

Maria Catalina Giraldo Pastrana

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EDUCATION

MA Media Design and Communication, Piet Zwart Institute, Willem de Kooning Academy, Rotterdam University of Applied Sciences. Rotterdam, The Netherlands. July 6th, 2018. Committee: Simon Pummel, Barend Onneweer, Marloes de Vries, Ine Lamers, David Haines and, Steve Rushton.

Thesis. Sky Islands: a time travel in the Andes Mountains. 3D Animation and Photography. Cinema and 180-degree screen video installation.

<https://www.youtube.com/watch?v=-Wcp18vBDK4&t=77s>

MFA Digital Arts & New Media Program, University of California, Santa Cruz, California. June 13th, 2013. Advisors: Helen and Newton Harrison. Emeritus Professors – UC San Diego. Research Professors – UC Santa Cruz

Thesis. Verde Oscuro: envisioning the ancient forest to dream of a Greener Digital Arts Research Center Building (The GDARC). A Video mapping projection masking the Digital Arts Research Center at UCSC. <http://www.youtube.com/watch?v=ahP9y0qnV0k>

Research Associate Digital Arts and New Media, University of California, Santa Cruz.

2013-2014. <http://danm.ucsc.edu/people/alumni>

BSc. Biology, Universidad Nacional de Colombia (Bogotá, Colombia), March 21st 2002.

Advisors: J. Orlando Rangel Churio Ph.D. Associate and Emeritus Professor Instituto de Ciencias Naturales - Universidad Nacional de Colombia. Thomas van der Hammen Ph.D. Emeritus Professor University of Amsterdam.

Thesis: Palynological Analysis of the Last-glacial Sediments (12.500 year B.P), on Manacaro I Section, Caquetá River, Colombian Amazon Region. Instituto de Ciencias Naturales, Universidad Nacional de Colombia. Paper published in spanish.

<http://issuu.com/diversidadbiotica/docs/dbvii3-manacaro?e=2165212/4004221>

ADDITIONAL COURSEWORK AND INTERNSHIPS

- Guest Researcher. Institute for Biodiversity and Ecosystem Dynamics (IBED), Science Park, University of Amsterdam, Amsterdam, The Netherlands. Project: 3D visualization of Sky Islands: a time travel in the Andes Mountains, a collaboration with Piet Zwart Institute, Rotterdam University of Applied Sciences. July 2017-September 2018.
- Workshop. Visualizing Biology-History of Biology Seminar. Woods Hole, MA, Marine Biological Laboratory – Arizona State University. May 2012.

- Oral Communication for TA's. Seminar for International Teaching Assistants. Lecturer: Gail Brenner. Fall quarter 2011.
- International Filmmaking Course. CREA, Cultural Organization of the University of Amsterdam, Amsterdam, The Netherlands. September 2008 - January 2009.
- Paleoecology Internship. Institute for Biodiversity and Ecosystem Dynamics (IBED), University of Amsterdam, Amsterdam, The Netherlands. Project: "Holocene high-resolution climate change in the northern Colombian Andes; multi-proxy records from Lake La Cocha sediments place IPCC-report records in a tropical perspective." August 2008-January 2009.
- Workshop. Methods of species distribution modeling, landscape ecology and its applications using Geographical Information Systems (GIS). Universidad del Magdalena, Santa Marta, Colombia, July 2007.
- Seminar: Ecology of Amazon Ecosystems. Organization of Tropical Studies and UNAP, Universidad Nacional del Amazonas, Iquitos, Perú. May-June 2005.
- Additional botanical coursework at Universidad Nacional de Colombia. Instituto de Ciencias Naturales (ICN): Taxonomy of plants, classification of vegetation types, Palynology and Paleo Ecology.

TECHNICAL SKILLS

Proficient user of Apple and Windows. MS Office Suite. Photo and video cameras. Final Cut Pro. Adobe Creative Suite (Premiere, Photoshop, Lightroom, After Effects, InDesign, and Illustrator). MAXON Cinema 4D. Modul8 and Madmapper (Mapping Projection Software). Social media user of Facebook, Instagram, Twitter, YouTube, LinkedIn, and Flickr.

ART EXHIBITIONS

- **2018. *Sky Islands: a time travel in the Andes Mountains*** is a film that combines 3D animation with photography to envision one chapter of the ecological history of the Northern Andes Mountains of South America. This project is the result of Master in Arts at Piet Zwart Institute. It was scientifically supported by dr. Suzette Flantua and prof. dr. Henry Hooghiemstra from the Institute for Biodiversity and Ecosystem Dynamics (IBED), Science Park, University of Amsterdam. It was displayed at KINO Cinema and at Piet Zwart Institute, Willem de Kooning Academy at Rotterdam from 5th- 8th of July 2018 and, at Science Park for the Open Science Day the 7th, October 2017 and 6th, October 2018.
- **2018. *Water Reflection*** was part of EXCAVATING EMPATHY, Landscapes, Communities, Ecologies. A workshop led by Shimon Attie at Piet Zwart Institute/WdKA/TENT from March 5th to March 9th, 2018, in Rotterdam, The Netherlands. *Water Reflection* is the result of a feeling in the Netherlands by being rounded by water any year season and daytime. Living in a country that learned how to deal with waters from the sky and the ocean and living in Rotterdam six meters under the sea level makes me more aware of the importance of water.

I was enchanted by the reflections over water in any canal as well as I made a reflection as a consideration about how beautiful is flowing with water as a way to live.

- **2017. *Naturalmente*** was a collaboration between the University of Amsterdam and Piet Zwart Institute as a part of the EYE on Art Researchlabs to celebrate, challenge and contradict the age-old question of happiness. *Naturalmente* was a video mapping projection on a sphere as the metaphor of the Earth. To me the happiness is the well-being and connectedness with others and the environment around the Earth. Projected in the Cinema EYE Filmmuseum in Amsterdam, The Netherlands the 28th, February 2017 and at the KINO cinema, Rotterdam the June 20th, 2017.
- **2015. *Travesia*** means the journey made by migratory birds during the Northern Hemisphere winter to breed in the tropics. As a video mapping projection was visualized on the Welcome Migratory Wind Mural, painted by the plastic artist Javier Humberto Alvarez. The collective creation resulted in the Aburrá Valley Mural coming to life with migratory birds traveling and breeding with the heat of the tropics. Organized by the Antioquia Ornithological Society, as part of the Second Bird Festival of Medellin, Colombia on October 8th, 2015.
- **2014. *Fluctuations*** is a video mapping projection that was part of Bloom Santa Cruz on Saturday, April 19th, 2014 at the Lighthouse Point, Santa Cruz, California. This event highlighted the relationships between our freshwater and ocean ecosystems with an emphasis on sustainability. *Fluctuations* is a metaphor to visualize the Ecosystems that were part and created the cliffs during different periods of time before the present. This happened because global marine level fluctuations and tectonic movements originated the cliffs standing on today in Santa Cruz, California.
- **2013. *Verde Oscuro*** is a video mapping projection masking the Digital Arts Research Center (DARC) facade at the University of California, Santa Cruz (UCSC), in combination with an installation of live native California plants, that was displayed the 2nd- 5th May 2013. This project is the result of an MFA thesis in Digital Arts and New Media from UCSC. The piece lasted 13 minutes using video and music that evoke the ecological history of DARC's place in three eras: the past, the present, and the future. While the live plant installation indoors and outdoors intends to create an environment to perceive and feel the inherent goodness of plants but also to disperse native California plants in order to raise environmental community awareness.
- **2011. *Lluvia de Polen*** a collaboration with Holly Findlater was displayed on 7th December 2011 for the annual Open Studios at the Digital Arts Research Center (DARC), University of California, Santa Cruz. The wooden structure shaped beehive cell evokes the earth and sphere-shaped pendulum hints pollen and pollen rain that takes place on Earth at all times.
- **2008. *Colombia -Landscapes, People, Fauna, Flora-***. It was photography on a paper exhibition about the biological and cultural diversity of Colombia. Centro Cultural Francisco de Asís-Bogotá, Colombia. October 6th, 2008.

WORK EXPERIENCE

Public Outreach and Broadcasting

Civinomics. 877 Cedar St, STE 150, Santa Cruz, CA, USA. April-August 2014.

Responsibilities: Representative dissemination and outreach for the projects:

- Santa Cruz County Storm Water Awareness.
- San Francisco Sewer System Improvement Program.
- Watsonville Arts and Entertainment District.

Teaching Assistant Experience at the University of California Santa Cruz

- LALS1, Introduction to Latin American and Latino Studies. Lecturer: Hector Perla. Winter quarter, Jan-Mar 2013 and 2014. Sections.
- THEA 80N, Walt Disney. Lecturer: Kirsten Brandt. Spring Quarter 2013. Sections.
- Arts Dean's Lecture Series. HAVC/ART 007. Issues in the Arts, Reshaping the Museum: Creating New Knowledge, Engaging the Mind. Lecturer: Elisabeth Cameron. Spring quarter 2012. Sections.
- FILM 80A, The Film Experience. Lecturer: Irene Gustafson. Fall quarter 2012.
- FILM 80S, Special Topics in Film & Digital Media. Topic: Cinemas of the 1970s. Lecturer: Greg Youmans. Winter quarter 2012.

Research/Conservation/Ecology/Environment Projects:

- April 2015 - March 2017. Project: "Conservation strategy for Blue Billed Curassow, *Crax alberti* at Barbacoas Swamps Complex, Antioquia, Colombia". Fundación Biodiversa Colombia. Responsibilities: Project Coordinator.
- -May 2015. Project: "Diversity and Ecosystem services of the dry tropical forest at the High Magdalena (Colombia)". Universidad de Ciencias Aplicadas y Ambientales, U.D.C.A and Universidad Surcolombiana, USCO. Responsibilities: Botanist.
- August 2009 - July 2011. Project: "Botanical origin of honey and pollen for 4 species of bees in Colombia". Laboratory of Melissopalynology, Biology Department, National University of Colombia, Bogotá. Responsibilities: Pollen collection and database. Macro and microphotography of pollen and plants visited by bees in Colombia. Identification of pollen. Book editor, photographer and designer collaborator.
- February 2007 - January 2008. Project: "Geographical distribution modeling of six Andean species at Bogotá plain". Botanical Garden of Bogotá, Jose Celestino Mutis (JBB). Responsibilities: Potential distribution modeling of 6 Andean plant species using Geographical Information Systems (GIS) and modeling software for distribution (MAXENT).
- February 2004 - January 2005. February 2006 - May 2008. Project: "Extreme-resolution Eemian climate variability of the tropics (Colombia); a search for driving forces and

mechanisms at work". Institute for Biodiversity and Ecosystem Dynamics (IBED), Amsterdam University - Instituto de Ciencias Naturales (ICN), Universidad Nacional Colombia. Responsibilities: Palynologist. Analysis of pollen fossil for Fúquene Lake samples.

- October - January 2006. Project: "Methodological proposal for environmental management of No licensed lines of ISA property. Responsibilities: Vegetation classification at 1:100.000 scale resolution using LANDSAT Imagery and Geographical Information Systems (GIS).
- February - December 2003. Project: "Classification of plant communities and succession stages for the Entrenubes Ecological Park of Southern Bogotá". Escala Humana Foundation in agreement with The Bogotá Environmental Secretary. Responsibilities: Floristic inventory, vegetation plot establishment, mapping vegetation types on 1:5000 scale resolution, management and land-use of the Entrenubes Ecological Park.
- July, 2002 - January, 2003. Project: "Floristic characterization at Nature Reserve of Cogua Municipality, Cundinamarca-Colombia". Escuela de la Naturaleza Foundation in cooperation with International Conservation and EcoFondo. Responsibilities: Floristic inventory and classification of plants at Natural Cogua Reserve, Cundinamarca, Colombia.
- September - December 2000. Project: "Biodiversity and agrarian production system in areas of Amazon colonization". INSTITUTO SINCHI – MINISTERIO DEL MEDIO AMBIENTE - COLCIENCIAS. Responsibilities: Analysis of pollen's loads of the Guaviare hummingbird's community. Pollination Project Research.

PUBLICATIONS

M.H.M. Groot, H. Hooghiemstra, J.C. Berrio and C. Giraldo. 2013. North Andean environmental and climatic change at orbital to submillennial time-scales: Vegetation, water levels and sedimentary regimes from Lake Fúquene 130–27 ka. *Review of Palaeobotany and Palynology* 197 (2013) 186–204. Available:

https://www.sciencedirect.com/science/article/pii/S0034666713000870?fbclid=IwAR265Xob2qaqvHaiPg_CMD5LIZy6Gc0zRCRSA1uQH6XyTRYFdH8JR31_Ss

Nates-Parra G., Montoya P.M., Chamorro F.J., Ramirez N., Giraldo C., Obregón D. 2013. Origen geográfico y botánico de mieles de *Apis mellifera* (Apidae) en cuatro departamentos de Colombia. *Geographical and Botanical Origin of *Apis mellifera* (APIDAE) Honey in four Colombian Departments*. *Acta biol. Colomb.* 18(3):427-438. Available:

<http://www.scielo.org.co/pdf/abc/v18n3/v18n3a2>

Giraldo, C., A. Rodríguez, F.J. Chamorro, D. Obregón, P. Montoya, N. Ramírez, V. Solarte, G. Nates- P. 2011. *Guía Ilustrada de polen y plantas nativas visitadas por abejas -Cundinamarca, Boyacá, Santander, Sucre, Atlántico y Sierra Nevada de Santa Marta-*. (Illustrated guide of pollen and plants visited by bees). Universidad Nacional de Colombia, Facultad de Ciencias, Departamento de Biología, Laboratorio de Investigaciones en Abejas-LABUN. 230 pp.

- M.H.M. Groot, R.G. Bogotá, L.J. Lourens, H. Hooghiemstra, M. Vriend,†, J.C. Berrio, E. Tuenter, J. Van der Plicht, B. Van Geel, M. Ziegler, S.L. Weber, A. Betancourt, L. Contreras, S. Gaviria, C. Giraldo, N. González, J.H.F. Jansen, M. Konert, D. Ortega, O. Rangel, G. Sarmiento, J. Vandenberghe, T. Van der Hammen, M. Van der Linden and W. Westerhoff. 2011. Ultra-high resolution pollen record from the northern Andes reveals rapid shifts in montane climates within the last two glacial cycles. *Clim. Past* 7, 1–18, 2011.
Available: www.clim-past.net/7/1/2011/
- V. Gonzalez & C. Giraldo. 2009. New andean bee species of *Chilicola spinola* (hymenoptera: colletidae, xeromelissinae) with notes on their biology. *Especies nuevas de abejas andinas Chilicola spinola* (Hymenoptera: Colletidae, Xeromelissinae) con notas sobre su biología. *Caldasia* 31(1):145-154.
Available: <http://www.scielo.org.co/pdf/cal/v31n1/v31n1a11>
- Giraldo, C., T. van der Hammen & J.O Rangel-Ch. 2008. Manacaro I, una secuencia de polen del Tardiglacial en el valle inferior del río Caquetá, Amazonia Colombiana: sucesión ribereña y cambios del clima. (Manacaro I, a pollen sequence of Tardiglacial at Inferior Caqueta River valley, Colombian amazon: river plant succession and climate change). En J.O. Rangel-Ch (Ed.), Colombia. Diversidad biótica VII. Vegetación, palinología y paleoecología de la amazonía colombiana. Pp. 119-144.
Available: <http://issuu.com/diversidadbiotica/docs/dbvii3-manacaro>
- Giraldo, C. & Alcázar-Caicedo, C. 2008. Modelo de distribución potencial de *Condalia thomasiana* (Rhamnaceae), especie endémica del valle del río Checua, Sabana de Bogotá, Colombia. (Potential distribution modeling of *Condalia thomasiana* (Rhamnaceae), endemic species of Checua river valley at Bogotá plains, Colombia). *Pérez- Arbelaezia* 19:47-67. Available: https://www.researchgate.net/publication/277404965_Modelo_de_distribucion_potencial_de_Condalia_thomasiana_Rhamnaceae_especie_endemica_del_Valle_del_Rio_Checua_Sabana_de_Bogota_Colombia_Revista_Perez-Arbelaezia_No_19_47-68
- Giraldo, C. & M. Suescún. 2004. Estado actual de la vegetación del Parque Ecológico Distrital Entrenubes: un área de reserva al sur de Bogotá (Current vegetation stages at the Ecological District Park, Entrenubes: a conservation area, southern Bogotá). Pg. 170-171. En: Ramírez Padilla, Bernardo Ramiro, D. Macías P. & G. Varona B. (eds.). Libro de resúmenes. Tercer Congreso Colombiano de Botánica. Universidad del Cauca, Popayán, Colombia.
- Galeano G., M. O-Zethelius & C. Giraldo. 2004. Granjas del Padre Luna, Albán, Cundinamarca, COLOMBIA, COMMON PLANTAS. (Instituto de Ciencias Naturales, Universidad Nacional de Colombia). Fotos de G. Galeano & C. Giraldo. Producido por: M. O-Zethelius, M. Giblin, R. B. Foster, con el apoyo del Andrew Mellon Foundation y Colombia en Hechos. © G. Galeano et al; Environmental & Conservation Programs, The Field Museum, Chicago, IL. [RRC@fmnh.org] Rapid Color Guide #133 versión 1.1.
Available: <https://fieldguides.fieldmuseum.org/guides/guide/133>
- García, N. & C. Giraldo. 2004. Caracterización florística de la reserva forestal municipal de Cogua, Cundinamarca (Floristic characterization for the municipal forests reserve of Cogua, Cundinamarca). Pg. 219. En: Ramírez Padilla, Bernardo Ramiro, D. Macías P. & G. Varona B.

(eds.). Libro de resúmenes. Tercer Congreso Colombiano de Botánica. Universidad del Cauca, Popayán, Colombia.

Giraldo, C., J. O. Rangel-Ch. & T. van der Hammen. 2002. "Análisis palinológico de los sedimentos del Tardiglacial (12.500 años A.P.) en la sección Manacaro I, río Caquetá, Amazonia colombiana" (Palynological analysis of the Last-glacial sediments (12.500 year B.P) at Manacaro I section, Caquetá river, colombian amazon region). In: Rangel-Ch., J. O., J. Aguirre-C & M. G. Andrade-C (publishers). Libro de resúmenes. Octavo Congreso Latinoamericano y Segundo Colombiano de Botánica. Instituto de Ciencias Naturales, Universidad Nacional de Colombia, Bogotá.

LANGUAGE SKILLS

Spanish (First language)

English (Fluent in speech, writing, and reading)

AWARDS, GRANTS AND HONORS

- The Dutch organization for internationalization in education, Nuffic Fellowship Program (NFP), nl4talents 2016-2018, Rotterdam University of Applied Sciences.
- Hugo de Vries Fonds Fellowship, University of Amsterdam, The Netherlands. 2018.
- Graduate Students Association Award, University of California, Santa Cruz. 2013.
- Porter College Grad DANM Award, University of California, Santa Cruz. 2013.
- Non-Resident Fellowship Arts Faculty, GRAD-EVC-Fellowship. University of California Santa Cruz. 2012-2013.
- Center for Biology Society Fellowship. Woods Hole-Marine Biological Laboratory – Arizona State University. May 2012.
- Regents Fellowship, plus Arts Division and Graduate Division support, University of California Santa Cruz. Fall 2011.
- Hugo de Vries Fonds Fellowship, University of Amsterdam, The Netherlands. 2008.
- Scholarship from the Organization for Tropical Studies. Peru 2004.

CONSERVATION OUTREACH PROJECTS

Biodiversa Colombia Foundation (FBC).

Founding and Board member since 2005.

The group develops research and conservation actions through research, educational and community-aimed projects. FBC is focused on conservation of natural resources and sustainability. Currently is developing the establishment of El Silencio Research Station at Barbacoas Swamps Complex, Magdalena Middle Valley, Antioquia, Colombia.

www.fundacionbiodiversa.org