS -- once everyone gets used to QuickTime, it probably won't matter...Hats off to John Warnock, founder of Adobe Systems, for being awarded the British Computer Society's Lovelace Award for his contributions to the IT industry...Robots can do origami, as a Pittsburgh student proved (picture at right)...Calgary scientists teaching a computer to "see" through software connected to a digital camera are training their machine to understand a table top hockey game (what else, eh?)...If you happen to have access to 240,000 networked computers, you may have a chance of discovering the world's largest known prime number, as was the case May 15th when a team of international researchers established that record, at 2 to the 24,036,583th power minus 1, a number with 7,235,733 decimal digits...



### Next generation Sorenson Squeeze video compression suite adds high definition encoding and H.264 codec

Sorenson Media has announced Sorenson Squeeze 4, a new line of video compression applications for digital video professionals which includes the Squeeze 4 Compression Suite, Squeeze 4 for Macromedia Flash MX, and Squeeze 4 for MPEG-4, all available in Windows and Macintosh versions.

Sorenson Squeeze 4 Compression Suite incorporates High Definition (HD) encoding for a variety of video formats including MPEG-1, MPEG-2, MPEG-4, QuickTime and RealMedia. The Windows version includes HD encoding options for Windows Media 9.

Also added to the Compression Suite and Squeeze 4 for MPEG-4 is the the Sorenson AVC Pro codec (also known as H.264). This codec offers the highest-quality video at roughly 70 percent the data rate of MPEG-4. All versions feature a completely redesigned interface including a fully customizable batch window that allows settings to be applied at the job, source, and output levels. They also feature a new video zoom tool for pixel cropping, and a preview slider with in/out markers allowing a segment of video to be previewed before compression.

Sorenson Squeeze 4 Compression Suite (Windows or Macintosh), expected to ship in Q3 2004, is priced at US\$449; Squeeze 4 for Macromedia Flash MX is available for US\$119; and Squeeze 4 for MPEG-4 sells for US\$199. Visit [www.sorenson.com](http://www.sorenson.com) to get more information.

### First version of catalog software RoboCatalog Suite integrates product image database with InDesign CS

RoboCatalog has announced the availability of RoboCatalog Suite 1.0, new lower cost catalog automation software which automates the production of graphically complex catalog pages by integrating a database of product content and images directly within Adobe InDesign CS.

It consists of three modules. RoboCatalog Manager lets users create new catalogs, define page size and page count, add or edit product information, assign products to pages or spreads, and preview the way a spread appears when different templates are assigned. RoboCatalog Builder integrates into Adobe InDesign CS, automatically assembling catalog spreads using the database, layout templates, and visual assets. RoboCatalog Server is invisible to end users, accessible only to the system administrator for maintaining the database and automatically filing visual assets.

Page layouts are generated in InDesign CS. RoboCatalog's unique "round-trip editing" feature lets users modify pages in either Manager or Builder, with instant updating in both modules every time a spread is saved. The product also includes the robust open-source mySQL database, at no extra cost. For further info, visit [www.robocatalog.com](http://www.robocatalog.com).

### Qarbon's new PowerPoint to Flash utility for \$US99

ViewletPresenter, a new utility from Qarbon, converts Microsoft PowerPoint presentations to Flash. Its player can also customize the look and feel of presentations.

ViewletPresenter's screen capture method works like a digital camera. Viewlets can be used either on the web or as standalone executable files. ViewletPresenter is available now for US\$99 from [www.qarbon.com](http://www.qarbon.com).

### Strata 3D CX now links to Photoshop and Illustrator

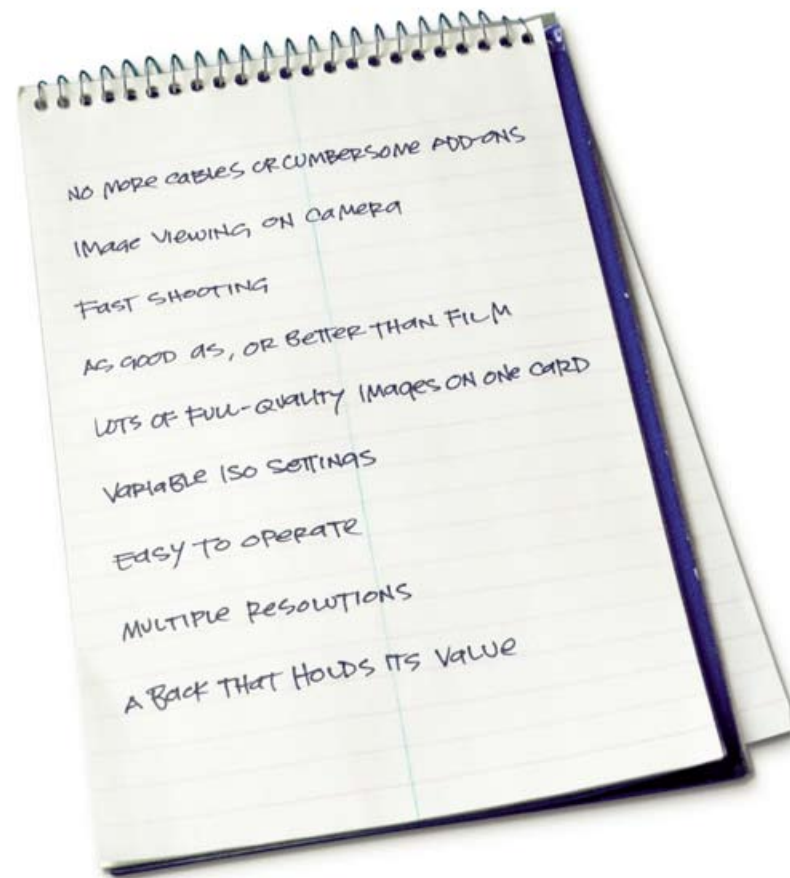
Strata has announced that its new Strata 3D CX now links to Adobe Photoshop and Illustrator files directly. Changes to a Photoshop document update the Strata surface texture automatically. Also, rendered images can be output with Photoshop compatible transparency data.

Native Illustrator CS, PDF and EPS files can also be brought in and expanded to 3D geometry. New modeling tools with Poly-splines and Meld. Hyper-Real Image Creation have also been added, as well as support for HDRI (High Dynamic Range Images) which can be used in textures or as Lightdomes to light a 3D scene. In addition, Strata's Raydiosity renderer has been improved in speed and accuracy to generate true light-energy based images.

Customers who purchase Strata 3D CX before July 31st receive a free copy of Strata 3D Vector. For more details, see [www.strata.com](http://www.strata.com).



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Events

- June 28-July 2 WWDC 2004 Worldwide Developers Conference,** San Francisco, CA
- July 1-11 New Designers Conference,** London, England (part 1 July 1-4, part two July 8-11)
- July 12-15 Macworld Conference & Expo,** Boston, MA
- July 15-17 InDesign Conference,** Boston, MA—PDF download available
- July 21-25 Type Con** San Francisco, CA
- July 22-25 Rhubarb-Rhubarb**—The UK's International Festival of the Image, Birmingham, England
- August 8-12 SIGGRAPH 2004, 31st International Conference on Computer Graphics and Interactive Techniques,** Los Angeles Convention Center, Los Angeles, CA

- August 28 Digital Photo Power Tour** presented by Zero2Digital.com, Brentwood, TN
- September 30-October 3 ATypeI** Prague 2004 Conference
- October 3 The Vintage Paper Show,** Toronto, ON
- October 14-16 GraficEurope**—Second Annual Pan-European Conference for Graphic Designers, Berlin, Germany
- October 14-17 Photo New York**—The First New York International Photographic Art Exposition, Metropolitan Galleries, New York City, NY
- January 10-14, 2005 Macworld Conference & Expo,** San Francisco, CA

Resources/Forums/User Groups

**HOW Design** forum for "Design Happenings"

- about.com** network—parent site of a network offering solutions, advice and topic discussion on 100's of topics with a variety of design, art, and technically-specific fields ([graphics.about.com](http://graphics.about.com), [desktoppub.about.com](http://desktoppub.about.com), [photography.about.com](http://photography.about.com), etc.), particularly useful for getting definitions of terms
- Graphic Design Magazines Online**—World Newspapers Graphic listing of magazines online
- GBIA** —Global broadband internet access public Wi-Fi Hotspot locator by country and city
- Wireless Bandit**—Self proclaimed "best database of Wireless Internet Hotspots in Toronto ON"; top 10 ways to fortify your Wi-Fi network more advice from digital bandit
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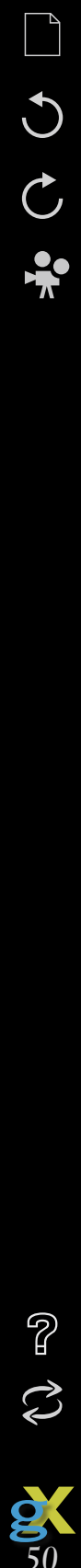
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**MacRumors**—Another Mac news and rumours site

**MacinTouch**—The “original” Mac site for really up-to-date information

**Think Secret**—Full of gossip, rumours and news leaks on upcoming Mac products

**Creative Pro**—Where the big boys in graphics post their official news

**MacDev Center**—Mac Development Center online of note: Panther maintenance tips



**daniWeb Tech Talk forums** —Techies unite! free help with your Mac; users must register before posting

**Mac Fonts**—Font resource page, areas for

free fonts

**Graphic Artists Guild**—Helpful people, with chapters all over the US. and satellite chapters in Canada



**iPod Lounge**—Supporting the largest selling peripheral of all time; 3 million users have a site to hang out and discuss all things iPod

**Design Directory**—International online design directory

**Soundtrack Lounge**—All things music and Apple-related



**MacJams**—Apple GarageBand user community

**iChat Finder**—If you've wanted to buy an

iSight camera but have no one to chat with, try this site

**Official GarageBand Site**

**MacMonkeys**—Digital art gallery, news, info and reviews, all done with a sense of humour



**Centre for Digital Humanities Innovation**—Malaspina University College, BC

**Canadian Centre for Studies in Publishing**—at Simon Fraser University, British Columbia

**Macteens**—Community for teen Mac users

**Good Tutorials**—Exactly as it says, mostly PhotoShop quick and dirty stuff

**KMUG**—Kingston MacIntosh User's Group

**ehMac**—Canada's Mac community site, Mac anything, help and troubleshooting, Mac Trading Post



**Print Planet**—Great discussion groups on everything from page layout to printing

**WebOptimization**—Monthly reports on broadband usage and high speed services

**Slashdot**—News for nerds



**Apple Canada**—The “MacDaddy”, so to speak, included here because so often we forget about the “Support” tab on this site—useful tools, online storage and, let's face it, it's cool to have an @mac.com e-mail address

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## Contests/Competitions

**Digital Curiosity 2004 Moving Media Competition**—Presented by Maisonneuve magazine, commercial competition open to Canada and the U.S., judges from Denmark, Los Angeles and Montréal, deadline July 5th



**Bigfoot Gaming**—Monthly or bi-monthly competition for icons, game themes, with cool prizes

**Adobe Digital Imaging Competition**—Contest closes August 10th, up to \$14,000 in prizes; open to photographers and digital artists world-wide

**Area of Design**—The Drench Award is held annually, honouring the best design in each of the following four categories: Art and Illustration, Graphic Design,

Photography, and Web Design; deadline for entries Nov. 1

**The Webby Awards**—Missed it this year, but still good to check out for next year

### Just plain cool things you can buy

**Tek & Toys**—All things wireless, located in Calgary, AB, also offers Live Help online, items for both Mac and PC

**Discount Mac Club**—All things Mac, all at discounted prices, located in Richmond British Columbia

**Think Geek!**—Okay, this site has more than just unique items for purchase;



how about a George Foreman iGrill that runs on your USB port, or a USB-powered air purifier, or a Swiss army Knife with USB memory stick included? For the secu-



rity-minded, what about a BioScan PCMCIA card that scans your fingerprint for entry?

**Mostly Mac**—Online store from London, ON; of note is the parent site this came from called [ShoppingCanada.com](http://ShoppingCanada.com), also worth checking out

**Small Dog Electronics**—New and refurbished Mac products, located in Vermont, USA

**Deals on Mac**—According to the website, “How to go broke saving money”

**IonOne**—Live ancient to digital magazine

### WeirdShit

**World Without Borders**—Semper Mac! is brought to you by the MacMarines, a community of Mac users from all over the world bound together by their loyalty to the computer “for the rest of us.”

**Patron Saints of Graphic Design**—Miracles performed on request! Think of all the aggravations that come from being in the design industry, then take a designer with a great sense of humour, and you have this site. St. Anxiété is a good reason to take up Yoga—positively brilliant, and a must see!



**Joe Cartoon**—Online comic, some good Flash animation

**Web Geek Stuff**—Web design help from one designer to another

**Bill Gates is Dead**—The URL says it all.

**Askmen.com**—Hang on to your hats, a site on the Internet devoted to electronic gadgets and all things men like

**Hacker Stickers**—Stickers for geeks, nerds and computers or cars.



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**The Real World Ikea**—Yup, you guessed it, another takeoff on MTV's The Real World, this time five strangers live in Ikea—except they never told Ikea

**The Joy of Tech**—Nope not about sex, but the next best things according to a techie

**Lorem Ipsum**—Ever wanted to know the history of Lorem Ipsum? Also has a generator to create paragraphs of the text.

**Find my geek**—online dating service for the technically minded

**Looking for a logo**—Downloadable EPS files of all major logos



**Famous Mac users**—Just what we needed, a listing of all the celebrities in the world who use Macs

**Jinx Wear**—Clothes made for hackers by hackers



**How much of a geek are you?**—Take this online quiz to see if a pocket protector is in your future

**The comic!**—By Daniel 4ing, story about a killer bunny and her friends

**Montréal WebCam Network**—Capture a bit of Montréal with a virtual visit, anytime,



anywhere in the world

**20Q**—Online game reminiscent of “20 questions”

**The Electric Clerk**—Must be seen to understand the experience of a retro-fitted prop computer

**Rent a nerd**—serving the entire Lower Mainland: West Vancouver to Langley, UBC to Maple Ridge! Need help?



**The Weird Site**—Just like it sounds, only weirder, and full of strange stories



**Duck Hunt**—Remember Nintendo, the first one? Oh yeah, the fun is back!

May not exactly be about graphics, but always full of graphic content

**Boobah Zone**—Not easy to describe, but try it, you'll like it

**The Drudge Report**—

**Shhhh Phreaks!!**

**Hotline**—Still around, now doing domain registration but Hotline Client and Hotline Server still exist at their tracker location

**Ircle**—Also still around, still great for “connecting” with other Mac users and sharing “information”; note Macfilez

**The Poisoned Project**—Remember Napster?

**Mac Underground top sites**— Some sites with things you shouldn't know

*This list of sites is simply a random selection of some of our favourite cyber destinations, which we will update with each new issue. They are presented here at no charge, strictly as a community service.*

*Got any favourite links that you think everybody should know about? Drop a note to Diane Erlich, gX Resources editor at [dianeerlich@mac.com](mailto:dianeerlich@mac.com).*

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# New Canadian documentary asks, are crop circles a form of "graphic exchange" from outer space?

Remember that classic 1950's sci-fi movie *The Day the Earth Stood Still*, where an alien named *Klaatu* lands his flying saucer in front of the White House and warns the citizens of Earth against extending their violence into outer space?

In *Star Dreams* (<http://stardreams-cropcircles.com>), an award-winning feature length documentary by British Columbia's Robert Nichol, aliens take a more subdued attitude, serving notice that we are not alone in the universe. This message comes in the form of gigantic geometric designs—known as crop circles—in wheat fields, sand, ice and, most recently, forest tree tops.

Critics of the movie point out that hoaxers have shown how crop circles can be easily created by trampling wheat fields with a board and string. In fact, websites such as [www.circlemakers.org](http://www.circlemakers.org) provide details on how to make your own backyard crop circles.

But most of these observers also acknowledge that not all crop

circles can be explained away as man-made. Circle makers say that the process of creating a fake crop circle can sometimes cause unexplained flashes of light, strange sounds, and other paranormal occurrences.

It's almost as if the ritual of creating a gigantic man-made geometric design invokes some kind of other-worldly response.

If crop circles are from an alien source, perhaps the aliens are leaving it up to us to try to decipher their meaning. And if some of these patterns are being produced by hoaxers, is it possible that we may actually be initiating a conversation, the beginning of a spectacular graphic exchange of images and symbols between civilizations?

As Nichol says, "Each year, the designs continue to grow in complexity. Some circles now contain patterns that can be instantly recognized as binary code patterns. Ones and zeroes are pressed down in the wheat fields to form a spiral formation, just like a giant digital DVD disc."

In *Star Dreams*, Nichol presents UFO theories from "Croppies"—crop circle followers—as well as farmers who have seen designs mysteriously appear overnight on their properties. What's really compelling about the film are the spectacular shots obtained from helicopters and ultralight aircraft. Film viewers leave the theatre spellbound, humbled by the experience of viewing what Nichol believes is an extraterrestrial language which is embodied in geometry.

An exclusive gX QuickTime movie trailer from Robert Nichol's *Star Dreams* allows you to view scenes from this stunning full length documentary (*high speed Internet connection required, click on the green crop circle image above*).



Click here to see the *Star Dreams* trailer. (2:39)

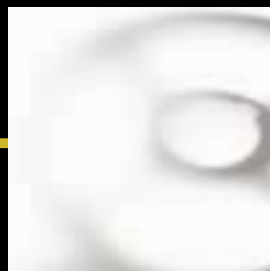




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