

Vivian E. Thomson

Professor of Environmental Policy (Retired), University of Virginia

Department of Environmental Sciences

Department of Politics

Director, Environmental Thought and Practice B.A. Program, 2002-17

Education

University of Virginia Ph.D., Government

University of California, Santa Barbara M.A., Biology (Ecology)

Princeton University A.B., Biology (Ecology)

Academic Appointments

Professor, University of Virginia, faculty member, 1997-2017

Director, Environmental Thought and Practice B.A. Program, 2002-2017

My faculty appointment spans the Department of Environmental Sciences and the Department of Politics. I directed for 15 years—and was instrumental in helping to create--the Environmental Thought and Practice (ETP) program, a selective B.A. curriculum.

Seminars: "Environmental Policymaking in the United States, "Politics of the Environment," "Environmental Decisions" (ETP capstone seminar, offered annually), "Class, Race, and the Environment," "Power, Energy, and Environmental Policymaking," "Power," and, "The Clean Air Act."

Lecture courses: "The President and Congress" and "Politics, Science, and Values: An Introduction to Environmental Policy" (the latter offered annually)

Non-Academic Professional Experience

Member and Vice Chair, Virginia State Air Pollution Control Board (2002 to 2010)

In 2002 Governor Mark Warner appointed me to this citizen-expert regulatory body, which is responsible for air pollution regulations and policy in the Commonwealth of Virginia. Governor Tim Kaine reappointed me for another four-year term in July 2006. The Board met in public four to eight times yearly, sometimes for two days at a time, in Richmond, Hampton Roads, Wise, and Alexandria.

Among the high-profile matters the Board considered during my tenure were: Dominion Power's proposal for a new coal-fired power plant in Wise County; permit restrictions for the aging coal-fired Mirant power plant in Alexandria; controlling airborne mercury pollution; and, addressing road dust associated with coal trucks in southwest Virginia. The Board's decisions involved controversial, technical-legal issues.

Senior policy analyst and manager (GM-15), United States Environmental Protection Agency, 1982-1993, San Francisco, California and Washington, DC

In my last position in EPA's Washington headquarters offices I was a senior analyst and manager in the Office of Policy Analysis and Review, a policy staff that advised the Assistant Administrator for Air and Radiation. I rose to the highest civil service rank (GM-15) and performed functions equivalent to those of a deputy office director, such as advising political appointees on Clean Air Act policies and regulations, supervising junior staff, conducting high-level briefings, and crafting legislative language. I co-authored a major EPA study on the risks of air pollutants like benzene and arsenic. That report won EPA's bronze medal.

Books and Book Projects

Sole author

Climate of Capitulation: An Insider's Account of State Power in a Coal Nation (MIT Press, April 2017). Winner of a prestigious PROSE award, 2018.

Climate of Capitulation is a rare environmental decision maker's inside narrative that recounts power struggles surrounding charged decisions concerning coal and air pollution in Virginia. From an insider's perspective, I write about pivotal cases handled during my eight years as member and vice chair of the Virginia State Air Pollution Control Board. I frame those analyses with literature on the "faces of power," political culture, legislative professionalism, and campaign finance.

The book reveals a "climate of capitulation" to coal and electric utility interests in Virginia. Parallel analysis is completed for six important coal states--Texas, Kentucky, Illinois, Indiana, Pennsylvania, and Ohio—and for the eleven states that comprise the US South. Collectively these states are responsible for a substantial fraction of US coal production, coal consumption for electricity generation, and carbon dioxide emissions from power plants. The final chapter proposes national and state reforms to mitigate state susceptibilities to a climate of capitulation.

Atmospheric scientist Michael Mann, winner of the 2019 Tyler Prize for Environmental Achievement, says *Climate of Capitulation* "kicks ash" and is a "must-read."

Sophisticated Interdependence in Climate Policy: Federalism in the United States, Brazil, and Germany (Anthem Press, Environment and Sustainability series, 2014)

We find ourselves in uncharted waters in the United States when it comes to state-national relations in climate change. Many states have developed climate change and renewable energy policies ahead of the national government, which plans to employ state-federal partnerships to regulate greenhouse gas emissions from large stationary sources like power plants. *Sophisticated Interdependence* proposes for these circumstances a policy framework that rests on domestic analysis of economic and political forces and comparative descriptions of climate change and energy programs in Germany and Brazil.

Pre-publication reviews said the book is “packed with insights,” “provides rich material for scholars and policymakers,” “offers a politically astute roadmap,” and “skillfully identifies common ground to break today’s stalemates.” An in-depth March 2016 essay in the *Georgetown Environmental Law Review* called the book “compelling,” “allowing us to call the option offense in climate policy.”

Garbage In, Garbage Out: Solving the Problems with Long-Distance Trash Transport (University of Virginia Press, 2009)

Garbage In, Garbage Out diagnoses the problems with, and offers policy solutions for, long-distance trash transport in the United States. Among the topics treated are: an overview of municipal solid waste management in the US; the theoretical and empirical connections among economic growth, consumption, and pollution; garbage management practices in the European Union and Japan; relevant court decisions; national legislative initiatives; and, environmental justice.

Garbage In Garbage Out was a finalist in the 2010 Southern Environmental Law Center’s Phillip D. Reed writing competition and it was reviewed favorably inside and outside of academia as “a breath of fresh air,” “original and a substantial contribution to the field of environmental policy,” and “an outstanding work that sheds much light on the current solid waste business model past and future.”

Current book project (2017-present)

Trash Matters

What constitutes success in trash management? And how would we know if we had reached that finish line? That is, how do we measure success? And what can we learn by studying the handling of trash in different settings? Places covered include New York, Virginia, Rio de Janeiro, São Paulo, and Berlin.

Articles in Peer-Reviewed Journals or Edited Volumes

Co-author

2018. Thomson, Vivian E., Kelsey Huelsman, and Dominique Ong. "Coal-Fired Power Plant Regulatory Rollback in the United States: Implications for Local and Regional Public Health." *Energy Policy* 123 (December 2018): 558-68.
2011. Thomson, Vivian E., and Vicki Arroyo. "Upside-Down Cooperative Federalism: Climate Change Policymaking and the States." *Virginia Environmental Law Journal* 29(1): 1-61.
2007. Okuda, Itaru and Vivian E. Thomson. "Regionalization of Municipal Solid Waste Management in Japan: Roles of the Proximity Principle, Central Government Control, and Local Government Financing." *Environmental Management* 40(1): 12-19.
1996. Galloway, James N., Zhao Dianwu, Vivian E. Thomson, and Lisa H. Chang. "Nitrogen Mobilization in the United States of America and the People's Republic of China." *Atmospheric Environment* 30 (10/11): 1551-1561.
1985. Thomson, Vivian E., Alan Jones and Elaine Haemisegger. "The Air Toxics Problem in the United States: An Analysis of Cancer Risks Posed by Selected Air Pollutants." *Journal of the Air Pollution Control Association* 35 (May 1985): 535-540. (Feature article)
1983. Thomson, Vivian E. and Bruce E. Mahall. "Host Specificity by a Mistletoe, *Phoradendron villosum* (Nutt.) Nutt. subsp. *villosum*, on Three Oak Species in California." *Botanical Gazette* 144(1): 124-131.

Sole author

2006. Review of *The Discovery of Global Warming* (Spencer Weart). *Journal of Politics* 68(1): 224-225.
2003. "Grab Bag Ethics in Environmental Policymaking: A Pragmatist's View." *Moral and Political Reasoning in Environmental Practice*, eds. Andrew Light and Avner de-Shalit. Cambridge: MIT Press.
2000. "Getting the Lead Out: Grab Bag Ethics in Environmental Policymaking." *The Ruffin Series No.2*: 185-204. Published by the Society for Business Ethics.

Peer Reviewer

Environmental Management
Environmental Politics
Environmental Research Letters
Intergovernmental Panel on Climate Change
International Journal of Public Policy
Science Magazine

Reports

2011. Thomson, Vivian E. "Resumen Ejecutivo: El Manejo de la Basura en Colón, Panamá: Un Estudio de Estrategias Seleccionadas, Octubre 2011."

http://www.panama.evsc.virginia.edu/docs/el_dompe_111014.pdf

2006. *Early Observations from the European Union's Emissions Trading Scheme: Insights for US Policymakers.*

http://www.pewclimate.org/docUploads/Early_Observations_on_EUETS_Thomson.pdf

1996. *Southern Appalachian Clean Air Partnership.* (100-page monograph describing air pollution in the southern Appalachian mountains and associated federal policies. Funded and published by the National Park Service and the USDA Forest Service.)

1993. *Air Quality in Central Virginia: Phase I Analysis for the Thomas Jefferson Study to Preserve and Assess the Regional Environment.* Washington: US EPA Office of Air and Radiation.

(OCLC: 212249497)

1985. Haemisegger, Elaine, Alan Jones, Bernard J. Steigerwald and Vivian E. Thomson. *The Air Toxics Problem in the United States: An Analysis of Cancer Risks for Selected Pollutants.*

Washington: U. S. Environmental Protection Agency.

<http://nepis.epa.gov/Adobe/PDF/9100ZAVN.PDF>.

Popular Articles, Blogs, Editorials

Washington Post, "Breathing While Black: A Dominion Compressor Station Would Disadvantage A Historically Black Community in Virginia," 25 January 2019,

https://www.washingtonpost.com/opinions/breathing-while-black-a-dominion-compressor-station-would-disadvantage-a-historically-black-community-in-virginia/2019/01/25/cf88e056-1e76-11e9-8b59-0a28f2191131_story.html?utm_term=.ff5fb9c39212

Virginia Mercury, "How Will the Virginia Air Board Weigh Site Suitability on Major Compressor Station Vote?," 7 January 2019, <https://www.virginiamercury.com/2019/01/07/how-will-air-board-weigh-site-suitability-on-major-compressor-station-vote/>

Virginia Mercury, "A Governor Meddles with the Air Board As It Weighs a Dominion Energy Permit and a Former Member Gets Déjà Vu," 19 November 2018,

<https://www.virginiamercury.com/2018/11/19/a-governor-meddles-with-the-air-board-as-it-weighs-a-dominion-energy-permit-and-a-former-member-gets-deja-vu/>

The Blue View, "Trump Threat to Reverse Air Quality Gains Risks Thousands of Lives in No.VA and Elsewhere," 11 October 2018, <http://blueview.org/2018/10/11/trump-threat-to-reverse-air-quality-gains-risks-thousands-of-lives-in-nova-and-elsewhere/>

Scientific American, "Trump's Breathtaking Hypocrisy on Coal Mining," 22 September 2017,

<https://www.scientificamerican.com/author/vivian-e-thomson/>

Roanoke Times, "Virginia's Politicians: Dancing with Them What Brung you," 9 November 2017, http://www.roanoke.com/opinion/commentary/thomson-virginia-s-politicians-dancing-with-them-what-brung-you/article_34578adb-c549-5809-90f4-8e9e6ff8715f.html

Brookings Institution, 14 January 2015, "Brazil and the United States: Kindred Spirits in the Climate and Energy Arenas," co-authored with Sérgio Pacca, University of São Paulo. <http://www.brookings.edu/blogs/planetpolicy/posts/2015/01/14-brazil-united-states-energy-climate-thomson-pacca>.

Brookings Institution, 17 July 2014, "What the US Can Learn from Germany and Brazil in the Climate and Renewable Energy Arenas." <http://www.brookings.edu/blogs/planetpolicy/posts/2014/07/17-germany-brazil-climate-renewable-energy-thomson>.

Conference Papers, Workshops, Invited Talks

2013-18

Numerous book launch event lectures, 2017-2018, in Iowa, Texas, and Virginia
University of São Paulo, Brazil, invited lecture (November 2018) (delivered in Brazilian Portuguese)

University of Michigan, Gerald Ford School of Public Policy, invited guest lecturer (November 2017)

Ferrum College, invited guest lecturer (October 2017)

Federal University of Rio de Janeiro, invited lecture (May 2017) (delivered in Brazilian Portuguese)

American Academy of Arts and Sciences, invited participant, March 2017 workshop on Energy Policy

International Studies Association (March 2016, paper submitted, unable to present at conference)

Fordham University Law School Symposium on climate change policymaking in the U. S. (February 2016)

Hochschule Fulda, Fulda, Germany (June 2015, lecture delivered partly in German)

University of São Paulo, Brazil, lectures in the law school and for the sustainability program, delivered in Brazilian Portuguese (March 2015)

University of Virginia, School of Continuing Education and Professional Studies, all day lecture for government officials from Guizhou province, China (February 2015)

University of Virginia Latin American Studies Program (November 2014, with Professor Sérgio Pacca, University of São Paulo)

University of California, Berkeley, Energy Biosciences Institute (October 2014)

Climate Resilience Summit, sponsored by NSF, AAAS, and DOE, Washington, DC (June 2014)

GO Associados, São Paulo, Brazil (July 2014) (lecture delivered in Brazilian Portuguese)

Heinrich Böll Foundation, Washington, DC, book launch for *Sophisticated Interdependence* (May 2014)

Midwest Political Science Association (April 2014)
University of São Paulo, São Paulo, Brazil (two lectures, partly or largely in Brazilian Portuguese) (July 2013 and March 2014)
Federal University of Rio de Janeiro, Rio de Janeiro, Brazil (lecture delivered partly in Brazilian Portuguese) (March 2014)
UVa Center for German Studies (February 2014)
Policy Studies Association (December 2013)

1998-2013

American Political Science Association
Bayerisches Staatsministerium für Landesentwicklung und Umweltfragen, Augsburg, Germany
Conference on Nature and Culture in the Baltic States, University of Tampere, Finland
Ethics and the Life Sciences, American Philosophical Association and the University of Delaware, Dover, Delaware
European Consortium for Political Research, Canterbury, England
Fondazione per l'Ambiente Teobaldo Fenoglio, Turin, Italy
International Political Science Association World Congress, Quebec City
Midwest Political Science Association
Seminar on Masculinities, University of Southern Denmark, Odense
7th Nordic Environmental Social Science Research Conference, Göteborg, Sweden
Six Months After 9-11, University of Southern Denmark, Odense
SAP/ISEE Conference on Environmental Ethics, Oxford University, England
Auburn University
College of William and Mary
Emory University
Free University of Berlin
Georgetown Law Climate Center
Stanford University
University of Virginia School of Law
Charlottesville, Virginia Democrats
National Securities Seminar, Naval Supply Systems Command

Awards, Fellowships, Fundraising and Grants

2015 Center for Global Inquiry and Innovation grant (<http://planning.virginia.edu/undergradu%E2%80%99s-research-seeks-answers-world-trash-crisis>)

2014 Center for Global Inquiry and Innovation grant

2014 ETP Supplemental Grant, Associate Dean of Arts and Sciences, University of Virginia

2014 Vice President for Research, University of Virginia, for work in Brazil

2014 Pavilion Seminar grant, University of Virginia

2013-14 ETP supplemental grant, Associate Dean of Arts and Sciences, University of Virginia

2013 Small grants award, Vice President for Research, University of Virginia

2013 Travel grant, Dean of Arts and Sciences and VP for Research, University of Virginia

2013 Curriculum development grant, Center for International Studies, University of Virginia
2013 German Academic Exchange Service, faculty research grant for work in Germany
2012 Sesquicentennial sabbatical leave, University of Virginia
2011 Travel grant, University of Virginia International Studies Office.
2011 Nominated for the Erchul Leadership Award, given to the Virginian who has made significant individual efforts to better the environment.
2010 Finalist, Southern Environmental Law Center's Phillip D. Reed Writing Competition
2007-current Director, UVa Panama Initiative (raised or helped to raise \$300,000 to date, funds from President, Provost, Vice Provost for International Programs, Vice President for Research, private donors, College of Arts and Sciences, School of Engineering, School of Medicine, in-kind support from US EPA)
2009 University of Virginia Harper Endowment Grant
2007 University of Virginia Small Grants Program (Research in Belgium for *Garbage In, Garbage Out: Solving the Problems with Long-Distance Trash Transport*)
2005 Guest Scholar, Pew Center on Global Climate Change, Arlington, Virginia
2005 Sesquicentennial sabbatical leave, University of Virginia
2001-02 Distinguished Fulbright Chair in American Studies, University of Southern Denmark (shared position)
1999 University of Virginia Teaching Initiative Grant
1993-96 University of Virginia: Bankard Pre-doctoral Fellowship; DuPont Fellowship; Governor's Fellowship; and, Woodrow Wilson Fellowship
1990 Resident Fellow, Virginia Foundation for Humanities and Public Policy
1985 Bronze medal, U.S. Environmental Protection Agency

Radio Interviews

2017, WVTF, on proposed pumped storage station in southwest Virginia, <https://www.wvtf.org/post/huge-water-battery-stores-energy-rainy-day-what-cost-o#stream/o>
2017, WVTF, on my new book, *Climate of Capitulation*, <https://www.wvtf.org/post/why-coal-still-has-clout-commonwealth#stream/o>
2015, Minnesota Public Radio, on the Obama EPA's Clean Power Plan, <https://www.mprnews.org/story/2015/08/06/climate-cast-the-clean-power-plan-mandates-large-pollution-reductions>
2014 radio interviews on *Sophisticated Interdependence in Climate Policy*: WNRN, Live one-hour show with Rick Morris, 15 June 2014; WTJU Soundboard, with Robert Packard, 6 June 2014; WINA, Interview with Les Sinclair, 29 May 2014, <http://wina.com/podcasts/vivian-thomson/>; WVTF (NPR), "Ideas for the EPA," 27 May 2014, <http://wvtf.org/post/ideas-epa>, with Sandy Hausman.
10 January 2013, WTJU Soundboard (on climate change)
27 January 2011, MarketPlace radio, From Trash to Energy, <http://marketplace.publicradio.org/display/web/2011/01/27/pm-from-trash-to-energy/>
7 October 2010, WLRN, Miami, Florida, Mt. Trashmore, <http://wlrnunderthesun.org/2010/10/mt-trashmore-this-place-is-a-dump/>

13 March 2010, WVTF story and interview on El Dompe in Colon, Panama, with Sandy Hausman, http://www.wvtf.org/news_and_notes/audio/201004121443350.eldompe.mp3
2 December 2010, Charlottesville Right Now!, with Coy Barefoot, 30-minute live interview about *Garbage In, Garbage Out*,
<http://www.cvillepodcast.com/2009/12/10/charlottesville%E2%80%94right-now-with-coy-barefoot-vivian-thomson/>
21 September 2009, Off-the-shelf, UVa Today Radio Show, about *Garbage In, Garbage Out*,
<http://www.virginia.edu/uvatoday/newsRelease.php?id=9773>
8 April 2009, U. Va. Today Radio Interview on Dr. Stanley Heckadon Moreno's visit to U. Va. for the Panama Initiative.
21 March 2008, WAMU news story, "Power Plant Permits Delayed for Mirant," <http://wamu.org/news/08/03/21.php#20166>.
9 November 2007, national public radio broadcast of Marketplace Money, "Turning Trash Into Cash," http://marketplace.publicradio.org/display/web/2007/11/09/consumed2_mm_7/.

Guest Lecturers and Lecture Series Organized at the University of Virginia

Tremaine Forum on the Environment (1999 and 2000): Sheila Jasanoff, Professor of Science and Technology Studies, Harvard University; Susan Strasser, Professor of History, University of Delaware; Ed Russell, Professor of Science Technology and Studies, University of Virginia; Carole Crumley, University of North Carolina, Chapel Hill.

Class, Race, and the Environment (2007): Kristin Shrader-Frechette, Professor, Biological Sciences and Philosophy, University of Notre Dame; Christopher Foreman, Jr., Professor of Public Policy, University of Maryland; Edwardo Lao Rhodes, Professor of Public and Environmental Affairs, Indiana University.

Guest lecturers in Dr. Thomson's classes or for the Environmental Sciences Department seminar series (2002 to present): Dr. F. Herbert Bormann, Professor Emeritus of Forest Ecology, Yale University; Dr. John D. Wehausen, Research Scientist, White Mountain Research Station, University of San Diego; Honorable Hullihen Williams Moore, Chair, Virginia Air Pollution Control Board; Jenny Jones, Graduate Student, Landscape Architecture and Urban and Environmental Planning and Winner, Los Angeles Cleantech Corridor and Green District Competition; Dr. Heinz-Georg Baum, Hochschule Fulda, Germany; Vicki Arroyo, Pew Center on Global Climate Change; Paul Stolpman, Director, Office of Atmospheric Programs, US EPA; Joel Salatin, Polyface Farms; E. J. Scott, Member and Chair, Virginia Waste Control Board; Professor Andrea Larson, Darden School; Dr. Oswaldo Lucon, CETESB and the University of São Paulo, Brazil; Liane Schalatek, Heinrich Böll Foundation, Washington, DC. 2014-16: Dr. Sérgio Pacca, University of São Paulo, Brazil; Dr. Georg Maue, Embassy of Germany, Washington, DC; Bill Buzbee, Georgetown Law, Washington, DC; Dr. Bruce Mahall, UCSB (emeritus); Dr. Joana Portugal, Federal University of Rio de Janeiro; Dr. Virginia Parente, University of São Paulo, Brazil.

Panama Initiative: Federico Humbert, Panama Ambassador; Jaime Alemán, Panama Ambassador; Dr. Stanley Heckadon Moreno, Director of Communications, Smithsonian Tropical Research Institute; Dr. Rodrigo Tarté, Director of Academics, City of Knowledge, Panama City, Panama; Dr. Guillermo Castro, Associate Director of Academics, City of Knowledge, Panama City, Panama.

Director, Environmental Thought and Practice B. A. Program
etp.virginia.edu

I directed the ETP program from its inception in 2002 until my retirement from U.Va. in 2017. ETP graduates are making their mark in the world, as indicated by the abbreviated list of their honors, graduate schools, professional schools, and places of employment listed at <http://etp.virginia.edu/prospective->.

Director, University of Virginia Panama Initiative

In 2007 I was appointed director of this cross-disciplinary, international collaboration in research and teaching, launched by President Casteen, Provost Garson, and Vice Provost Grossman. I raised, or helped to raise, an estimated \$300,000 for the Initiative's projects.

Initiative projects concerned tropical diseases (Dick Guerrant, School of Medicine), trash management research involving use of an EPA computer decision model (Vivian Thomson), water quality (Janet Herman and Matt Reidenbach, Environmental Sciences), mangroves (Paolo D'Odorico, Environmental Sciences), business sustainability (Andy Larson, Darden School of Business), online education tools (Jennifer Chiu, Curry School of Education), and the Panama Canal's expansion (Ed Berger and Deborah Johnson, School of Engineering).

Languages

Brazilian Portuguese, German, and Spanish (strong reading and writing skills, decent conversation skills)

Thesis and Research Advisees

Mateo Semerene, ETP and School of Commerce '18 (trash management in Panama)
Jeremy Kemp, ETP and Environmental Sciences '17 (politics of renewable energy)
Mary Jane Gilliland, ETP '16, and Gaby Santiago, ETP and Public Policy '17 (waste pickers in Brazil)
Vanessa Ehrenpreis, ETP '16 (carbon "ownership" in Nepal)
Elena Jiménez-Gutiérrez, U. Va. Medical School *13 (various public health issues in Panama)
Jasmine Drake, Biology '13, MA Program, CUNY School of Public Health (waste management in Panama)
Halley Epstein, ETP and History '11, Yale Law, Clerk, Federal Eastern District Court of Pennsylvania (federalism and climate change policymaking in the states)

Elizabeth Ritch, ETP and Physics '10, Panama Initiative Fellow, Senior Associate, Environ International (Chagas disease in Las Pavas, Panama)

Sarah Buckley, ETP and Philosophy, Policy, and Law '09, U. Va. Law, Clerk for the Honorable T. S. Ellis (Federal Eastern District Court of Virginia)(political theory and endangered species)

Reem Alamiri, ETP '08, Panama Initiative Scholar, analyst, Deloitte LLP (trash management in Panama)

Elizabeth Eklund, MS Environmental Sciences '07 (comparative study of national park management strategies)

Khalial Withen, ETP and Politics '06, Fulbright scholar, Stanford Law, Associate, Jermain Dunnagan & Owens (water distribution systems in Bolivia)

Daniel Shean, ETP and Politics '05, U. Va. Law, Assistant US Attorney, US Department of Justice (interstate transport of garbage)

Claudia Jirón-Murphy, ETP '04, George Mason Law (UVA's Lawn: environmental impacts)

Ben Rottenborn, ETP and Economics '03, Stanford Law, Associate, Kirkland and Ellis (air pollution control in Virginia)

Consulting

David Gardiner and Associates, *TXU's Expansion Proposal: A Risk for Investors*, a report for CERES, available at <http://www.ceres.org/pub/>

Pew Center on Global Climate Change, EU policies concerning energy taxes

USDA Forest Service and National Park Service, air pollution in the southern Appalachians

Contact Information

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References Available Upon Request