

Aspen the Verb: Musings on Heritage and Virtuality

Abstract

Aspen, the picturesque mountain town in Colorado, is known for two processes, or “verbs,” relating to heritage and virtuality. One is to “moviemap,” the process of rigorously filming path and turn sequences to simulate interactive travel and to use as a spatial interface for a multimedia database. The other is to “Aspenize,” the process by which a fragile cultural ecosystem is disrupted by tourism and growth. This essay reflects on their significance and describes exemplary work integrating these two seemingly disparate concepts.

I Introduction

It’s July, 2003, and I’m back in Aspen. Actually not in town, but in Missouri Heights just above El Jebel, the small town a half-hour drive “down-valley” from Aspen, at my sister Judy and her family’s home. Judy is a local, having visited Aspen in the early 1970s and stayed. Like many of her friends who also stayed, she eventually married, had children, and moved down-valley. Real estate ads in this week’s *Aspen Times* list Aspen homes beginning at \$2 million and going upwards of \$10 million.

My first time in Aspen was 25 years ago, filming, of sorts. Several pulse-frame motion picture cameras were configured panoramically on top of a jeep and triggered by a fifth wheel trailing from the rear. We were filming one frame every ten feet, driving up and down every street in town and through every intersection every possible way.

That Judy lived in Aspen then was roughly Reason Number Four why a small group of MIT researchers, myself included, chose Aspen, Colorado, as the test bed for a new form of interactive experience. Judy worked at

“Aspen State Teacher’s College,” not a college at all but a local prank and small business selling t-shirts, mugs, and other college paraphernalia to tourists, mostly skiers and hikers. Judy’s local knowledge would be useful for production, it was concluded. The other two reasons were that Robert Mohl, another MIT researcher, grew up in Colorado and had professional photography experience around Aspen; and that the nascent Aspen Design Conference would be a befitting venue for presenting the project when it was completed.

Whoops, did I forget Reason Number One? Simply—because it was Aspen, an intensely beautiful mountain town with a single traffic light and a lively local community. Why fib? Aspen was a cool place and we all wanted to go.

2 The Aspen Moviemap—Place Representation

The Aspen Moviemap was the first interactive “virtual travel” project to incorporate photo-realistic images via computer-controlled videodisc. The project, which began in 1978, originated at MIT’s Architecture Machine Group, Nicholas Negroponte’s proto Media Lab. Andrew Lippman, already a long-time colleague of Nicholas’, was the Principal Investigator. Funding came from DARPA’s Cybernetics Technology Office, headed at the time by Craig Fields, who had already supported other projects relating to visual mapping. The Aspen

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Moviemap was an academic, non-commercial, non-classified project.

“Its goal was to create so immersive and realistic a ‘first visit’ that newcomers would literally feel at home, or that they had been there before,” recalls Andy Lippman. “DARPA realized the need after Israeli soldiers practiced for the recovery of an airplane hijacked to Entebbe by using an abandoned airfield made up to look similar” (Lippman, 2004).

The optical videodisc was a revolutionary technology then. Remember, if you can, 1978: 16mm film was the primary medium for all television news gathering; video editing was barely computerized; and storing moving pictures in computer memory was ten years away. The optical videodisc was capable of storing a half-hour of analog video (54,000 frames) and two-channel audio, with instant access to all the material via computer control. In early 1978, “ArcMac” received one of the first twenty-five prototype videodisc players from the MCA Corporation, and with it a contract to master three discs of its own.

That spring, an energetic MIT undergraduate named Peter Clay proposed “mapping” the hallways of MIT by mounting a 16mm film camera capable of shooting single frames on a dolly tripod, then wheeling it down the hallways triggering one frame every step he took. With the help of graduate students Bob Mohl and me, Peter shot the hallways. The footage was included on the “B-side” of the “Slidathon” disc, MIT’s first laserdisc. Peter and Bob made a simple computer program that allowed control of speed and direction moving up and down the hallways. Voila! “Virtual travel.”

That fall, then again in the winter, a small squadron from MIT descended upon Aspen to make a “sweep,” under the general direction of Nicholas, Andy, and Craig. The camera rig on the jeep was designed and operated by wildlife cinematographer John Borden, MIT undergraduate student Stan Syzaki, and me. Its footage was conceived as a backbone on which a comprehensive audiovisual survey of Aspen could be spatially organized. This survey included “micro-documentaries” by MIT Film/Video professor Richard Leacock; binaural sound collected by ArcMac faculty member Steve Gregory and graduate student Rebecca

Allen; tens of thousands of still frames, including of every building facade in town, shot in summer *and* in winter, and historical images rephotographed by ArcMac graduate student Scott Fisher; non-audiovisual data (which we called “data data,” e.g., cases of beer consumed per week and total number of beds), collected by ArcMac graduate student Walter Bender; and overview map ideas by UC Santa Cruz cognitive psychologist Kristina Hooper. Bob Mohl, who went on to write his PhD dissertation on the Aspen Moviemap, was everywhere (Mohl, 1981).

A sweep like this is not inconspicuous—driving down the center of the streets and photographing every facade—and the Aspen townspeople were characteristically nonchalant about our presence. Everyone, from the sheriff’s office to store owners to residents, was cooperative, if not amused.

The final project took shape back at the lab, where the material was organized, edited, and mastered onto a videodisc. The controlling software and interface design, with the additional help of ArcMac graduate students including Steve Yelick, Paul Heckbert, and Ken Carson, turned the mass of material into a singular virtual travel experience. By summer, 1979, the Aspen Moviemap was ready for its first demo, and it caught the attention of the press (see Figure 1).

Moviemapping, it seemed at the time, was destined to enjoy widespread popularity as a new medium for experiencing place, for virtual travel and virtual tourism. The dream was that popular tourist destinations, spectacular landscapes, sacred places, and heritage sites could be moviemapped and appreciated by many more people than could actually go there. It would be more experiential than magazine photographs and linear television shows. Indeed, it was most often referred to as “surrogate travel.”

Several participants from the original Aspen team went on in various permutations to moviemap Paris for the Paris Metro (1985), Palenque for the Bank Street College (1985), San Francisco for the Exploratorium (1987), Karlsruhe, Germany for the Center for Arts and Media (ZKM) (1990), and Banff for the Banff Centre for the Arts (1993) (Naimark, 1997).



Figure 1. *The Aspen Moviemap experienced in the “Media Room” at the Architecture Machine Group, MIT, c1980. The “traveler,” seated in an instrumented armchair, controls speed and direction of travel. Touch screens displaying map and aerial views allow access to additional multimedia material. (Photo: Bob Mohl.)*

The concept of community “sweeps,” often with the participation of locals and students, continued. In the early 1990s, the Apple Multimedia Lab organized a one-day sweep of Moss Landing, a small California coastal village. In the mid 1990s, the UC Berkeley Center for Design Visualization and the UNESCO World Heritage Centre led groups to sweep various cultural heritage regions in Europe. New digital technologies for capture, modeling, and display continue to add greater possibility and practicality to moviemapping.

Moviemap—the verb—made Aspen an exemplar of what place representation using new media technologies can be.

3 Aspenization—Place Control

But the verb more popularly associated with Aspen than “to moviemap” describes something else. To “Aspenize,” says one long-time Aspen public official, is when small towns “choke on what their charm has brought them.” Aspen has become the poster town for this process, and its emblematic image is a mountain landscape foregrounded by an airport full of private jets (see Figure 2).

The word “Aspenization” first appeared nationally in a 1993 *Newsweek* story about Crested Butte, another picturesque Colorado mountain town:



Figure 2. “Traffic jam” of private jets at the Aspen Airport. (Photo: Paul Conrad, *The Aspen Times*.)

A town [Crested Butte] with such attractions is a natural target for what people in Colorado call Aspenization: the upscale living death that fossilizes trendy communities from Long Island’s Hamptons to California’s Lake Tahoe. Aspen was a splendid place, too, before it was discovered by the rich and famous—and the greedy and entrepreneurial. Now it’s a case study in overdevelopment. Its lavish second homes sit empty for most of the year while three quarters of the work force, who can’t afford to live there, commute from 40 miles down-valley—a two-hour trek at rush hour. (Gates, 1993)

In 1998, the *New York Times* described Aspenization and housing costs:

Welcome to Aspen, home of the most expensive residential real estate in the nation. Last year, the typical home here sold for \$1.5 million—12 times the national average. “Doctors in Aspen are just blue-collar workers,” said Mallory Harling, an obstetrician-gynecologist who lives in public housing with his wife, Karen. . . . With “Aspenization,” a scare word in the region, the saga of roaring real estate prices in Rocky Mountain resorts can best be told in this silver mining town, built over a century ago at the end of a box canyon, at the top of the Roaring Fork Valley. . . . In 1996, a house at the base of Aspen Mountain sold

for \$9 million. Last summer, a house atop Red Mountain sold for \$19.7 million. This spring a 67-acre ranch and house just outside town is on the market for \$24.8 million. Real estate agents sniff that \$1 million will buy only a “fixer-upper.” Elsewhere in town, rents are on a par with New York City. . . . “Affordable housing is absolutely fundamental to our efforts to keep Aspen real,” said John Bennett, Aspen’s Mayor, who has seen about 70 percent of the city’s private housing become vacation homes. “We don’t want to be just an empty theme park, full of houses that are occupied only a few weeks out of the year. We want to remain a real-life town, with living, breathing people who have real jobs.” . . . Aspen residents joke that their town is divided into two groups: people with three jobs, and people with three houses. (Brooke, 1998)

“Aspenization” has since been used to describe growth and development in towns from Santa Fe to Whistler and from Hawaii to New Zealand.

For better and for worse, Aspen has earned this transformation into a verb. The Aspen locals have a long and spicy history of trying to maintain control of their community. In 1969, “gonzo” journalist and Aspen local Hunter S. Thompson cofounded the “Freak Power” party. Its mayoral candidate Joe Edwards ran on an anti-development platform that included, among other things, replacing the paved roads with sod to slow down development. Edwards lost by six votes. The following year Thompson ran for sheriff of Pitkin County, the much larger region, and lost by 500 votes. If ever there were tipping points in the history of US anti-development movements, these Aspen elections may have been as close as it came.

But Aspenization isn’t simply about being anti-wealth. Sister Judy: “The rich used to come here and wear flannel shirts and jeans.” Adds Michael Kinsley, Pitkin County Commissioner in Aspen in the 1970s, “There was an unspoken ethic here that the rich had to look and act like everyone else. Aspen was one of the few places where Jack Nicholson or Goldie Hawn could walk down the streets and nobody cared” (Kinsley, 2003).

Aspenize—the verb—made Aspen an exemplar of what happens when local custodians lose control of the place.

4 Representation Equals Control

That Aspen spawned both Moviemap and Aspenization is noteworthy for several reasons. First, issues surrounding place representation, as exemplified by the Moviemap, and issues surrounding place control, as exemplified by Aspenization, are two of the most prominent issues surrounding heritage sites. Second, these two professional communities tend to be of different cultures and rarely interact: they drink in different bars. Finally, evidence suggests that representation and control are deeply interconnected.

Consider the work of UC Berkeley Geography Professor Bernard Nietschmann. His early fieldwork in the 1960s was on the Caribbean coast of Nicaragua working with the Miskito, Sumo, and Rama Indians. In the early 1980s, reports of relocation and murder of coastal Indians by the Sandinistas compelled Nietschmann to see for himself, and he went in “unofficially.” Nietschmann, who at the time was Chair of the UCB Geography Department, was the first American in this region during the conflict, and he returned not shy about taking an aggressive pro-indigenous stance. His 1984 article in *Co-Evolution Quarterly* journal, with his ample use of the phrase “Miskito Indian Warriors,” received the highest number of angry reader responses in the journal’s history. *CQ* assigned another writer to go to Nicaragua for a second opinion (Nietschmann, 1984; Baker, 1985).

Eleven years later, Nietschmann published another report, in Harvard’s *Cultural Survival* journal, outlining a different paradigm, of making maps instead of using guns. Using portable Global Positioning Satellite (GPS) gear, Nietschmann worked with local Miskito teams to remap their territory. In 1991, as a direct result, the Nicaraguan government created a 4,000 square mile Miskito Coast Protected Area, under the control of the Miskito people (Nietschmann, 1995).

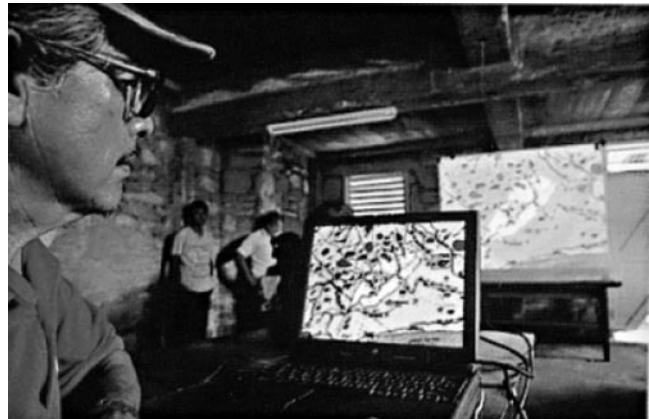


Figure 3. “Media Room” set up for production of the *Maya Atlas* in the basement of the church, San Antonio, Belize. (Photo: Bernard Q. Nietschmann.)

In the mid-1990s, Nietschmann was invited by 42 Maya villages in southern Belize to help them map their own territory, to win a Belize Supreme Court battle against corporate land use. In 1997, the villages collectively authored the *Maya Atlas*. The *Atlas* has become an important educational and legal instrument, as well as an aesthetically vibrant “coffee table” book (Toledo Maya Cultural Council, 1997); (see Figure 3).

Nietschmann summed things up succinctly: “Maps are power. Either you will map or you will be mapped” (Nietschmann, 1997).

As we move forward with our powerful new tools for place representation and virtual heritage, the questions remain “by whom?” and “for whom?” With travel and tourism representing 10% of the global economy, there’s a lot at stake to get it right. But it’s painfully easy for the outside holders of the technology, rather than the local providers of the content, to set the rules. Without balance and cooperation between both, the loss will be everyone’s, particularly ours.

Acknowledgments

A colleague once joked that if everyone who claimed to have worked on the Aspen Moviemap were to convene for a reunion, it would have to be held in Denver because Aspen is

too small. I gratefully acknowledge the review and fact-checking of the Moviemap text by Andy Lippman and Bob Mohl.

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Bernard Nietschmann was a longtime mentor and personal friend. Once, on a boat with Barney on the Rio San Juan in Nicaragua, I made the very dumb mistake of referring to our location as the "middle of nowhere." He blew up at me and screamed "What is nowhere?!? There is NO nowhere!" Barney, who died in 2000, was uniquely gifted at bridging cultures.

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