

LANCE RAKE, IDSA
Curriculum Vitae
December 12, 2016

Personal Information

University of Kansas
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Lawrence, KS 66045

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Biography

For over 40 years, I have been learning, practicing, and teaching industrial design, often at the same time. Honored as a Fulbright Senior Scholar in 2015 and currently Professor of Industrial Design at the University of Kansas, I have also taught full-time at Auburn University and Carrington Technical Institute in Auckland, New Zealand. Additionally, I have taught short courses at Konstfackskolan in Stockholm and been a visiting professor at Staffordshire University in Stoke-on-Trent, England, Halmstad University in Sweden, and the Indian Institute of Technology-Bombay in Mumbai, India. My design research has been supported by private and public grants, and findings presented at national and international design conferences and institutions. For several years I have been using my experience as both teacher and practitioner of design to serve as an expert witness in design patent infringement and product liability cases. I was one of “133 Distinguished Industrial Design Professionals and Professors” to sign the Amicus Brief supporting Apple in its case against Samsung before the Supreme Court.

Working alone or in collaboration with other professionals, I have designed numerous commercial products, consumer products, aircraft and boat interiors, graphics, packaging, and exhibits. I was chosen by the editors at ID Magazine as one of the “Design 50”.

Recently, my research efforts have been focused toward using design to create sustainable craft-based enterprises in rural communities in the US, Africa, and India.

Education

M.A., Product Design, 1982
North Carolina State University, Raleigh, NC

B.F.A., 1974
University of Kansas, Lawrence, KS

Licensures, Certifications, and Professional Training

IDSA Continuing Education Certificate, “How to Serve as an Expert Witness in Design Patent Litigation”
Taught by Perry J. Saidman and Cooper C. Woodring, 2008

Employment History

Academic

University of Kansas, Lawrence, KS

Professor of Design, School of Architecture, Design, & Planning, 1987 - Present

Acting Director, Center for Design Research, 1991 - 2005

Associate Professor, School of Fine Arts, 1991 - 2005

Assistant Professor, School of Fine Arts, 1987 - 1990

The Indian Institute of Technology-Bombay, Mumbai, India

Honorary Visiting Professor, Bamboo Studio, Industrial Design Center, 2016 – Present

Halmstad University, Halmstad Sweden

Visiting Professor, Halmstad FabLab, June- August, 2016

The Indian Institute of Technology-Bombay, Mumbai, India

Visiting Professor, Bamboo Studio, Industrial Design Center, 2012

UNITEC Institute of Technology, Auckland, New Zealand

Course Supervisor, Design, 1985 - 1986

Auburn University, Auburn, AL

Assistant Professor, Industrial Design, 1980 - 1984

Professional

Infusion Design, Bonner Springs, KS

Consultant, 2000 - Present

The New Deal Playing Card Company, Leawood, KS

Vice President Strategic Product Development, 1995 - 2005

Leon Paul, Ltd, London, England

Design Consultant (sabbatical leave), 2001

Hans Skillius Design, Halmstad, Sweden

Design Consultant (sabbatical leave), 1993

Interface Design Group, Milwaukee, WI

Manager, Industrial Design, 1979 - 1980

Stan Johnson Design, Milwaukee, WI

Design Director, 1978 - 1979

Anacomp (div Bell & Howell Co.), Hartford, WI

Manager, Design Services, 1975 - 1978

Prism, Inc., Racine, WI

Industrial Designer, 1974 - 1975

Research/Scholarly Work

Publications

Journal Articles

Berger, B., Felkey, B. G., & Rake, L. G. (1984). The Importance of Privacy in Patient Consultations. *Patient Counseling and Community Pharmacy*.

Conference Proceedings

Rosen, B. G., Bergman, M., Skillius, H., Eriksson, L., & Rake, L. (2010). On Linking Customer Requirements to Surfaces. In *Proceedings of the 13th International Conference on Metrology and Properties of Engineering Surfaces, National Physical Laboratory, London, UK*.

Rake, L. (1990). Industrial Design: Learning to Live Without Modernism. In *Proceedings of the Industrial Designers of America Conference on Design Education, Pasadena, California*.

Rake, L. (1989). Design is the Problem. In *Proceedings of the School of Visual Arts' third annual National Conference on Liberal Arts and the Education of Artists, New York*.

Rake, L. (1989). Taking Another Look at Design Education. In *Proceedings of the Industrial Designers of America Conference on Design Education, Minneapolis*.

Multimedia

Rake, L. G. (1984). *Sketching Techniques for Industrial Designers*. Auburn University: Learning Resource Center, School of Pharmacy.

Publications Referencing My Research/Creative/Professional Work

Journals

"Research/Auburn University". Auburn University. (1984)
Describes a project I directed for the design of commercial vehicle cabs for General Motors
Berger, B., Felkey, B. G., & Rake, L. G. (1984). *The Importance of Privacy in Patient Consultations*. Presentation, Patient Counseling and Community Pharmacy.

Magazines

Dickinson, Elizabeth E. "The Pit That Swallowed a City" *Architect*. (October 2010)
Article written about the ICSID 2009 Interdesign workshop held in Malmberget, Sweden. I was quoted several times about the role designers play when we consider how to move populations as the result of natural or ecological events.

Video

- Saenz, Yvonne. "Beacon Alley Boards" *Vimeo*. video. (2013)
Reference to my work as a result of consulting with HERObike, Greensboro, AL,
from 2011 - present
- Selden, Ben. "Semester Bike" *Vimeo*. video. (2013)
Reference to my work as a result of consulting with HERObike, Greensboro, AL,
from 2011 - present

Websites/Blogs

- "Semester Bike Project" *CORE 77*. internet.
Reference to my work as a result of consulting with HERObike, Greensboro, AL,
from 2011 - present
- Turner, Troy. "A BOOST OF BAMBOO" *Yanko Design Yanko Design*. Internet. (May 2015)
- "A Skateboard To Bring Back Local Manufacturing In The South Is Made From . . .
Bamboo?" *fastcoexist.com (Fast Company)*. internet. (2014)
Reference to my work as a result of designing Beacon Alley Skateboard HERObike,
Greensboro, AL, from 2013 - 2014
- "A Skateboard To Bring Back Local Manufacturing In The South Is Made From . . .
Bamboo?" *fastcoexist.com (Fast Company)*. internet. (2014)
Reference to my work as a result of designing Beacon Alley Skateboard HERObike,
Greensboro, AL, from 2013 - 2014
- "Art Pics: Bamboo Skateboards" *Fad: Cool Art & Stuff*. internet. (2014)
Reference to my work as a result of designing Beacon Alley Skateboard HERObike,
Greensboro, AL, from 2013 - 2014
- "Beacon Alley Skateboard: eco-friendly bamboo skateboard by makelab and HERObike"
wowozine (Wow Trend Magazine). internet. (2014)
Reference to my work as a result of designing Beacon Alley Skateboard HERObike,
Greensboro, AL, from 2013 - 2014
- "Beacon Alley Skateboards" *CORE 77*. internet. (2014)
Reference to my work as a result of designing Beacon Alley Skateboard HERObike,
Greensboro, AL, from 2013 - 2014
- "Beacon Alley Skateboards" *Fancy*. internet. (2014)
Reference to my work as a result of designing Beacon Alley Skateboard HERObike,
Greensboro, AL, from 2013 - 2014
- "Beacon Alley Skateboards" *theawesomer.com*. internet. (2014)
Reference to my work as a result of designing Beacon Alley Skateboard HERObike,
Greensboro, AL, from 2013 - 2014

- "Beacon Alley Skateboards Kickstarting in Alabama" *Impact Design Hub*. internet. (2014)
Reference to my work as a result of designing Beacon Alley Skateboard HERObike, Greensboro, AL, from 2013 - 2014
- "Beacon Alley Skateboards' Woven Bamboo Deck" *geekalabama.com*. internet. (2014)
Reference to my work as a result of designing Beacon Alley Skateboard HERObike, Greensboro, AL, from 2013 - 2014
- "Beacon Alley Skateboards' Woven Bamboo Deck" *Original Paperbacks*. internet. (2014)
Reference to my work as a result of designing Beacon Alley Skateboard HERObike, Greensboro, AL, from 2013 - 2014
- "Makelab & HERObike – Beacon Alley Skateboards" *hellocoton.fr*. internet. (2014)
Reference to my work as a result of designing Beacon Alley Skateboard HERObike, Greensboro, AL, from 2013 - 2014
- "Makelab & HERObike – Beacon Alley Skateboards" *Whitezine.com*. internet. (2014)
Reference to my work as a result of designing Beacon Alley Skateboard HERObike, Greensboro, AL, from 2013 - 2014
- "makelab + HERObike weave durable bamboo composite skateboards" *designboom.com*. internet. (2014)
Reference to my work as a result of designing Beacon Alley Skateboard HERObike, Greensboro, AL, from 2013 - 2014
- "Woven Bamboo Composite Skateboards" *compositestoday.com*. internet. (2014)
Reference to my work as a result of designing Beacon Alley Skateboard HERObike, Greensboro, AL, from 2013 - 2014
- "Woven Bamboo Skateboard Muscle" *Common Marketplace*. internet. (2014)
Reference to my work as a result of designing Beacon Alley Skateboard HERObike, Greensboro, AL, from 2013 - 2014
- Estes, Cary. "Elegantly Designed Bicycle Business" *Business Alabama*. internet. (September 2014)
Reference to my work as a result of consulting with HERObike, Greensboro, AL, from 2011 - present
- "A Bamboo Bike Designed to Lift People from Poverty" *Wired.com*. internet. (2013)
Reference to my work as a result of consulting with HERObike, Greensboro, AL, from 2011 - present
- "Semester Bicycles- Hextube bamboo composite frames made in the rural South" In J. Thomas (Ed.) *Bicycle Design.net*. internet. (2013)
Reference to my work as a result of consulting with HERObike, Greensboro, AL, from 2011 – present
- "Semester Bike designed to create jobs in Alabama" *Fast Company*. internet. (2013)
Reference to my work as a result of consulting with HERObike, Greensboro, AL, from 2011 - present

"The Semester Bicycle represents a new take on sustainable design, while supporting the local community of Greensboro in Alabama, USA." *Design Indaba*. internet. (2013)
Reference to my work as a result of consulting with HERObike, Greensboro, AL, from 2011 - present

"The Semester Bicycle: An Environmentally and Socially Responsible Bike" *ambikamelville.com*. internet. (2013)
Reference to my work as a result of consulting with HERObike, Greensboro, AL, from 2011 - present

"Semester Bike built to drive positive change". *Design Boom*. (August 2013)
Reference to my work as a result of consulting with HERObike, Greensboro, AL, from 2011 - present

Invited Presentations/Lectures

International

Rake, L. (2016). *Design in Bamboo*. Presentation at Halmstad University, Halmstad, Sweden.

Rake, L. (2016, 24 April). *Design Hacks*. Presentation before faculty and student body for The Department of Architecture and Urban Planning, Institute of Engineering, Tribhuvan University, Pulchowk Campus, Kathmandu, Nepal.

Rake, L. (2016). *7 Words You Should Never Use in Design School*. Presentation before faculty and undergraduate student body at The Industrial Design Center, Indian Institute of Technology, Mumbai, India.

Rake, L. (2015, July 10). *Symbiotic Relationship Between Design & Engineering*. Med By SCE - Shamoon College of Engineering, Department of Mechanical Engineering, Beer-Sheva, Israel.

Rake, L. (2015, December 15). *Learning to Make, Making to Learn*. Konstfacksolan, Stockholm, Sweden.

Rake, L. (2012, October). *Think Wrong*. Presentation before faculty and graduate student body at The Industrial Design Center, Indian Institute of Technology, Mumbai, India.

Rake, L. (2012, September). *Why Design Matters*. Presentation before faculty and graduate student body at Orchid International School, Nashik, India.

Rake, L. (2012, April). *What Little I Have Learned*. Presentation, before faculty and design student body at Nelson Mandella Metropolitan University, Port Elizabeth, South Africa.

Rake, L. (2008). *Unapologetically American*. Presentation, SVID Designdagen conference at Halmstad University, Halmstad, Sweden.

Rake, L. (2007). *Industrial Design, Learning to Live Without Modernism*. Paper, for IndustrialDesign and Innovation Engineering graduate students and faculty at Halmstad University, Halmstad, Sweden.

Rake, L. (2007). *My Life Aboard the Titanic*. Presentation, Konstfackskolan, the national art & design school, Stockholm, Sweden.

Attended by Industrial Design faculty, undergraduate, and graduate students.

Rake, L. (2007). *Towards Reality in Industrial Design*. Presentation, Institute for Design, Umea University, Umea, Sweden.

Attended by faculty and graduate students Industrial, Transportation, and Interaction Design.

Rake, L. (2005). *The Future of Graduate Design Education*. Presentation for “Designdagen”- Swedish Design Day, SVID, Swedish Society of Industrial Design, Halmstad, Sweden. 2005 has been designated as “Design Year”.

Rake, L. (2004). *Industrial Design Education and Practice in a Multidisciplinary and International Context*. Presentation for administrators, faculty, and students, Halmstad University, Halmstad, Sweden.

Rake, L. (1986). Panelist, National Art and Design Education Symposium, Auckland, New Zealand.

Rake, L. (1985). *Experiential Learning in Industrial Design Education*. Presentation, New Zealand Society of Industrial Designers regional meeting, Auckland, New Zealand.

National

Rake, L. G., Durkin, T.-G. G., & Gajewski, D. A. (2015, December 8). *Navigating Functionality in Design Patent Prosecution and Litigation*.

Rake, L. (2003). *Ergonomics: A Commonsense Approach for Industrial Designers*. Presentation, 9th Annual National Ergonomics Conference and Exposition, Las Vegas.

Rake, L. (1994). *The Beauty of Chaos; the Chaos of Beauty*. Presentation, Symposium Design Thinking- Expressive Solutions, Helsinki, Finland.

Rake, L. (1991). *Toward Reality in Industrial Design*. Presentation, Product Semantics and Visual Semiotics in Design Conference, Helsinki, Finland.

Rake, L. (1990). *Industrial Design: Learning to Live Without Modernism*. Presentation, Industrial Designers of America Conference on Design Education, Pasadena, CA.
Published in the proceedings.

Rake, L. (1989). *Design is the Problem*. Presentation, School of Visual Arts’ third annual National Conference on Liberal Arts and the Education of Artists, New York.
Published in the proceedings.

Rake, L. (1989). *Taking Another Look at Design Education*. Presentation, Industrial Designers of America Conference on Design Education, Minneapolis.
Published in the proceedings.

Design Work in Bamboo

Designer

Sidekick, Lance G Rake, HERObike, Greensboro, AL. (September, 2015- February, 2016)

I designed the Sidekick Balance Bike for HERO, a not-for-profit located in Greensboro, AL, as a way to create quality craft-based jobs. Most of my design work for HERO explores the use of bamboo- a local resource in rural Alabama. The Sidekick is designed for easy fabrication in the Greensboro workshop. The Sidekick was further developed and prototyped in India at the Industrial Design Center at the Indian Institute of Technology-Bombay in Mumbai in spring, 2016 as part of my Fulbright research.

Sidekick Senior, Lance G Rake, IIT-B, IDC, Mumbai, India (January, 2016- May, 2016)

I designed the Sidekick Senior at the Industrial Design Center at the Indian Institute of Technology-Bombay in Mumbai in spring, 2016 as part of my Fulbright research. I leveraged the simplicity of design of the Sidekick Balance bike to create a pedal-powered version with 20" wheels.

Inframe Storage System, Lance G Rake, HERObike, IIT-B, IDC, Mumbai, India (January, 2016- May, 2016)

The Inframe Storage System is a woven bamboo basket designed to ride inside the main triangle structure of a commuter-style bicycle. It was designed at the Industrial Design Center at the Indian Institute of Technology-Bombay in Mumbai in spring, 2016 to create job opportunities for rural and urban bamboo craftsmen in India as part of my Fulbright research.

Whalebone Stand Up Paddleboard, Lance G Rake, HERObike, Greensboro, AL. (June 2014 - July 2015)

I designed the Whalebone Stand Up Paddleboard for HERO, a not-for-profit located in Greensboro, AL, as a way to create quality craft-based jobs. Most of my design work for HERO explores the use of bamboo- a local resource in rural Alabama. The Whalebone is an innovative skin-on-frame design that uses an inexpensive but strong structure made of laser cut cardboard and bamboo strips. Whalebone was designed to be made in weekend workshops in the Greensboro workshop.

Beacon Alley Skateboards, Lance G Rake, HERObike Greensboro, Alabama. (January 2013 - December 2014)

I designed the Beacon Alley Skateboard for HERO, a not-for-profit located in Greensboro, Alabama, as a way to create quality craft-based jobs. Most of my design work for HERO explores the use of bamboo- a local resource in rural Alabama. The skateboard is a bamboo composite design.

Semester Bicycles, Lance G Rake, HERObike Greensboro, Alabama. (January 2012 - February 2014)

I designed the Semester Bike for HERO, a not-for-profit located in Greensboro, Alabama, as a way to create quality craft-based jobs. Most of my design work for HERO explores the use of bamboo- a local resource in rural Alabama. The Semester is a bamboo composite design.

Flatpack Bicycle, Lance G Rake, HERObike
Greensboro, Alabama. (August 2012 - February 2013) (Invited)
I designed the Flatpack Bike for HERO, a not-for-profit located in Greensboro, Alabama, as a way to create quality craft-based jobs. Most of my design work for HERO explores the use of bamboo- a local resource in rural Alabama. The Flatpack is a bamboo composite design that also uses waterjet cut aluminum panels. The entire bicycle arrives in a small box and can be easily assembled with minimal tools. The Flatpack was shown in the North American Handmade Bicycle Show in Charlotte, NC in March, 2013.

Woven Tube Road Bike, Lance G Rake, HERObike
Greensboro, Alabama. (August 2012 - February 2013) (Invited)
I designed the Woven Tube Bike for HERO, a not-for-profit located in Greensboro, Alabama, as a way to create quality craft-based jobs. Most of my design work for HERO explores the use of bamboo- a local resource in rural Alabama. The Woven Tube bike is an innovative bamboo/carbon fiber composite that is extremely lightweight. The Woven Tube Road Bike was shown in the North American Handmade Bicycle Show in Charlotte, NC in March, 2014.

Exhibitions

Bamboost e-bike, North American Handmade Bicycle Show, Louisville, KY (2015)

Two Bamboo Bicycle prototypes, North American Handmade Bicycle Show, Charlotte, NC (2014)

Bamboo Bicycle prototypes, North American Handmade Bicycle Show, Denver, CO (2013)

Permanent Collections

New Deal cards, Stuart and Marilyn R. Kaplan Playing Card Collection, the most comprehensive collection in the United States (1998)

New Deal Playing Cards, Deutches Spielkarten-Museum, permanent collection, Leinfelden-Echterdingen, Germany (1998)
Designed from 1995.

Research Funding/Fellowships

University of Kansas

Funded

Rake, L., & Geil, D. M. *Fencing Shoe Design*. United States Olympic Committee (1998).
Consultant with Dr. Geil.

Rake, L. Intergraph Corporation, USA, and Intergraph Sverige, AB (1993).
Equipment grant.

Rake, L. *Using Traditional Materials and New Technologies in an Alternative Design Strategy*.
SOR, Inc. Olathe, KS (1988).

General Research Fund

Funded

Rake, L. *A Pilot Project to Develop and Implement the Alodia Afrika Design Office*. University of Kansas (2011).

Rake, L. *Design of the Next Generation General Aviation Aircraft Interior*. University of Kansas (2004).

Rake, L. *Design of High- Performance Titanium Sabre using 3D Solid Modeling, Testing, and Evaluation Technologies*. University of Kansas (1999).

Rake, L. *The Electronic Mock-up as a Conceptual Tool for Industrial Designers*. University of Kansas (1993).

Rake, L. *Product Development Using an Alternative Design Strategy*. University of Kansas (1989).

Internal Award

Funded

Rake, L. *Driving Without Distraction: We Have an App for That*, Transportation Research Institute, The University of Kansas (2010).

Rake, L., & Ewing, D. M. *Proposal Development for NASA's University Earth System Science (UnESS) Program*. Research and Development Fund, the University of Kansas (2000 - 2001). Consultant with Dr. Mark Ewing et al.

Auburn University

Funded

Rake, L. G., & Taylor, D. J. B. *The Efficacy of Training on the Development of Creative Thinking Ability*. Research Grant-In-Aid, Auburn University (1984).

Center for Design Research, The University of Kansas

Funded

Rake, L. *Adventure Travel Luggage*. Bass Pro Shop, Springfield, MO (2006).

Rake, L. *Exploring Innovations in Fan Design*. Hunter Fans, Memphis, TN (2006).

Rake, L. *New Product Ideas for Family Camping Tents*. Wenzel, St. Louis, MO (2005).

Rake, L. *Portable Outdoor Exhibition Space*. Big Dog Motorcycles, Wichita, KS (2003).

Rake, L. *New Product Ideas for the Scrapbook Market*. Cardinal Brands, St. Louis, MO (2002).

Rake, L. *Back to School Product Design. Investigation, Analysis, and Design*. Cardinal Brands, St. Louis, MO (2001 - 2002).

Rake, L. *New Product Opportunities in the Recreational Boat Industry. Investigation, Analysis, and Design*. Infusion Design, Bonner Springs, KS (2001 - 2002).

Rake, L. *Recreational Vehicle Design for a New Market Segment. Investigation, Analysis, and Design*. MountainHigh Coachworks, Ontario, CA (1999 - 2000).

Rake, L. *Design of a Closed System Bearing Oiler*. Trico Manufacturing, Pewaukee, WI (1995 - 1998).

Johnson, J., Rake, L., & e. a. *Small Business Innovation Research Program Grant*. FENA DESIGN, St. Cloud, MN. (1995 - 1998).

Nagengast, D., & Rake, L. *North Central Region Sustainable Agriculture Research and Education Program*. U.S. Department of Agriculture (1995).

Rake, L. Compaq Computers, Houston, TX (1994).

Rake, L. Learjet, Wichita, KS (1994).

Patents

Rake, L., Patent. "Process for Making Braided Bamboo Laminated Composite Tubing US Provisional Patent". (Approved: 2012).

Rake, L., Patent. "Process for Making Structural Tubing with Bamboo and Reinforcing Fiber Material US Provisional Patent". (Approved: 2012).

Rake, L., Patent. "Power System", US Utility Patent US20090152944. (Approved: 2009).

Rake, L., Patent. "Extension for a Golf Club Shaft and Method of Installing the Same", US 20080081708. (Approved: 2008).

Rake, L., Patent. "Fishing Bobber", US Utility Patent Pending. (Approved: 2007).

Rake, L., Patent. "Footstool/Ladder", US Utility Patent Pending. (Approved: 2007).

Rake, L., Patent. "Temperature Gauge/ Barometer", US Design Patent D 538694. (application: 2005, Approved: 2006).

Rake, L., Paul, B., Patent. "Protective Fencing Mask", US 20030070202; US 20020157167; US 6,701,536 B2; US 6,820,286 B2. (Approved: 2003).

Rake, L., Patent. "Ergonomic Playing Cards", 5490676. (application: 1995, Approved: 1998).

Rake, L., Patent. "Guitar Case", D 265146. (Approved: 1982).

Activity Currently in Progress

Rake, L., "Abari Bamboo Bike," (May 2016 - Present).

Design and development of a new generation bamboo bicycle initially designed and prototyped at the Abari architecture studio in Kathmandu, Nepal in April, 2016 as part of my Fulbright research.

Status: On-Going.

Rake, L., "Hustler Side-by-Side," (November 2015 - Present).

Design of a 4X4 farm or work vehicle for Hustler, a commercial lawn mower company based in Hesston, Kansas

Status: On-Going

Rake, L., "Sidekick II Bamboo Bicycle," (August 2016 - Present).

Design and development of a bamboo push bike designed for toddlers.

Rake, L., "Fishtail II Bamboo Paddleboard," (May 2016 - Present).

Design and development of a hybrid cardboard/bamboo standup paddleboard.

Status: On-Going

Rake, L., "Embraer Business Jet, Interior Design," (November 2014 - August 2016).

In 2014, Embraer commissioned Infusion Design to develop concepts for a small fleet of Embraer aircraft for the Armani hotel chain as high-end luxury travel/lodging.

Status: On-Going

Rake, L., "Mass Production Bamboo Bicycle for Bikeshare System, IIT-Bombay Campus, Mumbai, India.," (February 2016 - June 2016).

Most bamboo bicycles use labor intensive and expensive in fabrication. This bike was designed to be easily, quickly, and reliably manufactured in large numbers. It was also designed to be easily repaired and adjusted in the field.

Status: On-Going

Potential Grant/Funding Organizations: HERObike, Greensboro, Alabama

Rake, L., "Nauter's Swann 115' Yacht, Interior Design," (October 2014 - June 2016).

Tom Seibel commissioned Infusion Design to develop the interior for a 115' maxi yacht, currently under construction at Nauter's Swan facility in Finland. When completed, this boat will be raced extensively, but it is also designed for comfortable cruising.

Status: On-Going

Rake, L., "Sidekick Senior Bamboo Bicycle," (January 2016 - April 2016).

20' BMX Style Bamboo Bicycle designed and built in Mumbai, India.

Status: On-Going

Potential Grant/Funding Organizations: HERObike, Greensboro, Alabama

Rake, L., "Fishing Retreat w/ Airstream Trailers, Interior Design," (January 2015 - June 2015).

Tom Seibel commissioned Infusion Design to design the interiors of three different sizes of Airstream trailers to be living and cooking quarters for his private fishing retreat in northern California.

Status: On-Going

Summary List of Courses Taught

Materials and Processes

Survey of materials, focusing on applications in Industrial Design.
Required course, Junior/ Senior/ Graduate level.

Problems in Industrial Design, Advanced Problems in Industrial Design

Usually comprises the design staff of the Center for Design Research. Students from Junior to Graduate level work together as a professional design office on projects usually sponsored by industry. We have worked on projects from a range of sponsors, including Learjet, Compaq Computers, US Department of Agriculture, and Big Dog Motorcycles.
Required course, Junior/ Senior/ Graduate level.

Graduate Industrial Design Studio

Individually structured course, working with Graduate students on thesis projects.
Required course, Graduate level.

Special Problems in Design

Individually structured course, working with design students on enhancement project that fall outside the basic curriculum.
Elective course, Junior/ Senior/ Graduate level.

Directed Reading in Design

Individually structured course that exposes students to major writing and theory in Architecture and Design.
Elective course, Junior/ Senior/ Graduate level.

Visual Presentation

Advanced drawing technique course for Industrial and Interior Design students.
Required course, Junior/ Senior level.

In my tenure at The University of Kansas, I have taught all of the design studio courses we offer. Our studios are experimental, where students put all of the skills and theory they have learned in practice on a variety of product design projects. Each project requires organization, research, conceptualization, development, technical documentation, and final product modeling and communication.

Industrial Design I

Industrial Design II

Industrial Design III

Industrial Design IV

Undergraduate Thesis

Internship

It is usually my responsibility to help students secure internships, and to keep track of their progress when they are in the field.

Expert Witness Consulting

Woodard, Emhardt, Moriarity, McNett & Henry, LLP, Design Expert, Indianapolis, IN (Winter 2016 - Present).

Representing Knauf Insulation before USPTO

Banner & Witcoff, Design Expert, Chicago and Portland, OR (Winter 2015 - 2017).

Representing Nike v. Sketchers

Blakely Law Group, Design Expert, Manhattan Beach, CA (1st Quarter 2016 - 4th Quarter 2016).

Representing Deckers/ Uggs Australia in a design patent dispute

STERNE, KESSLER, GOLDSTEIN & FOX, Expert Witness Testimony, New York, NY (Summer 2015 - Winter 2015).

Design Expert for Reexamination of Apple iPhone Design Patents

Orrick, Herrington & Sutcliffe LLP, Design Expert, Menlo Park, CA (Spring 2015 - Summer 2016).

Represented Belkin in a patent infringement case versus Acrox

Alston & Bird, LLP, Expert Witness Testimony, Palo Alto, CA (2014).

Expert witness for light reflectors design patent case before the ITC

Finnegan, Henderson, Farabow, Garrett & Dunner, LLP, Expert Witness Testimony, Washington DC (2014).

Design Declaration before the Appeal Board, USPTO (housewares)

Kelly IP, LLP, Expert Witness Testimony, Washington DC (2013 - 2014).

Design Declaration before the Appeal Board, USPTO (electronic cables)

Winston & Strawn, LLP, Expert Witness Testimony, Los Angeles, CA (2013 - 2014).

Design Analysis for utility patent infringement case (laptop and tablet accessories)

Finnegan, Henderson, Farabow, Garrett & Dunner, LLP, Expert Witness Testimony, Washington DC (2013).

Design Analysis for design patent infringement case (cameras).

Oblon, Spivak, McClelland, Maier & Neustadt, L.L.P., Expert Witness Testimony, Alexandria, VA (2013).

Design Analysis for design patent infringement case (bedroom slippers).

Amster Rothstein & Ebenstein LLP, Expert Witness Testimony, New York, NY (2012).

Design Analysis for design patent infringement case (bedroom slippers).

Miller Canfield, Expert Witness Testimony, Chicago, IL (2011 - 2012).

Design Analysis, Report for a design patent infringement case (bedroom slippers).

White & case, LLP., Expert Witness Testimony, New York, NY (2011 - 2012).

Design Analysis, Report, and Deposition Testimony for USB Drive design patent case before the ITC.

- Baker Botts L.L.P., Expert Witness Testimony, Houston, TX (2010 - 2011).
Design Analysis, Report, for a design patent infringement case (juice bottle caps).
- Polsinelli Shughart, P.C., Expert Witness Testimony, St. Louis, MO (2010 - 2011).
Design Analysis, Report, for a design patent infringement case (refrigerated floral cases).
- Husch Blackwell Sanders LLP, Expert Witness Testimony, St. Louis, MO (2009).
Color Analysis, for a trade dress case.
- Wooten, Honeywell, Kimbrough, Gibson, Doherty and Normand, P.A., Expert Witness Testimony, Orlando, FL (2007 - 2009)
Design Analysis, Testing, for a product liability case (consumer seating).
- Allen & Vellone, P.C., Expert Witness Testimony, Denver, CO (2008).
Design Analysis, for a design patent infringement case (apparel).
- Allen, Dyer, Doppelt, Mibrath & Gilchrist, P.A., Expert Witness Testimony, Orlando, FL (2008).
Design Analysis, for a design patent infringement case (apparel).
- Holbrook Law Office, Expert Witness Testimony, Orlando, FL (2000 - 2001).
Design Analysis, Testing, for a product liability case (contract seating).
- Rausch Hendicks German May, Expert Witness Testimony, Kansas City, MO (1999 - 2000).
Defense expert for design patent infringement case.
- Skepnek & Maddox, Expert Witness Testimony, Lawrence, KS (1998).
Center for Design Research, The University of Kansas. Created forensic computer animation for a medical malpractice case.
- Purdy & Flynn, Expert Witness Testimony, Fort Lauderdale, FL (1994 - 1996).
Design Investigation, Analysis, Modeling for a product liability case.
- Holbrook & Hardy, Expert Witness Testimony, Orlando, FL (1992 - 1994).
Design Investigation, Analysis, Modeling for a product liability case.

Professional Projects/Client Lists

Over the past 30 years, I have worked as a professional designer; working in corporate design studios, consulting offices, or as a freelance designer on a very broad range of projects. This includes the design of motorcycles, air circulators, aircraft interiors, micrographic readers, orthopedic traction systems, knives, space heaters, furniture, power tools, retail fixtures, electronic controls, playing cards, games, work environments, cranes, lawn and garden tractor, trade show exhibits, string trimmers, snowmobiles, VHS cassettes, medical products, audio amplifiers, industrial electrical control housings, bags, back to school products, electrical substation enclosures, excavator cabs, bird houses and feeders, fence posts, tool cabinets, boat interiors, motor coach interiors, and plumbing fixtures.

Partial Client List

- ADS, Huntsville, AL
Corporate Identity Research and Design.
- Adams Aircraft, Mojave, CA
Aircraft Interior Design.
- Aerion, Dallas, TX
Supersonic Business Jet.
- Aero Nimbus, Malaysia
Asian Airshow Exhibition Design.
- Aladdin Industries, Nashville, TN
Various Camping Products.
- Alberta Aerospace, Alberta, Canada
Design Proposal, Aircraft Interior Design.
- Alfa-Laval, AB, Stockholm, Sweden
Agricultural Product Design.
- Auburn University School of Pharmacy, Auburn, AL
Consultation Booth.
- Auckland University School of Medicine, Auckland, NZ
Asthma Inhaler.
- Baker Electronics, Miami, FL
Aircraft Switches.
- Beauty Brands, Kansas City, MO
Interior/ Fixture Design.
- Bell & Howell, Lincolnwood, IL
Office Product Design.
- Bergström, Halmstad, Sweden
Promotional Products Design.
- Birkenstock, USA, Novato, CA
Store Fixture Design.
- Bolens, Port Washington, WI
Lawn Tractor Design, Product Graphics.
- Bombardier, Montreal, Canada
Business Jet Interior.
- Bose Research, Boston, MA
Store Fixture Design.
- Brian Russell Designs, Auckland, NZ
Highchair Design.
- Briggs & Stratton, Milwaukee, WI

Exhibit Design.

- Bruning International, Itasca, IL
Office Product Design, Product Graphics.
- Bucyrus-Erie, Milwaukee, WI
Heavy Equipment Design, Product Graphics.
- Bushnell, Lenexa, KS
Night Vision Monocular Design.
- Cardinal Brands, St. Louis, MO
Office Organizers.
- Caterpillar, Peoria, IL
Footwear Display System.
- Chicagofest, Chicago, IL
Graphic Design.
- Collins Communications Technologies, Milwaukee, WI
Corporate Identity.
- Crabtree Music, Milwaukee, WI
Graphic Design, Corporate Identity.
- Cramer, Inc, Kansas City, MO
Product Design.
- Cubcrafters, Yakima, WA
Aircraft Interior.
- Cutler-Hammer, Milwaukee, WI
Exhibit Design.
- Drott Manufacturing, Wausau, WI
Heavy Equipment Design, Product Graphics.
- Eagle Creek, San Diego, CA
Store Fixture Design.
- Embraer, São Jose, Brazil
Aircraft Interior Design.
- Fairchild-Dornier, Oberpfaffenhofen, Germany
Paintscheme, Product Graphics.
- Filer & Stowell, Milwaukee, WI
Heavy Equipment Design, Product Graphics.
- Fischer & Paykel, Auckland, NZ
Machine Design.
- Företagsutvecklarna, Växjö, Sweden
Gas Candle Design.
- Galaxy Aerospace, Dallas, TX
Aircraft Interior Design.

- Gametime, Inc., Fort Payne, AL
Outdoor Furniture Design.
- Global Express, Montreal, Canada
Regional Jet Interior.
- Grahm Transmissions, Milwaukee, WI
Product Graphics.
- Harley-Davidson, Milwaukee, WI
Transportation Design, Model Building.
- Hawker/Beechcraft, Wichita, KS
Aircraft Interior Design.
- Huhtamaki, Desoto, KS
Product Design.
- ICOR, AB, Stockholm, Sweden
Medical Product Design.
- IKEA, Stockholm, Sweden
Clothes Hanger Design, Recycling Bin Design.
- J.I. Case Company, Racine, WI
Heavy Equipment Design, Product Graphics.
- Jockey International, Kenosha, WI
Exhibit Design, Store Fixture Design.
- Kohler, Kohler, WI
Exhibit Design.
- Larson/Glastron, Little Falls, MN
Leisure Boat Design.
- Learjet, Wichita, KS
Aviation Design.
- Leon Paul, London, England
Fencing Mask, Scoring Box Design.
- Marathon Electric, Wausau, WI
Store Fixture Design.
- Martin Industries, Florence, AL
Electric Space Heater Design.
- Matthews Heater Co., Albertville, AL
Electric Space Heater Design.
- Micro Design, Hartford, WI
Product Design, Corporate Identity, Strategic Planning.
- Micron, Iron Ridge, WI
Product Design, Corporate Identity, Strategic Planning.

- Minder Systems, Auckland, NZ
Electronic Control Design.
- New Deal, Leawood, KS
Product Design, Corporate Identity, Strategic Planning.
- Newell Motorcoach, Miami, OK
Motorcoach Design, Product Planning.
- Pantone, New York, NY
Bags, CD Cases, Journals, Organizers, Notebooks.
- Perceptive Software, Kansas City, KS
Trade Show Design.
- Perm-a-Store, Wichita, KS
Product Design- Protective Cases.
- Polaris, Roseau, MN
Snowmobile Design, Product Graphics.
- Poulan, Shreveport, LA
String Trimmer Design, Lawnmower Design.
- Raaco, Copenhagen, Denmark
Plastic Toolbox Design.
- Raetheon, Wichita, KS
Aircraft Interior Design.
- Ranger Boats, Flippin, AR
Boat Design (2000 - 2015).
- Rayovac, Madison, WI
Product Design.
- Rubbermaid, Huntersville, NC
Product Design.
- S.O.R. Inc., Olathe, KS
Pressure Switch Design, Workstation Design Planning.
- Seale Morrow
Business Jet Interior.
- Singapore Airlines, Singapore
Corporate Aircraft Interior Design.
- Snorkel, Kansas City, MO
Paintscheme, Product Graphics.
- Sutherland Engineering, Lawrence, KS
Audio Amplifier Design.
- The North Face, Oakland, CA
Store Fixture Design.

Trek Bicycles, Baraboo, WI
Product Graphics.

Wal-Mart, Bentonville, AR
Point-of-Sale Design, Interior Design.

Walker Manufacturing, Racine, WI
Exhibit Design.

Weed Eater, Houston, TX
String Trimmer Design, Lawnmower Design.

Western Publishing, Racine, WI
Exhibit Design.

Xerolet, Carson, CA
Product Design.

Xikar, Kansas City, MO
Product Design, Strategic Product Design.

Infusion Design

Bell Helicopter, Dallas, TX
Helicopter Shuttle Interior (2014 - 2015).

Coleman, Wichita, KS
Product Design (2010 - 2011).

Excel/Hustler, Hesston, KS
Lawnmower Design (2008 - 2010).

Helio, Bristol, TN
Aircraft Interior Design Proposal (2013 - 2014).

Nautor's Swan, Jakobstad, Finland
Yacht Interior Design, 115' Swann Sail Yacht Interior Design (2015).

Spectrum, San Diego, CA
Aircraft Interior Design (2011 - 2013).

Infusion Design

Aeroflex, Wichita, KS
Product Design (2011 - 2013).

Infusion Design

Schroeder & Tremayne, St. Louis, MO
Product Design (2008 - 2010).

University Service

University of Kansas

Member (Elected)

University of Kansas Faculty Senate. (August 2016 - July 2019)

Member (Appointed)

Ad Hoc Committee on Post-Tenure Review. Review Procedures for KU Post Tenure Review Process (Fall 2015 - Spring 2016)

Honors/Awards/Honor SocietiesTeaching

Outstanding Teacher- Department of Design, University of Kansas Center for Teaching Excellence. (2010)

Scholarship/Research

Fulbright-Nehru Academic and Professional Excellence Award, Fulbright Senior Scholar Program. Professor Rake's Fulbright research project, "Using Design Thinking to Create Sustainable Craft-Based Enterprise in India", will investigate strategies that explore how to use design thinking to take traditional craft skills into the future, using innovative design and technology to improve the income of rural craftspeople and help create transformational change. (January 2016 - June 2016)

Sabbatical leave in Mumbai, India. Conducted research at the Bamboo Studio, Industrial Design Center, Indian Institute of Technology-Bombay. (2012)

Professional/Other

Popular Mechanics Magazine named the Hustler Zeon Mower one of "the Ten Most Brilliant Products of 2009". (2009)

ID Magazine "Design 50". The editors at ID chose to profile the work of 50 US designers in their January/February 2004 Issue- one from each state. I was honored as the designer chosen to represent Kansas. (2004)

Won the Grand Prize for Focused Fixture Design in the 2001 NASFM Retail Design Awards for my work with Infusion Design. (2001)

Interviews

Radio

"Biking, Bamboo Style" *KUCR newscast*. (2013)

Reference to my work as a result of consulting with HERObike, Greensboro, AL, from 2011 - present

Websites/Blogs

"Professor's bamboo bikes propel Alabama job creation - See more at: <https://news.ku.edu/2013/08/30/professors-bamboo-bikes-propel-alabama-job-creation#sthash.ar5c2e5W.dpuf>" *KU*.

Reference to my work as a result of consulting with HERObike, Greensboro, AL, from 2011 - present

Oldmixon, Rachele. Aljazeera America. "A fixie made out of oversized grass" *TECHKNOW blog*. (January/February 2014)