

Right: Harvey used the R-D1 at ISO 1600 to photograph Italian revelers. Below left: Harvey at 12, with his first Leica.



David Alan Harvey takes the world's first digital rangefinder to Tuscany. Here, the veteran Magnum photographer tells *American Photo* what it's like to shoot the old-fashioned way—and get digital pictures.

**M**ore than any other documentary photographer we can think of, Magnum's David Alan Harvey always seems to be a part of what he is shooting. His pictures, which have appeared for over thirty years in *National Geographic* magazine, don't feel as if they were made by a detached observer. In fact, a big part of the photographic process for Harvey is to get to know his subjects until they "forget" about him. That's one luxury of the Geographic's long-term assignments, which have taken the photographer from Vietnam to Brazil's Bahia region. "I make a life there," says Harvey in *Magnum Stories*, a new Phaidon book that profiles all the photographers working for that legendary agency. "Then I photograph that life." The result is that Harvey's images have an extraordinarily natural quality.

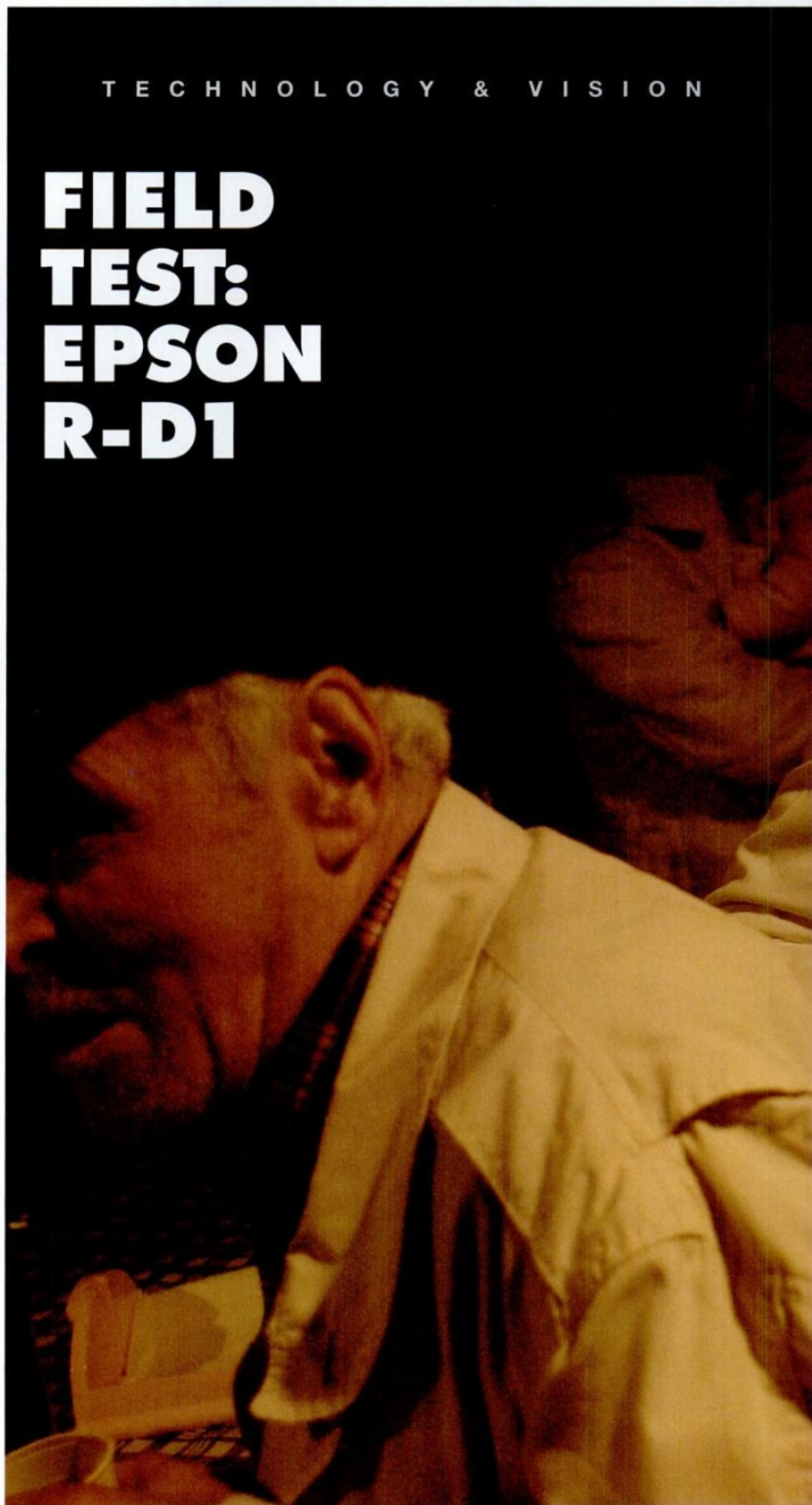


To help him become one with his subjects, Harvey has always shot with a 35mm Leica rangefinder. The camera's low profile and quick, quiet operation allow him to do his work without distracting his subjects. So

when *American Photo* needed a photographer to field-test the new Epson R-D1, the world's first digital rangefinder camera, we thought of Harvey first. The photographer was on his way to Italy to receive a lifetime achievement award from the University of Pisa, and he took the new camera along. On the following pages, Harvey describes what it was like to shoot the Tuscan scene with a trusty manual-focus rangefinder—and get digital pictures.

TECHNOLOGY & VISION

## FIELD TEST: EPSON R-D1





Harvey kept his Epson R-D1 set to ISO 1600 to give the same "texture" to all the pictures he took in San Quirico, Italy.



I bought my first Leica rangefinder when I was 12, with money from my paper route. A camera store owner in Virginia Beach, where I grew up, realized how passionate I was about photography and let me pay for it in weekly installments. He said, "Here, take the camera home, and after you do your collecting bring me 10 or 15 bucks." It was a Leica IIIb, and when he first gave it to me he told me to go next door to the drugstore and shoot some pictures. My friends were hanging out there, and once I tried the camera—up to then I'd been using a borrowed 4x5 Speed Graphic—I said, "That's it for me." The Leica just seemed like the right thing.



Harvey hitching a ride in Hanoi.

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### Epson R-D1: Pros and Cons

**Pros** Combines the intuitive operation of a classic rangefinder camera with high-quality digital capture; solidly constructed

**Cons** 1.5X focal-length conversion factor limits widest angle of view to 42mm (35mm-

equivalent) unless an external accessory (hotshoe-mounted) viewfinder is used

**Bottom Line** Dream camera for rangefinder-using documentary and street photographers who want to go digital

I got interested in photography really early because, being in a small town, my main sense of the outside world was through magazines and books—the printed page. At the local library I got into Robert Frank and Henri Cartier-Bresson, and then all the photographers at *Life* and *Look* and *National Geographic*. I devoured everything with and about photography that I could get my hands on. I took pictures of my family constantly, printing them in a darkroom that my mom built me and putting them in albums for my grandparents. I also used the pictures in a family newspaper that I "published." So the rangefinder just became part of the way I see and relate to the world, and simplified my photographic life beyond belief.

Everything in my last book, *The Divided Soul*, was shot with a Leica and basically the 35mm lens, occasionally the 28mm. For what I do I don't need a lot of different lenses. I don't shoot news, I don't shoot sports. I shoot the world as it exists from about four feet to about 15 feet in front of me. A rangefinder is the perfect camera for that, and I think I'm really one of the few professional magazine photographers who use it pretty much exclusively.

Being such a hard-core Leica guy, I felt really comfortable when I picked up the Epson R-D1. There was an incredible feeling of familiarity. I didn't have to read the instruction manual to figure out how to use it. All the controls are where you expect them to be and operate smoothly. It's a Leica down to the fake film-advance lever—which really only cocks the shutter—except that it captures images digitally. It was especially nice to be able to focus the way I'm used to. I've used AF SLRs, digital included, but there's nothing like that solid rangefinder focusing, where you really

know you're right on the mark. The R-D1 is a sweet little camera, very rugged and well put together.

I worked with the camera mostly in the Tuscan town of San Quirico, where I teach workshops every summer. Just about everything I shot was at night, at effective speed settings as high as ISO 1600, in JPEG. There was a festival there that week, and I saw a couple of guys with accordions playing from house to house. I followed them around and took pictures of them, and we became friends. Soon I was hanging out and drinking beer with them.

Though I was most influenced by Frank and Cartier-Bresson, as a photographer I'm different from them, and not just because I shoot color instead of black and white. Neither of those guys went inside people's homes or inside their lives. They were both stand-back, fly-on-the-wall photographers. I'm a participant, I get inside. I'm usually sitting at the same table with the people I'm photographing, so they sort of forget that I'm there to take pictures. It's a different way of getting a natural photograph.

Digital photographers go on about how useful it is to be able to review pictures you've shot on a camera's LCD screen. The R-D1's screen is nice to have, but if you work the way I do you need to be wary of it. If you stop to look at what you've got so far you can lose the rhythm of your shooting. But there's usually a little moment when you can share the pictures with your subjects. And I found that this can actually be helpful because so much of what I do is about being with people, public relations with people. You just don't want to spend too much time doing it.

Though at six megapixels the R-D1 is on the low side by cutting-edge D-SLR standards, its



image quality looked great to me, especially considering that I was working in the dark with slow shutter speeds and high ISOs. I maxed out the pictures on a big 30-inch monitor, and they totally held up. I think I can easily make big prints from the files.

The rub with the R-D1 is that unless you want to put an auxiliary viewfinder on the hotshoe, and frame and focus through two different windows, the widest lens you can use is a 28mm. And because of the R-D1's smaller-than-35mm chip, this gives you the equivalent of a 42mm lens in 35mm terms. The narrower angle of view can be restrictive, but it does force you to discipline yourself; you have to

jockey for position a little more. I'm a one-film, one-lens guy anyway. The 21mm Leica lens would be ideal on the R-D1, about equivalent to 32mm, if only you didn't have to compose with the separate finder.

Even though I'm totally used to it with my Leicas, I felt odd using the R-D1's so-called film-advance lever. True, it does cock the shutter and maybe save a little on battery life, but Epson might want to eliminate it the next time around. The camera is a rangefinder to its core, but every once in a while you remember that you're not shooting film—and you feel a little silly flipping your thumb out after every shot! —AS TOLD TO RUSSELL HART

## AT A GLANCE: EPSON R-D1

World's first coupled-rangefinder digital camera • 6.1-megapixel (effective), APS-C-sized CCD sensor • Two resolution settings: 3,008x2,000 pixels and 2,240x1,488 pixels (2:3 aspect ratio) • One JPEG compression ratio, plus RAW • Accepts over 200 L- and M-mount Leica-type lenses, including Voigtlander optics made for 35mm Bessa-series rangefinders (adapter required for L mount) • 1.5X focal-length conversion factor (to 35mm equivalent) • 1X (life size) viewfinder; manual focusing only, by superimposing dual subject image in rangefinder patch • 28mm, 35mm, and 50mm viewfinder frame lines set manually with switch on top deck; automatic parallax correction when focusing (due to smaller-than-35mm sensor, 35mm-equivalent focal lengths are 42mm, 53mm, and 75mm respectively) • Accessory hotshoe-mounted D-series finders available for 12mm, 15mm, 21mm, and 25mm lenses • Effective speed range from ISO 200 to ISO 1600 • Aperture-priority and manual exposure control • Autoexposure compensation in third-stops up to +/- two stops; exposure lock button • Vertically traveling focal plane shutter with speeds from one to 1/2,000 second, plus bulb (flash sync 1/125 second) • Two-inch, 235,000-pixel tilt/swivel color LCD screen for picture review, histogram inspection, and menu setting (no live image feed); can be turned face-in • Stores images on Secure Digital memory cards • Top-deck analog display shows image quality setting, shots remaining before memory card is filled, remaining battery life, and white-balance setting • No USB, FireWire, or video-out ports; files on card must be downloaded and/or displayed with Secure Digital card reader • Black-and-white mode with digital "filters" • Supports Print Image Matching (PIM) II, EXIF Print 2.21, DCF 2.0, and DPOF 1.1 • Traditional PC socket and threaded mechanical cable-release socket • Comes with Adobe Photoshop plug-in (version 7.0 or higher, Elements 2.0 or higher) and stand-alone application for Epson ERF (RAW) files • Magnesium alloy exterior, die-cast aluminum chassis • 5.6x3.5x1.6 inches; 1.3 pounds with Li-ion rechargeable battery • About \$3,000



# A Perfect Fusion of Past and Present

## EPSON R-D1s Rangefinder Digital Camera

NG CHONG SENG

The Epson R-D1 was the first digital rangefinder camera and was a joint development by Seiko Epson and Cosina Voigtlander. And in March this year, Epson announced an improved version of this already remarkable camera – the R-D1s. Like its older sibling, the R-D1s uses a six-megapixel APS-C size sensor and supports Leica M (bayonet mount) and L (screw mount) lenses. The latter is done via an adapter. What this means is that you can probably use all your treasured Leica lenses, the wide-angle Helion lenses, or even the Nokton series of zoom lenses from Voigtlander or Cosina.

So what improvements can we expect to see on this camera? Other than a new RAW+JPEG shooting mode, other prominent changes include a new Adobe RGB color space option (in addition to sRGB), a Quick View record review function, a long exposure noise reduction, an improved playback magnification of up to 16x (works for RAW files too), and better direct printing features (e.g. support for Print Image Matching III technology), among others. Along in the package, you will get the EPSON PhotoRAW 1.2 RAW conversion software that is able to output a 13.54-megapixel interpolated resolution image from a 12-bit RAW file for those who need to print large. Also bundled is a RAW plugin for Adobe Photoshop. Images are recorded onto an SD card, and the camera uses a proprietary rechargeable Lithium-ion battery.

The largely magnesium alloy body gives the R-D1s a very solid feel in our hands. It is slightly bigger than the Leica M2, but way more compact than a conventional SLR. Those used to a SLR (or DSLR) camera may experience a steep learning curve when they first handle the R-D1s. But as time goes by, you will find that some of these “awkward” control placements actually make an awful lot of sense. At the end of the day, the advantages of a rangefinder camera over a SLR (or a DSLR) are obvious: it’s lighter, smaller, and also far quieter during operation.

A lot of thought has gone into the design of the R-D1 and now the R-D1s. The latter is virtually identical to its

predecessor in terms of physical design – which in turn was based on the Bessa R2 housing. In case you haven’t realized, all the upgrades in this latest revision are actually coming from the software side. The needle gauge (or status gauge) on the top shows you the remaining shots, image quality, white balance, and battery life. Much like a chronograph watch, this analog gauge tells you most of the things you need to know at a glance (it’s quite a nice change from the usual boring digital displays too). The knob beside this gauge is the shutter speed/ISO dial. To select the shutter speed, simply rotate the dial to your desired value. To unlock the setting, just depress the release button behind the shutter speed dial while rotating the dial. To adjust ISO sensitivity, you will need to pull up and rotate the outer ring of the dial.

Setting the image quality and the white balance is a no-brainer as well. Below the shutter charge lever is an image quality/white balance lever. Simply flick it to the parameter you wish to adjust and rotate the jog dial (at the far left of the camera) to change the settings. Capture quality can be set to RAW/RAW+JPEG, high resolution JPEG or normal resolution JPEG. A needle pointing to the scale along the perimeter of the status gauge will tell you the approximate number of exposure left on your SD card. There’s no command dial to change your aperture of course – this is done via the lens aperture ring on your lens. The focus ring on the lens is used to converge the double-image into the center of the bright-line frame





Resolution, noise performance, and overall image quality were as good as the best 6MP DSLRs in the market. Photo by: Rajesh Narwani, PhotoVideo



>> “...We had no problems capturing up to 35 successive JPEGs but had to wait for the buffer to clear after just three RAW captures...”

when you look through the viewfinder. Needless to say, the life-size 1.0x viewfinder pictures a very bright and large view. A gentle reminder for new users is to remember to cock the shutter lever before hitting the shutter release button.

On the rear of the monitor sits a 2.0-inch, flip-out-and-rotate LCD monitor. Like a DSLR, you can review your photos but not preview them during framing. During use, we hardly needed to use the monitor, other than a couple of occasions where we had to format the card, or to check the histograms. The menu system was logically laid and in all honestly there wasn't a lot of settings to play around with – everything was kept simple and neat. Navigation was mostly done using the jog dial (where the rewinding knob should be if it's an analog rangefinder) and a couple of buttons (mostly Menu and Enter). At the rear of the flip-out LCD is a field of view (FOV) conversion scale. Since the R-D1s has a field of view crop of about 1.5x, a 50mm lens will have an effective FOV of a 75mm (in 35mm format). With the scale, there's no need to waste time doing mental calculations when you change lenses. By the way, there are three choices of framing lines depending on the focal lengths of your lenses (28, 35 and 50mm) and they

can be adjusted via a lever on top of the camera (beside the hotshoe). As mentioned earlier, the playback zoom function now works for the RAW files and goes all the way up to 16x. There are also three film profiles: Film1, Film2 and Film3. For each of them, it is possible to further customize parameters such as edge enhance, saturation, tint, contrast and noise reduction. By default, Film1 is best used for portraits, Film2 for landscapes, and Film3 for night shots.

The R-D1s's continuous shooting speed was very good for JPEG but only fair for RAW. We had no problems capturing up to 35 successive JPEGs but had to wait for the buffer to clear just after three RAW captures. ISO performances were good throughout the range. In short, it is on par with most 6MP DSLRs in the market in terms of noise. Exposure was spot on 99% of the time, and we certainly had no problems with the pleasing colors that we observed. If we had any gripes, it would be the rather poor battery life. After shooting about 300 RAW files, we were surprised to see that the battery needle was dangerously near the End level. So our two recommendations for would-be R-D1s owners: get the fastest SD card you can afford and an extra battery while you are at it.

At the end of the day, we had nothing but praise for the Epson R-D1s. The handling was great and the body size and weight felt just right. Overall it was a joy to use – and best yet, there wasn't much we could pick on in the image quality department. However, there's one tiny problem that we think will prevent the R-D1s from flying off the shelves: its incredible S\$3888 price tag.



**SPECIFICATIONS**

Resolution	Lenses	FOV Factor	LCD	Price
6.1 megapixels	Type M and L bayonette	1.53x	2.0-inch	S\$3888 (body)

**Sensor:** CCD, 23.7 x 15.6 mm, APS-C format, 6.1 million pixels effective resolution  
**Lens mount:** EM lens mount, supports most Type M and Type L mount lenses (latter requires an adapter). Lens mount depth of up to 20.5mm. Conversion factor: 1.53x  
**Shutter Speed:** 1–1/2000 second, bulb; Sync: 1/125 second  
**Aperture:** Timed automatic and manual modes; +/- 2.0 EV in 0.3-EV steps (only in AE mode)  
**ISO Sensitivity:** ISO 200, 400, 800, 1600  
**Viewfinder:** Double-inverted Galileo viewfinder, 1.0x magnification, format frame switchable 28/35/50 mm, parallax balance  
**LCD Monitor:** 2.0" TFT LCD, 235,000 pixels  
**Formats:** 13.54MP (interpolated with Epson Photo Raw 1.2), 6MP (12-bit RAW, JPEG EXIF 2.21), 3MP (JPEG EXIF 2.21)  
**Color Space:** sRGB, Adobe RGB  
**B&W Modes:** Standard, green filter, yellow filter, orange filter, red filter  
**White Balance:** Auto, shade, clouds, artificial lighting, neon lighting, sun  
**Flash:** Flash and accessory shoe  
**Storage:** SD card  
**Print Standards:** DPOF, Epson Print Image Matching 2.6, EXIF print, Print Image Matching  
**Power:** Epson EPALB1 lithium-ion battery (charger included)  
**Dimensions:** 142 x 88.5 x 39.5mm  
**Weight:** 590g

**HWM'S VERDICT**

Physique: **8.5**  
 Features: **8.0**  
 User-friendliness: **9.0**  
 Image Quality: **8.5**  
 Value: **7.5**

**9.0**  
 Out of 10

Don't belittle this retro-looking camera. For DSLR-only users, try it and you will realize what you've been missing all this while.

