

For the PBS series *Smart Travels: Europe with Rudy Maxa*, Seattle's Small World Productions left its Betacam SP gear at home and hit the road with HDCAM.

By Peter H. Putman, CTS

On April Fools' Day last year, *Smart Travels: Europe with Rudy Maxa* became the first regularly scheduled HDTV series to air nationally on PBS stations. The premiere was no joke, as the weekly travel series began a run of 13 consecutive half-hour shows both acquired and broadcast in HD. Since that first 13-week run, the series has been re-broadcast several times from start to finish under an one-year exclusive broadcast agreement between PBS, distributor American Public Television (APT), and Smart World Productions, which produces the travel series. As the agreement expires this month, HDNet will join PBS in broadcasting the original 13 high-def episodes of *Smart Travels*.

Meanwhile, Small World's Seattle-based production team already is in pre-production on another 13 episodes, which are scheduled to debut on PBS in April 2003. Like the first 13-part series,

this one will be shot exclusively in 1080i with a Sony HDW-700A camcorder on location throughout Europe.

This HD makeover represents a significant technical shift for the small production company. After a run in the '90s of six successful travel series, all of which were shot in Betacam SP, Small World was looking to do something dramatically different with *Smart Travels*.

"HDTV was a way to differentiate ourselves from the crowd in this mass of syndicated programming that public stations must choose from," says John Givens, the show's executive producer and a founding member of Small World. "Our thought was: If a PBS station was already transmitting a digital signal, they'd be able to show a true HD program and not just wide-screen SDTV."

Production of *Smart Travels*, which is Small World's first foray into HD, also involves Seattle PBS station

KCTS-TV, and UWTV at the University of Washington. Boston's APT distributed the first 13 episodes in both HD and letterboxed NTSC versions to nearly four dozen PBS stations in the U.S. More than 270 stations are expected to carry the second series in NTSC, and virtually all public stations with HD transmitters will broadcast it in HD.

Featuring National Public Radio's "savvy traveler" Rudy Maxa, *Smart Travels* has taken viewers to European destinations in Italy, France, England, Belgium, the Netherlands, and Denmark. Each episode provides a clever, entertaining mix of travel tips, including recommendations on

Senior contributing editor Peter H. Putman is the president of Roam Consulting Inc., Doylestown, Pa., where he reviews large-screen displays and computer interfaces. His website can be found at www.projectorexper.com. Email him as vspete@projectorexper.com.



world travelers



The first 13-episode series of *Smart Travels* took viewers to Winchester, England, to see a statue of Alfred the Great (above), and on a boat ride through the canals of Copenhagen, Denmark.

attractions and places to eat and stay, as well as advice on using public transportation and ATMs. With the *Smart Travels* crew planning to leave next month on its second trip to the Continent with HD gear in tow, we thought it was a good time to ask them to reflect on their first high-def experience overseas.

Wanderlust

Givens and the Small World staff began producing travel shows as a way to get out of the office and see the world. The idea was to produce travelogues and syndicate them while having some fun on vacation. And they had quite a bit of early success, starting in 1986 with three pilot shows shot with double system 16mm film.

In 1990, Small World began shooting *Travels in Europe*, a forerunner to *Smart Travels*, in Betacam SP, preparing a new 13-part series every other year to keep the information and tips up to date. By 1998, Small World had cranked out 52 episodes using Betacam SP as the mastering format. As 1999 loomed and another series was in the offing, the decision was made to shoot in HDCAM using a Sony HDW-700A camcorder owned by KCTS.

"We had to have programming with more impact. There had to be some extra reason for the PBS stations to carry it," says Jerry Morin, technical production supervisor at the University of Washington. "When we were making this decision, we were looking at the FCC requirements for digital television, as well as the push to get more HD programs out there. And one of the things we asked ourselves was, 'How long will this material, once we shoot it, be viable?'"

With the industry-wide push for HD programming, the show's production team quickly realized its Betacam footage might have a limited shelf life. "We told ourselves, 'If the rest of the industry is moving to 16:9, all that 4:3-format travel footage we have on the shelf is going to start aging pretty soon' — as it already is," Morin recalls. "It was 10 years old in some cases. Some of the attractions aren't even there any more."

Of course, making the transition to high-def wasn't easy. There were financial considerations to deal with, for instance. "That was really the thing John had to wrestle with: How could he keep the costs of HD production from driving him out of the game?"



continues Morin. "He wasn't going to be able to do what he did with Betacam, which was purchase the hardware outright and come back out of the field and begin editing. That was just not going to be a possibility in the HD world three years ago, unless you just happened to have \$500,000 lying around."

The answer was to form a three-way partnership between Small World, KCTS, and the University of Washington. KCTS already had a Sony HDW-700 field production package, which had previously been used to tape and

Above, host Rudy Maxa (right) poses with cameraman Tom Speer above the town of Cassis in the south of France. Speer had to rely on natural light to shoot Europe's most famous landmarks, including the Cathedral of Genoa (right) in the Italian Riviera, and Michelangelo's *David* in the Accademia Museum in Florence, Italy.



produce *Rainier: The Mountain* for PBS. This same camera would wind up traveling across Europe with the Small World crew.

Not only did the camera make the trip, so did the cameraman. Tom Speer, senior television photographer for KCTS, wound up behind the viewfinder as the result of a unique production deal struck between Small World and KCTS. Speer would make the trip and Small World would prepare Betacam dubs of all the HDCAM footage for KCTS in return. "KCTS was our preferred partner because we wanted Tom to shoot the program," says Givens, adding that Speer was one of the first people to advocate that the project be

exteriors, and interiors a lot faster. They were aided in this process by producer Susan McNally, who scouted many of the locations and secured the necessary permits to shoot inside churches and art museums normally off limits to commercial video crews. Her command of Italian came in handy, too.

"In every case, we worked to make arrangements ahead of time," Givens says. "You can't arrive casually at the front door of San Marco Cathedral and ask if you can walk in and start taping. Sue went ahead of the crew and worked with the Italian tourist office and got their endorsement. They look at what we're talking about and talk through all the issues to find out if we're legiti-

leave the standard-definition camera at home and shoot with the HDW-700."

Givens adds that the crew didn't take anything along that couldn't be carried around and kept close at hand during the entire shoot. That meant using lots of lighting tricks and modifying existing lights for operation off compact battery packs. Throw in some extra filters and polarizers, and the results were numerous beautiful shots captured by the HDW-700 using one or two lights and natural fills. "Our mission was to do the best we could do with what we had," Givens says. "Think about it — you could never light the Cathedral of Notre Dame, even if you could get permission to get in there. That might cost thousands of dollars. If you were going to bring a grip truck in and try to light it, you'd spend days lighting for a few shots."

Instead, the Small World crew relied on its scout team. "The advance crew had a script they'd written out," Speer says. "It's not a shot list as much as a rough script with lots of cross talk. I call it 'shooting the nouns.'"

"If the such-and-such church was known for gargoyles and so forth, you get the gargoyles, you get the buttresses, you get the general flavor and feel for the place and then try to add a few things in," he continues. "If there are candles burning near a great work of art, you have someone hold a sun gun and a spot on the painting or sculpture, then get down low and shoot up so the candles add highlights. That's the decision-making process, and it takes all of about two minutes."

The *Smart Travels* episodes were all shot with one lens — a compact, wide- to medium-angle Canon HJ9x5.5b IAS (5mm-50 mm), to which a telextender could be added for long shots. Speer's intent was to have viewers feel as if they had actually gone to each location with the crew. He tried to provide the perspective of someone sticking their head around a corner and seeing each attraction for the first time, as opposed to the typical, composed wide-angle master or establishing shot.

There was a practical reason for depending on a wide-angle view, as well. He needed the freedom to handhold a shot while walking through crowds, tunnels, up and down stairs, and even riding along inside trains, buses, cars, and canal boats. These wide-angle shots give *Smart Travels*

shot in high-def. "We worked out a deal to pay a fixed amount to KCTS for Tom's time on the shoot, although we wound up working him a lot more than expected."

Speer, who will also be behind the lens for the upcoming series, recalls this unique arrangement, which essentially made his services part of the rate card for the HDCAM system. "Small World would have hired me away to shoot the program in any event, so the station decided that as long as they were going to lose me for that amount of time, Small World Productions would pay KCTS directly instead of paying me," he says.

On Location

Shooting HDCAM in Europe meant the crewmembers had to be fast on their feet. Since several members had previously traveled in Europe, they were able to select and shoot scenics,

mate or not. If they endorse us, it helps us greatly in working with the local tourist offices."

Thanks to effective planning, Small World's four-person crew usually spent a maximum of five days at each location, first getting the list of "must have" shots and stand-ups, then taking whatever free time was left to ad lib. In essence, they shot as a news crew, but tried to make the final product look like a documentary while maintaining an average shooting ratio between 10:1 and 12:1.

"The big difference over our previous SD shoots was that the HDCAM tapes are damned expensive," Speer says. "All other expenses — airlines, hotels, etc. — were the same. All we did besides writing scripts differently, having a different host, and using different images, was to go out with the same number of people we went out with for the Betacam SP shoots, but

its trademark interactive feeling. Instead of a series of picture-perfect post-card shots with a narrator intoning in a dramatic voice, Speer and his HDW-700 follow Rudy Maxa onto a bus, stroll with him through the ruins of Pompeii, hop into a small boat with him to skim across the harbor in Venice, and even get lost in a hedge maze outside London.

Of course, packing a small light kit presents dynamic range challenges for any video camera. "I tend to shoot hot," Speer admits. "Anybody reading this article who knows me will say, 'Aha, he's admitting it!' When I'm looking through that lens — we don't travel with a waveform monitor and all that — I want to see into the shaded spaces. So, if I'm shooting a face, I want the face to be right and the background explodes. I tend to want to expose to the part that I'm interested in and that I want the audience to be interested in."

For high-contrast scenes, Speer used an array of ND filters to even things out. "You take a graduated neutral-density filter and instead of putting it on the horizon, you turn it 90 degrees so you're shading the bright side of the street and letting the dark side come into the clear part of the filter and even out the ambient light that way. The ND 'horizon' doesn't actually have to go on the horizon."

In the end, Speer says working in HD changed his view of shooting video. "There is something about HD that seems to have a greater latitude than standard definition has had," he says. "I don't know the reason because I'm not an engineer. I do know the camera's giving you the benefit of the doubt, because a lot of things just look better. It's not a matter of HD being harder. HD is actually easier because the camera sees so much more. It's like cleaning your glasses and seeing everything in sharp detail."

Stateside

Once the footage was assembled, it was up to editor David Ris to assemble it into two versions — an 1080i HD air master for PBS and a 480i SDTV master to be used both for analog broadcasts and for dubbing VHS tapes for retail sale. Ris, who will also edit the second HD series, was one of the few people trained to use the University of Washington's HDCAM edit suite, which was originally built by Sony to explore the various uses of digital media.

The offline edit was done on an Avid Xpress system in the Small World offices. "David really was the push behind the Avid here," Givens says. "He's familiar with the systems and can figure anything out. Not only is he a good editor, he then was able to do the conforming — the online process at the University of Washington — because he's familiar with their HD system, too. He was actually able to build all of that editing momentum from Avid to final project. It didn't have to go through six different people."

letterboxed video rather than try to pan-and-scan or take a center frame from the HD footage. "If we were going to knock off the right and left edge of these HD 16:9 images to fit 4:3 in a visually driven series like this, it would have made it incredibly difficult because we had Rudy doing stand-ups way over to the left or right of a frame," Speer says. "We made that decision to stick with 16:9 for the SDTV versions before we even went into the field."

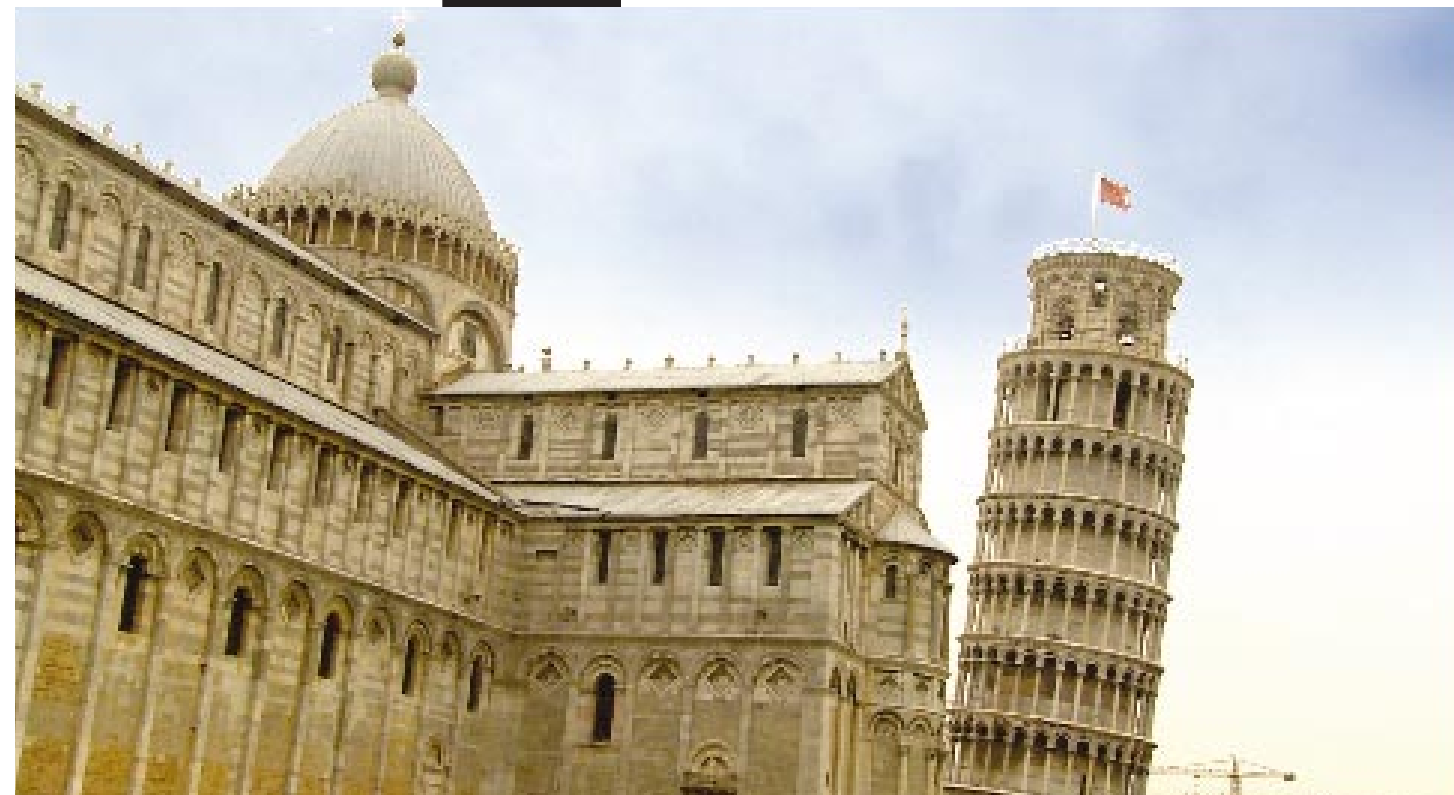
Ris had a chance to do some additional contrast correction in post,



While many travel shows rely on post-card-perfect wide-angle shots like the one above of the village of Gordes in Provence, France, *Smart Travels'* trademark is its handheld shots, such as the scene to the left of a boatride in Bruges, Belgium. For the scene below, editor David Ris did a blue-sky correction in the University of Washington's Sony HD online suite.

thanks to some less-than-cooperative weather conditions that often resulted in washed-out, cloudy skies — great for diffused lighting on Rudy Maxa, but not good for getting a punchy backdrop with museums, church spires, and towers. The answer was to experiment and apply a sky color texture, which took some time to get right.

"I had to learn how to do blue-sky corrections on the Sony HD switcher," Ris recalls. "*Pisa* [Episode #104] was my very first try, and I was surprised that I could get any correction at all. The buildings were sort of off-white, and the sky was white-white. I was just impressed that we could get any blue back there, but a lot of times it didn't look real. Once



we got past the technical part of soft-matting in the blue, we started thinking very critically about what the sky should look like."

Speer adds that neutral-density filters, which are commonly used to bring down the sky in less-than-ideal shooting conditions, didn't work in this instance. "The problem was, if there's a church spire sticking up you're going to darken the spire, too," he says. "We had a lot of overcast skies early on, and there were plenty of these foreground/background lighting problems. Since we didn't have a helicopter handy, the shots we got are from ground level, which forces the viewer to look up at buildings and churches. But David finally figured out a way to clean up the sky."

Interactive Travels

Because travel programs are so rich in images and content, they would be a natural for future distribution as interactive programming. To watch Rudy Maxa show you the best place to buy a pizza or get a latte is one thing, but to click an icon and have a virtual Rudy plan your itinerary would be even better. This begs the question: Has the *Smart Travels* production staff given any thought to distributing a DVD version of the program?

"It's a question of economics," Givens says. "Authoring a DVD master costs anywhere from \$1,000 to \$5,000. If you were striking individual copies, it wouldn't make sense to do small runs of discs."

There's also the matter of finding the time and money to develop the DVD content. "The price of mastering and producing DVDs is going down, but that is basically another wholly scripted project with its own budget," Morin says. "Plus, by the time you get through editing one series, John is out beating the bushes trying to scrape enough money together so we can go out for the next *Smart Travels* series."

"DVD-ROM is something John has entertained on occasion with a number of people and a number of different projects," Morin adds. "He has worked with people who produced a DVD-ROM of earlier programs in the *Smart Travels* series using John's footage. Yes, it's a really good format. Yes, it's exciting. The important thing is that all the HDCAM footage we've acquired will hold up long enough so that when it becomes economically viable to distribute a DVD, we can do it." **vs**