

Molly Burhans

CARTOGRAPHER · DESIGNER · TECHNOLOGIST · ADVOCATE

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Professional Summary

A cartographer, student, teacher, designer, technologist, and social entrepreneur whose work bridges sustainability, technology, and social impact. Expertise includes pioneering the integration of geospatial technology into large-scale ecological planning, governance, and faith-based conservation, resulting in groundbreaking global maps and spatial data infrastructures. Interdisciplinary experience spans environmental restoration, urban design, and innovative governance models, complemented by adjunct teaching roles at Columbia University and an extensive portfolio of public talks, exhibitions, and media features. Recognized globally with accolades from the United Nations, National Geographic, and the World Economic Forum, with a focus on leveraging design, data, and collaboration to create scalable solutions to global challenges.

Education

The Pontifical University of Saint Thomas Aquinas (Angelicum) **Expected Graduation 2031**

Degree Programs: Licentiate, Doctorate

Area of Study: Social Sciences

Licentiate Thesis Subject – Establishing A New Domain: Ecclesial Geography

Doctoral Thesis Subject – Applied CST: Transforming Property Ownership into Stewardship (to be refined)

The Conway School of Landscape Planning and Design, MS Ecological Design **2015**

Area of Study: Ecological landscape planning and design

Canisius University, BA Philosophy **2014**

Major: Philosophy | Minor: Dance

Cum Laude | Select Activities: Phi Sigma Tau (Philosophy Honor Society); Campus Ministry (participated in and led numerous service ministries, activities, retreats, and trips—including co-leading a service trip to Nicaragua with College President John Hurley and Agros International CEO Don Manning); Students for Life; Rite of Christian Initiation of Adults (Sacrament of Confirmation); Philosophy Club (Secretary)

Academic Experience

Columbia University | Adjunct Assistant Professor, Urban Design Program **2023 - 2025**

Adjunct Assistant Professor: Instructor for Columbia University's Master of Science in Urban Design program, teaching ARCH6676: Cartography + Property.

- **Innovative Case Studies:** Developed and led case studies on topics such as land use for ecological restoration, reconciliation with Indigenous communities, homelessness in Los Angeles, migration and climate change, and food security.
- **Applied Learning:** Guided students in creating replicable templates and models for large landholders, including faith-based organizations, to address global challenges through land stewardship.

- **Technical Instruction:** Taught spatial analysis, planning, data management, and collaboration tools including ESRI ArcGIS Pro, ArcGIS Online, and GeoHub tools. Introduced students to a variety of planning frameworks and students applied the geodesign framework to structure case studies and stakeholder interactions.
- **Educational Technology:** Used Canvas online learning platform to deliver course content, assess student progress, and facilitate interactive learning.

Canisius University | Adjunct Professor, Environmental Studies

Spring 2023

Taught *Introduction to Geographic Information Systems* at Canisius University, covering foundational GIS concepts and practical applications.

- **Mentorship & Real-World Applications:** Mentored students in using spatial analysis to address environmental and social issues, enhancing their applied GIS skills.
- **Educational Technology:** Delivered course materials via Blackboard, promoting engagement and collaborative learning.

Environmental Systems Research Institute (ESRI) | Invited Researcher

2016

Sponsored by the CEO of Esri to collaborate with the Applications Prototype Lab, a team known for developing innovative solutions for global organizations such as the World Health Organization.

- **Project Leadership:** Directed a multidisciplinary team to create groundbreaking GIS projects, including the first unified digital global map of the Catholic Church and mapping all Catholic properties in the continental United States of America in relation to green and blue infrastructure, integrating advanced cartographic techniques with innovative spatial data infrastructure design.
- **Strategic Collaboration:** Partnered with Esri leadership to advance geospatial solutions for conservation, governance, and faith-based initiatives.
- **Data Management & Development:** Led the development of a comprehensive global Catholic database, working with ontologists to create data dictionaries and secure critical stakeholder contributions.
- **Innovative Mapping Solutions:** Led a team in the development of the Antique Global Basemaps, which are now a default option for ESRI basemaps and widely used. Led and participated in the development of geospatial applications, using technology to advance spatial planning, map server and data server infrastructure, and design methodologies.
- **Spatial Data Infrastructure (SDI):** Authored a strategic whitepaper and roadmap for a International Spatial Data Infrastructure (ISDI), addressing security, policy, data accessibility and management for faith-based geospatial projects.

Graphic Notetaking | Independent Contractor, Instructor

2013 - present

Sample: <https://burhansm.wixsite.com/mollyb/graphic-note-taking>

Graphic notetaking is a visual method of recording key ideas, concepts, and discussions during meetings or events, using illustrations, diagrams, and text to enhance understanding and communication.

- **Graphic Notetaking & Facilitation:** Facilitated community-driven design and planning meetings, as well as corporate/consulting meetings, using graphic notetaking to capture key insights and ideas.
- **High-Profile Events:** Provided live graphic notetaking at major events, including a Vatican conference on sustainability, academic symposia, and international NGO workshops on design, conservation, and urban development.
- **Teaching Experience:** Co-taught a graphic notetaking class at the Conway School of Landscape Design, emphasizing visual communication techniques for planning, environmental design, and architecture students.

Sample: <https://burhansm.wixsite.com/mollyb/scientific-figures-and-media>

Produced illustrations to represent complex, multi-disciplinary scientific processes, with work featured in peer-reviewed journals and conference media

- **Publications & Conference Media:** Created detailed scientific illustrations for peer-reviewed journals and international conferences, including *Cell Cycle*, *FEMS Yeast Research*, *Nucleic Acids Research*, and *IEEE TePRA Proceedings*. Visuals supported multidisciplinary research in biology, robotics, and environmental sciences.
- **Conference Poster Design:** Designed visually compelling research posters for high-profile events, such as the IEEE International Conference on Technologies for Practical Robot Applications and the Annual DNA Replication and Repair Symposium, showcasing complex scientific findings in accessible formats.
- **Technical Proficiency:** Leveraged industry-standard tools, including Adobe Creative Suite (Photoshop, Illustrator, InDesign), Autodesk, Maya, and other CAD programs, to produce precision-driven illustrations. Combined analog and digital techniques to create impactful, accurate representations of scientific concepts.
- **Specialized Training:** Participated in a Biological Illustration Workshop at Cornell University's Shoals Marine Laboratory in June 2009, focusing on the intersection of art, medicine, science, and design to visualize ecological and biological systems effectively.

Other Experience

GoodLands Inc. | Founder, Executive Director

2015 - 2025

GoodLands transforms real estate portfolios into powerful tools for environmental stewardship, social impact, and sustainable development. By integrating geospatial technology with innovative governance strategies, it supports Catholic communities worldwide in optimizing property management for ecological and fiscal benefits.

- **Founder & Executive Leadership:** Established GoodLands with an initial \$5,000 investment, scaling it into a groundbreaking entity in the "Faith for Earth" space, leveraging technology for conservation and social impact.
- **Global Impact & Media Reach:** Shared GoodLands' mission with over 1.7 billion unique viewers through mainstream media, earning widespread respect across political and religious divides.
- **Fundraising & Resource Mobilization:** Secured approximately \$500,000 in unrestricted funding and \$12 million in pro-bono resources, staff, and services over seven years.
- **Strategic Leadership:** Directed strategic planning, board development, branding, fundraising, academic collaborations, and IT systems administration to support lean, agile operations.
- **Project Management:** Managed modular teams across a dozen high-impact projects, including a team of 50+ during a residency at Esri, producing groundbreaking geospatial and mapping innovations.
- **Legal Frameworks & Governance:** Collaborated with Weil LLP to establish robust legal and governance structures, including intellectual property management and a blended corporate framework for mission-driven operations.
- **High-Stakes Mediation:** Navigated public, high-pressure situations and complex stakeholder negotiations as the sole full-time staff member.
- **Operational Innovation:** Designed and implemented automated workflows and operational processes, enhancing scalability and sustainability despite limited financial resources.

GroOperative Inc. | Co-Founder, Board of Directors

2014 - 2014

GroOperative is an indoor vertical farming initiative designed to provide fresh, locally grown food to urban communities with limited agricultural capacity. As a worker-owned cooperative, it prioritizes environmental sustainability, equitable labor practices, and community engagement. It is currently in production and retail, selling fresh microgreens and fish to local businesses in Western New York.

- **Co-Founder & Advisor:** Played a key role in establishing a cooperative business focused on sustainable food systems, and the distribution of microgreens and fish to local businesses in Western New York.
- **Legislative Advocacy:** Collaborated with legal experts to influence New York State corporate legislation, advancing policies that support worker-owned cooperatives and equitable business practices.
- **Branding & Marketing:** Developed the cooperative's initial branding and marketing materials, including advertising strategies that effectively positioned GroOperative as a community-driven enterprise.
- **Strategic Planning:** Conducted market research, developed market plans, and assisted in bylaw creation to support organizational growth and sustainability.
- **Agricultural Innovation:** Contributed to indoor agriculture system design to enhance operational capabilities and product offerings.
- **Community Impact:** Assisted in creating a scalable model for urban agriculture, addressed food security, and promoted community engagement through sustainable design practices.

Sustainable Planning and Design Consulting | Independent Contractor, Consultant

2015 - present

Sample: https://issuu.com/burhansm/docs/2014a_burhans_fallfinalset/1

Provided consulting and design services in urban planning and landscape design, integrating ecological sustainability with community-driven solutions. Projects encompassed water management, habitat planning, and regenerative agricultural strategies to create functional, sustainable, and aesthetically pleasing environments.

- **Regenerative Agriculture Consulting:** Led the design and supported collaborating firms' implementation of regenerative agriculture projects that prioritized environmental resilience, soil health, and community engagement. Collaborated with stakeholders to incorporate innovative agricultural practices into urban and peri-urban landscapes.
- **Project Implementation:** Focused on creating projects that are financially and environmentally feasible, implementable in stages, and responsive to community needs and aesthetics.
- **Digital & Print Products:** Produced digital and print materials to communicate design concepts and project plans effectively.
- **Surveying:** Used survey equipment in the field to map sites and integrated information with AutoCAD Civil3D for design and surveying documentation, with expertise in site planning (note: not qualified for legal-grade surveys).
- **Drone Technology Utilization:** Employed drone technology for precise site analysis, environmental mapping, and project documentation, enhancing the accuracy of spatial data and visual assessments.
- **Ecological & Habitat Planning:** Designed city-wide habitat restoration plans, integrating biodiversity goals with urban development and infrastructure. Projects balanced environmental sustainability with urban growth, aligning with principles of landscape architecture and ecological urbanism.
- **Corporate and Private Consulting:** conducted workshops, created organizational analyses, and developed workflows that illustrate grand-strategy for large-scale sustainability projects related to property and improving sustainability practices for real assets.

Roswell Park Cancer Institute | Laboratory Technician

2011 – 2014 (seasonal)

Conducted research at Roswell Park Cancer Institute on the effects of hyperglycemia and stressors in *Saccharomyces cerevisiae*, focusing on DNA damage and cellular senescence during aging.

- **Scientific Investigation:** Studied the role of sustained growth signaling pathways in aging-related DNA damage and cellular dysfunction. Contributed to advancing the understanding of molecular mechanisms underlying cellular senescence.
- **Technical Training:** Completed specialized training in flow cytometry, chemical lab safety, and molecular oncology research methods, applying these techniques to experimental protocols.
- **Independent Study:** Pursued independent studies in the sciences, to deepen technical proficiency in oncology and molecular biology research, enhancing contributions to team projects.

- **Research Collaboration:** Worked under Primary Investigator Dr. William Burhans and Supervisor Dr. Martin Weinberger, contributing to collaborative projects on cellular aging and stress responses.
- **Data Analysis & Reporting:** Investigated experimental data and assisted in preparing reports to support ongoing research efforts, contributing to the core objectives of the laboratory.

Graphic Design | Independent Contractor

2008 - 2017

Led branding campaigns, website design, logo development, and tee-shirt design, creating engaging marketing materials for public events.

- **Creative & Marketing Materials:** Designed posters, signage, and marketing materials to support event promotion and community engagement.
- **Software & Technical Competencies:** Proficient in JavaScript customization within ESRI and Wordpress ecosystems, website hosting, WordPress, Elementor, Divi, Adobe Illustrator, Photoshop, InDesign, Premiere Pro, After Effects, FX, Unreal Engine, Blender, Revit, AutoCAD, ESRI ArcGIS Pro, ArcMap, ArcGIS Online, GeoHub, and other design and GIS tools.
- **Web Development:** Experienced in front-end and back-end web development, utilizing modern tools and platforms to create dynamic and functional websites.
- **Logo Development & Branding:** Created cohesive visual identities, including logo designs, to elevate brand presence and communicate core messages to wider audiences.

Major Projects (Select)

The Select Major Projects section highlights a curated list of some of Molly Burhans' most significant and impactful initiatives across mapping, technology, conservation, and ecclesial land-use planning. These projects demonstrate leadership in interdisciplinary collaboration, innovation in geospatial systems, and a commitment to global sustainability and social justice. Each entry reflects strategic vision, technical expertise, and real-world implementation at local to international scales.

Sample: <https://mollyburhans.com/work/>

A Global Church | GoodLands

2016 - 2021

The project produced the first global, digital map of the Catholic Church, featuring a comprehensive dataset of ecclesiastical jurisdiction boundaries: Administrative 1 (Episcopal Conferences), 2 (Provinces), and 3 (Dioceses). This groundbreaking resource enables unprecedented visualization and analysis of the Church's global structure, supporting governance, planning, and collaboration. Its creation marks a pivotal step in integrating advanced cartography and data management into the Church's operations, with far-reaching implications for transparency, resource allocation, and engagement in global initiatives.

- **Leadership:** Directed all aspects of the project as Chief Cartographer, providing executive management, design vision, and operational oversight from conception to delivery.
- **Collaborative Expertise:** Partnered with Esri's Applications Prototype Lab, cartography, software engineering, and media development teams, alongside two GoodLands contractors, to deliver a high-quality, data-driven mapping solution.
- **Cutting-Edge Technical Contributions:** Utilized expertise from a team that previously developed authoritative UN Administrative 3 boundaries for the World Health Organization, ensuring accuracy and reliability.
- **Extensive Research and Prototyping:** Completed the project over nine months of full-time work, including a four-month residency at Esri, to refine methodologies and prototypes.
- **Global Impact:** Created the first comprehensive data-based map of the global Catholic Church, addressing the lack of existing data and policies for secure map information.

- High-Demand Data Management: Designed a system to track and update diocesan boundaries and leadership information, which change approximately every two days, ensuring relevance and usability (system retired in 2019 for fiscal reasons).
- Strategic Approvals: Secured approval from the Holy See Secretary of State to ensure the project met security and policy considerations before commencing development.

Sowing Hope | GHR Foundation, Union of Superiors Generals (UISG)

2018 - 2019

Created the first global illustrations of Catholic institutions, including orphanages, hospitals, dispensaries, homes for the elderly and infirm, and other welfare-related centers from 1980 to 2016. The project integrated historical Vatican data with geospatial analysis to support strategic planning, advocacy, and resource allocation.

- Data Integration & Analysis: Mined decades of data from the Vatican's *Annuarium Statisticum Ecclesiae* and cleaned datasets to align with historical and current geopolitical boundaries.
- Web-Based Mapping Applications: Developed a comprehensive suite of web-based map applications and interactive analyses, enabling stakeholders to explore institutional footprints and trends globally.
- Print & Visual Materials: Produced over ten high-quality print materials, including posters, wall maps, reports, and infographics, to communicate findings effectively to diverse audiences.
- Spatial Analysis for Catholic Education: Designed and implemented criteria and metrics for spatial analysis, focusing on Catholic education accessibility relative to demographic, economic, transportation, and population projections.
- Workshop Facilitation: Conducted a two-day workshop at the foundation's headquarters to determine exhibit materials and refine the project's direction. Collaborated with stakeholders to align mapping outputs with strategic goals.
- Global Mapping Contributions: Delivered geospatial products that enabled better decision-making for Catholic institutions, advancing resource allocation and strategic planning in underserved regions.
- Interdisciplinary Design: Combined cartography, data visualization, and design to produce impactful materials that bridged faith-based missions and sustainable development goals.

Catholic Properties, USCCB | GoodLands

2016

Led a team at GoodLands to map over 33,000 Catholic-affiliated properties across the United States Conference of Catholic Bishops (USCCB) in 2016. The project combined data from The Official Catholic Directory, assessors' datasets, and commercial datasets to identify and document these properties.

- Data Integration & Mapping: Integrated diverse datasets to create a comprehensive national map of Catholic properties, ensuring accuracy through data cleaning and validation.
- Collaboration & Data Licensing: Established secondary contracts with data suppliers to ensure proper licensing and payment for data use, in alignment with source requirements.
- Research & Prototyping Support: Acknowledged the generous contribution of The Official Catholic Directory, which supported the back-end research and prototyping efforts for this project.

USCCB-Wide Green Infrastructure Planning | GoodLands

2017

GoodLands mapped Catholic-affiliated properties and their identifying information within the United States Conference of Catholic Bishops (USCCB) in 2017. Building on a groundbreaking project that had previously mapped habitat connectivity across the country, the team developed an innovative application to analyze the role of Catholic properties in landscape connectivity.

- Application Development: Led the creation of an application to illustrate how Catholic properties contribute to habitat connectivity in the United States.
- Landscape Connectivity Analysis: Identified properties with high potential to play key roles in enhancing landscape connectivity, using advanced geospatial techniques.
- Collaboration with Habitat Mapping: Integrated findings from previous habitat connectivity projects to ensure a seamless and impactful application.

The Catholic GeoHub | GoodLands

2018 - 2019

The Catholic GeoHub is a groundbreaking digital platform that integrates geospatial data and mapping tools to support the global mission of the Catholic Church. By visualizing ecclesiastical boundaries, demographics, and environmental data, it empowers Church leaders, organizations, and communities to make informed decisions related to governance, planning, and stewardship.

- **Data Integration & Visualization:** Designed and developed criteria and metrics to analyze Catholic education accessibility and needs, considering demographics, economics, transportation, and educational opportunities.
- **Platform Development:** Built and launched over 300 interactive maps and applications, integrating over 1,000 Catholic datasets to provide a comprehensive resource.
- **Global Data Accessibility:** Managed the project from Castle Gandolfo, launching the platform in 2019 to support the Church's global strategic decision-making.

***Annuario Statisticum Ecclesiae* Data Extraction Software | GoodLands**

2017

Led a team to develop specialized software for extracting data from PDF images of several decades of hard copies of Vatican data, specifically from the *Annuario Statisticum Ecclesiae*. This software was initially created to support a related project but was designed with flexibility to be adapted for extracting data from other sections of the *Annuario Statisticum Ecclesiae*, such as educational institutions, for future projects. By enabling efficient data extraction, the software reduces project overhead, allowing the completion of similar initiatives at a fraction of the cost compared to other institutions or organizations that lack this specialized tool and expertise with the data source.

- **Data Extraction Software Development:** Created software capable of mining decades of data from PDF images of Vatican hard copies, enabling future cost-effective data-driven projects.
- **Cost Efficiency & Scalability:** Designed to be adaptable for various sections of the *Annuario Statisticum Ecclesiae*, providing scalable solutions for future data analysis.
- **Analyses & Mapping:** Developed a small report featuring over 15 analyses and maps of Catholic communications infrastructure in Africa, along with additional web-based mapping applications stored within GoodLands' internal data infrastructure.

Suitability and Impact Analysis for Catholic Schools | Foundation for Catholic Education

2017 - 2019

Multipart study implemented geographic information systems (GIS) technology and powerful data visualization tools to understand the state of Catholic schools in Archdiocese of Omaha (NE, USA), Diocese of Lincoln (NE, USA), Diocese of Grand Island (NE, USA) and the Diocese of Manchester (NH, USA). It provided a crucial understanding of need and impact for Catholic education, prioritizing areas for the placement of new Catholic schools, supporting the development of performance-based funds for new and existing Catholic Schools, and producing reports to support informed decisions about closing existing schools to make more effective use of resources.

- **Design and Data Analysis:** Designed and developed criteria and metrics that were used to spatially analyze Catholic education accessibility and need in relation to extant and projective demographics, economics, transportation, students, educational opportunity.
- **Capacity Building:** Delivered workshops to the Foundation for Catholic Education, enabling them to independently manage the data generated by the project for future applications.
- **Reporting & Decision Support:** Developed various reports that articulated analytics and finding for client and associated diocese, supported strategic decision-making.

Mapping the Global Vincentian Family | FamVin and others

2018 - 2019

Led GoodLands to develop the first global maps of a significant religious order's footprint, the Vincentian Family. This project involved mapping all mother houses of the congregations, including details such as superior generals, mother superiors, founding years, and additional relevant data. A specialized software tool was developed to digitize a sub-group's global directory, mapping their houses, membership, and key statistics.

- **Geographic Survey Application:** Developed a custom geographic survey application using the Esri Survey123 platform to streamline the data collection process for the global Vincentian Family.

- **Data Collection & Compliance:** Enhanced workflows and designed systems to facilitate the collection of information from large, global religious communities, addressing challenges of survey compliance, especially in contexts without financial incentives.
- **Data Integration & Analysis:** Designed and developed criteria and metrics for spatial analysis, particularly focusing on Catholic education accessibility and need in relation to demographics, economics, and other factors.
- **Learning and Collaboration:** Through collaboration with the Vincentian Family, gained valuable insights into best practices for information collection and survey design in large-scale religious communities.

Catholic Radio Infrastructure in Africa | Dicastery for Communications

2017

GoodLands collaborated with a member of Vatican Radio to map all Catholic radio stations across the African continent. This project involved analyzing the potential of these stations to serve as internet delivery sites, calculating the population that could potentially be reached if these stations were equipped with internet delivery systems. Print versions of the resulting maps were shared with Vatican Radio and the Pontifical Academy of Sciences during the Connectivity as a Human Right symposium, where the project was discussed by notable figures including Romano Prodi, former Prime Minister of Italy, and Nicholas Negroponte, founder of the MIT Media Lab.

- **Geospatial Analysis & Mapping:** Mapped Catholic radio stations across Africa, assessing their potential for internet delivery capabilities and calculating the populations served.
- **Report Development:** A small report was produced with over 15 analyses and maps of Catholic communications infrastructure across Africa.
- **Web-Based Applications:** Developed additional web-based mapping applications, integrated into GoodLands' internal data infrastructure for future use.
- **Symposium Presentation:** Presented findings at the Connectivity as a Human Right symposium, contributing to global discussions on digital access and communication infrastructure.

Typologies of Indigenous Reconciliation | Jesuits of Canada, Case Study: Columbia University Students 2024

Led a collaborative research project with master's students to map and categorize models of reconciliation between the Jesuits of Canada and Indigenous communities.

- Collaborated directly with a First Nation representative and Jesuit partners, learning Indigenous history, land relations, traditions and needs and Jesuit reconciliation aims and resources to inform the methodology.
- Developed geospatial "typologies" illustrating historical land acknowledgments, treaty territories, reparative land-use practices, monetization strategies for a reparation fund, and shared stewardship agreements.

Catholic Geographic Policy and Geospatial Security Assessment | Goodlands

2018 - 2023

This project involved a comprehensive evaluation of the Catholic Church's geographic data policies and geospatial security practices, conducted within the framework of canon law. The assessment identified gaps in data governance, developed recommendations for the secure handling of sensitive ecclesiastical information, and created guidelines for the ethical use of geospatial technology. By aligning these efforts with the Church's legal and doctrinal principles, the project established a foundation for safeguarding geographic data while enhancing its utility for ecclesiastical governance, planning, and mission-driven activities.

- **Data Governance & Security:** Evaluated the Church's geographic data policies, identifying gaps and developing recommendations to ensure secure handling of sensitive ecclesiastical information.
- **Ethical Guidelines Development:** Created guidelines for the ethical use of geospatial technology, aligning them with canon law and the Church's doctrinal principles.
- **Geospatial Analysis & Planning:** Designed and developed criteria and metrics for analyzing Catholic education accessibility and need, factoring in demographics, economics, transportation, and educational opportunities.

Global Catholic Carbon Footprint various	2018
Mapping Abuse Trends, Hotspots, and Critical Intervention Areas various	2016 - 2020
Safeguarding our Future: The Planet and Children various	2018
WASH Catholic Geohub Vatican, Dicastery for Integral Human Development	2021

Workshops (Select)

This section highlights workshops developed and led on a range of topics, including GIS mapping, sustainable agriculture, healthcare, faith-based initiatives, and intra-organizational GIS capacity building. Over the years, numerous workshops have been facilitated in collaboration with various institutions and organizations.

Gary Dioceses: Mapping & Education Planning, Parish Planning 2017

Designed and led a workshop for Gary Dioceses, focused on mapping and educational planning for Catholic school development, consolidation, and closures. The session brought together parish leaders, educators, and community stakeholders to discuss strategies for effective land use, educational outreach, and parish resource management. The workshop identified key challenges, mapped parish needs, and established actionable steps for integrating GIS solutions into diocesan planning efforts. It was followed up with a comprehensive report with actionable recommendations for strategic planning for accessible, sustainable Catholic education across parishes.

Los Angeles Archdiocese: GeoHub Scoping Workshop 2019

Facilitated a GeoHub Scoping Workshop to bring together stakeholders from real estate, facilities management, pastoral planning, social services, healthcare, education, and various ministries. The goal was to identify collaboration opportunities, understand existing programs, and map out the requirements for a comprehensive GeoHub to support the Archdiocese's mission. The workshop resulted in a detailed report with pricing options and project schedules for GeoHub development.

Vincentian Family FamVin: Digitizing Directory and Mapping Workshop 2016

Led a workshop focused on digitizing the FamVin directory and mapping the global presence of the Vincentian Family. Participants, including representatives from various religious orders and ministries, worked together to identify key data needs and map Vincentian activities globally. The session resulted in the creation of digital mapping tools to facilitate better coordination and outreach.

GHR Foundation & UISG: Sowing Seeds of Hope Workshop 2019

Designed and conducted a workshop for GHR Foundation and UISG focused on mapping healthcare, orphan care, and women religious institutions globally. The workshop included key stakeholders to understand data needs for service delivery and advocacy. We scoped digital materials and exhibition designs to support these goals and following the workshop delivered a detailed report on data integration, digital materials, and exhibit planning with clear action points for the next steps in healthcare and orphan care mapping.

Gardening the Community: Walnut Street Project, Regenerative Farm Workshop 2014

Led a workshop with youth and local stakeholders, in collaboration with Gardening the Community, to plan a regenerative farm initiative for at-risk youth in the Walnut Street area. The workshop facilitated collaboration between youth, local residents, and NGOs to design a sustainable agricultural program providing hands-on learning, community engagement, and ecological benefits.

Portland City Council: Pollinator Habitat & Community Planning Input 2015

Facilitated a community planning workshop focused on pollinator habitat creation in Portland. Local residents, environmental advocates, and urban planners worked together to design and plan pollinator-friendly spaces within the city. Stakeholders provided input on habitat locations, community engagement strategies, and biodiversity goals.

Mali Nyeta, Djangoula Kita, and Djangoulala Foulalal: Water Access and Mapping Workshop 2015

Led workshops in Mali with local stakeholders and translators to discuss water infrastructure and sustainable agricultural practices. The workshops focused on identifying community needs for clean water access and sustainable farming methods, integrating GIS tools to map water resources and agricultural zones for better planning and management.

GIS Capacity Building Workshops

2015 - Present

Designed and led GIS capacity-building workshops aimed at strengthening organizational skills in spatial data management. These workshops focus on building foundational GIS knowledge, enhancing basic competency in GIS tools, and providing learning resources to ensure sustainable use of GIS within organizations. Participants learn key GIS concepts, identify staff with existing skills to maintain and support GIS operations, and develop maintenance plans for data management. The goal is to empower organizations to independently integrate and sustain GIS capabilities for improved decision-making and resource management.

Exhibits

The Exhibits section features a selection of Molly Burhans' solo and group exhibitions, spanning fine art, cartography, and environmental design. From large-format maps displayed at the Vatican to sculptural and conceptual installations in Buffalo, NY, these exhibits reflect a multidisciplinary practice rooted in place, systems, and the dialogue between science, spirituality, and art. Each show contributes to a broader narrative of using creative expression to explore ecological, social, and metaphysical themes.

A Global Church | GoodLands

2016

The project produced the first global, digital map of the Catholic Church, featuring a comprehensive dataset of ecclesiastical jurisdiction boundaries: Administrative 1 (Episcopal Conferences), 2 (Provinces), and 3 (Dioceses). This groundbreaking resource enables unprecedented visualization and analysis of the Church's global structure, supporting governance, planning, and collaboration. Its creation marks a pivotal step in integrating advanced cartography and data management into the Church's operations. Large-format maps were created for display as part of the Vatican Arts and Technology Council and exhibited during its premiere at Casino Pio IV in 2016.

Landscape SPACE | Solo Show | DI Studios | Buffalo, NY | 2015

A solo exhibition that focused on landscape and environmental themes, exploring the dialogue between nature and human-made environments.

Sculptures by Molly B. | Presto | Buffalo, NY | 2014

An immersive exhibition of sculptural works, highlighting materiality, form, and the relationship between art and space.

Here or There | Coming Home Buffalo | Buffalo, NY | 2013

An exhibit examining themes of home, identity, and belonging, blending various artistic mediums to explore the concept of place.

Molecular Masterpiece | Sp@ce224 | Buffalo, NY | 2010

A solo exhibition centered on the intersection of molecular structures and abstract art, with emphasis on texture and form.

Untitled | Filigrees Gallery and Boutique | Buffalo, NY | 2009

An exhibition showcasing contemporary works, exploring intricate patterns and conceptual depth.

**(Note: Some galleries no longer exist. Curators' contacts are available upon request.)*

Film, Television, and Video

The Film, Television, and Video section includes a selection of motion media appearances featuring Molly Burhans' work that have been archived on the internet in order to provide sample materials. Beyond these materials, she has participated globally broadcast interviews and educational and advocacy-focused videos by major outlets including the United Nations, National Geographic, NBC, and EWTN, as well as in numerous Catholic and secular productions.

Young Champion of the Earth 2019: Molly Burhans | United Nations Environment Programme 2019

Video Link: https://youtu.be/GtubyDPgLP_E

This UNEP video, premiered during the UN General Assembly, features Molly Burhans, the 2019 Young Champion of the Earth for North America, who founded GoodLands to help the Catholic Church use Geographic Information Systems (GIS) to steward its vast global landholdings for conservation and sustainability. Her work aims to bring Catholic land management to the scale and impact of its healthcare and education systems.

Meet the Woman Helping the Catholic Church Care for Creation | Grotto Network 2019

Video Link: <https://youtu.be/VOovUT9qWfY>

This Grotto Network video profiles Molly Burhans, founder of GoodLands, who is working to geographically-enable the Catholic Church-owned—the largest non-governmental network of landholdings in the world—to help the Church use its property to care for creation and the most vulnerable people. The video follows Molly's mission to integrate science, art, and faith to inspire global environmental stewardship and responsible land use.

Catalyst Conversation - Molly Burhans & Lloyd H. Dean | CommonSpirit Health 2022

Video Link: <https://youtu.be/keeH9iHBVfk>

CommonSpirit Health the United States of America's largest Catholic hospital chain and its second-largest nonprofit hospital chain; it is committed to advancing health equity, providing compassionate care, and serving vulnerable populations through a mission inspired by faith and driven by innovation. CommonSpirit Health's "Catalyst Conversations" series serves as a platform to explore the intersection of climate change and health equity, emphasizing the organization's commitment to environmental stewardship as a core component of its healthcare mission. As a part of this series Lloyd Dean, then CEO of CommonSpirit Health, sat down with Molly Burhans to discuss the vital role of geospatial technology and land stewardship in addressing climate change and promoting health equity.

A 'Treasure Map' of the Catholic Church | Catholic News Service 2019

Video Link: <https://youtu.be/ustx1vSygd8>

Catholic News Service is an American news agency owned by the United States Conference of Catholic Bishops that reports on the Catholic Church. This Catholic News Service video, A 'Treasure Map' of the Catholic Church, highlights the newly launched (2019) GoodLands GeoHub—a groundbreaking digital platform offering access to hundreds of datasets, interactive apps, and maps of the global Catholic Church, serving as an invaluable beta tool for planning and mission-driven decision-making.

Seeking to Help Catholic Dioceses Use their Land More Efficiently | Rome Reports 2018

Video Link: <https://youtu.be/c3GHnZv4yDY>

A solo exhibition centered on the intersection of molecular structures and abstract art, with emphasis on texture and form.

Books

This section features a selection of books that highlight Molly Burhans' work, advocacy, or journey. While it's impossible to track every mention, the titles included here highlight books with chapters that are significantly—or in some cases entirely—dedicated to her contributions. Books marked with an asterisk () include chapters that Molly authored or co-authored herself, such as Women and GIS.*

More Information: <https://mollyburhans.com/media/#books-desktop>

The Earth Cries Out: How Faith Communities Meet the Challenges of Sustainability 2021

By Gary Gardner (Author) | Orbis Books

COOL: Women Leaders Reversing Global Warming 2022

By Paola Gianturco (Author), Avery Sangster (Author) | PowerHouse Books

Women and GIS* 2018

Co-Author Molly Burhans and ESRI media team | ESRI Press

Honors and Awards

This section highlights a selection of honors and awards. It is notable that this is the first time that most of these awards have recognized explicitly faith-based work, setting a new precedent for the role of religious leadership in social entrepreneurship, innovation, and environmentalism.

More Information and Links: <https://mollyburhans.com/about/#honors-awards-fellowships>

Ignazio Danti O.P. Fellow in Geography | Leonum Institute for AI and Emerging Technology, Catholic University of America, Washington, D.C., USA 2026

Research fellowship advancing the Catholic intellectual tradition in geography through AI, geospatial systems, and emerging technologies to support the Church in spatial governance, ecclesial mapping, and stewardship.

Alpha Sigma Nu | Canisius University, Buffalo, NY 2026

Inducted into the Jesuit honor society recognizing distinguished scholarship, loyalty, and service within Jesuit higher education.

Doctor Honoris Causa | St. Mary's College, Southbend, IN 2023

Awarded an honorary doctorate in recognition of exceptional contributions to Catholic communities, environmental sustainability, social justice, and the integration of GIS technology for faith-based and community-driven initiatives.

Young Champion of the Earth | United Nations 2019

Young Champions of the Earth is the United Nations' highest environmental award for young adults. Seven Young Champions, one from each continental region, are recognized each year as talented innovators who demonstrate outstanding potential to create positive environmental impact. Awarded for 2019 Young Champion of the Earth laureate for N. America.

EarthCare Award | Sierra Club**2021**

This award honors individuals or organizations making unique contributions to international environmental protection and conservation. Past recipients include Dr. Wangari Muta Maathai, Sir David Attenborough, Wolfgang Burhenne, Former President Andrés Pérez, and the Black Mambas all-women anti-poaching unit.

Explorer | National Geographic**2021 cohort, lifetime**

A National Geographic Explorer is an exceptional individual who receives support and funding from the National Geographic Society to illuminate and protect our world through science, exploration, education, and storytelling. Driven by curiosity and a commitment to making the planet a better place, Explorers are leaders and problem solvers who engage with communities, share inspiring stories, and work towards a sustainable future.

Emerging Explorer | National Geographic**2021**

National Geographic annually selects 5 – 15 Trailblazing young scientists, educators, storytellers, and conservationists who are transforming their fields, improving the lives and the planet, and furthering our understanding of our world and all that's in it.

20 Under 40: Young Shapers of the Future – Academia and Ideas | Encyclopedia Britannica**2022**

Recognized as a Young Shaper of the Future in the category of *Academia and Ideas*. Encyclopedia Britannica's 20 Under 40: Young Shapers of the Future work in many fields and endeavors, embracing every corner and intersection of health and medicine, science and technology, and business and entrepreneurship. They are people of ideas, framing the intellectual questions and concerns that will guide future thought.

Pioneers of Change | World Economic Forum**2020**

Recognized as one of 100 Pioneers of Change for pioneering new technologies and innovations that play a critical role in transforming society.

Ashoka Fellow | Ashoka Foundation**2018 cohort, lifetime**

Ashoka Fellows are the world's leading social entrepreneurs. They champion innovative new ideas that transform society's systems, providing benefits for everyone and improving the lives of millions of people. After a rigorous selection process, they are introduced to a life-long fellowship, where every member is committed to championing new patterns of social good.

Henry Arnhold Conservation Fellow | Mulago Foundation**2020**

The Mulago Foundation awards 8-10 leaders per year a Henry Arnhold Fellowship. There are no open applications for the award, the foundation identifies these leaders independently. Fellows have developed promising conservation and climate solutions that are scientifically, economically, and socially feasible and can be scaled to make critical global impacts towards improving environmental wellbeing.

Grist Fixer | Grist Media**2019**

Each year Grist selects 50 emerging leaders from across the U.S. who are working on fresh, real-world solutions to our world's biggest challenges. Now in its sixth year, the list includes scientists, artists, policymakers, farmers, social-justice advocates, storytellers, entrepreneurs, technologists, chefs, clean-energy wonks — all kinds of people pointing the way toward a just, sustainable future.

Mary Magdalene Award | The Church of St. Ignatius Loyola, NYC**2023**

The Mary Magdalene Award is presented by the Church of St. Ignatius Loyola in New York City. This prestigious award honors exceptional Catholic women who have demonstrated outstanding leadership, service, and dedication to their faith and community. Notable recipients include Sister Norma Pimentel, Diane Nash, and Dolores Huerta.

St. Oscar Romero Award | Mercyhurst University

2023

Mercyhurst University's 31st recipient of the Oscar Romero Award. The award is named for St. Oscar Romero, the late archbishop of San Salvador, El Salvador remembered for his uncompromising commitment to the poor and the oppressed of El Salvador; the award is given to "a person living the call of faith in an extraordinary manner."

Sustainable Communities Initiative Fellowship | The Conway School

2014 - 2015

The Sustainable Communities Initiative (SCI) Fellowship at The Conway School was a merit-based scholarship designed to support students committed to careers in urban landscape planning and design with a focus on sustainability and human ecology. The fellowship aimed to advance ecological restoration, conservation planning, and regenerative design by empowering emerging professionals to address pressing environmental and social challenges.

Dorothy Day Social Justice Award | Canisius University

2014

Honors a student that embodies Dorothy Day's legacy of social justice, peace, and radical hospitality.

Speaking Engagements (select)

Praying Through Pilgrimage: A Journey of Dominican Discernment Co-speaker <i>Pontifical University of Saint Thomas Aquinas; APUST Student Conference</i>	March 2026 Rome, IT
Energy and Climate Geopolitics Guest Lecture <i>The Catholic University of America, HSEV 206</i>	September 2025 Remote
Geospatial Technologies (Integrating the Spiritual and the Spatial) Speaker <i>Oxford University; Laudato Si Research Institute, Martin School, Champion Hall</i>	April 2025 Oxford, Oxfordshire, UK
Scalable Property-Based Solutions for Impact Guest Lecturer <i>Harvard University, Graduate School of Design</i>	April 2025 Cambridge, MA, USA
Catholic Tech and Geography Invited Speaker <i>St. Joseph's Collegiate Institute, High School</i>	March 2025 Buffalo, NY, USA
Faith and a Wellbeing Economy Panelist <i>The Rockefeller Foundation, Solutions Insights Lab, Wellbeing Economy Alliance</i>	November 2024 Remote
Mapping the Catholic Landscape Invited Speaker <i>Transformative Impact Summit, UNGA, Climate Week 2024</i>	September 2024 New York, NY, USA
The Possibilities and Power of Spatial Analytics Guest Lecturer <i>Columbia University, Graduate School of Architecture Planning and Preservation</i>	June 2024 New York, NY, USA
Lowell Gray Lecture Distinguished Lecturer <i>Trinity High School NYC</i>	May 2024 New York, NY, USA
United Nations Environment Assembly Invited Addressee to UN Delegates and Panelist <i>United Nations Environment Program, Gala of Hope</i>	February 2024 Nairobi, Kenya
Faith and Science: Environmental Stewardship Invited Speaker <i>The ITE Project</i>	November 2023 Akron, OH, USA
One Year in Review: Ideas Catalysts Return Invited Speaker <i>TEDxBoston, New England Aquarium</i>	November 2023 Boston, MA, USA

The Power of Property to Change Our World | Invited Keynote Speaker

Global Philanthropy Forum, Council on World Affairs

September 2023

San Francisco, CA, USA

The Power of Property: Managing Real Estate to Maximize its Potential | Invited Speaker

Diocesan Fiscal Management Conference

September 2023

Denver, CO, USA

Saint Mary's College 176th Commencement Address | Commencement Speaker

St. Mary's College

September 2023

Milwaukee, WI, USA

Ignatian Peacemaking Lecture Keynote Speaker, Mission Week <i>Marquette University</i>	February 2023 Milwaukee, WI, USA
St. Oscar Romero Award Lecture Distinguished Lecturer <i>Mercyhurst University, The Department of Religious Studies</i>	March 2023 Erie, PA, USA
Changing the World – Campaigns for Conservation Invited Speaker <i>COP15: United Nations Biodiversity Conference</i>	December 2022 Montréal, Quebec, Canada
Making Land Work for Good Invited Lecturer <i>John Carroll University: the Institute of Catholic Studies, Department of Biology, Department of Theology and Religious Studie, Breen Chair in Catholic Theology</i>	November 2022 Cleveland, OH, USA
Making Land Work for Good Invited Speaker <i>Notre Dame University, The Future of Church Property Conference: The Fitzgerald Institute for Real Estate</i>	November 2022 South Bend, IN, USA
The Future of Climate Panelist <i>The New Yorker Festival</i>	October 2022 New York, NY, USA
Women Who Stayed: Women Who Care for Creation Invited Speaker <i>Holy Trinity Catholic Church</i>	September 2022 Washington, D.C., USA
Multi-religious and Multi-stakeholder Collaboration for the Advancement of New Urban Agenda Invited Speaker <i>Interfaith Dialogue in line with the High-Level Meeting on the New Urban Agenda: United Nations, World Evangelical Alliance (WEA), Religions for Peace</i>	April 2022 New York, NY, USA
Making Land Work For Good Invited Speaker <i>Ursuline Academy</i>	December 2021 Boston, MA, USA / Remote
The Catholic Church, land and social justice purposes Invited Speaker <i>Women in Conversation: Berkley University, Newman Center</i>	November 2021 Berkeley, CA, USA / Remote
On the road to COP26 Invited Speaker <i>The Tablet, UK</i>	October 2021 Remote

Making Land Work for Good: A Lecture by Molly Burhans moderated by Prof. Manan Ahmed (Columbia, History Department) Invited Speaker <i>Columbia University: Institute for Religion, Culture and Public Life and cosponsored by the Barnard Center for Research on Women, the Barnard Religion Department, Columbia Religious Life, and the Center for Sustainable Development</i>	October 2021 New York, NY, USA / Remote
The Jeanie Graustein Lecture on Environmental Justice Distinguished Lecturer <i>Yale University, Saint Thomas More Center</i>	October 2021 New Haven, CT, USA
Dana Tomlin: A Celebration of a Life Visualizing Complex Information Invited Speaker <i>University of Pennsylvania, Stuart Weitzman School of Design</i>	September 2021 Remote
Using Property with Purpose to Create a Landscapes of our Future Invited Speaker <i>Manhattan College, Lasallian Women and Gender Resource Center (LWGRC)</i>	September 2021 New York, NY, USA
SCGIS Annual Meeting, Keynote Address Keynote Address <i>Society for Conservation GIS: Annual Meeting</i>	July 2021 Remote
It's Not What She Said, It's What She Did Keynote Address <i>Ad Club, Women's Leadership Forum</i>	July 2021 Remote
Emerging Explorer 2021: Molly Burhans Invited Speaker <i>National Geographic Explorer's Festival</i>	June 2021 Remote
It's the end of the world as we know it (and I feel fine) Invited Speaker <i>Goldlab Symposium, Biology Meets Big Data</i>	May 2021 Remote
An Earth Day conversation with Molly Burhans Invited Discussant <i>Ignatian Solidarity Network, Solidarity on Tap</i>	April 2020 Remote
Faith-Based Conservation: An Emerging Environmental Movement Invited Speaker <i>Redlands Forum</i>	March 2020 Redlands, CA, USA
Young Innovators: Revitalizing Our Church Panelist <i>Boston College, Church in the 21st Century</i>	November 2019 Boston, MA, USA
Session II: Technology, Innovation and Entrepreneurship for Sustainable Development Invited Speaker <i>Vatican Youth Symposium: The Pontifical Academy of Sciences, SDSN Youth</i>	October 2019 Vatican City

Sustainable Economy: United Nations Young Champions of the Earth Invited Speaker <i>K 2019: United Nations, Covestro</i>	October 2019 Düsseldorf, Germany
A Mission to Map Invited Speaker <i>Social Good Summit: United Nations Foundation, 92Y, Mashable</i>	September 2019 New York, NY, USA
Culture Change for Climate Change Panelist <i>The New School: Tishman Environment and Design Center and the Impact Entrepreneurship Initiative, Ashoka Foundation</i>	June 2019 New York, NY, USA
Faith-based organizations and GIS Invited Speaker <i>GIS for a Sustainable World: UNITAR's Operational Satellite Application Programme (UNOSAT), ESRI</i>	May 2019 Geneva, Switzerland / Remote
Why Me, Why Here, and Why Now? Invited Speaker <i>GIS Day at Yale University: Yale University</i>	September 2019 New Haven, CT, USA
Why Me, Why Here, and Why Now? Invited Speaker <i>GIS Day at Yale University: Yale University</i>	September 2019 New Haven, CT, USA
Youth Leadership for Integral Human Development: Laudato Si' and the Sustainable Development Goals Invited Speaker <i>Vatican Youth Symposium: The Pontifical Academy of Sciences, SDSN Youth</i>	October 2018 Vatican City
Integrating Cloud-Based GIS with an extended Geodesign Framework Speaker <i>ESRI User Conference</i>	July 2018 San Diego, CA, USA
Lightning Talks: Using GIS for Modeling Complex Budgets and Staffing Speaker <i>ESRI User Conference</i>	July 2018 San Diego, CA, USA
Global Applications of the Geodesign Framework Invited Speaker, Panelist <i>American Association of Geographers Annual Meeting</i>	April 2018 New Orleans, LA, USA
Mapping Religious Landscapes with Human Geography Data Invited Speaker <i>The Working Group on World Wide Human Geography Data (WWHGD), IHS</i>	March 2018 Remote
Making Land Work for Good Invited Speaker <i>Colorado State University, Geospatial Centroid</i>	March 2018 Fort Collins, CO, USA
Mapping the Path to a Better Future Invited Speaker <i>Connecticut GIS Day, Yale University, URSIA</i>	March 2018 New Haven, CT, USA
Catholic Radio Infrastructure in Africa and ISP Potential Discussant <i>Connectivity as a Human Right: The Pontifical Academy of Sciences</i>	October 2017 Vatican City

Update from Vatican Youth Symposium 2016 Proposals Speaker <i>Vatican Youth Symposium: The Pontifical Academy of Sciences, SDSN Youth</i>	October 2017 Vatican City
Geo-enabling the Catholic Church Speaker <i>ESRI User Conference</i>	July 2017 San Diego, CA, USA
Enterprise GIS development for Catholic Communities Speaker <i>ICT4D: From Innovation to Impact: Catholic Relief Services and Partners</i>	May 2017 Hyderabad, Telangana, India
Tenderness for the Environment Invited Speaker, Exhibit Curator <i>Vatican Arts and Technology Council: Holy See: Dicastery for Communications</i>	December 2016 Vatican City
Catholic Geographic System / GoodLands Speaker <i>Vatican Youth Symposium: The Pontifical Academy of Sciences, SDSN Youth</i>	October 2016 Vatican City
COP21 Roundtable on the Encyclical Laudato Si Discussant <i>The Pontifical Academy of Sciences, REIL, Renewable and Appropriate Energy Laboratory (RAEL)</i>	September 2016 Vatican City
Mapping and Ecologically Assessing Landholdings of the Catholic Church Speaker <i>ICT4D: From Innovation to Impact: Catholic Relief Services and Partners</i>	May 2016 Nairobi, Kenya
The Catholic Church and Meta-State Governance Guest Lecturer <i>Harvard University, Government School</i>	April 2016 Cambridge, MA, USA
GoodLand Project Guest Lecturer <i>Yale University: School of Forestry, GEOSIG and LUUCY</i>	March 2016 New Haven, CT, USA
Social Entrepreneurship and Ecological Design Guest Lecturer <i>The Conway School</i>	March 2016 Easthampton, MA, USA

Public Media Engagement and Press (Select)

Molly Burhans' media presence, with features reaching over 1.7 billion individual viewers worldwide, is a powerful extension of her activism and advocacy. Through interviews, articles, and appearances, she uses her visibility to help broad audiences understand land-based climate solutions, while empowering and inspiring individuals and institutions around the world to take action and make land work for good.

The media provided here represents a sample. More can be found at: <https://mollyburhans.com/media/>

Main-Stream Media

The New Yorker Magazine | How a Young Activist Is Helping Pope Francis Battle Climate Change 2/1/2021

By David Owen

<https://www.newyorker.com/magazine/2021/02/08/how-a-young-activist-is-helping-pope-francis-battle-climate-change/>

BBC Worldwide, Outlook | Interview with Molly Burhans 4/15/2021

By Emily Webb

<https://www.bbc.co.uk/programmes/w3ct1k2w>

Yahoo News | Molly Burhans: the young activist who helps Pope Francis fight climate change 2/4/2021

By Yahoo News, Latin American Editorial Staff

<https://es-us.noticias.yahoo.com/molly-burhans-joven-activista-ayuda-163600631.html>

Forbes Magazine | Culture Change For Climate Change 6/17/2019

By Ashoka Editorial Contributors

https://www.forbes.com/sites/ashoka/2019/06/14/culture-change-for-climate-change/?fbclid=IwAR049rWz3dZ4aB1kAhxCMQb4YZk9Bt_sMh6ln5sEIqRymzuvKROBKa39iLE&sh=11dbc0703790

Forbes Magazine | Can This Lay Woman Transform The Way The Catholic Church Manages Its Land? 10/18/2018

By Ashoka Editorial Contributors

<https://www.forbes.com/sites/ashoka/2018/10/18/can-this-lay-woman-transform-the-way-the-catholic-church-manages-its-land/?sh=77cec40d725c>

Boston Globe | This woman is trying to map the global Catholic Church 8/2/2017

By Lisa Wangsness

<https://www.bostonglobe.com/metro/2017/08/02/young-woman-ambitious-project-mapping-global-catholic-church/pi7p1Q8HhpYuMFLEUJLPLM/story.html/>

Science, Technology, and Design Media

MIT Technology Review | The Catholic cartographer who wants to help the church fight climate change 6/22/2023

By Whitney Bauck

<https://www.technologyreview.com/2023/06/22/1074262/cartographer-fights-climate-change/>

Wired Magazine (Italy) | La mappa degli attivisti e dei movimenti per il clima 9/21/2021
By *Enrico Pitzianti*

<https://www.wired.it/attualita/ambiente/2021/09/21/clima-mappa-degli-attivisti-e-dei-movimenti/>

Global Landscapes Forum | Molly Burhans on how to reduce the separation of church and Earth 10/8/2019
By *Sandra Cordon*

<https://thinklandscape.globallandscapesforum.org/39998/molly-burhans-on-how-to-reduce-the-separation-of-church-and-earth/>

Curbed Magazine | Mapping one of the world's largest landowners 10/18/2017
By *Timothy Schuler*

<https://archive.curbed.com/2017/10/18/16483194/catholic-church-gis-goodlands-esri-molly-burhans>

TechCrunch | GoodLands partners with ESRI to launch the Catholic Geographic System 11/14/2016
By *Samantha O'Keefe*

<https://techcrunch.com/2016/11/14/goodlands-partners-with-esri-to-launch-the-catholic-geographic-system/?guccounter=1>

Landscape Architecture Magazine | A Catholic Ecology 12/1/2015
By *Timothy Schuler*

https://www.jstor.org/stable/44796931#metadata_info_tab_contents

Religious Media

L'Osservatore Romano | Mapping Church Assets To Care For The Common Home 9/3/2022
By *Lucia Capuzzi*

<https://www.osservatoreromano.va/en/news/2022-09/dcm-008/molly-burhans.html/>

U.S. Catholic | How Molly Burhans Is Helping The Church Fight Climate Change 3/22/2022
By *Pamela Hill Nettleton*

<https://uscatholic.org/articles/202203/how-molly-burhans-is-helping-the-church-fight-climate-change/>

EWTN | Can Mapping The Global Catholic Church Help To Heal The Earth? One Scientist Aims To Find Out 1/1/2022
By *Jonah McKeown*

<https://ewtn.co.uk/article-can-mapping-the-global-catholic-church-help-to-heal-the-earth-one-scientist-aims-to-find-out/>

Aleteia | 10 Catholics who restored our faith in humanity in 2021 12/30/2021
By *Theresa Civantos Barber and Zoe Romanowsky*

<https://aleteia.org/2021/12/30/10-catholics-who-restored-our-faith-in-humanity-in-2021>

Sojourners Magazine | Mapping The Way To Climate Justice 12/1/2021

By *Élan Young*

<https://sojo.net/magazine/december-2021/mapping-way-climate-justice/>

Catholic News Agency | Mapping the Catholic Church, Healing the Earth 10/11/2021

By *Jonah McKeown*

<https://www.catholicnewsagency.com/column/249240/mapping-the-catholic-church-healing-the-earth>

Crux | For US Church, a year of abuse fallout, new leaders, and unsung heroes 12/30/2019

By *Christopher White*

<https://cruxnow.com/church-in-the-usa/2019/12/for-us-church-a-year-of-abuse-fallout-new-leaders-and-unsung-heroes>

Institutional Media

United Nations Environmental Program | Young Environmentalist Helps to Save the Planet by Charting Religious Landholdings 4/3/2024

By *UNEP Media*

<https://www.unep.org/news-and-stories/story/young-environmentalist-helps-save-planet-charting-religious-landholdings>

United Nations Environmental Program | Digitally shaping a greener world 9/25/2019

By *UNEP Media*

<https://www.unep.org/youngchampions/news/story/digitally-shaping-greener-world/>

World Economic Forum | Stop Calling Young People 'Leaders Of Tomorrow' 2/9/2022

By *Lindsey Prowse and Elizabeth Wathuti*

<https://www.weforum.org/agenda/2022/02/stop-calling-young-people-leaders-of-tomorrow/>

Yale University: Yale Climate Connections | The Catholic Church's vast landholdings could help protect the climate 6/24/2021

By *Sarah Kennedy*

<https://yaleclimateconnections.org/2021/06/the-catholic-churchs-vast-landholdings-could-help-protect-the-climate/>

Yale University: St. Thomas More Center Magazine | Molly Burhans: Mapping The Roman Catholic Church 10/10/2019

By *Teresa Berger*

<https://stm.yale.edu/molly-burhans-mapping-the-roman-catholic-church>

Skills and Abilities

Technical and Analytical Skills

- **Geographic Information Systems (GIS):** Advanced expertise in Esri ArcGIS Suite (Pro, Online, and related tools), QGIS, and Google Earth Engine.
- **Geospatial Data Management:** Development and integration of geospatial databases, spatial data infrastructures, and advanced cartographic visualization.
- **Data Science & Analytics:** Proficient in Python and R for statistical modeling, spatial analysis, and geospatial data manipulation.
- **Visualization Tools:** Skilled in Tableau, Power BI, and Adobe Creative Suite (Photoshop, Illustrator, InDesign) for data visualization and creative outputs.
- **Design & Drafting:** Proficient in AutoCAD, Revit, Unreal Engine, and Blender for spatial planning and design, including 3D modeling and animation.
- **Scientific Illustration:** Expertise in precise and detailed visual representation of scientific concepts using specialized tools.

Software Proficiency

- **Design and Creative Tools:** Expert in Adobe Creative Suite, including Photoshop, Illustrator, InDesign, Premiere Pro, After Effects, and FX, for visual communication, video editing, and multimedia production.
- **3D Modeling & CAD Tools:** Advanced skills in Unreal Engine, Blender, Revit, and AutoCAD (including Civil 3D) for architectural design, animation, and precision-driven modeling.
- **Web Development:** Proficient in WordPress ecosystems, including Elementor and Divi, for website design and hosting. Skilled in front-end development using HTML, CSS, and JavaScript.
- **GIS & Mapping Tools:** Esri ArcGIS Pro, ArcGIS Online, ArcMap, GeoHub, and Google Earth Engine for comprehensive geospatial analysis and infrastructure development.
- **Data Analytics:** extensive Python experience, three.js, R, Jupyter Notebooks, MS Visual Studio, MS Studio Code, geospatial and statistical analyses
- **Coding & Automation:** JavaScript, Python, R, and custom software development for data extraction and analysis.

Leadership and Management

- **Leadership:** Visionary leadership in geospatial and conservation projects, with the ability to scale operations globally.
- **Planning:** Strategic planning and governance within ecclesiastical and environmental contexts.
- **Team Management:** Capacity-building, team management and inter-organizational collaboration.

Creative and Interdisciplinary Expertise

- **Innovative Solutions:** Integration of technology, design, and art to address ecological and societal challenges.
- **Faith-Based Initiatives:** Leveraging geospatial tools and data to align with faith-based conservation and governance missions.
- **Urban & Landscape Design:** Specialization in ecological and sustainable urban planning, regenerative agriculture, and habitat restoration.

Domain-Specific Knowledge

- **Environmental Conservation:** Specialization in ecological restoration, sustainability planning, and regenerative agriculture.
- **Theology & Canon Law:** Deep understanding of canonical geography and its alignment with geospatial governance.

Communication & Advocacy

- **Public Speaker:** Renowned public speaker with global recognition for advocacy in environmental sustainability, technology, and faith-based conservation.
- **Academic Contribution:** Extensive publication and presentation portfolio, including academic lectures and mainstream media features.