PINO TROGU

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EDUCATION

Rhode Island School of Design 1983–85 Master of Fine Arts, graphic design
Istituto Superiore Industrie Artistiche, Urbino, Italy 1979–1983 Bachelor of Fine Arts, graphic design
Istituto Statale d'Arte, Oristano, Italy 1973–1979 Diploma, industrial design

AWARDS & GRANTS

Fulbright Scholar, Rhode Island School of Design 1983–85

Sabbatical year 2017–2018
Visiting scholar, Delft University of Technology (TU Delft), The Netherlands. Conducted research on bio-inspired design and transformable origami structures (meta-materials); hosted by the bio-mechanical engineering department (BITE Group, minimally invasive surgical instrumentation).

Development of Research and Creativity Award 2018–2019.
Received $13,917 from SFSU's Research and Scholarly Activity Fund, to research and design new meta-materials. Also called architected or architectured materials, meta-materials employ novel macro- or microscopic geometries with unusual physical properties. Some of their applications include medical devices and aerospace engineering. P. Trogu, P.I., S. Linn, collaborator.

PEER-REVIEWED JOURNAL ARTICLES

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1. Trogu, Pino. "Giorgio Scarpa's Model of a Sea Urchin Inspires New Instrumentation"
Leonardo, 52.2 MIT Press, 2019, pp. 146–151. PDF: doi.org/10.1162/leon_a_01384
"Leonardo is the leading international peer-reviewed journal on the use of contemporary science and technology in the arts and music and, increasingly, the application and influence of the arts and humanities on science and technology."

2. Trogu, Pino. "Counting But Losing Count: the Legacy of Otto Neurath's Isotype Charts"
Visible Language, 52.2 2018, pp. 83–109. PDF: t.co/E5yN3U7EYq
"Visible Language is the oldest peer-reviewed design journal … first published in 1967 [on the basis that] research and scholarly information [are] essential to the development of communication design and in particular to the development of typography in its support of reading and writing."

3. Trogu, Pino. "The Landscape of the Physical Book: Space and Memory in the Printed Page"
TXT – The Book Issue, Academic Press Leiden & Amsterdam University Press, 2018, pp. 90–99.
PDF: bit.ly/2URRZBF The reasons for the resilience of printed books: Better learning by physically moving through the pages; A fixed shape and frame of reference of pages as great aids to memory; Paper and book design always guarantee ease of reading.

4. Trogu, Pino. "The Image of the Book: Cognition and the Printed Page"
Design Issues, 31.3 MIT Press, 2015, pp. 28–40. PDF: bit.ly/2d9T1S9 *Design Issues* is a top-tier international design journal in the history, theory, and criticism of design.

5. Trogu, Pino. "Working Memory and Background knowledge: Cognitive Science in the Design Classroom"
FORMakademisk, 8.1, 2015, pp. 1–17. PDF: bit.ly/2KwjPPU Special issue: "Design learning for tomorrow – design education from kindergarten to PhD" Design Research Society, DRS // Cumulus 2013.

6. Trogu, Pino. "The Four-Second Window: How the Time Constraint of Working Memory and Other Psychological Principles Determine the Success of a Graphic Design," *International Journal of Humanities and Social Science,* 3.9, 2013, pp. 19–33. PDF: bit.ly/2cvdBK8

INVITED CONFERENCE PRESENTATIONS

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7. Trogu, Pino & Filip Jelínek, "Origami Design and Engineering"
28th Conference of the International Society for Medical Innovation and Technology
Co-chair of technical session and workshop, October 2016, Delft University of Technology (TU Delft), The Netherlands. Session and workshop on bio-inspired origami models that show certain kinematic principles and parallels to existing and future medical devices. Website: smit2016.com

8. Trogu, Pino, "Little men, Little Boxes: Limitations of Otto Neurath's International Picture Language as a Tool for Statistical Visualization" *The 7th International Conference on Information Design*, Brasilia, Brazil, 2015. A critique of Otto Neurath's Isotype system of statistical graphics, which employs small, repeated pictorial symbols of people or things to represent quantities.

CONFERENCE PRESENTATIONS AND PROCEEDINGS

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9. Trogu, Pino & Lorenzo Bocca, "Giorgio Scarpa's Transformable Objects: Geometry as Art, Science, and Play"
31st National Symposium: Meetings with Mathematics — Mathematics, Education & School: Between Research and Everyday Practice, Castel San Pietro Terme, Italy, 2017.

10. Trogu, Pino, "Bioinspired Design: Aristotle's Lantern and Models of Rotational Geometry by Giorgio Scarpa," *DMD EU 2015 — Design of Medical Devices Conference, Europe Edition*, Vienna, Sept. 8-9, 2015. Rapid prototyping for the efficient design and validation of medical devices. Extended abstract in conference proceedings. Abstract PDF: bit.ly/2dslT7v

11. Trogu, Pino, F. Lodato & C. di Bartolo, "Rotational Geometry and the Creation of Bionic Models: The Pioneering Work of Giorgio Scarpa" *Living Machines, 3rd International Conference on Biomimetic and Biohybrid Systems*, Milan, Italy, 2014. Workshop: *Bionics and Design, Pure and Applied Research*. Workshop was noted in the proceedings published by Springer. PDF: bit.ly/2cVOnJJ

12. Trogu, Pino, "The Double Constraints of Convention and Cognition in Successful Graphic Design"
CIDI2013 – 6th Information Design International Conference, Recife, Brazil, September 2013.
Full paper presentation, Brazilian Society of Information Design, Blucher Design Proceedings, 2.1. São Paulo: Blucher, 2014. Article PDF: bit.ly/2dbt7eX

13. Trogu, Pino, "Rotational Geometry as a Teaching Tool: Applying the Work of Giorgio Scarpa"
DRS // Cumulus – 2nd International Conference for Design Education Researchers, Oslo, Norway, 2013,
Full paper presentation at DRS // CUMULUS Oslo 2013, Design Research Society. Article PDF: bit.ly/2cVOy7u

14. Trogu, Pino, "The Image of the Book: The interplay of the fixed sequence of pages (the visual-spatial) with the printed text (the aural-verbal) in the context of recent cognitive psychology research on working memory."
Resurrecting the Book Conference, November 15-17, 2013. Full oral presentation, Library of Birmingham, England. More info: bit.ly/2cYPnhB

15. Trogu, Pino, "Rotational Geometry as a Teaching Tool: Applying the Work of Giorgio Scarpa"
Sixth International Conference on Design Principles and Practices, UCLA, Los Angeles, January 2012. Full paper presentation. Article PDF: bit.ly/2diP1BV

INVITED SYMPOSIUM PRESENTATIONS

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16. "Michele Provinciali: The Imprinting of a Master"
Conference: _Michele Provinciali: a World Imagined Through Artifacts._ Contributed a video and text on Italian designer Michele Provinciali, who was art director of design magazines and collaborated with the Castiglioni brothers, among others. He was also a recipient of the Compasso d'Oro, the highest design award in Italy. Pesaro, Italy, September 15, 2012.

17. "Jack Stauffacher: The Master of Types"
San Francisco Design Week, June 2012. Sponsored by Swissnex San Francisco, featuring the master printer from the Bay Area, in a conversation about his experimental work. Jack Stauffacher was the 2004 American Institute of Graphic Arts (AIGA) medal recipient. His work is in the San Francisco Museum of Modern Art and the Los Angeles County Museum of Art.

CITATIONS

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18. Gulliksen, Marte S., "Embodied Making, Creative Cognition and Memory", _FORMakademisk_, 9.1 (2016).

19. Frank, Michael B. et al. "A Protocol for Bioinspired Design: a Ground Sampler Based on Sea Urchin Jaws," _Journal of Visualized Experiments._ (110), e53554, doi:10.3791/53554 (2016). Paper: bit.ly/2dkYzNa

20. Jelínek, Filip, G. Smit, and P. Breedveld, "Bioinspired Spring-Loaded Biopsy Harvester — Experimental Prototype Design and Feasibility Tests," _Journal of Medical Devices_, Vol. 8, No. 1, 015002-015002-6 (2014). Paper: bit.ly/2cYQDBq

21. Jelínek, Filip et al., "Bioinspired Crown-Cutter — The Impact of Tooth Quantity and Bevel Type on Tissue Deformation, Penetration Forces, and Tooth Collapsibility," _Journal of Medical Devices_, Vol. 8, No. 4, 041009-041009 (2014). Paper: bit.ly/2d9Vpbt

22. Fry, Aaron, J. Wilson, and C. Overby. "Teaching the design of narrative visualization for financial literacy." _Art, Design & Communication in Higher Education_ 12.2, 159-177 (2013).

CREATIVE WORKS

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23. "Exhibit art direction and design: Patient No More: People with Disabilities Securing Civil Rights"
Paul K. Longmore Institute on Disability, San Francisco State University, 2013–2015.

Art director and coordinator for a major exhibit on disability. The exhibit focused on an overlooked moment in U.S. history when people with disabilities occupied a government building in San Francisco to demand their rights. Known as the "Section 504 Sit-In," the protest profoundly changed the lives of people with and without disabilities, and paved the way for the Americans with Disabilities Act (ADA) in 1990.

I coordinated the planning and design of the exhibit, organized tasks between researcher, curators, exhibit designers, and SF State student interns. Website: longmoreinstitute.sfsu.edu/patient-no-more

24. "Academia is an Iceberg"
Juried competition – _Data in Sight San Francisco_, June 2011. First prize in the category "best fusion of multiple data sets." Sponsored by Swissnex, the Netherlands Office for Science and Technology, and Creative Commons. The interactive double bar chart depicted a sample of 500 Mendeley biology authors, and showed that few authors (the tip of the iceberg) had an account on LinkedIn. online.sfsu.edu/trogu/datainsight/

Other team members: Giorgio Caviglia, Milan Polytechnic, visiting scholar at Stanford University; William Gunn, biologists and researcher at Mendeley.

CURRICULAR INNOVATIONS

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25. Information design and data visualization, 2010–2019
Hired in the School of Design to develop an information design and data visualization curriculum. Work from the class can be viewed here: bit.ly/1jnBCoL

The information design class has a been a laboratory for testing various principles of psychology of perception and cognition (working memory). These observations have been recorded in journal articles and conference presentations: bit.ly/2diR7RW — bit.ly/2d2njG2

26. Drawing, sketching, and instructional technology, 2009–2019
Since 2009, I expanded the traditional drawing and visualization techniques to include rotational geometry, where three-dimensional models are derived from two-dimensional shapes. The class is supported by more than 35 online videos: bit.ly/2cx8xtA One of the core units in the class, the cube section, has been the basis for journal articles and conference presentations on the subject of rotational geometry: bit.ly/2d2caqa

27. Letterpress Printing, 2016–2017
Restored the letterpress class after a 15-year hiatus. The class, open to all students, satisfies the arts segment for general education (GE) at SFSU. The class teaches the centuries-old method of letterpress: setting metal type by hand, dating to Gutenberg's invention of printing in 1455 in Germany. Website: stanza153press.com

CONTRIBUTIONS TO CAMPUS AND COMMUNITY

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28. SF State Academic Senate
Elected to the Academic Senate in Spring 2013 to 3-year term. In the Faculty Affairs Committee (FAC), I contributed to several policies later passed by the Senate, including revisions to the SFSU Emeritus Policy and the SFSU Temporary Faculty Range Elevation Policy, and a revised, cleaned-up RTP policy to help facilitate the transition to Electronic WPAFs.

In Fall 2015 I was elected chair of the FAC committee and became a member of the Executive Committee (EXCOMM), helping to direct and focus general policies of the Academic Senate as well as specific policies related to faculty affairs at SF State. Drafted and passed a revised RTP university policy.

29. Math and geometry workshop, SF State Math Summer camp
Conducted workshop for 30 elementary school students, on the connections between math, geometry and art. Used materials from my Drafting & Sketching class. Hands-on participation of the students, using paper, clay, steel wire, and other clay modeling tools.

30. Annual student design exhibition, San Francisco State University, 2009–2012
The value of the annual design show to the community at large was always evident during the 5-day run at the end of the school year, during which other members of the school community as well as from the larger bay area came to visit the show.

31. _FIRST_ Technical mentor, Lowell High School, San Francisco
Volunteered one day a week in Spring 2013 with the CardinalBotics 4159 team, as a technical mentor to the students participating in the 2013 _FIRST_ Robotics Competition. _FIRST_ (For Inspiration and Recognition of Science and Technology) is an international high school robotics competition where each year teams of students compete to build robots weighing up to 120 pounds. _FIRST_ website: usfirst.org/

PROFESSIONAL WORK

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32. San Francisco State University, 2007–Present
Associate Professor of Information Design
School of Design, College of Liberal and Creative Arts
Classes taught to date: Information Design 1: Data Visualization; Information Design 2: Exhibits; Drafting & Sketching for Design; Modern Letterpress Printing, Rapid Visualization; Introduction to Drawing for Designers; Design Process; Graphic Design 2: Typography.

33. San José State University, 2006–07
School of Art and Design. Introduction to graphic design class: I taught basic progression from drawing to color and typography with final production of a poster. In a digital applications methodology class, students researched the topic of digital-analog, the genealogy of design objects, and the typography of poetry. Other classes taught included Graphic Design 2 and Typography 1.

34. GrafCo, San Francisco. Owner, 1995–2005
GrafCo provided graphic design, exhibition, and web design to private and public enterprises in the bay area and out of state, including: A traveling exhibit for the Mineral Resources Program of the United States Geological Survey (USGS); *Neighbors & Neighborhoods*, an exhibit for the San Francisco Mayor's Office of Housing; Corporate identity and promotional materials for Wallace Roberts and Todd (WRT), a national planning and design firm; Collateral materials for Premium Port Wines, a national wine importer; Logo and collateral materials for the Core Knowledge foundation, a non-profit devoted to education and curriculum reform; Logo and identity for landscape architecture firms and local community groups: Arcadia Garden Architecture, Pioneer Park at Coit Tower, Friends of the Urban Forest; A recycling exhibit for the South San Francisco Recycling Center. In community outreach, GrafCo was involved in art workshops for local elementary school children, working with photography, painting, and light projections.

35. West Office Exhibition Design, San Francisco, 1994–95
Exhibit design and graphics for the California Museum of Science and Industry, Los Angeles. Developed concept, logo, and graphic systems for science exhibits on chemistry, electricity, and special effects. Exhibit graphics for the Washington State History Museum, Tacoma, Washington. Managed design team in the production of a graphics program that included hundreds of graphic components.

36. Melanie Doherty Design, San Francisco, 1994
Developed environmental signage and maps for the San Francisco Museum of Modern Art and other public buildings in the bay area.

37. The Burdick Group, San Francisco, 1992–93
Exhibit graphics for Evoluon, Philips Electronics competence center in Eindhoven, The Netherlands. Managed the graphic production for various areas of the exhibit, including the production of diagrams, storylines and technical illustrations.

38. Academy of Arts, Architecture and Design, Prague, Czech Republic, 1991
Wrote, filmed and produced *ARKI*, a 3-minute, 35mm color film about computer modeling and simulation. In the story, a child's quest to design the perfect coat is finally realized with the help of lego-like electronic modules. The film is considered by some to be the earliest example of wearable computing.

39. Virginia Commonwealth University (VCU), Richmond, Virginia, 1989–90
Assistant professor of graphic design. Freshman foundations classes, 2- and 3-D design fundamentals, teaching students to explore methods for progressing from the plane to solid. In a cube-sectioning assignment, students developed a system for dividing the cube into three equal parts. In a section on color based on *Interaction of Color* by Josef Albers, they painted large areas of color uniformly and used those samples for the interaction exercises. In Typography I and II, students trained on the basic properties of letters by drawing

these using gouache and ruling pens. In Graphic Design I, a poster, a magazine article and a final experimental project, taught students progressive skills in layout design. Advanced courses in color and design criticism were conducted with students in the graduate program.

40. GrafCo3, Milan, Italy, 1988
With Mauro Panzeri; book and publication design for Alessi and other Italian manufacturers. Book design for Edizioni Ambiente, a publisher specialized in environmental issues. Book design for the publisher Sonda Edizioni; designed first catalog and exhibit booth at international book fair in Turin. Storyboards for exhibit *One Hundred Years of Industry* at the Milan Triennale.

41. Robert Gersin Associates, New York, 1986–87
Corporate identity for the Sears corporation, managing the creation of a series of identity manuals on product graphics and printed materials. Production of a new graphics standards manual for the General Accounting Office (GAO). In cooperation with the Government Printing Office, the manual enabled the agency to reduce paper waste and implement a consistent graphic system. Tasks included the evaluation of hundreds of government publications and the design of new formats for books, brochures, and official reports.