

Wood Scientist Career Reflections: A Journeyman's Perspective

Douglas J. GARDNER

2014 SWST Distinguished Service Award



Overview

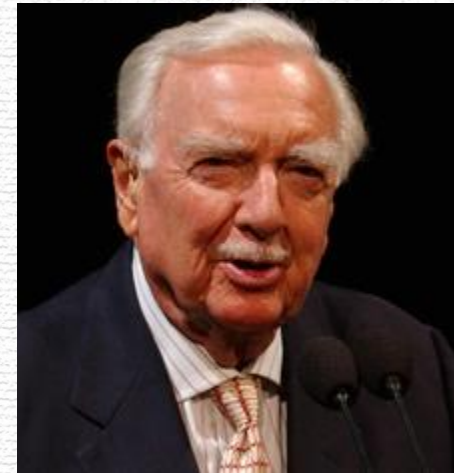
- Why I chose the profession of wood science and technology?
- Educational and research pursuits
- On being a mentor
- Developing a “tool kit”
- Have a professional “bucket list”
- Measures of success
- On Service
- Advice to aspiring wood scientists

Journeyman

- A journeyman is a person who has completed an apprenticeship and is fully educated in a trade or craft, but not yet a master.
- Any experienced, competent but routine worker or performer.
- I'm still a work (or "piece of work") in progress.

Why I chose the profession of Wood Science and Technology?

- As a child, I loved the outdoors and especially playing in the woods (still do).
- I was 11 years old the first earth day, so the idea of becoming a “forest ranger” was an attractive occupation.
- Science and technology were also attractive



The 21st Century

Why did I choose Wood Science and Technology?

- *“There are those of you who like to play in the woods and those of you who will like to work in woods, and in this class you will find out who you are...”*
- (Professor Ed “Pop” Giddings 1976)



Educational pursuits and why?

- B.S. Forestry 1980
Wood Science & Technology Curriculum
- 5th year Certificate Pulp and Paper Management 1981
- Ph.D. Wood Science & Technology 1985
- *Wanted a job in research & development (R&D)*



University of Maine
Pulp and Paper Foundation

MISSISSIPPI STATE
UNIVERSITY™

 College of Forest Resources

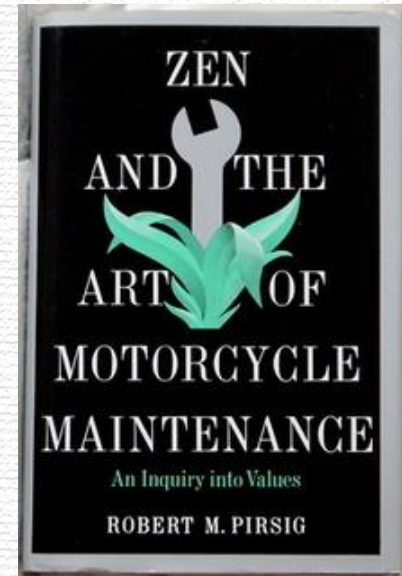
Influential books in my personal development

- **Zen and the Art of Motorcycle Maintenance**

- “And what is good, Phaedrus, And what is not good— Need we ask anyone to tell us these things?”

- **Ben Franklin’s autobiography**

- “Without freedom of thought there can be no such thing as wisdom”



Career Research Topics

COMPOSITES

- Wood-non wood composites
- Recycled wood composites
- Wood plastic composites
- Wood pellets
- Cellulose nanocomposites

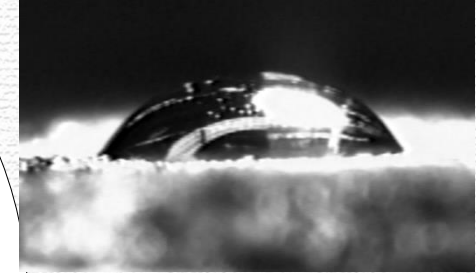
Wood

APPLIED WOOD CHEMISTRY

- VOC emissions from hot-pressing
- Characterizing recycled paper fibers
- Hardwood preservation

ADHESION

- Adhesive bonding/adhesion
- Lignin-based wood adhesives
- Wood surface modification
- Wood wettability/contact angle analysis
- Hydroxy methyl resorcinol (HMR)



A Mentor Plays Many Roles

- Teacher
- Advisor
- Friend
- Psychiatrist
- Editor
- Guru
- Counselor



Thank you to my mentors!

“It takes a village to raise a wood scientist”

Family &
Friends

Mississippi State
University

Terry Sellers, Jr.
Gary McGinnis
Bill Nearn*
Mike Barnes*

USDA Forest Service
Charlie Vick, Bryan
River, Al Christiansen,
Rod DeGroot, Dick
Hemingway

K-12
Teachers,
Coaches

Auburn University
Tom Elder
John Haygreen*
R. C. Tang

Marcal Paper
Elwood
Shropshire

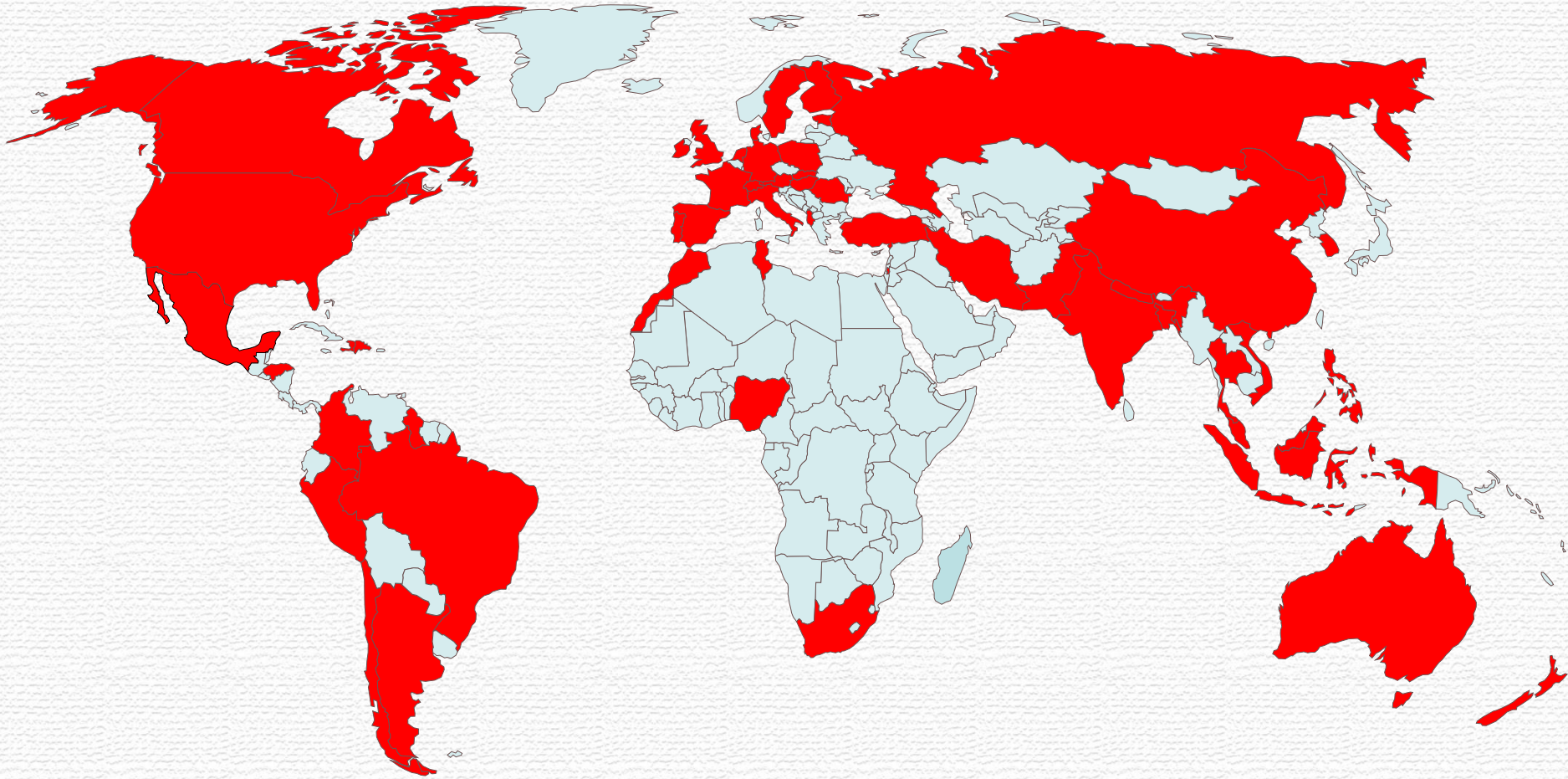
University of
Maine

Dick Hale
James Shottafer
Craig Schuler
Dick Jagels
Joe Genco

West Virginia
University
Jack Coster
Jim Armstrong*
Dave Patterson

My mentors are legion

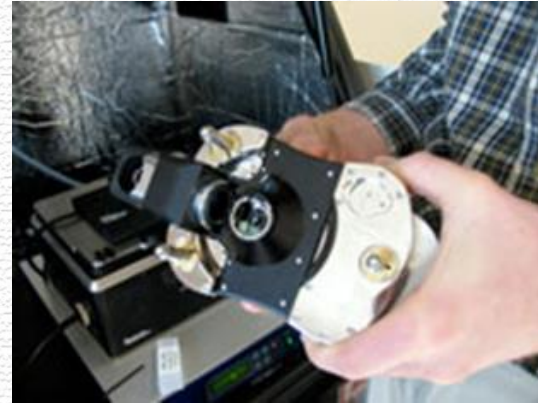
Professional Interactions Over the Years



“It’s a small world after all...” Sherman and Sherman

Develop Your “Tool Kit”

- Knowledge of wood materials and manufacturing
- Oral and written communication
- Get along well with others
- Computer skills
 - (Back up your data)
- Being able to multi-task
- Life Long Learner
- Be able to market yourself without coming off as arrogant



AFM Head



Spray dryer pilot-plant

Everyone has something unique to offer

Great interest in trendy scientific topics and the scientific “herding mentality” insures significant research output in the coming years



- Research topics will vary throughout your career so one needs to be adaptable
- “A prophet is not without honor, save in his own country” *Bible*
- Hopefully, your unique background and “world view” will help you to contribute to whatever scientific pursuit in wood science and technology you happen to pursue.

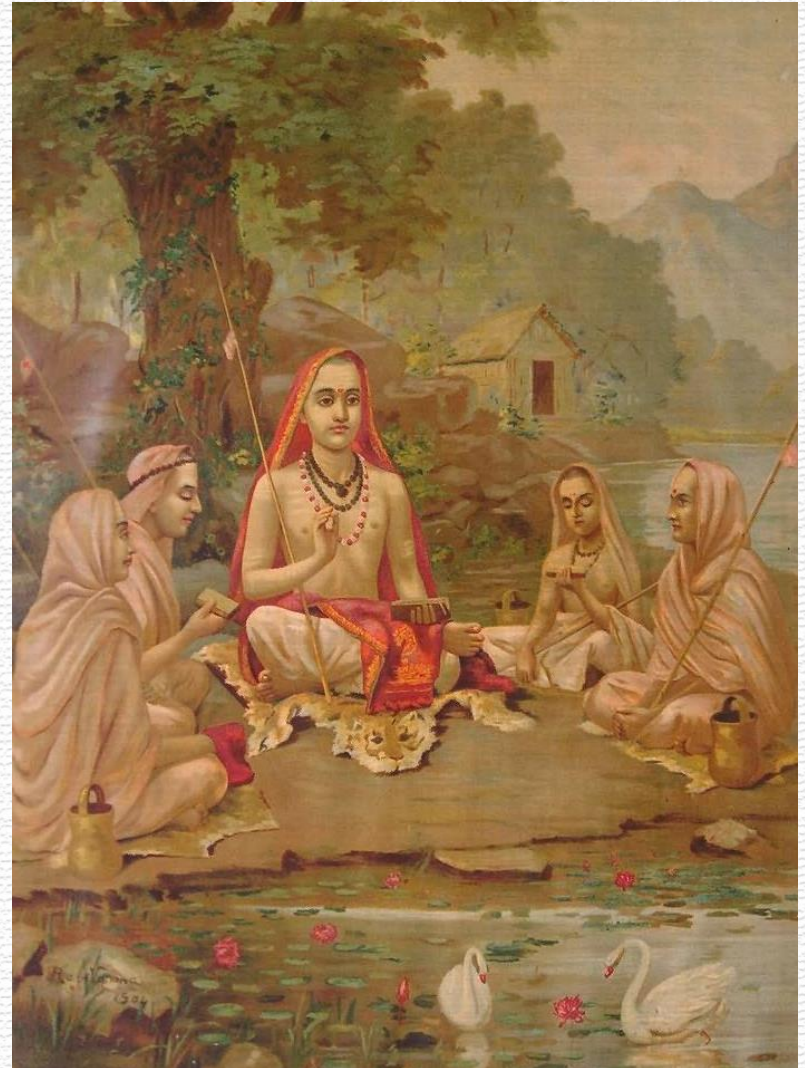
Measures of Professional Success

- Have a Professional “Bucket List”
 - Publish 100 peer reviewed journal articles
 - Mentor successful graduate students
 - Active participant in SWST Visiting Scientist Program
 - Invent something (patent)
 - Mentor a Wood Award Winner
 - Win the George Marra Award
 - Have a PhD advisee hired in a tenure-track position



Advice to Aspiring Wood Scientists

- Be engaged in the profession
- Love what you are doing
- Strive for excellence (*not perfection*)
- A career is a marathon not a sprint
- Be willing to take chances
- Work hard: Play hard
- Be able to laugh at yourself



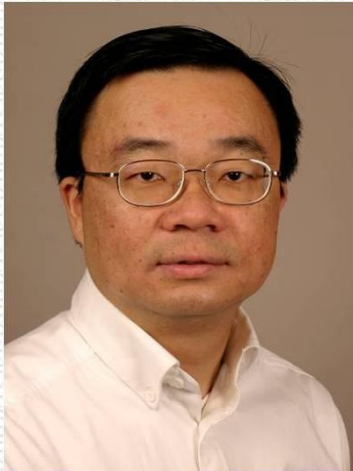
On Service



“If anyone wants to be first, he shall be last of all and servant of all.”

Mark 9:35

“Take only memories, leave only footprints.” Chief Seattle



Upta Camp!

