The 2nd International Electrography and Copy Art Biennial; Valencia (Spain). The beginning of the digital age of graphics at the end of the 1980s

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Keywords: Copy Art; Electrography; Media Art; Digital Pioneers

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Manuscript received 29 December 2019.

Abstract
In the late 1980s, the commercialization of digital reproduction technology led copy art in a new direction, ushering in a new era of events that held global impact and significance. Among these events was The 2nd International Electrography and Copy Art Biennial, held in Valencia (Spain) in October 1988, which commemorated the 50th anniversary of the first electrophotographic copy. This landmark occasion marked the beginning of a new and prosperous digital era that would continue throughout the following decade and was spearheaded by artists of the so-called “third-generation”.

<Context. The 1st International Copy Art Biennial. Barcelona. 1985>
Copy art is a historic artistic movement that first appeared in the early 1960s, whose artists utilized electromechanical copying machines and image reproduction processes for creative purposes. This innovative technology was first popularized thanks to the commercialization of the automatic and instantaneous plain paper copier by the North American company Xerox (who marketed their first model, the Xerox 914, in 1959). They developed this cutting-edge copier based on the “Electrophotography” patent registered by physicist and lawyer Chester F. Carlson in the New York Patents office in 1938 [1].

During the ‘60s, ‘70s, and ‘80s, artists with an inquisitive nature converged upon these xerographic machines (from the Greek “xeros”, meaning dry, and “graphein”, meaning to write) in order to explore the possibilities they offered. These artists produced an extensive and varied range of original artworks, which seemingly proved Walter Benjamin's theory on the technical reproducibility of images. In the mid-’80s, the patent for the electrophotographic method of reproduction expired, allowing Japanese technology to appear on the market. These new machines were smaller in size, and as such were more accessible to the general public than their predecessors. Until this point, local neighborhood copy shops (found in most large cities) were the only option available to artists who envisaged a creative use of these reproduction techniques. These artists had to entrust the employees of the small businesses with the task of creating their innovative xerocopies, an undertaking which generally involved an unorthodox (and often unexpected) use of machines that were manufactured and marketed for bureaucratic purposes. Copy art, the movement which stemmed from the artistic use of these machines, techniques and processes, would continue to develop throughout the ‘60s, ‘70s, and ‘80s. It had distinctly radical and underground tendencies, basing its “ideology” on the core principles of Pop Art established by Richard Hamilton (which even the most emblematic artists such as Warhol,
Lichtenstein or Hockney, paradoxically, had not wanted to embrace, likely a result of their desire to produce artworks that could be successful in the art market — museums, galleries and collectors — and as such gain fame and fortune). According to recent historiographic studies, it was during these first three decades that we witnessed the development of analog copy art and the participation of the first two generations of artists engaging in artistic electrography [2].

In Spain, copy art had a timid start and scarcely progressed during the first two decades. The adoption of electrophotocopies as a creative material was limited to a handful of local conceptual artists (Pep Durán or Pere Noguera) and students of pioneering American academic programs (as is the case of the Spanish artist Marisa González, who attended the Master course “Generative Systems” at The School of Art of Chicago, taught by Sonia L. Sheridan in 1970 thanks to a collaboration agreement signed with the R&D department of 3M’s “Color-In-Color” program). In the mid-'80s, copy art and its electrophotographic techniques and processes were introduced to the field of artistic printing in Spain thanks to research by artists such as Jesús Pastor or Fernando Canales and me, and at the initiative of Catalan gallery owner and printmaker Pascual Fort. As the organizer of Miniprint Internacional, a small-scale printmaking contest that attracted hundreds of entries from numerous countries around the world, Fort had at his disposal an extensive international network of printmakers from his galleries in Barcelona and Cadaqués. Making the most of these contacts, he was inspired to organize a similar event that focused on the use of the most innovative reproduction techniques at the time, known generically as copy art. The event was christened “The 1st International Copy Art Biennial”, as the intention had been to host it biennially, and was announced by the Taller-Galeria Fort in Barcelona in October 1984. The extraordinary response it received completely overwhelmed Fort, who had promised to exhibit all the submitted pieces —- awarding some with prizes——, to print a catalog, and to return the pieces once the exhibition had ended. In February 1985 the exhibition of artworks submitted to the 1st Biennial opened in the Barcelona headquarters of the FAD (Fomento de las Artes Decorativas / Promotion of Decorative Arts). Having failed to attract any sponsors, in place of a catalog, Fort devoted a small section of the third edition of his newsletter “TGF” (an acronym of Taller-Galeria Fort) to the Biennial, publishing the list of submitted and prize-winning artworks alongside several articles written by international specialists, as well as dedicating the issue’s editorial article to the event [3].
Once the exhibition had ended, Fort lacked the resources to return the artworks and began to come under pressure from the participating artists who were extremely unhappy that the event had not lived up to expectations, and above all, that their artworks would not be returned. Overwhelmed by the success of the event and discouraged by his inability to respond to the ample international demand, or organize a second installment with his own resources, Fort decided to hand the event over to two young Valencian artists, Fernando Ñ. Canales (Alicante, 1961 - Valencia, 1995) and me, who had participated together in the 1st Biennial as the artistic group Equipo AC. As our experimentation and artistic projects were focused on the use of electrophotographic technologies and processes, and considering that the second Biennial had not yet been announced, Canales and I felt compelled to propose Valencia —our city— as the venue for the next installment of the event. We successfully convinced those responsible for the cultural institutions in the region (the Ministry of Culture of the Valencia Region and the Valencia City Council) of the significance and benefits of organizing what would be The 2nd International Copy Art Biennial, to which the term “Electrography” would be added. Due to the unexpected and unfortunate conclusion of the first Biennial, the management of the new event was forced to make the unwanted decision to completely erase all traces of Fort’s name, cutting all ties to the 1st Biennial in Barcelona, which he was the first to dream up and organize.

**<The 2nd International Electrophotography and Copy Art Biennial; Valencia, 1988. The emergence of artistic electrography’s digital generation>**

Despite the fact that there was still certain negativity among copy artists in 1988 regarding what had happened with the 1st Barcelona Biennial, this was dispelled completely thanks to the magnificent combined-organization by the coordinators, curators, and sponsors of the 2nd Biennial in Valencia.
As had previously been the case in other cities throughout the world, backing from the Japanese multinational company Canon was crucial in Valencia. The brand’s director of distributions in the Valencia region, Miguel Comes, who was a cultured man with a passion for art, began to sponsor educational, cultural, and artistic events. Comes also started supporting young artists who appreciated the value of electrophotographic technology as a tool for developing artistic creations, but did not have the economic capacity to acquire one of these small and versatile Japanese electrostatic copiers for themselves, despite their improved affordability in terms of both retail price and maintenance. Comes’s pioneering “philanthropic” approach influenced those responsible for the distribution of Canon products in other Spanish cities, as well as the management of Canon Spain, which significantly increased support for copy art. This resulted in collaboration between artists and technology companies throughout Spain, now known as the “Valencian effect”.

Fernando Canales and I were among the artists who benefitted from this support. During the first half of the ‘80s, our own research projects in these artistic techniques began to take shape in the form of scholarly works, articles, and papers. These initial findings were published by The Eusebio Sempere Foundation of Alicante in the form of a handbook entitled Copy art, the photocopy as an expressive medium [4]. This book served as an update and revision of Copy Art: The first complete guide to the copy machine, a guide that had been created a few years prior by a group of the most cutting-edge creators on the New York Pop-Art scene, led by Patrick Firpo and published by Marek in 1978 [5].

These research activities prompted us to travel throughout Europe in search of references, projects, and activities parallel to our own. Upon returning from each trip, and thanks to the abundant and continued correspondence we maintained with artists we had met in person or contacted via mail, a plethora of new documental materials were added to our growing specialized library, and an increasingly extensive database-in progress. By virtue of this international research, Fernando and I gained sufficient credibility to be appointed curators of this new Biennial, which ultimately would be organized by the Valencia City Council.

Frenchman Christian Rigal, probably the most important artist, curator, and critic specializing in electrography and copy art on the international scene since the late ‘70s [6], was named its director. German artist, Klaus Urbons, an expert in electrophotographic processes [7] and creator of the Museum für Fotokopie in Mülheim / Ruhr, whose new headquarters opened with a solo exhibition by Alcalacanales -our artistic team- in May 1988 [8], was appointed a judge of the artworks submitted to the contest. Due to the presence of these two experts in the Biennial’s directive committee, the event was renamed “The 2nd International Electrography and Copy Art Biennial” [9], adding this new, more technical term of which both were strong advocates.
The 2nd Biennial was a spectacular and highly innovative event with major economic and infrastructural resources. The only commonality it shared with its predecessor was that many of the artists who submitted pieces to this new installment had also previously done so in the Barcelona Biennial. The 2nd installment not only hosted an exhibition of submitted contest pieces (this time around selected by a panel of judges) but also developed an extensive program of activities that included a series of performances, conferences, discussion panels, a copy art workshop for children, and the presentation of international films and videos focusing on these novel artistic techniques. Throughout the Biennial there was also a residency program for creation and production. This was attended by more than a dozen of the most prestigious and experienced international artists in the field who worked in situ creating artworks or putting on performances and installations using the sophisticated new technology installed by Canon-Valencia in the Biennial production workshop. This workshop (located on the campus of the Polytechnic University of Valencia) would permanently remain open to its students, other artists, and the general public. Among the participating artists were Germans Jürgen O. Olbrich, Franz John, and Roland Henss-Dewald, Dutchwoman Lieve Prins, Finn Heta Norros, North American Dina Dar (these three now deceased), Brazilian Luiz G. Monforte, French artists James Durand, Pierre Granoux, Anne Marie Vidal, and Cejar (the artistic pseudonym of Christian Rigal, director of the Biennial), Argentine Mario Garegnani, and Spaniards Romá Arranz, Oscar Font, Jesús Pastor, Yolanda Herranz, and Paco Rangel. All of them coexisted and exchanged experiences with local artists, as well as students and interns from the university, who selflessly collaborated in setting up and managing the event. Included among them were Rubén Tortosa, Equipo Límite, Alvar Buch, Alain Manzano, Daniel Monzón, Equipo DequeDeque, Teresa Magal, Dora Roig, Eduardo García del Real, and Emilio Roselló. All of these artists had electrographic pieces shortlisted in the international competition run by the Biennial, which also shortlisted pieces by many internationally recognized artists, such as Americans Arnold Jr, Boylard, Kent, Pinkel, Gabar, Springer, and Schrier, Japanese artists Maruhiro (1st prize winner at the 1st Barcelona Biennial) and Shinkai, Brazilians Kransniansky, and Bruscky & Santiago, Spaniards Felipe, Martin, and González, French artists Fabre and Bonifas, Francois, Matei, Robert, Somlosi, and AAbdenour (of Palestinian origin), Brits Chic Pix, and Tilson, Italians Ciani, Denti, and Sasson, Canadians Charbonneau, Jackson, Mansaram, and Glackemeyer, Mexican Beltrán, Germans...
Hainke, Kierspel, Mülheck (based in Canada), Rustige, Schnyder, Steiger, van Bebber, and Verhoeven, and Australian Lankau-Kubitz, to name but a few [10].

Fig. 3. Workshop of the 2nd International Electrography and Copy Art Biennial. Artists Lieve Prins and Heta Norros during the creative process with the Canon CLC-1 in the background. Valencia. October 1988. (© José-Ramón Alcalá-Mellado)

The 2nd Biennial in Valencia successfully managed to bring together (between contestants, remote participants, and guests) members from a majority of the most active hotspots in the international copy art scene: the Centre Copie Art in Montreal, the International Association of Copy Artists and the New York Correspondence School (both in New York), the Rochester Institute of Technology, the Museum für Fotokopie in Mülheim/Ruhr, the École de Beaux Art in Dijon and Paris VIII, the School of Art in both Tokyo and Kyoto, the Faculties of Fine Arts in Valencia, Barcelona, Madrid and Salamanca, the Taller-Galería Fort in Barcelona/Cadaqués, Mexico City’s Royal Academy of Fine Arts, the ArtPool Foundation representing Hungary and Eastern European countries, and the association of Italian copy artists Lax Trax.

Fig. 5. Alvar Buch. *Hysterical Electrography III*. 1988. 29 X 42 cm. Color laser photocopy on plain paper. Shortlisted in the 2nd International Electrography and Copy Art Biennial, Valencia. (© MIDECIANT/UCLM)

Fig. 7. 2nd International Electrography and Copy Art Biennial. Valencia. October 1988. General view of the contest exhibition. (© José R. Alcalá)

After the 2nd Biennial in Valencia, many artists who happened to meet in its workshop subsequently organized similar events in their respective countries, inviting, among others, colleagues from the Valencia Biennial. Of particular note among these, a section designated to “Electrography and New Media” at the XX Sao Paulo International Biennial in 1989, curated by Luis G. Monforte; “Montage 93” at the RIT in Rochester (New York), curated by the Canadian critic Monique Brunett-Weinmann; and “Encuentro Otras Gráficas” organized in 1993 by the Academy of San Carlos in Mexico City.

All these events led to the consolidation of a new international circuit of electrographic artists made up of those belonging to the so-called “third-generation” [12]. Once again in the history of media art, a group of artists who felt part of an international community with common objectives recognized the need to fight collectively to vindicate technological art’s position among the established artistic avant-gardes. For all of these artists, this activism was a shared venture worth undertaking, that involved not only a struggle but also a celebration (because it was tackled with a playful attitude, palpable at all their subsequent international gatherings).
As the first public and collective exhibition of electrographic creations that explored the emerging digital visual universe, The 2nd International Electrography and Copy Art Biennial was a landmark moment in the evolution of international copy art. Among the more than 200 artworks received, a significant number were pieces made using the Canon CLC-1 (marketed for the first time in 1987, only a few months before the competition was announced). In addition, Canon Valencia’s involvement in the organization of the event enabled one of these sophisticated and expensive digital copiers to be present at the Biennial workshop, making it available to all participating artists. The arrival of the CLC-1 forever changed electromechanical graphics and the visual graphic world in general. While it is true that other color electrostatic copiers already existed [13], the Canon CLC-1 was the first commercially available xerographic digital color copier. For the first time, it boasted laser technology and a four-color printing system (thanks to the input of black to the darkest areas through digital detection), and allowed users to manipulate the creation and reproduction process via an interface display. It also made it possible to separate (with operational autonomy) the original scan and its print --the final copy-- with or without user intervention during the reproduction process. In other words, for the first time, an automatic and instantaneous xerographic copier functioned as a computer input and output device, and as such naturally lent itself to computer graphics.

In conclusion, the results and repercussions of these artworks and projects would pave the way for modern Digital Art, serving as an essential reference for its structure within the three main lines of application: digital graphics, electronic art (multimedia and interactive) and art created with and for the Net.

Acknowledgment
The text, originally written in Spanish (and never before published), was translated to academic English by Megan O’Reilly.

References and Notes
1. See https://patents.google.com/patent/US2297691
5. P. Firpo; L. Alexander et alt., Copy Art; The first complete guide to the copy machine, New York: Marek (1978)
7. K. Urbons, Elektrografie; Analogue und digitales Bilder, Koln: Dumont (1994)
9. Valencia City Council, as the organizer of the 2nd Biennial, published two catalogs. The first, distributed at the event, presented the short-listed works and included the event program (VV.AA., *2 Bienal Internacional de Electrografía y Copy Art 1988*, Valencia: Catalog. Vol. 1. Editions of the City Town Hall of Valencia (1988)). The second which contained a chronicle of all the events, exhibitions and activities held, and images of the works selected to be exhibited during the Biennial was delayed in publication until 1991 (VV.AA., *2 Bienal Internacional de Electrografía y Copy Art 1988*, Valencia: Catalog. Vol. 2. Editions of the City Town Hall of Valencia (1991), which was why the 3rd installment never took place.

10. Fernando Canales and the author, at all times, were curators of the event, and as such did not participate as artists.


13. While the 3M Color-in-Color appeared in 1969, its techno-reproductive process was not xerographic) In 1976, the Xerox Color (the first analog and trichrome color xerographic copier) was released

**Bibliographical information about the author**