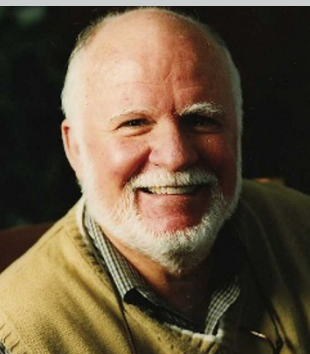


# MOVERS

**Billie Turner, Gilbert F. White chair in environment and society, School of Geographical Sciences, Arizona State University, Tempe, Arizona**



**2004–present:** Director, Graduate School of Geography, Clark University, Worcester, Massachusetts  
**1995–2008:** Milton P. and Alice C. Higgins professor of environment and society, Clark University  
**1991–97:** Director, George Perkins Marsh Institute, Clark University

When Billie Turner started his career as a geographer in 1974, the term ‘sustainability’ had yet to enter the lexicon. Turner, now one of today’s leaders in sustainability science, used a knowledge of geography to demonstrate how humans, not just nature, can shape Earth’s landscape.

Turner was attracted to geography as an undergraduate at the University of Texas at Austin because it was one of the few disciplines that bridged the social and biophysical sciences. “Geography gave me greatest latitude to define the environmental contribution of humans,” Turner says.

He ended up studying agricultural intensification while pursuing his PhD at the University of Wisconsin in Madison. In doing so, he overturned long-held assumptions about ‘efficient, low-input’ agriculture practised by the Maya civilization in the first century AD. Mayans, he found, actually ran intensive, land-denuding operations.

Later, as an assistant professor at Clark University in Worcester, Massachusetts, Turner turned an international symposium called ‘The Earth as Transformed by Human Action’ into a noteworthy book with collaborator Robert Kates (Cambridge Univ. Press, 1991). “We realized little was known about humankind’s role in global environmental change,” says Turner. “It was a black box.” Kates says Turner helped crack open that black box by creating interdisciplinary physical, ecological and social-sciences programmes to determine, for example, the causes and consequences of deforestation and desertification.

To that end, Turner helped create the Marsh Institute at Clark University in 1991. The institute united the university’s efforts to assess land-use change and pioneered ecological project sites, such as a biosphere reserve in the Yucatán peninsula of Mexico, which models forests’ vulnerability and resilience to climate change and human disturbance.

Turner will continue his life’s work as the latest of several top-notch recruits to Arizona State University (ASU; see *Nature* 449, 372–373; 2007). “I share the notion of breaking down departments and recasting schools to answer pertinent questions of the time,” says Turner of ASU’s aim to reinvent the university ethos. He plans a partnership with the ASU School of Sustainability to build, for example, mechanisms that can assess and promote both economic and environmental progress if and when the Kyoto Protocol (or something similar) gets enforced in the United States. It’s one way, says Kates, that Turner will help ASU make the transition from “great promise to accomplishment”.

**Virginia Gewin**

## BRICKS & MORTAR

### Focus on health disparities

A US centre launched last month aims to tackle the growing problem of health disparities among minority ethnic groups. The National Institutes of Health (NIH) Center for Genomics and Health Disparities is headed by Charles Rotimi, former director of the National Human Genome Center at Howard University in Washington DC. “The mission here is to use genomic tools to understand health disparities,” Rotimi says. Ailments such as heart disease, diabetes and some forms of cancer are often more prevalent, harder to treat and more deadly in African Americans, Latin Americans and Pacific Islanders. Investigating the environmental, cultural and socio-economic reasons is an active area (see *Nature* 452, 382–383; 2008).

With an annual budget of \$1.7 million, Rotimi plans to hire three or four staff scientists, several technicians and many postdocs. Adebowale Adeyemo, for example — a genetic epidemiologist and colleague of Rotimi’s at Howard — has researched populations in Kenya, Nigeria, Ghana and China, and investigated genetic factors in diabetes, high blood pressure and obesity that differ by ethnicity.

“We have accumulated tremendous resources over the years, including 8,000 DNA samples from around the

world,” says Rotimi. “These are good data for postdocs to work on.”

Rotimi plans to work closely with other NIH institutes, such as the National Center on Minority Health and Health Disparities, much of whose \$200-million budget goes into extramural research. Other potential collaborators include the National Human Genome Research Institute and the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), which addresses many diseases that afflict minorities. “There’s a limit to what we can do,” says Rotimi. “But as this is trans-NIH, we can form collaborations.”

NIDDK director Griffin Rodgers is especially interested in looking at how treatments affect groups differently. One trial showed African American patients’ response to hepatitis C treatments was unlike that of the general population. “Whether there are potential genetic components of this has to be explored,” Rodgers says.

Collaborations will help involve researchers holding extramural grants in diseases such as high blood pressure, diabetes and prostate and breast cancer, Rodgers says. “This could serve as a focal point, to train not only intramural researchers at the NIH, but also clinical people,” he notes.

**Paul Smaglik**

#### POSTDOC JOURNAL

### The very hungry postdoc

Damselfly larvae (*Lestes viridis*) literally have deadlines, and it stresses them out. As the nights draw in and winter approaches, the remaining larvae in a pond try to complete their life cycle. They accept greater risks: feeding in the face of predation, mobilizing fat reserves and reducing their immune response. Ecological theory supports their strategy. As their deadline nears, the balance of costs and benefits shifts and risky activities become more attractive.

Last Saturday I was mulling these thoughts over with a cup of coffee. My colleague Thomas had just e-mailed me the decision letter for our latest paper and I’d spotted the ‘reject’ punchline. It was a downer. Although used to the ups and downs of academic publishing, I still find rejection a bitter pill.

Like the larvae, I find my own deadline nearing and cost-benefit balances shifting. Yes, I’m biased, but the paper deserves a good journal. However, I’m also applying for jobs and an assured, fast publication has its attractions. If I had time, I would be realistic but aim high. If I were a damselfly I might aim higher still, accepting more risk. Or I could aim lower and ensure quick publication. I must find the strategy that helps me complete my life cycle. After all, it is an insatiable appetite for papers that usually allows postdocs to metamorphose into stunning professors.

**Jon Yearsley is a senior postdoc in evolutionary genetics at the University of Lausanne in Switzerland.**