Stephen S. Young

Geography and Sustainability Department
Salem State University, Salem MA, USA

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EDUCATION

Ph. D.	**Clark University**, Graduate School of Geography.
1997	Fields of Study: GIS - Remote Sensing, Global Change, Biogeography.
M.E.S.	**Yale University**, School of Forestry and Environmental Studies.
1985	Master of Environmental Science (MES). Focus: Forest Ecology and Conservation.
B.A.	**University of Vermont**, School of Arts and Sciences.
1982	Major: Environmental Studies. Honors: *phi beta kappa*.
	National Taiwan Normal University, Mandarin Training Center.
1989	Taipei, Taiwan. Three-month intensive Mandarin Program.

EXPERIENCE (Professional & Field)

1995-present **Salem State University**, Geography and Sustainability Department

* Professor Emeritus	2023 - Present
* Full Professor	2005 – 2023
* Interim GIS Master's Program Coordinator	2020 – 2021, 2006
* Department Chair	2007 - 2010
* Faculty Coordinator – Digital Geography Lab	2004 - 2007
* Associate Professor with Tenure	2000 - 2005
* Assistant Professor of Geography	1995 - 2000

2023. 25 **Al-Farabi Kazakh National University (KazNU),** Almaty, Kazakhstan
* Spring 2025: Visiting Expert Fellowship and International Advisor
* Fall 2023: Visiting Expert Fellowship and International Advisor

Shanghai Normal University (SHNU), Shanghai, China
2018 * One month spring semester sabbatical visit – lectures, field research
2015 * Two-week visit: field research, lectures – received honorary professorship at SHNU
2011 * One week visit: lectures and introduction of SSU Geography Department

Ecology, Conservation, & Environment Center (ECEC), Kunming, Yunnan, China
Kunming Institute of Zoology, Chinese Academy of Sciences (CAS)
2013 * Visiting Researcher, (1 month position) funded by CAS
2011 * Visiting Researcher, Sabbatical leave (2-month position) funded by CAS

2002-2003 **University College London**, Department of Geography, London, England
* Visiting Researcher, Sabbatical leave (10-month position)

1990-1995 **Clark University**, Graduate School of Geography, Worcester, MA.
* Research Assistant (all years) Adjunct Faculty, spring 1994, spring 1995.

1993-1995 **Guizhou Environmental Protection Bureau (GEPB), International Crane Foundation (ICF), Trickle-Up Program (TUP)**, Guizhou, China. (12 months)
* Natural Resources Consultant – field ecology work, plus poverty alleviation related to conservation.

1989 **Wildland Studies**, San Francisco State University. Hong Kong & China.
* Adjunct Professor (Fall, 1989) field ecology course in S.W. China for American undergraduates.

1989 **Japan Environmental Exchange**, Kyoto, Japan.
* Natural Resources Consultant – 6 weeks helping evaluate program and write grant proposals.

1987-1989 **Coolidge Center for Environmental Leadership**, Cambridge, MA.
* China Project Director. (part-time) Developed the *China Tropical Forest Conservation Project*

1987-1989 **Greenpeace**, Cambridge, MA.
* Staff Scientist.

1986 **Chinese Academy of Sciences**, Yunnan, China.
* Forest Ecologist (12 months) - Developed & directed an old growth forest ecology and conservation study in western Yunnan. Surveyed tropical forests in Yunnan & alpine forests in Sichuan.

EXPERIENCE (Teaching)

1995-present **Salem State University**, Salem, MA.

UNDERGRADUATE COURSES

* Air Photo Interpretation	* Biogeography	* Digital Image Processing	* Directed Studies
* Drones & Image Analysis	* Environ Studies	* Geography of Asia	* Global Climate Change
* Global Environ Issues	* Introduction to Geog	* Geospatial Technology	* Maps & GIS
* Map Reading & Interpretation	* Physical Geog, & Lab	* Quantitative Geog	* Quant geo Advanced
* Remote Sensing	* U.S. Geography	* Weather & Climate	* World Regions

* Travel / Study Field Seminars, undergraduate

Summer 2005: The Geography and History of WWII	(in Europe)
Summer 2006: The Geography of Ireland	(in Europe)
Summer 2007: The History & Geography of Central Europe	(in Europe)
Summer 2014: The Geography of the US Southwest	(in US Southwest)
Summer 2017: The Geography of the US Southwest	(in US Southwest)
Summer 2019: The Geography of the Pacific Northwest	(in US Northwest)
Summer 2022: The Geography of the US Southwest	(in US Southwest)
Summer 2024: The Geography of the US Southwest	(in US Southwest)

GRADUATE COURSES

* Air Photo Interpretation * Remote Sensing * Digital Image Processing * Thesis Preparation * Directed Studies

1994, 1995 **Clark University**, Worcester, MA. * Tropical Ecology

1995 **College of the Holy Cross**, Worcester, MA. * The Tropics: Ecological & Socio-Political Issues

1989 **San Francisco State University,** Hong Kong and Yunnan, China.
* Field Research Methods * Forest Ecology * Cultural Ecology

INTERNSHIPS – Summer jobs

1983	**National Geographic Society,** Washington, DC:	*Geographic Researcher*
1982	**US Bureau of Land Management**, Alaska:	*Assistant Archaeologist*
1982	**VT Agency of Environmental Conservation**, VT:	*Technician*
1981	**Winooski Valley Park District**, Vermont:	*Park Planner*
1980	**US Forest Service**, Montana:	*Wilderness Ranger*

GALLERY EXHIBITS

Macro or Micro is an exhibit by S. Young (Geography) and Paul Kelly (Biology), Salem State University. This exhibition challenges our perception of scale with electron-microscopic images next to satellite images. http://drsalemdrone.net/ART/Macro-Micro/MM-index.htm

2025 "*Macro or Micro?*" at Old Town Hall ***Salem***, MA outdoor exhibition, March - July 2025.

2025 "*Macro or Micro?*" Department of Film & Media Studies Gallery ***Dartmouth College***; May 8 – June 8, 2025.

2024 "*Macro or Micro?*" in cooperation with the ***City of Salem***, outdoor exhibition, September 15-October 15, 2024.

2020 "*Macro or Micro?"* in cooperation with ***Sigma Xi***, national meeting – virtual – Nov 5-8, 2020.

2018 *"Macro or Micro?"* in cooperation with the ***International Geographical Union***'s (IGU) International Congress, **Quebec City, Quebec, Canada** – August 2018.

2018-19 *"Macro or Micro or Meso?"* **Borisenok Family Science Center**, **Albany Academy**, Albany, NY. May 2018 – May 2019. In cooperation with students from the Albany Academies.

2018 *"Macro or Micro?"* ***Soheir Room,*** **Beverly Library, Beverly, MA** February, 2018

2015-16 *"Macro or Micro?"* ***Museum of Science***, **Boston, Massachusetts**. June 2015 – March 2016

2015 *"Macro or Micro?"* ***Kroon Hall Gallery, Yale University***. October - December, 2015

2015 *"Macro or Micro?"* ***Tehran University,*** **Tehran, Iran**. November, 2015

2015 *"Macro or Micro?"* ***Sazmanab Center for Contemporary Art***, **Tehran, Iran**. August 16 -17, 2015

2014 *"Macro or Micro?"* ***Café Gallery, George C. Gordon Library***, **Worcester, MA**. Aug 28 – Dec 19, 2014.

2013 *"Macro or Micro?"* ***Winfisky Gallery***, **Salem. MA**. October, 2013.

2013 *"Macro or Micro?"* ***Traina*** **Center** ***for the Visual and Performing*** **Arts, Clark University Worcester, MA**. October, 2013.

Mapping Climate Change *on the North Shore of Massachusetts: Taking Action with Modern Mapping Techniques.* This is an exhibition curated by Stephen Young using his research work alongside other SSU faculty, graduate students and alumni. http://drsalemdrone.net/ART/Great%20Marsh/GM-index.htm

2020 *"Mapping Climate Change"* Unitarian Universalist Church of Greater Lynn. January 19 – February 28.

2019 *"Mapping Climate Change"* Greenbelt (Essex County Land Trust). October 6 – 18.

Solo Art Exhibits

Science of remote sensing in artistic format. http://drsalemdrone.net/ART/ART.HTM

2008 "North Africa from Space" in cooperation with the ***International Geographical Union***'s (IGU) International Congress, **Tunis, Tunisia** – August 2008.

2008 "Return of The Earth Exposed" ***Winfisky Gallery***, **Salem. MA**. March, 2008.

2006 "Return of The Earth Exposed" ***Sasaki Associates***, **Watertown, MA,** October 19 – December 8, 2006.

2006 "Australia from Space" in cooperation with the ***International Geographical Union***'s (IGU) regional international conference, **Brisbane, Australia**, July 3 - 30, 2006;
Traveled to: **Canberra**: August 2006 **Sydney:** September 2006.

2005 "The Earth Exposed: How geographers study the Earth from space." ***National Science Foundation Art of Science Gallery***. **Arlington, Virginia**. November 29, 2004 – March 4, 2005.

2004 "The Earth Exposed" ***Esther M. Klein Art Gallery***, **Philadelphia, PA**. Gallery's 18th "Art-in-Science" exhibition. Part of the Centennial Celebration of the Association of American Geographers. Funding from the National Science Foundation. March 14, 2004 – April 15, 2004.

2001 "The Earth Exposed" ***ArtWorks!***, **New Bedford, MA**, September – October, 2001.

2001 "The Earth Exposed" ***Sasaki Associates***, **Watertown, MA**, February 15 – May 15, 2001.

2000 "The Earth Exposed," the Goddard Library Gallery, ***Clark University***, **Worcester, MA**. November 13 - December 15, 2000.

1999 "Ipswich River Wildlife Sanctuary from Space," The Barn, IRWS, ***Massachusetts Audubon Society***, **Topsfield, MA**. December 1999 - May, 2000.

1998 "Salem from Space," ***Winfisky Gallery***, **Salem. MA**. November, 1998.

Group Art Exhibits

2013 "We're standing on it" ***Winfisky Gallery***, **Salem. MA**. February11 – March 21, 2013.

PUBLICATIONS – peer reviewed

2025 Farina, N., Waddington, G., Nafa, F. **Young**, S.S., Impact of Solar Farm Expansion on Forest Cover in Massachusetts, USA: An Analysis Using Artificial Intelligence and Remote Sensing. *Professional Geographer 1-12.* https://doi.org/10.1080/00330124.2025.2499477.

2025 Wright, P., Baker, S. and Young, S.S. Preserving History: Assessments and Climate Adaptations at the House of the Seven Gables in Salem, Massachusetts, USA, feature article in Atmosphere *16*(1), 84.

2023 Tu, J.C., Wen, J.H., Yang, L.E., Reimuth, A., **Young**, S.S., Zhang, M., Wang, L.Y., Garschagen, M., Assessment of building damages and adaptation options under extreme flood scenarios in Shanghai *Natural Hazards and Earth System Sciences Discussions*, pp.1-27.

2023 **Young,** S.S., 2023. Global and Regional Snow Cover Decline: 2000–2022. *Climate*, *11*(8), p.162.

2021 **Young**, S. and Young, J. Overall Warming with Reduced Seasonality: Temperature Change in New England, USA, 1900–2020. *Climate*, *9* (12), 176.

2021 **Young**, S. Rao, S., & Dorey, K. Monitoring the erosion and accretion of a human-built living shoreline with drone technology. *Environmental Challenges*, *5*, 100383.

2021 Nyussupova, G., Aidarkhanova, G. and **Young,** S.S., 2021. The impact of the transformation of the economy of the Republic of Kazakhstan on the reproduction of human capital: socio-economic aspect. *Studies of the Industrial Geography Commission of the Polish Geographical Society*, *35*(2), pp.38-52.

2021 Wang, L., Ren, G., Hua, F., **Young**, S., Wang, W., Yang, C., & Zhu, J. Integrating habitat availability into restoration efforts for biodiversity conservation: Evaluating effectiveness and setting priorities. *Biological Conservation*, *257*, 109127.

2020 **Young**, S.S. and Wamburu, P. Comparing drone-derived elevation data with air-borne LiDAR to analyze coastal sea level rise at the local level. *Papers in Applied Geography*, pp.1-10.

2020 Thiebault, K. and **Young**, S.S., Snow cover change and its relationship with land surface temperature and vegetation in northeastern North America from 2000 to 2017. *International Journal of Remote Sensing.* DOI:10.1080/01431161.2020.1779379

2019 **Young**, S.S., Journey to Ghana's sacred forests. *Sextant*, 25(1) pp. 17-24.

2017 Thiebault, K. and **Young**, S.S., Satellite detection of vegetation change in Northeast North America from 2000 to 2016. *Northeast Geographer*; 9:4-28.

2017 **Young,** S.S., Kelly, P. Macro or Micro? A Visual Art Exhibition Challenging Our Perceptions of Scale. Geohumanities. Volume 3, Number 1 250-265. http://www.tandfonline.com/doi/full/10.1080/2373566X.2017.1295815

2016 Wang, L., **Young, S.S**., Wang, W., Ren, G.P., Xiao, W., Long, Y.C., Li, J.S., Zhu, J.G., Conservation priorities of forest ecosystems with evaluations of connectivity and future threats: Implications in the Eastern Himalaya of China. *Biological Conservation***.** 195: 128-135.

2015 Ren, G., **Young, S.S**., Wang, L., Wang, W., Long, Y., Wu, R., Li, J., Zhu, J., Yu, D.W. 2015. *Effectiveness of China's national forest protection program and nature reserves.* *Conservation Biology.* doi: 10.1111/cobi.12561

2014 O'Connell, T., and **Young**, S.S., No more Hidden Secrets: Human Rights and Remote Sensing. *Genocide Studies and Prevention Journal*. 8(3): 5-31.

2014 Kelly, P., and **Young**. S.S., Macro or Micro? *Sextant*, 21(1): 24-35.

2014 Rogers, L. and **Young**, S., Temperature Change in New England: 1895–2012. *International Journal of Undergraduate Research and Creative Activities*, *6*(3), pp.1-10.

2013 Silvern, S. and **Young**. S.S. *Global Environmental Change and Sustainability*, InTech Open Access Publisher. ISBN 978-953-51-1094-1.

2013 Pappathanasi, K. and **Young**, S.S., 2013. The Digital Geography Lab at Salem State University: The Evolution of One of the Oldest Educational Digital Geospatial Labs. In *Geographic Information Systems: Concepts, Methodologies, Tools, and Applications* (pp. 1090-1099). IGI Global.

2012 Hu, H., Curtis, P., and **Young**, S.S., Analysis of Land Surface Temperature Change for Northeastern North America using MODIS Thermal data, 2001 to 2011. *Northeastern Geographer*. 4(2): 50-65.

2012 Pappathanasi, K. and **Young** S.S., The Digital Geography Lab at Salem State University: The evolution of one of the oldest educational digital geo-spatial labs. *International Journal of Applied Geospatial Research*. **3**(3): 86-96.

2012 **Young, S.S.** and D. Bardati. Co-editor of a special edition (Environmental Change in Northeastern North America) of the journal *The Northeastern Geographer*, volume 4 number 2.

2012 **Young, S.S.** and S. Silvern. *International Perspectives on Global Environmental Change*, InTech Open Access Publisher. ISBN 978-953-307-815-1.

2011 **Young, S.S.** Geoinformatics and the Mapping of Lands Vulnerable to Sea Level Rise. In *Geoinformatics for Climate Change Studies.* Edited by P.K. Joshi, A. Joshi, and T.P. Singh. New Delhi: TERI Press. Chapter4 pp. 109-127.

2011 **Young, S.S.** "The Earth exposed: how geographers use art and science in their exploration of the Earth from space." In *GeoHumanities: Art, History, Text at the Edge of Place* Edited by M. Dear, J. Ketchum, S. Luria, and D. Richardson. New York: Routledge. Chapter 19 pp. 183-186.

2011 **Young, S.S**. Case Study: Mississippi-Lungs. *International Journal of Applied Geospatial Research*. July-September 2011. **2**(3)**:** 86-88.

2007 Jeyaseelan, A.T., Roy, P.S. and **Young**, S.S., Persistent Changes in NDVI between 1982 and 2003 over India using AVHRR GIMMS (Global Inventory Modeling and Mapping Studies) data**.** *International Journal of Remote Sensing***. 28**(21): 1-20.

2005 **Young, S.S**., and Harris, R., Changing patterns of global-scale vegetation photosynthesis, 1982-1999. *International Journal of Remote Sensing.* **26**(20): 4537-4563.

2004 **Young, S.S**., Satellite Detected Broad-Scale Vegetation Change in China, 1982 – 1999. *Asian Geographer*. 22(1-2): 123-142.

2003 Wang, Z.J., and **Young**, S.S. Differences in bird diversity between two Swidden Agricultural sites in mountainous terrain, Xishuangbanna, Yunnan, China. *Biological Conservation*. 110: 231-243.

2002 **Young, S.S.,** Nature conservation through poverty alleviation: China's Cao Hai nature reserve. ***Sextant.*** 12 (1 & 2): Cover, 9-16.

2001 Niu, Z., C. Y. Wang, W. Wang, Q. Y. Zhang, and **S. S. Young**. Estimating bi-directional angles in NOAA AVHRR images. *International Journal of Remote Sensing.* 22(8): 1609-1615.

2001 **Young, S.S**., and C. Y. Wang. Land-cover change analysis of China using global-scale Pathfinder AVHRR Landcover (PAL) data, 1982-92. *International Journal of Remote Sensing.* 22(8): 1457-1477.

2000 Wang, Z. J., C. Carpenter, and **S. S. Young**. Bird distribution and conservation in the Ailao Mountains, Yunnan, China. *Biological Conservation*. 92(2000): 45-57.

1999 **Young, S.S**., and A. Anyamba. Comparison of NOAA/NASA PAL and NOAA GVI data for vegetation change studies over China. *Photogrammetric Engineering & Remote Sensing* 65(6): 679-688.

1999 **Young, S.S**. Salem from space. *Sextant* 9(1): Cover; 11-16.

1995 **Young, S.S**., and S.R. Herwitz. Floristic diversity and co-occurrences in a subtropical broad-leaved forest and two contrasting regrowth stands in central-west Yunnan Province, China. *Vegetatio* 119: 1-13.

1994 Herwitz, S.R., and **S.S. Young**. Mortality, recruitment, and growth rates of montane tropical rain forest canopy trees on Mount Bellenden-Ker, Northeast Queensland, Australia. *Biotropica*. 26(4): 350-361.

1992 **Young, S.S**., C. Carpenter, and Z.J. Wang. Study of the structure and composition of an old growth and a secondary evergreen broad-leaved forest in the Ailao mountains in Yunnan, China. *Mountain Research and Development.* 12(3): 269-284.

1989 **Young, S.S.,** and Z.J. Wang. A comparison of secondary and primary forests in the Ailao Shan region of Yunnan, China. *Forest Ecology and Management.* 28: 281-300.

Edited Volumes, Book Chapters, Book Reviews

2021 Bremer, M. and S.S. **Young**. Land Cover Change in a Ghanaian Sacred Forest. In ed. Silvern, S.E. and Davis, E.H., *Religion, Sustainability, and Place* (pp. 149-171). Palgrave Macmillan, Singapore.

2013 Silvern, S. and **S. S. Young**. *Global Environmental Change and Sustainability*, InTech Open Access Publisher. ISBN 978-953-51-1094-1.

2012 **Young, S.S.** and D. Bardati. Co-editor of a special edition (Environmental Change in Northeastern North America) of the journal *The Northeastern Geographer*, volume 4 number 2.

2012 **Young, S.S.** and S. Silvern. *International Perspectives on Global Environmental Change*, InTech Open Access Publisher. ISBN 978-953-307-815-1.

2011 **Young, S.S.** Geoinformatics and the Mapping of Lands Vulnerable to Sea Level Rise. In *Geoinformatics for Climate Change Studies.* Edited by P.K. Joshi, A. Joshi, and T.P. Singh. New Delhi: TERI Press. Chapter4 pp. 109-127.

2011 **Young, S.S.** "The Earth exposed: how geographers use art and science in their exploration of the Earth from space." In *GeoHumanities: Art, History, Text at the Edge of Place* Edited by M. Dear, J. Ketchum, S. Luria, and D. Richardson. New York: Routledge. Chapter 19 pp. 183-186.

2006 **Young, S.S.** with Francis, A., Hayes, J., and Krebs, L. *Weather & Climate Lab Manual*, Department of Geography, Salem State University, January, 2006.

2004 **Young, S.S**., THE TIGER AND THE PANGOLIN: Nature, Culture, and Conservation in China. By Chris Coggins. Xi and 339 pp.; maps, diagrs., ills., bibliog.., index. Honolulu: University of Hawai'i Press, 2003. $55.00 (cloth), ISBN 0824825063. in *The Geographical Review*, 94 (2): 258-260.

2003 **Young, S.S.**, Global-scale AVHRR data for land-cover analysis in the tropics. *Geoinformatics for Tropical Ecosystems*, edited by P.S. Roy. Dehra Dun, India: Bishen Singh Mahendra Pal Singh Publishers.

1999 T.S. Pikora and **S.S. Young**. Boston and New England: Images and Encounters. *Resource Publication No. 21.* Indiana, PA. National Council for Geographic Education. pp.119.

1994 J. McNeill, D. Alves, L. Arizpe, O. Bykova, K. Galvin, J. Kelmelis, S. Migot-Adholla, P. Morrisette, R. Moss, J. Richards, W. Riebsame, F. Sadowski, S. Sanderson, D. Skole, J. Tarr, M. Williams, S. Yadav, and **S. S. Young**. Chapter 3 "Toward a Typology and Regionalization of Land-Cover and Land-Use Change: Report of Working Group B. in W.B. Meyer and B.L. Turner II. *Changes in Land Use and Land Cover: A Global Perspective*. New York: Cambridge University Press.

Masters Students Thesis - Main Advisor

2024 Jeanette Miranda "Reforesting around coffee plantations in Honduras: Using drones for mapping and validating."

2023 Natasha Farina "Solar energy growth and its impact on Massachusetts' environment"

2021 Jillian Carr. "Drones for intertidal research"

2021 Lubing Li. "Comparative Study of Two Methods for Ecosystem Service Value Assessment: a Case Study of the Hangzhou Bay Area" US Advisor – China 1 + 1 + 1 exchange student

2020 Lin Hou "A study on magnetostratigraphic date and paleoclimate environment of the cultural layer of Xihoudu cultural site." US Advisor – China 1 + 1 + 1 exchange student

2020 Jiachang Tu." Scemario-Based Extreme Flood Risk of Buildings in Shanghai." US Advisor – China 1 + 1 + 1 exchange student

2020 Annan Shen. "Based on SDGs Citizen Participation in Urban Governance and its Temporal and Spatial changes - A Case of Suzhou." US Advisor – China 1 + 1 + 1 exchange student

2020 Madden Bremer "Studying land use change within sacred landscapes: a case study of the Goviefe Todzi sacred forest, South Eastern Ghana."

2018 Yanjun Zhu. "Scenario modeling of Typhoon Strom Surge & Exposure Analysis in Shanghai using SOBEK" US Advisor – China 1 + 1 + 1 exchange student

2018 Yuyao Jiang. Emergency food supply capacity analysis in Shanghai under the natural disaster scenario. US Advisor – China 1 + 1 + 1 exchange student

2018 Yahui Niu "An analysis of spatial patterns and historical changes of toponyms in Dongshan Island and Penghu Islands" US Advisor – China 1 + 1 + 1 exchange student

2017 Hang Li "*Research on Spatial-temporal structure on the built-up area in the city and its low-carbon planning: A case study of Naning, China*" cooperatively done with Naning University.

2015 Jie Zhong "*Temperature Change in China*" cooperatively done with Shanghai Normal University.

2014 Sheldon, R. *"The use of drones in acquiring imagery for the conservation of Blandings Turtles"*

2014 Miller, M. *"Spatial Analysis of Northeastern North American Land Cover Response to Changing Ground Temperatures"*

2014 Hengzhi Hu "*Analysis of Time-series Land Surface Temperature change in Yangtze River Delta Area using MODIS Data"* cooperatively done with Shanghai Normal University. Awarded "Top Thesis" in the School of Tourism at Shanghai Normal University.

2013 O'Connell, T. ***"****No More Hidden Secrets: Human Rights Violations and Remote Sensing"*
1st Place in the national Remote Sensing-GIS-Cartography Illustrated Poster Competition at the annual meeting of the Association of American Geographers (Los Angeles April, 2013)

2012 Howington, T. *"Using MODIS Imagery to Estimate Economic Damages from Wildfires in East Canada."*

2011 Shafovaloff, Phillip. *"Vegetation change in Northeastern North America."*

2010 Towne, Stacy. *"Utilizing Freely Available Remotely Sensed Images to Assess Urban Tree Cover."*

2010 DuttaGupta, Moumita: *"Change Analysis of the top 10% of Global Photosynthesis as captured by the SPOT Vegetation Sensor for the time period 1998-2008."* Awarded Honorable mention by the Graduate School for Best Salem State University thesis for 2010.

2005 Lincoln, David. *"Analysis of vegetation change in Australia; 1998 to 2003."*

Ph. D. Main International Advisor (Al-Farabi Kazakh National University)

Assel Ospan – Department of Artificial Intelligence and Big Data – now Ph. D. granted

Gaukhar Berikkyzy – Department of Geography, Land Management and Cadastre – now Ph. D. granted

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Madiyar Kadylbekov – Department of Geography, Land Management and Cadastre

Eldar Azizov – Department of Geography, Land Management and Cadastre

Diana Tursyngazy – Department of Geography, Land Management and Cadastre

Damira Kaliyeva – Department of Geography, Land Management and Cadastre

Assem Sarsembayeva – Department of Geography, Land Management and Cadastre

Dias Tokkozhayev – Department of Geography, Land Management and Cadastre

Bekzat Bilalov – Department of Geography, Land Management and Cadastre

Consultancy Reports

1995 **Young, S.S.**, *1995 Report on Trickle Up Program and Community Trust Fund Activity at the Caohai Nature Reserve*. A report for the International Crane Foundation, Baraboo, Wisconsin, and the Trickle Up Project, New York, New York. July, 1995. 12 pp.

1995 **Young, S.S.**, *1995 Report on Forestry Activity at the Caohai Nature Reserve*. A report for the International Crane Foundation, Baraboo, Wisconsin. July, 1995. 9 pp.

1994 **Young, S.S.**, *1994 Report on the Status of the Scientific and Experimental Forest at the Caohai Nature Reserve.* A report for the International Crane Foundation, Baraboo, Wisconsin. October, 1994. 17 pp.

1994 **Young, S.S.**, *The Trickle Up Program in Guizhou Province, China*. An evaluation report for the Trickle Up Program, New York, New York. October, 1994. 32 pp. (translated into Chinese by Huang, M.J.)

1994 **Young, S.S.**, *The Trickle Up Program in Yunnan Province, China.* An evaluation report for the Trickle Up Program, New York, New York. October, 1994. 32 pp. (translated into Chinese by Huang, M.J.).

1994 **Young, S.S.**, *Six-Month Report, Project Activities and Expenses for A Community Development and Master Plan Process for Caohai Nature Reserve for Period of April 1 - September 30, 1994*. International Crane Foundation Report, Baraboo, Wisconsin. October, 1994. 12 pp. with J. Harris and J. Barzen.

1993 **Young, S.S.**, *Plan for the Development of a Scientific and Experimental Forest at the Caohai Nature Reserve, Guizhou, China.* Report for International Crane Foundation, Wisconsin. December, 1993. 16 pp.

Other Publications

2022 Member of science peer review committee for *Massachusetts Climate Change Assessment*, MA Executive

Office of Energy and Environmental Affairs.

2015 **Young, S.S.** "Was It Global Warming?" Salem Statement Spring, 2015: pp 6-7.

2011 **Young, S.S.** Salem Statement Alumni (Salem State University) Magazine. "Cape Ann" Cover image.

2005 **Young, S.S.** "Potential Errors in SPOT VEGETATION Data: Decreasing Annual Average NDVI for Arid Regions in Southwest Asia and Australia, 1998-2003." Submitted to Etienne Bartholomé, SPOT VEGETATION Program Scientist, May 22, 2005.

2005 **Young, S.S.** "The Digital Geography Lab: A Unique Resource in the School of Arts and Sciences." In the *ASPECT*, Newsletter of the School of Arts and Sciences, Salem State University. March 2005: pp1, 2.

1999 **Young, S.S**. and Pikora, T.S. Salem from Space. in Pikora and Young. Boston and New England: Images and Encounters. Resource Publication No. 21. Indiana, PA" National Council for Geographic Education. pp. 4-10.

1999 Pikora, T. S. and **Young, S.S**. Overview. in T.S. Pikora & S.S. Young. Boston and New England: Images & Encounters. Resource Publication No. 21. Indiana, PA" National Council for Geographic Education. pp. 1-2.

1999 **Young, S.S**. and Quinlin, K. Make way for ducklings: A bird's eye view of geography. in T.S.Pikora and S.S. Young. Boston and New England: Images and Encounters. Resource Publication No. 21. Indiana, PA" National Council for Geographic Education. pp. 77-87.

1993 Wang, Z.J., and **S.S. Young**. The importance of ornithological research for conservation in the tropical and subtropical ecosystems in Yunnan, China. *Occasional Papers of the Kunming Institute of Ecology*. Kunming Institute of Ecology: Kunming, Yunnan.

1991 **Young, S.S.,** and Z.J. Wang. *A Plan for a Long-Term Ecological Research Site and Conservation Center in Xishuangbanna, Yunnan, China*. A Report to the Kunming Institute of Ecology.

1991 **Young, S.S**., P. Benjamin, B. Jokisch, Y. Ogneva, and A. Garren. *Global Land Use/Cover: Assessment of Data and Some General Relationships.* Appendix I: The Report of the Ad-hoc Working Group on Global Land-Use Change, Committee for Research on Global Environmental Change, Social Sciences Research Council.

1990 Meyer, W.B., B.L. Turner II., and **S.S. Young**. *Human Driving Forces of Global Environmental Change: The Macro-Scale Approach*. Research Paper 1, General Projects, Earth Transformed Program, Graduate School of Geography & Center for Technology, Environment, and Development, Clark University.

1988 **Young, S.S**., K. Bruno, P. Gagneux, and P. Costner. *The Mid-Atlantic, an Ecosystem in Distress.* Boston: Greenpeace USA.

1988 Bruno, K., **S.S. Young**, and P. Costner. *Dupont Chamberworks, 1987 Toxics Report.* Boston: Greenpeace.

1988 Bruno, K., **S.S. Young**, and P. Costner. *Hazardous Waste Incineration in New Jersey*. Boston: Greenpeace

1987 **Young, S.S**. The Gulls of Kunming. *Explorer* 29(4): 33-34.

1987 **Young, S.S**., and Z.J. Wang. *Changes in the Broad-leaved Evergreen Forests of China.* A Report to the Kunming Institute of Ecology, Academia Sinica.

Conference Papers

2024 "The Geosciences, climate justice and the case against the expansion of the Hansom Field Airport for private jets." Graduate Research Symposium, Salem State University, May 3.

2023 “Sustainability at Salem State University” at the International Scientific and Practical Conference "GEOGRAPHICAL FOUNDATIONS OF SUSTAINABLE DEVELOPMENT" Al-Farabi Kazakh National University November 24. Almaty Kazakhstan.

2023 “Overall Warming with Reduced Seasonality: Temperature Change in New England, USA, 1900-2020.” International Workshop: Applying artificial intelligence to monitor water resources and support decision-making. Al-Farabi Kazakh National University, Department of Artificial Intelligence and Big Data, October 9, 2023. Almaty Kazakhstan.

2023 “School of Graduate Studies support for a professor’s career.” Graduate Research Symposium, Salem State University, May 8.

2023 “Art, GIScience, and Geography” Annual Meeting of the American Association of Geographers, Denver, CO, March 24, 2023.

2022 “Not all solar is good solar in Massachusetts” Stephen Young and Natasha Farina. Salem State University Graduate Research Day. May 5, 2022. Salem Massachusetts.

2019 “Mapping Climate Change exhibition for the public.” Annual Meeting of the New England and St. Lawrence Valley division of the Association of American Geographers, Framingham, MA October 19, 2019.

2019 “Acing the First Day of Class” with Fletcher, L., Pham, V., and Reget, V. Pearls and Perils conference at Salem State University, May 17, 2019.

2019 Sea-level Rise and Our Coastal Communities, a poster series of modeled sea-level rise along the North Shore of Massachusetts. Faculty and Graduate Research Symposium, Salem State University, Salem, MA. May 2, 2019.

2019 “Snow cover change and its relationship with land surface temperature and vegetation in Northeast North America from 2000 to 2017.” Annual Meeting of the American Association of Geographers, Washington, DC; April 4, 2019.

2018 “Climate Change in the Middle East” International Scientific Conference: Arid Lands – environmental and social sustainability. Almaty, Kazakhstan 11-12 April 2018.

2018 Adortse, P., Bremer, M. and Young, S.S. “Community Mapping for Non-Governmental Conservation Organizations” New England Biolabs Foundation sponsored workshop at Sogakope, Ghana, May, 2018

2017 Theibault, K., Young, S.S. 2017. Vegetation change in Northeast North America from 2000 to 2016. Faculty and Graduate Research Symposium, Salem State University, Salem, MA. May 4, 2017.

2017 “Seasonal and annual snow cover extent change in northeastern North America from 2000 to 2015.” Annual Meeting of the American Association of Geographers, Boston, MA.; April 10 - 14.

2017 Theibault, K., Young, S.S. 2017. Vegetation change in Northeast North America from 2000 to 2016. Annual Meeting of the American Association of Geographers, Boston, MA.; April 10 - 14.

2016 “Snow cover change for Northeastern North America,2000 to 2016.” Annual Meeting of the New England & St. Lawrence Valley (NESTVAL) division of the Association of American Geographers, Bishops University, Sherbrook, Quebec, Canada; October, 2016.

2016 “Climate change and Violence in West Africa” Faculty and Graduate Research Symposium, Salem State University, Salem, MA. May, 2016.

2016 Rogers, L and Young, S.S. “Climate Change in Northeastern North America from 2000 to 2014” Annual Meeting of the Association of American Geographers, Chicago, Il.; April 19-25, 2015.

2015 “Environmental Change in Northeastern North America from 200 to 2014.” International Geographical Union annual meeting, Moscow, Russia August 16 – 21.

2015 “Sea-Level Rise and Storm Surges Along the North Shore: Visualizing our Coastal Future.” Faculty and Graduate Research Symposium, Salem State University, Salem, MA. May 13, 2015.

2015 “Macro or Micro? An Interdisciplinary Exhibition Exploring the Concept of Scale and our Misinterpretation of Scale” Annual Meeting of the Association of American Geographers, Chicago, Il.; April 19-25, 2015.

2015 Panelist on: “New Ways of Thinking about Space, Place and Maps Panel” Annual Meeting of the Association of American Geographers, Chicago, Il.; April 19-25, 2015.

2014 “Macro or Micro: The Art and Science of Understanding Scale.” Faculty and Graduate Research Symposium, Salem State University, Salem, MA. May 2, 2014.

2013 “A scalable approach to mapping annual forest cover at 250 m using MODIS data and the Random Forest classifier: A case study of China.” Annual Meeting of the Association of American Geographers, Los Angeles, CA; April 10, 2013.

2013 “The Art and Science of Seeing Our World, from the Micro to the Macro” in the session: A Science and Art Interface: Geographic Information Systems and Remotely Sensed Images. Annual Meeting of the American Association for the Advancement of Science, Boston, MA February 8, 2013.

2012 “Macro or Micro: spatial patterns that transcend scale.*”* with Paul Kelly. Presenter and chair of session. Part of the special session on GeoHumanities: Convergences -- Science, Art, Technology**.** Annual Meeting of the Association of American Geographers, New York, New York; February 26, 2012.

2012 “Recent Climatic and Environmental Changes in Northeastern North America*”* Organizer and Chair. Annual Meeting of the Association of American Geographers, New York, New York; February 28, 2012.

2011 “Analysis of Land Surface Temperature Change for Northeastern North America using MODIS 1 km Thermal data, 2001 to 2010.” S.S. Young and P. Curtis. " Annual Meeting of the New England & St. Lawrence Valley (NESTVAL) division of the Association of American Geographers, Concordia University, Montreal, Canada; November, 2011.

2010 “Vegetation Change in Southwest Asia: 1982 – 2006.” Meeting of the International Geographical Union Congress, Tel Aviv, Israel; July 2010.

2010 “Time Series Analysis of Course Resolution SPOT Vegetation data to detect human impacts Annual Meeting of the Association of American Geographers, Washington, DC; April 15, 2010.

2010 DuttaGupta, Moumita: Change Analysis of the top 10% of Global Photosynthesis as captured by the SPOT Vegetation Sensor for the time period 1998-2008. Awarded Best Illustrated Paper in the GIS-Cartography-remote Sensing Specialty Group national Competition at the Annual Meeting of the Association of American Geographers, Washington, DC; April 15, 2010. Faculty sponsor: S. Young.

2010 “Issues in Geospatial research at Salem State University” Moderator Stephen Young, presenters: Moumita DuttaGupta, Vesela Kardzhilova-Dimitrova, Stacey Towne, Janet Nicosia, Leah Mungai, and Jim Langill. Graduate Research Day, Salem State University, Salem, Ma May 1, 2010.

2009 “Hybrid Course Development” with Boots-Ebenfield, M., Siden, D., Mallick, K., Silveira, J., Kuehnle, K., and Hoover, M.. Pearls & Perils Conference, Salem State University. May 15, 2009.

2009 “Designing Projects Using Geo-Information Science Systems” Moderator Stephen Young, presenters: Moumita DuttaGupta, Vesela Kardzhilova-Dimitrova, Stacey Towne, Gehendra Karki. Graduate Research Day, Salem State University, Salem, Ma May 2, 2009.

2009 “Global Distribution of Terrestrial Photosynthesis.” Annual Meeting of the Association of American Geographers, Las Vegas, NV; March, 2009.

2009 “Change in Global Photosynthesis - 1998 to 2007.“ with Moumita DuttaGupta. Annual Meeting of the Association of American Geographers, Las Vegas, NV; March, 2009.

2008 “Land cover change in North Africa: 1982 - 2003.” Meeting of the International Geographical Union Congress, Tunis, Tunisia; August, 2008.

2008 “Changes in NDVI between 1982 and 2006 in the Middle East using AVHRR and SPOT VEGETATION data.” Annual Meeting of the Association of American Geographers, Boston, Ma; April, 2008.

2007 “Art & Science Exhibition” Geography and the Humanities Symposium, Charlottesville, Virginia, June 22-24, 2007. Sponsored Association of American Geographers and the American Council of Learned Societies.

2007 “Persistent Changes in NDVI between 1982 and 2003 over India using AVHRR data.” Annual Meeting of the Association of American Geographers, San Francisco, CA.; April, 2007.

2006 "The use of geo-spatial data to enhance student learning in World Regional Geography: Part 1, Coarse resolution vegetation data" Annual Meeting of the New England & St. Lawrence Valley division of the Association of American Geographers, Burlington, VT; 10/06

2006 "Land-cover change analysis of the Middle East using AVHRR GIMMS and SPOT Vegetation data, 1982-2005" *International Geographical Union*’s (IGU) regional international conference, Brisbane, Australia, July 3 - 7, 2006; with Andrew Millington, Texas A&M University.

2006 “On-Line Lab Sciences, an investigation” poster presentation at *The Future is Now Conference*, Salem State University, Salem, Ma. May 17, 2006

2006 “Preliminary analysis of vegetation change in Australia; 1998 to 2003.” By David Lincoln (Salem State University) with Stephen Young, Graduate Research Day, Salem State University, Salem, May 6, 2006.

2005 “The Demise of the Mesopotamian Marshland as Seen from Space. Annual Meeting of the New England & St. Lawrence Valley division of the Association of American Geographers, Keene, NH; 10/05

2005 “The Art of Science: How Geographers Study the Earth from Space” Annual Meeting of the Association of American Geographers, Denver, CO.; April, 2005.

2004 "Changing patterns of global-scale photosynthesis, 1982-1999" Annual Meeting of the New England & St. Lawrence Valley division of the Association of American Geographers, Portland, Maine; 10/04

2004 “Land Cover Change in the Middle East” Annual Meeting of the Association of American Geographers, Philadelphia, PA.; March, 2004; with Andrew Millington, University of Leicester, UK.

2004 “Spatial Perspectives in art” A panel member. Annual Meeting of the Association of American Geographers, Philadelphia, PA.; March, 2004

2004 “The Earth Exposed” Annual Meeting of the Association of American Geographers, Philadelphia, PA.; March, 2004.

2002 “Remote Sensing on the Web.” Graduate Research Day, Salem State University, May 13, 2002.

2001 "Land-cover change in China, 1982 - 1999." Annual Meeting of the Association of American Geographers, China Specialty Group, New York, NY.; February, 2001.

2000 Land-cover change analysis of China using Pathfinder AVHRR Landcover (PAL) data, 1982-92. Annual Meeting of the Association of American Geographers, Pittsburgh. PA; March, 2000.

1999 "Make Way for Ducklings" Annual Meeting of the National Council for Geographic Education, Boston, MA; November, 1999.

1999 "Incorporating the Internet into the teaching of Geography." Annual Meeting of the New England and St. Lawrence Valley division of the Association of American Geographers, Farmington, Maine; October, 1999.

1998 "Satellite Analysis of Vegetation Change." Annual Meeting of the New England and St. Lawrence Valley division of the Association of American Geographers, Montreal, Quebec, Canada; November, 1998.

1998 "Global Environmental Change: Applications of Satellite Data in Global Vegetation Cover." Massachusetts State Colleges' Graduate Research Symposium, Salem, MA; April, 1998.

1998 "Nature Conservation Through Poverty Alleviation; A Case Study at the Cao Hai Nature Reserve, Guizhou, China." Annual Meeting of the Association of American Geographers, Boston, MA; March, 1998.

1997 "Conflict, Cooperation, and Mediation in Environmental Protection and Economic Development: A Case Study from Southern China." Annual Meeting of the New England and St. Lawrence Valley division of the Association of American Geographers, Salem, MA; November, 1997.

1997 “The Internet and Teaching; A Virtual Geography.” A paper and workshop given with Stephen Matchak at the Annual Meeting of the New England and St. Lawrence Valley division of the Association of American Geographers, Salem, MA; November, 1997.

1996 "Vegetation Change in China in the 1980's as Detected by Satellite Data." Annual Meeting of the New England & St. Lawrence Valley division of the Association of American Geographer, Worcester, MA; November, 1996.

1995 "Teaching Resources for Tropical Ecology and Biodiversity." Annual Meeting of the New England and St. Lawrence Valley division of the Association of American Geographers, Burlington, Vermont; November 95.

1994 "Time Series Analysis of China Using IDRISI's Standardized Principal Components Analysis of NOAA-AVHRR data, January 1986 - December 1988." Annual Meeting of the Association of American Geographers, Remote Sensing Specialty Group, San Francisco, CA.; March, 1994.

1993 "Time Series Map Analysis: Using Principal Component Analysis." GEO-INFORMATION, Beijing, China; August, 1993.

1993 "Floristic Inventory in an Australian Montane Tropical Rain Forest." Annual Meeting of the Association of American Geographers, Biogeography Specialty Group, Atlanta, GA; April, 1993.

1991 "The Importance of Managing Remnant Natural Forest in China." Annual Meeting of the New England Conference of the Association for Asian Studies, Dartmouth College, Hanover, NH; November 1991.

1991 "Forest Conservation in Yunnan, China." Annual Meeting of the Association of American Geographers, China Specialty Group, Miami, FL.; April, 1991. (Awarded Best Graduate Student Paper by China Group)

GRANTS RECEIVED

2023 ***Al-Farabi Kazakh National University (Kaznu)*****,** grant to be in residence at Kaznu (Almaty, Kazakhstan) for one month in the fall of 2023.

2023 ***Shanghai Normal University***. grant for visit of Dr. Jing Fu to work with professor Young: Summer 2023

2023 ***Mesoamerican Development Institute***. Grant received for travel to Honduras for professor Young and one graduate student to help start a drone program to verify reforestation projects in a coffee production area of Honduras. April 2023.

2022-23 ***Salem State University*** (Graduate School) Research Assistant (10 hours per week).

2022 ***New England Biolabs Foundation*** grant to organize a mapping workshop in Guatemala for 15 conservation organizations from different Central American countries and to travel there with one graduate student to teach the workshop. November 2022.

2022 ***Al-Farabi* Kazakh National University,** grant for the visit of GIS Researcher to work with professor Young: Assel Ospan. Spring 2022.

2022 ***Salem State University*** (Frederick Berry Library) Textbook Affordability Initiative – Mini Grant to create new on-line course material.

2021-22 ***Salem State University*** – Faculty Learning Community (FLC) grant to lead an FLC focusing on how Hy-Flex technology and pedagogy can be used at Salem State University.

2021-22 ***Salem State University*** (Graduate School) Research Assistant (10 hours per week).

2021 Flash Grant from ***SSU Center for Research and Creative Activity*** – *Drone video of the Great Marsh* $800 to hire two students the help with the creation of a video about *the Great Marsh and Sea Level Rise*.

2020-21 ***Coastal Zone Management*** – Monitoring a Living Coastline. With Salem Sound Coast Watch & City of Salem - $30,000.

2020-21 ***Salem State University*** (Graduate School) Research Assistant (10 hours per week).

2020 ***Salem State University****, "Scholarship Support Grant for Research, Scholarship, and Creative Activities"* $700 to defray travel costs to Kazakhstan.

2019-20 ***Salem State University*** (Graduate School) Research Assistant (10 hours per week).

2019 ***Fulbright.*** Visiting scholar grant for Tetiana Pimonenko from Sumy State University (SSU), Sumy Ukraine, to work with professor Young

2018-19 ***Salem State University*** (Graduate School) Research Assistant (10 hours per week).

2018 ***Association of American Geographers (AAG)*** (**National Science Foundation** Travel Grant) $1,500. To the International Geographic Union (IGU) meeting in Quebec City, Canada, August, 2018

2018 ***New England Biolabs Foundation*** - $10,000 research fieldwork and presenting a GIS workshop in Ghana with two SSU graduate students, April-May, 2018.

2018 ***Shanghai Normal University,*** Shanghai China $10,000 for three week stay at the university to give lectures and participate in research activity.

2017-18 ***Salem State University*** (Graduate School) Research Assistant (10 hours per week).

2016-17 ***Salem State University*** (Graduate School) Research Assistant (10 hours per week).

2015-16 ***Salem State University*** (Graduate School) Research Assistant (10 hours per week).

2015 ***Shanghai Normal University*** (SHNU) Travel grant ($3,000) for meeting in Shanghai about future environmental satellite-based research. November, 2015.

2015 ***Association of American Geographers (AAG)*** (NSF Travel Grant) $1,000. To the International Geographic Union (IGU) meeting in Moscow, Russia, August, 2015

2014-15 ***Salem State University*** (Graduate School) Research Assistant (10 hours per week).

2013-14 ***Salem State University*** (Graduate School) Chinese Research Assistant (4 hours per week).

2013-14 ***Salem State University*** (Graduate School) Research Assistant (10 hours per week).

2013 **Chinese Academy of Sciences.** Visiting Scholar Grant (expenses for 1-month cooperative research visit to Kunming Institute of Zoology in June, 2013).

2013 ***Salem State University Graduate Research Committee*** Travel Grant ($750) for the Annual Meeting of the Association of American Geographers.

2012-13 ***Salem State University*** (Graduate School) Chinese Research Assistant (4 hours per week).

2012-13 ***Salem State University*** (Graduate School) Research Assistant (10 hours per week).

2012 ***Salem State University Graduate Research Committee*** Grant for $1,000 for the creation of the art exhibition: Macro or Micro with Dr. Paul Kelly.

2011 **Chinese Academy of Sciences.** Visiting Scholar Grant (expenses for 2-month cooperative research visit to Kunming Institute of Zoology in 2011).

2010 **Kunming Institute of Zoology (KIE), Chinese Academy of Sciences** travel grant (air fare and accommodations for one week meeting in Kunming Yunnan. October, 2010.

2010 ***Association of American Geographers (AAG)*** (NSF Travel Grant) $1,500. To the International

Geographic Union (IGU) meeting in Tel Aviv, Israel, July 2010.

2011-12 ***Salem State University*** (Graduate School) Chinese Research Assistant (4 hours per week).

2011-12 ***Salem State University*** (Graduate School) Research Assistant (10 hours per week).

2010-11 ***Salem State University*** (Graduate School) Research Assistant (10 hours per week).

2009-10 ***Salem State University*** (Graduate School) Research Assistant (10 hours per week).

2008-9 ***Salem State University*** (Graduate School) Research Assistant (10 hours per week).

2008 ***Association of American Geographers (AAG)*** (NSF Travel Grant) $1,500. To the International Geographic Union (IGU) meeting in Tunis, Tunisia.

2007 ***Salem State University*** (Office of Academic Affairs & School of Arts & Sciences) (Travel Grant) $3,000. International Geographic Union (IGU) meeting in Tunis, Tunisia, matching grant for the AAG-NSF grant.

2007 ***Salem State University*** (Graduate School) Research Assistant (10 hours per week).

2006 ***Association of American Geographers (AAG)*** (NSF Travel Grant) $1,000. To the International Geographic Union (IGU) meeting in Brisbane, Australia.

2006 ***Salem State University*** (Travel Grant) $1,000. To the International Geographic Union (IGU) meeting in Brisbane, Australia, matching grant for the AAG-NSF grant.

2006 ***Salem State University*** (Distant-Learning Initiative Fellowship) $3,000. Fellowship to develop and run a Distant-learning class as a model for science classes on-line at Salem State University.

2006-7 ***Salem State University*** (Graduate School) Research Assistant (10 hours per week).

2005-6 ***Salem State University*** (Graduate School) Research Assistant (10 hours per week).

2004-5 ***Salem State University*** (Graduate School) Research Assistant (10 hours per week).

2007-5 ***Salem State University*** (Laptop Initiative Fellowship) $3,500 (plus laptop). Fellowship to run a laptop intensive class in the spring of 2005, to assess the course for adoption elsewhere in the college, and disseminate information on the project.

2003-4 ***National Science Foundation*** (GEO-0331157) $90,000. CO-PI with Dan Barstow, TERC, Cambridge, MA and Dan Schimmel, Klein Art Gallery, Philadelphia, PA. A grant to incorporate the Earth Exposed art exhibition with middle school inner city education in Philadelphia.

2001-2 ***Salem State University*** (Academic Vice President's Faculty Research Support Fund) $10,000. The fund the development of the Earth Exposed art exhibition for the NESTVAL conference in New Bedford, MA.

2001-2 ***Salem State University*** (Academic Vice President's Faculty Research Support Fund) $2,000. For the continued work on the Earth Exposed gallery exhibition.

2000-1 ***Salem State University*** (Graduate School) Research Assistant (10 hours per week).

2000 ***Salem State University*** (Academic Vice President's Faculty Research Support Fund) $3,000. For the Summer 2000 Academic Writing Workshop, Salem Massachusetts.

1999-0 ***Salem State University*** (Graduate School) Research Assistant (10 hours per week).

1998-9 ***Salem State University*** (The Council on Teaching and Learning) $600 For the development of a web page for Introduction to Geography course.

1998 ***Salem State University*** (Bureau of Faculty Research) $2,000. For The Earth Exposed exhibition.

Gallery Lectures

2025 Young, S.S. "Macro or Micro?" Explorers Institute – downtown Salem Meeting, Salem MA. May 29.

2025 Young, S.S. "Macro or Micro?" Dartmouth College, Hanover, NH. May 8.

2023 Young S.S. "Art and Geosciences – Education through art gallery exhibitions" given at the 100th year celebration of Clark University's Graduate School of Geography.

2020 Young S.S. "Mapping Climate Change" Unitarian Universalist Church of Greater Lynn, Swampscott, MA January 22, 2020.

2019 Young S.S. "Mapping Climate Change" Greenbelt (Essex County Land Trust" October 6, 2019.

2018 Young, S.S. "Macro or Micro?" International Geographical Union Meeting, Quebec City, Quebec Canada. August 8.

2018 Young, S.S., Kelly, P. "Macro or Micro?" Monday Morning Talks, ***Beverly Public Library*** Lecture Series, Beverly, MA. February, 2018.

2017 Young, S.S., Kelly, P. "Macro or Micro?" exhibition (50 linear feet, 6 days) presented at the ***American Association of Geographers*** meeting, Boston, MA April 10-14. With Paul Kelly.

2013 Macro or Micro? ***Winfisky Gallery***, **Salem. MA**. October 23, 2013

2013 Macro or Micro? ***Traina*** **Center** ***for the Visual and Performing*** **Arts,** ***Clark University*** **Worcester, MA**. October 18, 2013.

2008 "North Africa from Space" ***International Geographical Union***'s (IGU) regional International conference, **Tunis, Tunisia** – August 2008.

2008 "The Earth Exposed" Winfisky Gallery, Salem State University, Salem, MA, April 4, 2008.

2008 "The Earth Exposed" Winfisky Gallery, Salem State University, Salem, MA, March 18,2008.

2008 "The Earth Exposed" Sasaki Associates, Watertown, MA, October 19, 2006.

2006 "The Art of Remote Sensing" Brisbane , Australia , July 3, 2006

2005 "The Art of Remote Sensing" National Science Foundation, Arlington, Virginia, January 13, 2005.

2004 "The Earth Exposed." Klein Gallery, Philadelphia, PA. March 17, 2004.

2001 “Remote Sensing as Art!” ArtWorks! New Bedford MA, October 19, 2001.

2001 "The Earth Exposed: how geographers study the earth from space." Opening talk for T*he Earth Exposed* Gallery Exhibit, Sasaki Associates, Watertown, MA, February 15, 2001.

2000 "The Earth Exposed: how geographers study the earth from space." Opening talk for T*he Earth Exposed* Gallery Exhibit, Clark University, November 2000.

1998 “Salem from Space.” Opening talk for *Salem From Space* Gallery Exhibit, Salem, MA November 1998.

Invited Academic and Civic Lectures

2025 Why is the Earth getting wetter and drier? The Science of Climate Change. Beverly Library Monday Mornings Lectures. May 19, 2025.

2025 Impact of Solar Farm Expansion on Forest Cover in Massachusetts: An Analysis Using Artificial Intelligence and Remote Sensing. Department of Artificial Intelligence and Big Data, Al-Farabi Kazakh National University. Almaty Kazakhstan. April 9, 2025

2025 An Introduction to the use of the Idris TerrSet image processing software. Department of Geography, Land Management and Cadastre, Al-Farabi Kazakh National University. Almaty Kazakhstan. April 10, 2025.

2025 Organizer of *My Favorite Lecture series* at Salem MA Explorers Club, April 30 - Stephenie Young, The Southern US Boarder / May 7 - Lisa Delissio - *From Oral Histories to Cutting-edge Science: The Revival of Salem’s Historic Cemetery Arboretum* / May 14 - Lorri Krebs - *Exploring Morocco: changes in culture and land use* / May 21 - Erkan Toraman - *It’s about time / June 3 - Stephen Young – Geographic Curiosities.*

2024 “The Science of Climate Change” Stone Soup Leadership Institute Climate Education Teacher Training, Salem State University, October 19, 2024.

2024 “Climate Change: Right in our backyard” Church of the Holy Spirit, Episcopal church, Orleans, MA. September 22, 2024.

2024 “Where did the Snow Go? Climate Change in New England” Metrowest Climate Solutions, June 5, 2024.

2024 Organizer of *My Favorite Lecture series* at Salem MA Explorers Club: April 3 Stephen Young (Geography and Sustainability Department) “Journey to Central Asia” April 10 Amy Everitt (Healthcare Studies Department) "Breaking the ageism barriers" April 17 James Gubbins (Interdisciplinary Studies) “Creating your best life.” April 24 David Silva (Provost and Academic Vice President) “Language and Culture” May 1 Lorri Krebs (Geography and Sustainability Department) "Ecotourism and climate change: exploring changing landscapes." May 8 Stephen Young (Geography and Sustainability Department) “The science of climate change and our future”

2024 “Drones for Coffee Plantation Mapping and Carbon Credit Validation” Salem State University Open Lecture. April 17, 2024.

2023 “Climate change, sustainability and satellite imaging.” Given to the faculty of the Geography, Land Management and Cadastre, Al-Farabi Kazakh National University. Almaty Kazakhstan. October 17, 2023.

2023 "30+ years of environmental research." Given to the faculty of the Geography, Land Management and Cadastre, Al-Farabi Kazakh National University. Almaty Kazakhstan. October 19, 2023.

2023 "Overall warming with Reduced Seasonality: Temperature change in New England, USA 1900-2020." International Workshop: "Applying artificial Intelligence to monitoring water resources and support decision-making. Department of Artificial Intelligence and Big Data, Al-Farabi Kazakh National University. Almaty Kazakhstan. October 9, 2023

2023 Organizer of *My Favorite Lecture series* at Salem MA Explorers Club: Van Pham, Economics Department: "Irrationality, the hidden forces behind our economic decisions." Claire Keyes, Professor Emeritus, English Department: "Nature's Poetry: A Study of Poetry in the Anthropocene." Jamie Wilson, History Department: "More than a Dream: Martin Luther King, Poverty, Race, and War in the 1960s." Sara Mana, Geological Sciences Department: "Volcanos!" Jennifer Robinson, Chair, Criminal Justice Department: "Seductions of Crime" Steven Silvern, Geography and Sustainability Department: "Geography of the Food System" Haig Demarjian Art+Design Department: "Printmaking & the Allure of Antiquated Technologies"

2023 "Impacts of Climate Change: They have only just begun" Darwin Festival Invited Lecture. February 2023.

2022 Climate Change in New England: An Uncertain future" Keynote Address for the NESTVAL regional Geography Conference, Salem State University. November 2022.

2022 "What are Maps?" Glover Elementary School, Marblehead MA October 2022.

2022 "What's Up with Planet Earth?" Beverly Library Monday Mornings Lectures. May 2, 2022.

2022 "Climate Change in New England" Elders Climate Action Mass. April 25.

2022 Climate Change impacts in Newburyport and New England – Storm Surge, Newburyport, MA. April 12.

2022 "Climate Change in New England: The research, student engagement, and public engagement" Sonoma State University (CA) Geography, Environment, and Planning Research Colloquium. April 4.

2022 Organizer of *My Favorite Lecture series* at Salem MA Explorers Club and presenter: "So you think you know World Geography?" April 20, which also included: Kristin Pangallo "The Best Bad Option: Using Science to Guide Public Schools' Pandemic Response" Steve Matchak "Folk Houses and Gravestones in New England" Barbara Poremba "The Unsung Heroes of WWII: The US Cadet Nurses Corps" Jennifer Robinson "Seductions of Crime" Anne Barker "Life and Work in Senegal" Steven "Religion & Climate Change Faith-Based Calls for Action"

2022 Organizer of the Salem State University Faculty Speakers Series through the Center for Academic Research and Creative Activities: John Hayes "Climate action and climate resiliency planning by cities, county, and regional governments to confront and mitigate climate change." March 22, 2022; Noel Healy "Tackling climate change and inequality together: The case for a Green New Deal" April 5, 2022; and Tara Gallagher "Addressing Climate Change on Salem State's Campus and Why It Matters" April 19, 2022.

2022 "As Never Before: Vulnerability, Sustainability, and the World to Come" Trinity Church, Boston, MA. February 15.

2021 "Art for Awareness." Essex Heritage Summer Speakers Series. July 21, 2021.

2021 "Climate Change and sea level rise on the North Shore of Massachusetts." Part of the Newburyport Storm Surge Speakers Series. June 29, 2021.

2021 Organizer of *My Favorite Lecture series* at Salem MA Explorers Club and presenter: "30 years of research in China – Part A" April 14 "30 years of research in China – Part B" May 5 which also included: Ryan Fisher "Life on the beach between your toes." Stephanie Young "Travels of a holocaust researcher." Steven Silvern "Geographies of the Holocaust."

2020 "What are Maps?" Glover Elementary School, Marblehead MA October zoom recorded talk.

2020 "How we study the Earth from Space" Tewksbury Public Library, zoom lecture. Wednesday, August 19.

2020 "The Science of Climate Change" Climate Change & Faith Lecture Series, Unitarian Universalist Church of Greater Lynn, Swampscott, MA January 22, 2020.

2019 "How Geographers Study the Earth from Space" Swampscott Middle School, November 27.

2019 "What are Maps?" Glover Elementary School, Marblehead MA October 16.

2019 "Journey to Central Asia" Monday Morning Talks, Beverly Public Library Lecture Series, Beverly, MA. April 29, 2019

2019 "The Science of Climate Change" presentation at Massachusetts Senator Edward Markey's Green New Deal Town Hall, Marshall Middle School Auditorium, April 23, 2019

2019 "Biomes of the World in 2019" Explorers Club Lecture, April 25, 2019

2019 "Panel: Climate Change Research Across SSU" Organizer, Moderator and Participant. Earth Days Week, Salem State University. April 8, 2019

2019 "Climate Change and Coastal Implications" Coastal Resiliency Workshop for Municipal Officials. Salem State University, March 19, 2019.

2019 "A Geographer's Sabbatical" Explorers Club Lecture, March 7, 2019

2019 "Climate Change – it's only just beginning" Tewksbury Public Library, Tewksbury, MA. January 15.

2018 "How Geographers Study the Earth from Space" Swampscott Middle School, December 21.

2018 "Climate Change – it's only just beginning" Lynn Rotary Club, Lynn, MA. December 6.

2018 "The Science of Climate Change" Keynote address for Swampscott High School Green Day. November 21.

2018 Moderator of panel discussion on "China and the US" Marsh Hall, Salem State University, Sponsored by the Center for International Education, Salem State University. November 13.

2018 "Climate Change – it's only just beginning" Ipswich Rotary Club, Ipswich, MA. November 8.

2018 "Science of Climate Change" Conversations on Sustainability. Salem State University, sponsored by the Office of Sustainability. November 5. Ellison Center, Salem State University, November 5.

2018 "Climate Change – it's only just beginning" Peabody Rotary Club, Peabody, MA. October 25.

2018 "Drones" STEM Day at Salem State University. October 22.

2018 "The Art of Cartography" Glover Elementary School, Marblehead MA October 18.

2018 "Climate Change – it's only just beginning" Salem Rotary Club, Salem, MA. October 2.

2018 "Climate Change – it's only just beginning" Manchester-Essex Rotary Club, Manchester, MA. August 1.

2018 "How we see the Earth from Space" Shanghai Normal University, Shanghai, China. March, 2018.

2018 "Climate Change in the Middle East" Shanghai Normal University, Shanghai, China. March, 2018.

2018 "Climate Change in northeast North America" Shanghai Normal University, Shanghai, China. March, 2018.

2018 "Changes in snow-cover - satellite detection" Shanghai Normal University, Shanghai, China. March, 2018.

2018 "Land surface temperature change from satellite detection" Shanghai Normal University, Shanghai, China. March, 2018.

2018 "Journey to Iran: Setting up an Art Exhibition in 2015." Explorers Institute, Salem, MA. January, 2018

2017 "How Geographers Study the Earth from Space" Swampscott Middle School, November 2017.

2017 "Climate Change – it's only just beginning" Beverly First Baptist Church, Beverly, MA.

2017 "Climate Change – it's only just beginning" Beverly Rotary Club, Beverly, MA. October, 26 2017.

2017 "The Art of Cartography" Glover Elementary School, Marblehead MA October 2018.

2017 "The Earth from Space." My Favorite Lecture Series – Explorers Club, Salem., MA. April, 2017

2017 "Journey to Iran." Tewksbury Public Library, Tewksbury, MA. March 23, 2017.

2017 "Journey to Iran." Monday Morning Talks, Beverly Public Library, Beverly, MA. March 20, 2017.

2017 "The Science of Climate Change." Amesbury Middle School, Amesbury, MA. January 21, 2017.

2017 "Decreasing snow cover in Northeastern North America" Thomas Crane Public Library, Quincy, MA. January 13, 2015.

2017 "The Science of Climate Change." The Massachusetts Geographic Alliance and the Northeast Global Education Center's Geography lectures series for 6-12 grade teachers; Salem, MA; January

2016 "Signs of Climate Change from Space: What's happening in Northeastern North America?" Monday Morning Talks, Beverly Public Library Lecture Series, Beverly, MA. April 11, 2016.

2016 "How Geographers Study the Earth from Space" Swampscott Middle School, November 2016

2016 "Cartography: What are Maps?" Glover Elementary School, Marblehead MA October 2016.

2016 "Climate Change in My Backyard" Winter Forum guest speaker, Unitarian Universalist Church of Greater Lynn. January 10, 2016

2015 "How Geographers Study the Earth from Space" Swampscott Middle School, November 25, 2015

2015 "Remote Sensing and Climate Change in Northeast North America." Department of Geography, Shanghai Normal University China, November 20, 2015.

2015 "Here comes the Sun" Member of a panel of environmental experts. MASPIRG presentation about solar energy. Meier Hall 426, Salem State University, November 12, 2015.

2015 "Geography as Art." Department of Geography, Shanghai Normal University China, November 19, 2015.

2015 "Cartography: What are Maps?" Glover Elementary School, Marblehead MA October 28, 2015.

2015 "Studying Climate Change from Space." At Salem State University's Junior Preview Day. Salem, MA April 26, 2014.

2015 "On the Move, Climate Change and the Distribution of Life on Earth." Monday Morning Talks, Beverly Public Library Lecture Series, Beverly, MA. March 23, 2015.

2015 "The Distribution of Life on Earth." My Favorite Lecture – A Taste of the Liberal Arts Lecture Series, March 19, 2015.

2015 "It's Getting Hot in Here! Is it just the weather or is the Climate Really Changing?" Thomas Crane Public Library, Quincy, MA. January 13, 2015.

2014 "China Today" The Massachusetts Geographic Alliance and the Northeast Global Education Center's Geography Conference for Middle School Teachers; Salem, MA; November 15, 2014.

2014 "How Geographers Study the Earth from Space" Swampscott Middle School, November 14, 2013.

2014 Climate Change & Rising Sea Levels: Their Impact in the Northeast. Gloucester Democratic City Committee. November 13, 2014.

2014 "Cartography: What are Maps?" Glover Elementary School, Marblehead MA October, 2014.

2014 "Research in China" SSU faculty involved in China Research, sponsored by the Center for Research and Creative Activities, Salem State University, October 20, 2014.

2014 "Sea Level Rise in Salem: Our Climate Vulnerability" at First Church in Salem, Ma. Lecture Series organized by the Salem Alliance for the Environment. September 10, 2014.

2014 "Trade, Consumption, and Climate Change Creating Environmental problems in China." Salem sails to Canton: From the Old China Trade to the New US-China Relations, a research conference co-sponsored by Salem State University and Guangzhou University. Salem, Ma. July 28-29.

2014 "What if Super Storm Sandy hit Salem: The Vulnerability of Salem, MA." Presentation to the Board of The Salem Alliance for the Environment. July 16, 2014.

2014 "The Science of Climate Change" Explorers Institute, Salem, MA. July 16, 2014.

2014 "Issues in East and Southeast Asia" part of the lecture series: *From the Wailing Wall to the Great Wall: Contemporary Issues in Asia.* Explorers Institute, Salem, MA, May 15, 2014.

2014 "What are the Geo-spatial Sciences, Other than one of the fastest growing areas of Employment." At Salem State University's Junior Preview Day. Salem, MA April 26, 2014.

2014 "Macro or Micro? Artfully Bringing Science to the Public." Keynote Address to the meeting of the North Shore Chapter of Sigma XI., Salem State University, Salem, MA April 23, 2014.

2014 "The Geography of Asia" first part of the lecture series: *From the Wailing Wall to the Great Wall: Contemporary Issues in Asia.* Explorers Institute, Salem, MA, April 17, 2014.

2014 "Climate Change in New England." Monday Morning Talks, Beverly Public Library Lecture Series, Beverly, MA. March 3, 2014

2014 "Climate Change in New England" The Massachusetts Geographic Alliance and the Northeast Global Education Center's Geography Conference for Middle School Teachers; Salem, MA; March 8, 2014.

2014 "Macro or Micro? STEM Science." Beverly Cub Scout Pack #2. Beverly, MA January 15, 2014.

2014 "Contemporary Issues in South East Asia." The Massachusetts Geographic Alliance and the Northeast Global Education Center's Geography Conference for Middle School Teachers; Salem, MA; January 11.

2013 "How Geographers Study the Earth from Space" Swampscott Middle School, November 14, 2013.

2013 "The Physical Environment of South East Asia." The Massachusetts Geographic Alliance and the Northeast Global Education Center's Geography Conference for Middle School Teachers; Salem, MA; November 2.

2013 "Cartography: What are Maps?" Glover Elementary School, Marblehead MA October 8, 2013.

2013 "Understanding our Land Surface." Explorers Institute, Salem, MA May 16, 2013

2013 "Understanding our Land Surface." Explorers Institute, Salem, MA May 9, 2013

2013 "Understanding our Ocean." Explorers Institute, Salem, MA May 2, 2013

2013 "Understanding our Atmosphere." Explorers Institute, Salem, MA April 25, 2013

2013 "Understanding the Earth from Space." Explorers Institute, Salem, MA. April 18, 2013

2013 "The Physical Environment of South America and Environmental Issues." The Massachusetts Geographic Alliance and the Northeast Global Education Center's Geography Conference for Middle School Teachers; Salem, MA; April 6 , 2013.

2013 "The Geography of Afghanistan and Pakistan: understanding the background of conflict" Amherst Library, Amherst, NH. March 7, 2013.

2013 "Understanding our Changing Earth from Space." Monday Morning Talks, Beverly Public Library Lecture Series, Beverly, MA. March 4, 2013

2013 "Environmental Issues in China" Peabody Library China Talks, Danvers, MA. February 6, 2013

2013 "The Geography of Afghanistan and Pakistan: understanding the background of conflict." Winter Session Talks, Explorers Institute, Salem, MA. January 28, 2013

2012 "Modern China: Economy and Environmental Change." The Massachusetts Geographic Alliance and the Northeast Global Education Center's Geography Conference for Middle School Teachers; Salem, MA; April 28, 2012.

2012 "Modern China's Economic and Environmental Changes." Explorers Institute, Salem, MA April 26, 2012.

2012 "Our Changing Biosphere" Explorers Institute, Salem, MA April 19, 2012.

2012 "Global Environmental Change." Explorers Institute, Salem, MA April 12, 2012.

2012 "The Global Reach of a Rising Dragon: China's Growing Economy and Environmental Problems." Monday Morning Talks, Beverly Public Library Lecture Series, Beverly, MA. April 9, 2012.

2011 "How Geographers Study the Earth from Space" Swampscott Middle School, October 27, 2011.

2011 "Cartography: What are Maps?" Glover Elementary School, Marblehead MA October 20, 2011.

2011 "Challenges of Climate Change Impacts to the Sound and its Residents." Salem Sound Coastwatch 20th Anniversary forum: What is the State of the Sound? Endicott College, March 25, 2011.

2011 "Career in Digital Geography." Career Day Keynote Speaker, Marblehead Highschool, February 9, 2011.

2010 "Cartography: What are Maps?" Glover Elementary School, Marblehead MA November 15, 2010.

2010 "Vegetation Change in China: 1982 – 2009." Ecology, Conservation, & Environment Center, Kunming Institute of Zoology, Chinese Academy of Sciences, Kunming, Yunnan China; October 18, 2010.

2010 "Vegetation Change in China: 1982 – 2009." 2010 International Scholars Forum, Shanghai Normal University, Shanghai, China: October 12, 2010.

2010 "How Geographers Study the Earth from Space" Swampscott Middle School, September 29, 2010.

2010 "Mongolia and The Story of the Weeping Camel, Salem, MA June 8, 2010.

2010 "The Dimming Sun" Explorers Institute, Salem, MA June 1, 2010.

2010 "Australia and Cane Toads" Explorers Institute, Salem, MA May, 25, 2010.

2010 "How Geographers Study the Earth from Space" Swampscott Senior Center, May 21, 2010.

2010 "David Attenborough and plants" Explorers Institute, Salem, MA May, 18, 2010.

2010 "Our Geographic World in Film and Lecture" Explorers Institute, Salem, MA May, 11, 2010.

2010 "The Physical & Ethnic Diversity of Southwest Asia" Massachusetts Geographic Alliance and the Northeast Global Education Center's Geography Conference for Middle School Teachers; Salem, MA; February 6.

2010 "A Journey to the Sahara." Sunrise Assisted Living, Peabody, MA January 19, 2010.

2010 "The Geography of Afghanistan and Pakistan: understanding the background of conflict." Monday Morning Talks, Beverly Public Library Lecture Series, Beverly, MA. January 11, 2010

2009 "Global Climate Change & Student Activism" International Climate Action Day Salem, MA October 24.

2009 "The Art of Cartography" Glover Elementary School, Marblehead MA October 27, 2009.

2009 "How Geographers Study the Earth from Space" Swampscott Middle School, October 13, 2009.

2009 "A Journey through China." Sunrise Assisted Living, Peabody, MA October 13, 2009.

2009 "Geographic Perspectives on the Future of Essex County" with Dr. Keith Ratner and Dr. Marcos Luna for the Board of Directors of the Essex County Community Foundation. April 4, 2009.

2009 "The Geography of Hate & Conflict - Afghanistan & Pakistan." Explorers Institute, Salem, MA May 30.

2009 "The Geography of Hate & Conflict - Central Asia "Explorers Institute, Salem, MA May 14.

2009 "The Geography of Hate & Conflict - Issues in Southeast Asia" Explorers Institute, Salem, MA April 30.

2009 "The Geography of Hate & Conflict - Nationalism in East Asia" Explorers Institute, Salem, MA April 23

2009 "The Geography of Hate & Conflict - Overview" Explorers Institute, Salem, MA April 16.

2009 "How Geographers Study the Earth from Space" Swampscott Middle School, April, 2009.

2009 "*Mapping Sea-Level Rise*: Understanding how the sea is rising and how we map the vulnerability of coastal areas provides a vital geographic insight for coastal planning." *North Shore Climate Change and Sea Level Rise Workshop: Is Your Community Prepared?* Metropolitan Area Planning Council Peabody Institute Library, Danvers, MA March 12, 2009.

2009 "The Melting Ice Caps" Monday Morning Talks, Beverly Public Library Lecture Series, Beverly, MA. January 12, 2008.

2009 "Impacts of Global Warming" The Best Practices in Education: Supporting Students, Teachers and Families Conference for K-12 School Teachers, sponsored by Salem State University School of Education; Salem, MA; November 15, 2008.

2010 "What is an Ecological Footprint" The Massachusetts Geographic Alliance and the Northeast Global Education Center's Geography Conference for Middle School Teachers; Salem, MA; November 15, 2008.

2008 "Africa from Space" Explorers Institute, Salem, MA. June 5, 2008

2008 "The Caribbean & South America from Space" Explorers Institute, Salem, MA May 29

2008 "North America from Space" Explorers Institute, Salem, MA. May 22.

2011 "Asia from Space" Explorers Institute, Salem, MA. May 15.

2008 "The melting ice as studied from space;" Explorers Institute, Salem, MA. May 8.

2008 "The Earth from Space – Overview" Explorers Institute, Salem, MA. May 1

2008 "Biomes of the World" Monday Morning Talks, Beverly Public Library Lecture Series, Beverly, MA. January 7, 2008.

2007 "China Panel" The School of Arts & Sciences and Open Panel discussion on college learning in China and the US; Salem State University, Salem, MA; December 3, 2007.

2007 "Global influences from Regional Issues - Northeast Asia" Massachusetts Geographic Alliance & the Northeast Global Education Center's Geography Conference for Middle School Teachers; Salem, MA; October 27, 2007.

2007 "How Geographers Study the Earth from Space" Swampscott Middle School, October, 2007.

2007 "Caohai: An environmental case study in China." Marshal Middle School, Lynn, MA. May 1, 2007.

2007 "The Geography of Asia – Southeast Asia" Explorers Institute, Salem, MA April 12

2007 "The Geography of Asia – East Asia" Explorers Institute, Salem, MA April 5

2007 "The Geography of Asia – South Asia" Explorers Institute, Salem, MA March 29

2007 "The Geography of Asia – Central Asia" Explorers Institute, Salem, MA March 22

2007 "The Geography of Asia – Southwest Asia" Explorers Institute, Salem, MA March 15

2007 "The Geography of Asia - Overview" Explorers Institute, Salem, MA March 8.

2007 "Regions of Energy Resources" The Massachusetts Geographic Alliance and the Northeast Global Education Center's Geography Conference for Middle School Teachers; Salem, MA; March 3, 2007.

2007 "The Earth Exposed: How Geographers Study the Earth from Space." Monday Mornings Lecture Series, Beverly Public Library. January 8, 2007.

2006 "The Physical Geography of Global Climate Change." The Massachusetts Geographic Alliance and the Northeast Global Education Center's Geography Conference for Middle School Teachers; Salem, MA; November 4, 2006

2006 "China's Growth and Industrialization and its Impact on the Physical Environment." At the China Trade and Industrialization Past, Present and Its Growing Environmental Impact Seminar presented by the Northeast Global Education Center, Salem, MA. May 11, 2006.

2006 "China: Its Environment and Its People." Machon Elementary School, Swampscott, MA May 5

2006 "The Earth Exposed: Integrating faculty research with undergraduate research." Keynote Address: 12th Annual Massachusetts Statewide Undergraduate Conference, Boston, MA April 27, 2006.

2006 "Using Internet Resources to Analyze Human and Environmental Interaction. The Massachusetts Geographic Alliance and the Northeast Global Education Center's Geography Conference for Middle School Teachers; Salem, MA; March 4, 2006

2006 "Smoke of the Dragon: An Emerging Environmental Crisis in China," National Consortium for Teaching about Asia (NCTA) & the Teachers Center for Global Studies, Clark University, Worcester, MA. February 27, 2006.

2006 "Developing Web Pages for Middle School World Regional Geography." The Massachusetts Geographic

Alliance and the Northeast Global Education Center's Geography Conference for Middle School Teachers; Salem, MA; January 14, 2006

2005 "Distribution of Water: Areas of Surplus and Deficits." The Massachusetts Geographic Alliance and the Northeast Global Education Center's Geography Conference for Middle School Teachers; Salem, MA; December 3, 2005.

2005 "Ecosystems from the Poles to the Tropics" Machon Elementary School, Swampscott, MA May 25

2005 "Using on-line data and on-line writing and grading" The Future is Now Conference, Salem State University, May 17, 2005 with Rick Branscomb.

2005 "Salem State Collage Laptop Initiative: Experiences from Faculty, Students, Library, and Information Technology." Classroom Teaching: Pearls and Perils conference, Salem State University, May 5, 2005. Presenter and organizer.

2005 "Laptops in the classroom – How they enhance student learning and how they detract: Experiences in a pilot laptop class: Weather & Climate Lab. The Center for Teaching Innovation and Faculty Instructional Technology Fellows Lecture Series, Salem State University. May, 2, 2005.

2005 "The Art of Science and the Science of Art" School of Arts & Sciences Open Forum, Salem State University, April 12, 2005.

2005 Global Vegetation Change: The View from Space. Digital Geography Lab Lecture Series, Salem State University, March 9, 2005.

2004 "Geography from Space" Salem Academy (Middle School), Salem, MA. October 29

2004 "Earth from Space" Salem Academy (Middle School), Salem, MA. November 5

2004 "A Decade of Environmental Research in China." Asian Studies Month Lecture Series. Salem State University, March 29, 2004.

2003 "How Geographers Study the Earth from Space" Vaughn Nursery, First and Middle School, London, England, 06/03.

2003 "Land Cover Change Analysis with Global-Scale AVHRR Data," University of Leicester, Leicester, England, March, 2003.

2003 "The Use of Low Spatial Resolution Data for Renewable Natural Resources Management," University Collage London, London, England, March, 2003.

2002 "Land Cover Change Analysis: Case Study, China: 1982-1999," Berbeck College, University of London, London, England, December, 2002.

2002 "Land Cover Change in China: Pearls and Perils of a Remote Sensing Based Thesis," University Collage London, London, England, November, 2002.

2002 "Biodiversity Days & The Mapping of Biodiversity." The Massachusetts Geographic Alliance and the NE Global Education Center's Geography Conference for Middle School Teachers; Salem, MA; May 4, 2002.

2001 "The Earth as Seen from Space" Old Railroad Wheels Club, Lynnfield MA November 21

2001 “Rivers – 2001: Watershed Information on the Internet.” The Massachusetts Geographic Alliance and the Northeast Global Education Center’s Geography Conference for grades 4-8 Teachers; Salem, MA; October, 27.

2001 “The Earth as seen from Space” Amesbury Rotary Club, Amesbury, MA, October 25.

2001 “The Earth as Seen from Space” Wakefield (MA) Retired Men’s Club July 11

2001 “Mexico” Machon Elementary School, May 8

2000 “The Earth from Space” Woodbridge Assisted Living Center, Peabody, MA November 18

2000 "Environmental Protection Through Poverty Alleviation: A Case Study from Southern China." Massachusetts Council for International Education (MaCIE) Speaker Series, Holyoke Community College, Amherst, MA. November 14, 2000.

2000 "China and Conservation" Explorers Institute, Salem, MA November 9

2000 "Land-cover change analysis of China using Pathfinder AVHRR Landcover (PAL) data, 1982-92." Boston University (Land Change Lecture Series), October 16, 2000.

2000 "Here Today, Here Tomorrow: Conservation Education in Geography. The Massachusetts Geographic Alliance and the Northeast Global Education Center’s Geography Conference for K-8 Teachers; Salem, MA; October, 2000.

2000 "Biomes of the World" Explorers Institute, Salem, MA October 5

2000 "The Earth as Seen From Space" Explorers Institute, Salem, MA September 28

2000 "Australia" Machon Elementary School, March 13

2000 "Environmental Protection Through Poverty Alleviation: A Case Study from Southern China." Massachusetts Council for International Education (MaCIE) Speaker Series, Berkshire Community College, Pittsfield, MA. March 7, 2000.

2000 "Studying the Earth from Space." Environmental Studies Noon Bag Lunch Series**.** Salem State University. Salem, MA. February 29, 2000.

2000 "China" Machon Elementary School, January 10.

1999 "Studying the Earth from Above." Keynote Address at the Third Annual Ipswich River Wildlife Sanctuary Natural History Conference, Topsfield, MA. December 4, 1999.

1999 "Geography & Technology, think the world of your community." The Massachusetts Geographic Alliance and the Northeast Global Education Center’s Geography Conference for K-8 Teachers; Salem, MA; October, 1999, with S. Matchak.

1999 "Remote Sensing as Art." New England Chapter of the American Society for Photogrammetry and Remote Sensing, Technical Meeting, Salem State University. September 29, 1999.

1998 "Salem from Space." Interdisciplinary Research Group, Salem State University. Salem, MA. November 18,

1998.

1998 "The Use of Coarse-Grain, Global-Scale Remote Sensing Data to Analyze Global Land-Cover Changes: A Case Study of Forest-Cover Change in China, 1982 -1992." Yale School of Forestry and Environmental Studies, New Haven, CT; April, 1998.

1998 "The Use of Coarse-Grain, Global-Scale Remote Sensing Data to Analyze Global Land-Cover Changes: A Case Study of Forest-Cover Change in China, 1982 -1992." Institute for the Study of Earth, Oceans, and Space, University of New Hampshire, Durham, NH; April, 1998.

1998 "Emerging Asia: Patterns for Understanding Regional Variation." The Massachusetts Geographic Alliance and the Northeast Global Education Center's Geography Conference for K-8 Teachers; Salem, MA; March, 1998, with T. S. Pikora.

1998 "Nature Conservation Through Poverty Alleviation: A Case Study from Southern China." Salem State University Bureau of Faculty Research Breakfast Series, Salem State University, March, 1998.

1997 "The Use of Coarse-Grain Global Scale Data in the Analysis of Vegetation Change." Given at the Woodshole Research Center, Woodshole, MA., January 1997.

1996 "Geographic Factors Contributing to the Great Diversity of World Habitats." Keynote Address presented at The Massachusetts Geographic Alliance and the Northeast Global Education Center's *Geography: Exploring a World of Habitats, Seeing a World of Differences* Conference for K-8 Teachers; Dec., 1996.

1995 "The Kingdom of Plants and Animals: plate tectonics, people, and the future of biodiversity in Yunnan, China." Given as a special presentation at the Department of Geography, Salem State University, November, 1995.

1995 "Vegetative Cover Change in China 1982-92." Given at the Aspen Global Change Institute, Aspen CO, August, 1995

1995 "The Use of Meteorological Satellite Data to Detect Vegetation Change." Chinese Academy of Meteorological Sciences, Chinese Meteorological Administration, Beijing, China, June, 1995.

Journal Article Peer-Reviewer

2024
Geosciences, Land
2023
Science of the Total Environment, Remote Sensing
2022
Annals of the American Association of Geographers, Environmental Challenges, Remote Sensing
2021
Environmental Challenges, Geohumanities
2019
Remote Sensing
2018
Remote Sensing (3 manuscripts)
2017
Journal of Maps, Remote Sensing
2016
Hydrology, International Journal of Remote Sensing

2015
Biological Conservation
2014
Global Environmental Change, Remote Sensing, Applied Geography, The Journal of Maps, Northeast Geographer, Global Change Biology
2012
Canadian Journal of Remote Sensing
2011
Northeast Geographer
2010
Northeast Geographer
2009
Northeast Geographer
2008
Northeast Geographer
2006
International Journal of Remote Sensing, Geophysical Research Letters, *Sextant*
2005
Journal of Environmental Management, International Journal of Remote Sensing, Photogrammetric Engineering & Remote Sensing, *Sextant*
2004
International Journal of Remote Sensing, The Arab World Geographer, Sextant
2003
International Journal of Remote Sensing, Sextant, The Geographical Journal
2002
Asian Geographer, Environmental Monitoring and Assessment, International Journal of Remote Sensing, Journal of Geography, Journal of Risk Research, Photogrammetric Engineering & Remote Sensing
2001
International Journal of Remote Sensing, *Journal of Risk Research*

Grant Reviews
2003
National Geographic Society (NGS)
2002
National Science Foundation (NSF)
2001
National Science Foundation (NSF)
2000
National Science Foundation (NSF)

INSTITUTES
1995 Aspen Global Change Institute, 1995 Summer Science Session III, The Metro-Agro-Plex as a Geographical Unit of Analysis for Regional and Global Environmental Change. Aspen Colorado, 8/20 – 9/2, 1995.

1991 Global Change Institute on Global Land-Use/Cover Change; Office For Interdisciplinary Earth Studies; UCAR; Snowmass, Colorado. July 29 - August 9, 1991.

AWARDS
2022 Post Tenure Review – Salem State University – top reward.

2019 Lifetime Member of Explorers Club, Salem Massachusetts, in recognition of 20+years of service.

2015 Shanghai Normal University (SHNU) Honorary Professor, November 2015. Awarded for my work as Thesis Advisor for duel 1+1+1 Masters Students, Advising SHNU Ph.D. candidates and for providing lectures at the University in 2013 and 2015.

2015 Massachusetts Marine Educations Certificate of Appreciation, Woods Hole Oceanographic Institute.

2015 Inducted into the Salem State University chapter of the Honor Society of Phi Kappa Phi, May, 2015

2013 New England and Saint Lawrence Valley Geographical Society (NESTVAL) Lifetime Achievement

OTHER ACTIVITIES

2021-23 Member of Board of the Advisory Committee for the new MassBays/Coastal Zone Management eelgrass mapping study.
2022-23 Member of the Climate Data Review Board reviewing the Massachusetts Climate Change Risk Assessment; Massachusetts Climate Change Assessment (2023)
2021-22 Faculty Learning Community Leader for a program on Hy-Flex education, Salem State University
2019-22 American Association of Geographers Hess Scholarship Committee.
2019 Fulbright Scholar Host for Tetyana Pimonenko from Sumy State University, Sumi, Ukraine.
2019 Drone workshop for Municipalities May 13, 2019
2019 Advocacy Day – Climate Change Faculty host. Salem Sttae University, April 11, 2019
2019 SSU coordinator for Salem State University GIS Day, March 14, 2019
2019 SSU coordinator for Annual North Shore High School Marine Science Symposium, March 13, 2019
2019 Drone workshop for Municipalities March 11, 2019
2019-21 Academic Policies member (Universities Governing Committee)
2018 Drone workshop for Municipalities, Salem State University October 15, 2018
2017 American Association of Geographers Nomination Committee member
2017 SSU coordinator for Salem State University GIS Day, March 16, 2017
2017 SSU coordinator for Annual North Shore High School Marine Science Symposium, March 2017
2017 Ph.D. Dissertation review for: Department of Natural Resources, Teri University, New Delhi, India.
2016 SSU coordinator for Annual North Shore High School Marine Science Symposium, March 2016
2016 Distinguished Teaching Award Candidate
2016-19 Member, Board of Trustees, Unitarian Universalist Church of Greater Lynn, Swampscott, MA
2015 Ph.D. Dissertation review for:Civil Engineering, Indian Institute of Technology, Roorkee, India
2015 Salem State Coordinator for North Shore High School Marine Science Symposium at Salem State
2014 Outside faculty promotion Reviewer for University of Southern Maine.
2014-17 Advisory Committee Member for Essex Agricultural and Technical High School
2013 Earth Day Weeks Annual Panel on the Environment, Coordinator
2013-15 Research Mentor for the Center for Research & Creative Activities, SSU
2012-17 All University Committee (Universities Governing Committee), Chair
2012 Earth Day Weeks Annual Panel on the Environment, Coordinator
2008-18 Member of the *Northeast Geographer* Editorial Board.
2006-21 NESTVAL World Geography Bowl Coordinator
2011-12 All Collage Committee (Universities Governing Committee)
2011 External Evaluation for the Promotion at University of North Carolina, Willmington.
2009 NESTVAL: Conference Chair, Annual Meeting of NESTVAL conference, Salem, MA; November.
2008-10 All Collage Committee (Universities Governing Committee) (Vice-Chair 2009-10).
2002-08 Member of the *Sextant* Editorial Board.
2007-08 Library Media Development Committee, Salem State University

2007 External Evaluation for Promotion. United Arab Emirates University (Al Ain)
2003-07 Academic Policies Committee, Salem State University
2000-02 NESTVAL World Geography Bowl Coordinator
2000 Massachusetts Council for International Education (MaCIE) Speaker Award.
1999 Program Committee member, National Council for Geographic Education national meeting in Boston
1999-present Undergraduate Research Symposium – sponsoring student research
1998-02 Massachusetts Representative on the NESTVAL executive committee. (1998 - 99)
1997 Program Chair, Annual Meeting of NESTVAL conference, Salem, MA; November, 1997.

Press

2023 Boston Globe – front page article on lack of snow and box quote:

'The climate I lived in as a kid is long gone': Climate change is stealing New England's winters.February 16, 2023.

https://www.bostonglobe.com/2023/02/16/science/climate-change-is-stealing-new-englands-winters/

2022 Salem News – opinion piece – Why droughts and floods will intensify for decades. Sept 16, 2022
https://www.salemnews.com/opinion/column-why-droughts-and-floods-will-intensify-for-decades/article_f29e5b90-3518-11ed-a75a-7b9ab52d194e.html

2021 Boston Globe – front page article about *Climate* article: New England warming faster than the rest of the Planet
https://www.bostonglobe.com/2021/12/30/science/new-england-is-warming-faster-than-rest-planet-new-study-finds/

Countries Worked / Researched / Lived in

Australia, Canada, China, England, Ghana, Guatemala, Honduras, Hong Kong, India, Iran, Japan, Kazakhstan, Morocco, Taiwan, Tunisia

Countries travelled in

North-Central-South America: Argentina, Belize, Canada, Chile, Guatemala, Honduras, Mexico, St Thomas / St John, United States, Uruguay

Europe: Andorra, Armenia, Austria, Azerbaijan, Belgium, Czech Republic, England, Estonia, Finland, France, Georgia, Germany, Hungary, Iceland, Ireland, Italy, Lichtenstein, Luxembourg, Netherlands, Russia, Scotland, Slovakia, Slovenia, Spain, Sweden, Switzerland, Wales

Africa: Egypt, Ghana, Morocco, Togo, Tunisia

Asia: China, Hong Kong (UK), India, Indonesia, Iran, Israel, Japan, Jordan, Kazakhstan, Kyrgyzstan, Laos, Macau (Portuguese), Malaysia, Myanmar, Nepal, Philippians, Singapore, South Korea, Taiwan, Tajikistan, Thailand, Tibet, Turkey, Uzbekistan, Vietnam,

South Pacific: Australia, New Zealand