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Selects
Noah's Flood: The New Scientific Discoveries

Noah's Flood: The New Scientific Discoveries
About the Event That Changed History
by William Ryan and Walter Pitman

Growing up in a Catholic Irish household, I learned early the story of Noah and the flood. It is one of the most powerful stories in the Judeo-Christian tradition, one guaranteed to capture the imagination of a child. What I hadn't realized though, until reading William Ryan and Walter Pitman's fascinating book, was how widespread this story is, how many cultures and traditions possess a similar myth. For example, the Epic of Gilgamesh, a legend from ancient Mesopotamia that was recorded 4,000 years ago, also includes a vivid description of a world-devastating flood. As an earth scientist, I find that intriguing. Could the myth be more than a myth? Ryan and Pittman make a convincing case that it is.

They are far from the first scientists to raise this issue. In my sedimentology class, students learn to describe sediment deposits as recorders of the earth's history. In doing so, I tell them, they are following the example of Leonardo da Vinci, who was, among his countless achievements, an excellent sedimentologist. He sketched studies of sedimentary

# NOAH'S FLOOD: MYTH VS. REALITY

rocks and landscapes, often to develop them later into backgrounds for his paintings. These sketches reveal considerable detail and understanding of sedimentary processes. In his notes, he wondered why all of these rocks, deposited by Noah's floodwaters, were standing on edge. He also noticed a marine fossil included in the sediments and wondered how this creature could have made its way from the ocean depths to a mountain top in 40 days. Clearly some of the great minds of science have puzzled over aspects of the flood myth.

Ryan and Pitman belong in this category of scientific great minds. Among Pitman's claims to fame are the magnetic time scale, the series of polarity reversals recorded in sediments and rocks that allow us to determine their ages. Ryan's research has uncovered data indicating that about five million years ago, water could no longer flow between the Atlantic Ocean and the Mediterranean Sea, and as a result, the Mediterranean dried up. During that time, it should have been possible to walk from Casablanca to Rome.

Ryan and Pitman's flood studies, which they share in the book, provide strong geologic, biologic, and linguistic evidence that a gigantic flood occurred some 7,600 years ago in the Black Sea. Prior to the flood, the Black Sea was a freshwater lake. As the ice sheets melted and sea level rose, water in the Mediterranean rose and flowed over the Bosporus Sill, rapidly filling the Black Sea. They, Ryan and Pitman, calculate that the salt water rose half a foot a day. The human inhabitants who lived on the sea's shores had to find new places to go. Thus began a diaspora, which would carry Black Sea inhabitants and their sophisticated agricultural techniques to the areas near the confluence of the Tigris and Euphrates rivers and around the world. These inhabitants would also carry the story of a disastrous, roaring flood where "the waters swelled so mightily that all the high mountains under heaven were covered."

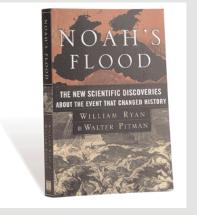
I like Noah's Flood on so many different levels and have used it in my general education science courses. In these courses, my goal is to prepare students to continue to learn about science after they complete the class. This type of book can be an excellent source of information. I rely on general science volumes myself to learn what is going on in other areas of science. Many, if not most, of my students have never read a general science book. After reading one for a class assignment, most report having enjoyed it and claim that it increases their likelihood of reading another such publication in the future.

Noah's Flood is a particular favorite of mine because it gives students a sense of how science is done, the creativity and detective work involved. Da Vinci didn't have access to cores from the Black Sea that show the sharp boundary between the fresh water lake organisms and Mediterranean marine organisms, and to carbon dates to show that these changes were geologically continuous; nor did he have seismic reflection profiles that show scouring and erosion near the mouth of the Black Sea. But Ryan and Pitman did and used the information to develop a theory about the actual events that led to Noah's flood.

I like the way the two writers describe how science is done. People often have the mistaken impression that scientists work in isolation, spending time dressed in their white coats in a lab, puzzling over data and experiments. Although that is certainly a part of science, it's not the whole story. For the most part, science is very collaborative.

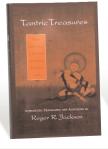
How many single-author papers are published? Very few. One of the real pleasures of being a scientist is the collaborative nature of our work, sharing ideas, discussing data, planning for future experiments or expeditions. I think this aspect of the scientific process comes through clearly in the book.

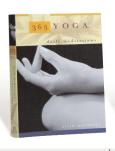
I also have personal connections to the work, which makes it especially appealing. Ryan was my Ph.D. adviser, Pitman a good friend, and many of the people mentioned in the book are friends and colleagues. I especially like the connection with Wesleyan graduate Candace Major '94 (pictured in the book on page 130). As a rising senior, she accompanied Ryan and Pitman and the other scientists on the Russian vessel Aquanaut to collect cores and seismic profiles. It is a kind of project that can take hold of a person, and Candace continued on to Columbia University for her Ph.D. Now, after a post-doc in France, she's working at the Woods Hole Oceanographic Institution. She did not plan to major in earth science when she arrived at Wesleyan, and I hope other students in my classes will follow in her footsteps. Of course, her work has added changes to the Ryan and Pitman story. That's what science is about.



## Fall 2004 Books

Our seasonal selection of noteworthy books by Wesleyan alumni, faculty members, and parents.









Boston Globe, is an upclose look at the inner workings of the New England Patriots football team. The book focuses closely on the work of Belichick '75, the Super Bowl-winning head coach known for his skill at strategizing.

#### POETRY:

ROGER R. JACKSON '72, Tantric Treasures: Three
Collections of Mystical Verse from Buddhist India
(Oxford University Press, 2004)

SARAH HANNAH GOLDSTEIN '88, *Longing Distance* (Tupelo Press, 2004)

CHRISTINA PUGH '88, *Rotary* (Word Press, 2004)

VERA SCHWARCZ, PROFESSOR OF HISTORY (POEMS), CHAVA PRESSBURGER (PAINTINGS), In the Garden of Memory: Paintings and Poems (March Street Press, 2004)

#### NONFICTION:

CHRISTOPHER '81 AND CATHERINE BROOKS, **60 Hikes Within 60 Miles: New York City** (Menasha Ridge Press, 2004) ALICE CRONIN-GOLOMB '79 AND PATRICK R. HOF, EDITORS, Vision in Alzheimer's Disease: Interdisciplinary Topics in Gerontology, Vol. 34 (Karger, 2004)

MICHAEL EDMOND DONNELLY '73, The Use of Science and Technology in Service to Children in Courts (Peter Lang Publishing, 2004)

DAVE LINDORFF '71, This Can't Be Happening:
Resisting the Disintegration of American
Democracy (Common Courage Press, 2004)

DANIEL R. MEIER '82, The Young Child's Memory for Words: Developing First and Second Language and Literacy

(Teachers College Press, 2004)

JULIE RAPPAPORT '85, 365 Yoga: Daily

Meditations (Jeremy P. Tarcher/Penguin, 2004)

JULIET B. SCHOR '75, Born to Buy: The

Commercialized Child and the New Consumer

Culture (Scribner, 2004)

CLARA SILVERSTEIN SCHNEE '82, White Girl: A Story of School Desegregation (The University of Georgia Press, 2004)

JOHN S. TJIA '79, Building Financial Models: A Guide to Creating and Interpreting Financial Statements (McGraw-Hill, 2004)

RACHEL VENNING '88 AND CLAIRE CAVANAH,

Sex Toys 101: A Playfully Uninhibited Guide
(Fireside, 2003)

#### OF NOTE:

Patriot Reign: Bill Belichick, the Coaches, and the Players Who Built a Champion

(William Morrow, 2004)
by MICHAEL HOLLEY, former sportswriter for the

#### **WESLEYAN UNIVERSITY PRESS**

AMY AGIGIAN, Baby Steps: How Lesbian

Alternative Insemination Is Changing the World

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### JONATHAN CUTLER,

#### ASSISTANT PROFESSOR OF SOCIOLOGY

Labor's Time: Shorter Hours, the UAW, and the Struggle for American Unionism

(Temple University Press, 2004)

Cutler's fine and original new study focuses on changes that occurred from the 1940s to the 1960s within organized labor in the United States and traces its influence on the decline of the shorter hours



movement. The book investigates the political context in which the movement emerged within Michigan's Local 600 chapter of the United Automobile Workers and then chronicles the attempts by Walter Reuther, the head of the UAW, to suppress the demand for 30 hours' work and 40 hours' pay within the union. He reveals how the Local 600's organizational flaws allowed Reuther and the national union to gain control of the chapter and to silence the movement. Cutler also considers the role the Communist Party played in the controversy.

#### PETER PEZZELLI '81

#### Home to Italy

(Kensington Publishing Corp., 2004)

In his first novel, Pezzelli weaves the delightful tale of Peppi, a widower who was married nearly 45 years and decides to leave the emptiness of his Rhode Island home to return to Villa San Giuseppe, a small village in Italy's Abruzzo region where he spent his childhood. There he reconnects with Luca, his best friend from his youth, and resigns himself to a lonely life in a quiet place. But then he finds an unexpected romance with Luca's high-spirited, workaholic daughter, who never remarried after her husband's death in a car accident. Pezzelli creates likeable and believable characters, and readers will enjoy spending time with them.



#### ALFORD A. YOUNG JR. '88

The Minds of Marginalized Black Men: Making Sense of Mobility, Opportunity and Future Life Chances

(Princeton University Press, 2003)

In this well-organized and lucidly written study, Young, an associate professor of sociology at the University of Michigan, investigates the lives of 26 young, low-income



African American men living in the Near West Side of Chicago to discover how these men view their prospects of getting ahead in life. Young writes that his book "explores the capacity of young black men to think critically and creatively about the ways in which mobility and opportunity operate in American society, showing how they situate their own lives within the broader social and economic forces that surround them." By placing these men at the center of the book through extensive interviews, we find out what they think about work, family, and community and learn how their varying experiences of being exposed to more privileged Americans may influence their belief in their ability to pursue the American Dream.

### LYZ GLICK AND DAN ZEGART '77

#### Your Father's Voice

(St. Martin's Press, 2004)

On September 11, 2001, Jeremy Glick was a passenger aboard the doomed United Flight 93, which crashed in rural Pennsylvania. That morning, he called his wife Lyz to tell her that the plane had been hijacked and that he and others were going to storm the cockpit; his name soon became familiar across the nation as one of the heroes of Flight 93. In this inspiring and often heartbreaking book, his widow (with co-author Zegart) tells her young daughter in a series of letters about Jeremy's life and the couple's life together—from their first meeting in ninth grade to their final phone conversation. The letters are a moving celebration of a loving relationship, and they also chronicle Lyz's lonely path through grief—beginning with a profound loss

and gradually opening up to a more hopeful outlook for the future, inspired by her connection to her daughter.

—David Low '76

