# RESOURCES

## Shaman, Bless This Lab How to cross the cultural divide when working overseas



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Ah, globalization. What seems charming and exotic in the pages of *National Geographic* becomes downright maddening when you're trying to get business done on deadline, while navigating the seemingly bizarre customs and social rituals of a foreign location.

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Whether you're an American project manager working in Shanghai, a German engineer on contract in the Middle East, or an Indian software developer trying to make it in Paris, the ability to work across cultures is becoming as important as engi-

neering prowess—particularly as hightech firms open more and more overseas facilities, engage in multinational projects, and outsource to companies in still other countries. Not to mention that, for engineers moving into management positions, overseas postings are often key to ascending corporate ladders. The most successful will be those who can most readily adjust to local business norms.

Accepted practices in one country are sometimes taboo or irritating in another. America's "time is money, so what can we get done today" expediency is at loggerheads with the more circuitous Latin, Asian, and Middle Eastern dance of engaging prospective business partners over lengthy meals and conversation. The Western concept of using contracts to establish cast-iron rules for every possible future scenario is absurd to Asians. In their view, contracts are merely a sign that you can now do business together, which itself is an ongoing process of give and take. Excessive drinking is a sign of weakness in America-but of mettle in Japan. Asking someone's age is a no-no in the West, but a way of determining social hierarchy in the East.

Some customs are so downright disorienting that you just have to give up and go with the flow. When Los Angeles—based Michael Blum was sent to oversee the design and programming of a new television studio in Singapore, Blum never dreamed his job duties would include hir-

ing a Hindu priest and a local shaman to bless the building before people felt comfortable working there.

Universities have begun taking notice of the trend toward globalization and the difficulties that can arise when working in a foreign environment. Many now offer degrees in international engineering, as well as trips abroad designed to help technology students bridge cultural gaps. But

## TIPS FOR FITTING IN WITH THE LOCALS

- Be curious, positive, nonjudgmental, patient, and humble. Learn some basic greetings and phrases in the local tongue. Speak slowly and try not to use jargon. Instead of stating what you think is right, be more inclusive, such as asking, "What do you think about doing it this way?"
- Join an expat community for support and information.
- Leave a lot more time to accomplish business across cultures.
- Stay on an exercise regimen during short business trips, and build time on the front end to acclimate to the local time zone.
- Be circumspect during business meals that require drinking. Leave a lot in your glass, so the host won't keep refilling it.
- Use your own interpreter who knows the culture, not one hired by your hosts. Get a sense of the interpreter's style before negotiating with hosts.
- Understand how women and minorities are viewed in the other cultures, and learn which ones honor credentials over race or gender. Sometimes there's an advantage to being a novelty.

businesses are lagging behind. Several consultants I spoke with note that many hightech companies need to be more aggressive in such training, while others question the wisdom of a new corporate trend in coping with culture shock: setting up isolated expatriate communities that leave little room for day-to-day interaction with locals.

"The biggest challenge to those working internationally is one of awareness of cultural differences—and understanding them without judgment," says Mary Teagarden, professor of global management at Thunderbird, The Garvin School of International Management, in Glendale, Ariz., and a contributor to the book *Expatriate Management: New Ideas for International Business* (Quorum Books, 1995).

"That's why many people who work in high-tech fields get into trouble," Teagarden says. "Engineers are not only trained to make judgments but, by nature, tend to be decisive people who come to the point quickly and defend their positions. Cross-cultural understanding demands the opposite."

Another consultant, Loren Shure, a U.S. software designer with The MathWorks, in Natick, Mass., successfully sought out common ground in presentations to audiences abroad. She honed her skills during a sixmonth stint in Sweden and on other business trips to England, Australia, Taiwan, South Korea, Singapore, and China.

"In engineering circles, no matter where you are in the world, people are very passionate about their preferred operating systems," Shure says. "So I sometimes started a presentation by saying, 'How many people use Linux versus Microsoft?' I'd hear geeky giggles from the audience."

"When I speak to audiences, I try to get them involved," she adds. "In shyer cultures, like Asia, Finland, and Sweden, I had to make it okay for them to get out of their comfort zone. So I'd say, 'I'm guessing that most of you would prefer to sit quietly. For every good question I get, I'm giving away a MathWorks T-shirt.'"

If you're considering going to another country for a lengthy stay, planning your move requires more than just reading up on the local culture. You have to be as honest as possible about your own strengths and weaknesses and about how you might react to a challenge. For example, a person from a community-oriented culture might have good social skills but lack self-reliance. That could be a problem when moving to a more individualistic culture, like the United States.

"We are the product of our context, so



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we lose ourselves when we move to another country," says Margalit Rabinovich, an Israeli-born family therapist in Newton, Mass., who specializes in issues of relocation and cultural interaction and works extensively with foreign computer engineers. "It makes people feel less good about themselves. They start to question their ability to perform their jobs, and it creates a negative loop. If you understand this ahead of time, you can prepare for it."

Engineers do have one advantage, thanks to the nature of their work. "Engineers around the world tend to be like-minded and share the common language of technology," says Redha Alhaidar, who noticed this bond while working in his native Saudi Arabia as a liaison to expats. He has since earned a master's in communications, culture, and technology from Georgetown University, in Washington, D.C. "It's sometimes easier for them to fit into a different culture, because their exchange is science and math—it's one plus one equals two. It's not about different opinions or politics. So they often can come to an agreement or consensus more readily."

What does this all add up to for the peripatetic engineer? Establish working relationships by building from common ground, think before you speak, and remember the old adage, "When in Rome, do as the Romans do." Try to enjoy, or at least accept, the differences between the local culture and what you're used to. You could end up having the time of your life—and help your career to boot.

#### ABOUT THE AUTHOR

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#### TO PROBE FURTHER

The University of Washington, in Seattle, maintains a guide to books and Web sites relating to business culture, etiquette, and customs around the world at http:// www.lib.washington.edu/business/guides/ culture.html.

A database of sites addressing international business and culture by topic is available at http://dmoz.org/Business/Business\_ Services/Communications/Crosscultural.

### **HARDWARE FOR YOUR SOFTWARE RADIO**

How to get to the cutting edge of radio technology BY STEPHEN CASS

TOYS b

What's going to be the next big thing in wireless technology? My bet is software-defined radio, and thanks to a piece of hardware called the Universal Software Radio Peripheral, or USRP, you can get right to the bleeding edge today.

TOOLS Currently, adding an audio, video, or data stream to a radio signal so it can be broadcast—a process known as modulation—is nearly always done by dedicated electronics. The same is true with the reverse process—demodulation—required to receive a transmission. Radio waves can be modulated in any number of ways, and each way requires different circuitry. This is why you can't, say, use a TV designed for the U.S. NTSC broadcast standard and expect it to work in Europe, which uses mostly the PAL standard.

The idea behind software-defined radio is to do all that modulation and demodulation with software instead of with dedicated circuitry. The most obvious benefit is that instead of having to build extra circuitry to handle different types of radio signals, you can just load an appropriate program. One moment your computer could be an AM radio, the next a wireless data transceiver—and then perhaps a TV set. Or you could leverage the flexibility of software to do things that are difficult, if not impossible, with traditional radio setups. Want to broadcast an emergency message on every FM band? Scan a dozen walkie-talkie channels at once? Or design and test a new wireless data protocol? No problem with the software radio.

Researchers are currently using software radio-based systems to help them work on problems in realms that include radio astronomy, telecommunications, and medical imaging. Already a number of commercial products rely on software radio.