

— WRITING SAMPLE —

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Vancouver 2005 www.transcanfilm.com/stephenarthur

Canada Council for the Arts
Grants to Film and Video Artists - Production

FINAL REPORT

Ref. no.: 3207-02-0002

Stephen Arthur, director

Purpose: short animated film/video entitled "Tran Scan"

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January 22, 2003

8 pages

IN REFERENCE TO
FINISHED AND PACKAGED DVD
SUBMITTED WITH REPORT

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Executive Summary:

Tran Scan is an eight-minute, experimental-animation film based on the test results of my earlier Canada Council Creative Development Grant in Media Arts. This visual art film is an original means of "landscape pixilation" which travels in telephoto time-lapse clear across Canada.

The production phase was completed reasonably on schedule in spite of a significant increase in work time needed to execute it. Post-production took longer than planned. The total screen time for material created by this unique method was enough to produce the intended duration of the time-lapse film, but with a much reduced shooting ratio for editing choices. The proposed addition of brief morphing sequences of historical landscape paintings turned out to be impossible to obtain, however. Although the project took twice as long to complete as was originally scheduled—16 months to December 2003, rather than the eight months estimated in the original work schedule—the project was finished on budget by reducing the rates for fees paid, and by reducing some costs.

I believe the artistic intention of *Tran Scan* was realized, and in fact may be better without the juxtaposition of the painting-morphing sequences, allowing the film to be more widely accessible to the public, which I strongly believe it should be.

Activity log:

1. **July 3 (receipt of grant notification letter) through Sept 24: Preparation** for location shoot across Canada took six times longer than anticipated, even though rushing intensely seven days a week. The extensive pre-planning with topographic maps on CD-ROM took three weeks instead of one (partly due to software crashes). The shooting date was delayed by two weeks because, by the time the award was received, all camper vans were booked, leading to weather problems, reduced daylight shooting time, and no rear window for reverse shots, reducing options.
2. **Sept 24 through Oct 9: Drove across Canada.** We averaged 550 km/day for 14 days, arriving in Halifax with one contingency day to spare, as planned.
3. **Oct 12 through Feb 30: Processing shots:** averaged 1.3 person-weeks per shooting day, total 18 weeks, exhausting and actually very fast considering the difficulty of this unprecedented task. A total of **177 finished shots** were created from time-interval sequences of approximately 4,800 stills that were laboriously registered and stabilized by visual anchor-point tracking and frame-by-frame rotation-matching (all manually by eye), re-animated, colour-corrected, and rendered at anamorphic widescreen DVD resolution. The master files are 854 by 480 pixels in size (uncompressed AVI files, total size: 15 gigabytes).
4. **March 1 through 30: "Cleanup"** of stabilized shots took longer than expected—one full month for remaking shots, polishing rotations, frame removals, sharpening, colour correcting, reframing, reconstruction of missing edges, removal of unwanted artifacts such as rain drops, and recomposing of internal panning.

5. **April 1 through May 15: *Gathering/researching/soliciting*** for painting images for morphing... see below.
6. **May 20 through July 15: (1) *Editing/recompositing/rendering*. (2) *Reshoot and remake of opening shot* - one week. (3) *Satellite mosaic image beginning and ending* sequence processing, animating, compositing - one week. (4) *Trial ending morph* of Lawren Harris paintings, shown on the DVD as "Alternative Ending" - one week.**
7. **July 22 - Sept 26: *Soundtrack production***
8. **October 1st through November 15: *Final rendering*** for anamorphic DVD. ***MPEG-2 encoding***. Preparation of menu background images and ***authoring*** of interactive DVD (play-by-region to attract wider usage). Burning of DVD-Rs.
9. **November 16 through December 20: Promotion, mailouts, festival entries, dubs, etc.**

Problems and Solutions:

Equipment performed as planned. The only technical failure was the one large-size CF memory card, which became corrupted because of the excessive shaking of the vehicle. The footage was later retrieved with specialized recovery software after the shoot, but I had to buy a replacement card on location (Ottawa). This was a very minor breakdown considering the complexity and experimental nature of this method.

Weather: Shooting two weeks later than planned led to obscuring weather throughout Western Canada, especially in the Rockies at an early stage. We could not risk waiting a day, so this part did not turn out as spectacularly as planned, but I was able to recover acceptable shots proportional to the geographical distance. Fog throughout the prairies prohibited most of the very distant shots that had been planned, such as the Cypress Hills and Lake Winnipeg.

Compass failure due to engine magnetism: The compass could not be calibrated, therefore I could not easily predict the location and angle to start shooting the planned shot coming up ahead. There was no time to turn back if I missed it.

Time pressure was extreme; there was no time for retakes or stopping, and most of the planned side trips had to be skipped. Having no retakes caused a lot of extra processing/re-animating time to compensate for drifting of the tracking point too far to the side or out of frame. This was done by contrived panning within the cropped sequences, and re-registration of shifted anchor points (not the optimal effect hoped for). The Montreal shot was extensively planned, but was lost due to a freeway exit error right at sunset, with no time for a second take the next day. But by extensive work with pieces I cobbled together something useable. The shooting was so unrelenting that there was no opportunity to log shots as planned and prepared for, or even to separate the picture sequences into shots before burning them to CD. All this work was done later during processing, increasing work time significantly.

Topography versus trees: a disappointing "glitch" was finding far more blocking by roadside trees than indicated in the detailed topographic maps from which elaborate shot planning was done (printed out). Apparently these are planted for windbreaks or aesthetic curtaining by farmers or the government, but are not included as "wooded" areas on the topo maps. The worst case was along the St. Laurence, where several otherwise spectacular, long shots were blocked.

Truck vibration was far worse than anticipated. I had to make a choice of height versus vibrational damping, that is, a truck-based or a car-based vehicle. I used the budget contingency fund for professional camera mount equipment, as advised by Lorne Lapham Rentals Inc., to try to overcome this—but it did not really help. I often used instead a bean bag, pre-made as a backup. Between-frame shifts were so big that later in the reconstruction phase the tracking software was useless, and many frames with motion blur resulted as well, but have been left in to keep length and continuity.

Digital camera features intended for still photographers caused many unexpected delays (for example, power saving feature caused loss of settings, including focus). The time that could have been used for retakes was lost.

The automatic tracking software was not up to the task of "re-animating" the frames (because of the vibration), so the work was almost entirely manual, and significantly more extensive and exhausting than was hoped.

In spite of this, managed to reach the main goal of obtaining most shots longer than in the Creative Development test film, including many shots that are as long as proposed. Further, making the frame-display rate at 10 fps instead of 15 fps turned out to be better for the "pixilation" and "slower, heavier" look and theme that I wanted. This frame rate also extended the shot durations by 50%, allowing a ten minute film—but only by processing more of the raw material and managing with a much lower cutting ratio. The extensive planning does not really "show on screen," but the result nevertheless approaches the limits of what can be achieved by this method. So it remains relatively successful, just not as long, fixed, and contemplative as imagined. Many short loops were created to extend the film and show some of the nicer scenes, but rough assembly tests convinced me to sacrifice these to maximize the stability for the viewer (as intended).

The soundtrack increased in importance; elaborate synchronized effects, rather than music, was needed. Trials of scratch tracks with rough assemblies of the film showed that simple musical accompaniment is not suitable. Instead, tightly choreographed, moment-by-moment, synchronized sound effects had to be used to guide the viewer. This retained the immediacy, kept attention fixed on the subject, and avoided becoming just a form of "eye candy" as in a music video. This is similar to the approach I took for *Transfigured*, NFB, 1998.

The painting-morphing inserts had to be abandoned:

Although the full budgeted time was consumed in soliciting contributions of copyright permissions for artists' bodies of work (see Proposal), the overall response was at best pathetic and at worst hostile (for one exception, see below). Seeing that no significant permissions were being obtained, I came up with an alternative approach based entirely on public-domain images from a large number of book reproductions.

But this, too, was blocked. Even though there is no copyright in a non-creative photo of a painting—the NFB did not need permissions for using photos of Jack Shadbolt's work for my film *Transfigured*—it turns out that Canadian galleries now intend to "assert copyright" as a form of intimidation for control of images. They are doing this in spite of the fact that such rights are *not* provided for in the Copyright Act, and have *not* been established by any copyright case law (nor will they be). The National Gallery intended to charge access fees to public-domain images even if I did not get the image from them. By this point, the whole approach became unfeasible—and distasteful.

This travesty betrays galleries' mandates as publicly funded entities with a responsibility to educate and hold their collections in public trust. It makes the kind of art form that I've been developing over the last ten years virtually impossible to pursue further. It impoverishes rather than enriches Canadian culture. But this is the way of the future. Even the Ministry of Heritage is developing alternative legal ways to control photos of public-domain paintings, and even control image rights licensed to the user directly by the artist.

Finally, after I had been forced to abandon the paintings segments and had started editing with a new direction in mind, I received a permission letter from the Estate of Lawren S. Harris (unfortunately delayed for two weeks before being mailed back to me). I tried to work with Harris' works plus a few earlier public domain images. But since Harris did not paint the Prairies or Maritimes, and since there was little to go on for the whole of Western Canada in the public domain images, I had to abandon this approach also. A completed Harris-morph climax is now included on the submitted DVD as "Alternative Ending."

New editing approach:

Because of the removal of this juxtaposed material, I decided to take a strictly linear approach, focused on the geography, and therefore the shots had to be assembled in true chronological sequence. This made editing *much harder*, because it meant forcing most cuts to work where they normally would not. Remember: this is animation—there is only one take of one shot of each location, virtually no head or tail for trimming, and only rare shots can be omitted.

The only way to edit in sequence was to approach the edit phase as if it were a secondary compositing stage (colour matching, adding artificial wipes and mini-morphs, frames recomposed, etc.) entirely in After Effects. This could only be performed by me because of the much longer time required (not in real time; more like animation). I had to continue working with the original, gigantic, layered project files, and some shots had to

be recomposed from scratch. A professional editor could not have done this; a professional compositor would have cost a fortune; and transferring the materials off site may have been impossible anyway due to its massive size.

The true cost:

In the end, the amount awarded by the grant for labour costs, divided by the true total person-hours worked (including a month developing the proposal, plus writing reports, accounting, etc.), yields a true average pay rate of \$10/hour over 16 months (average about 55 hours a week, 6 days a week, no holidays, total roughly 4,350 person hours). When recalculating with a more reasonable average rate of \$20/hour, the "true" cost of producing this film would actually be far more than is implied by the two months at half subsistence rate for the director: in fact it's almost double what the grant provided. The true cost has been estimated to be \$105,000. This is the figure attested to in the promotional texts to help assert the *truly high production values* inherent in this unprecedented work.

A wider audience:

As producer of *Tran Scan* I would have to make \$50,000 in profit from sales of this eight-minute film in order to "break even." This is a second reason why the work was re-oriented somewhat (in postproduction, and especially at the interactive-DVD authoring stage), toward a "travel-documentary-spectacle" and classroom market (Geography), rather than the virtually non-existent art film market. I hope to find serious sales revenue. (*Tran Scan* is, nevertheless, a monumental creative work of experimental animation that is unlikely ever to be rivalled. *Tran Scan* remains a proud expression of Canadian culture and a very public advocate for arts funding.)

The final authoring of the interactive portions of the DVD (play by region) is now oriented toward possible school and home-video use, to obtain revenue. The DVD was submitted in December to seven non-theatrical film/video distributors in Canada (and seven in the USA also), and as a consequence I'm now in negotiation with a BC-based distributor to sell the DVD to schools (K-12 and post secondary) and libraries across Canada and possibly the USA. The distributor may also attempt to reach the Canadian home-video market through a proposed "premium and incentive" large-quantity sale to a company such as PetroCanada, where it could end up being widely seen and owned by the Canadian public as the result of a massive giveaway campaign.

A "career" as an experimental animator: The making of this film was so arduous, unpredictable, and exhaustingly long to complete that I am unlikely to ever again have the stamina to get through something like this. The financial and social reward is too small. In the avocation of independent animation, a strong artistic vision and motivation leads ultimately to a life of sacrifice and deprivation that is simply not a sustainable way to live. Nothing like this will ever be made again as an independent work. The possibility of eventually being hired to create similar "footage" in a foreign country on a much larger budget remains possible, but remote.

FINAL REPORT - file 3207-02-0002
FINANCIAL BREAKDOWN - January 22, 2004

COSTS INCURRED

Subsistence (during production and postproduction)

a) Applicant's subsistence \$2000 per month x 5.4 months x one applicant

Breakdown of activities:

- Shooting - technical preparation and topo-map planning	2.5 months
- Shooting - on location	0.6 month
- Process/animate (setup, direct, perform, color-correct, etc)	1.5 month
- Collecting images & technical evaluations	0.8 month

b) Applicant's subsistence \$1143 per month x 1.7 months x one applicant

Breakdown of activities:

- Reshoot/remake, satellite opening & alternative endings	0.75 month
- MPEG-2 encoding and DVD authoring	0.5 month
- Promotion and launching	0.5 month

Subsistence subtotal \$12,800

Production:

Production crew

Driver	2 weeks	\$2,400
Processing/match-mover/animation	4.5 months	\$11,985
Image search, liaison, corresp, gather, scan	5 weeks	\$3,500

Production equipment rental

Laptop computer (on location)	3 weeks	\$332
CD writer (on location & backup, output)	6 weeks	\$389
Digital still camera (on location and prep.)	3 weeks	\$1,200
Production workstation (see donations)	10 months	\$2,200

Travel

Camper van rental	16 days	\$2,720
One-way drop-off charge (Vancouver - Halifax)		\$550
Extra mileage charge		\$605
Tax on van rental, preparation fee \$55, & propane		\$475
Gas		\$1,255
RV hookups		\$390
Power inverter		\$75
Airfare Halifax to Vanc. one-way, on Jetsgo	2 persons	\$628
Airfare added fees (Nav-Ins Surcharge, GST, AIF, Security tax)		\$207

Production materials and supplies

Maps (see explanation)		\$881
CD-Rs 50-pack x3		\$77
Memory cards	- 3 weeks, plus emergency replacement on location	\$789
Card reader	3 weeks	\$90

Other

Long-distance telephone/fax		\$42
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Contingencies

Camera mounts	3 weeks	\$447
Vehicle-compass, roadmaps, electronic metronome, foam, logbook etc		\$193
Tolls (Confed. Bridge) and airport taxi		\$97

Production subtotal \$31,527

Post-production:

Post-production personnel

Editor/Composer/Renderer	6 weeks	\$4,200
<i>(revised method -- see text; slightly increased labour time, but no edit-suite costs at all)</i>		

Post-production materials and supplies

WorldSat satellite mosaic images (2) licenses		\$107
DVD-Rs		\$240

Post-production equipment rental

Production workstation (see donations)	6 months	\$1,320
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Sound/music

Design, record, edit, mix	9 weeks	\$6,500
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Promotional materials

Betacam SP dubs (anamorphic: 2 NTSC, 2 PAL; letterboxed: 1)		\$374
VHS dubs		\$65
Printing, festival entry fees, postage		\$634

Other

DVD authoring		\$753
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Post-production subtotal \$14,193

TOTAL EXPENSES \$58,520

REVENUES

REVENUES RECEIVED:

Grant received from the Canada Council for the Arts (first installment)	\$49,500
Grant received by the Canada Council for the Arts (second installment)	\$5,500

Donations

Production equipment rental: production workstation	\$3,520
<i>Applicant's turnkey computer hardware and software system</i>	
<i>based on previous rental to National Film Board for services contract</i>	
<i>at \$440/month x 16 months x 1/2 rate</i>	

TOTAL REVENUES \$58,520