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SYNESTHESIA IN THE ARTS AND IN PSYCHOLOGICAL RESEARCH

<http://mitpress.mit.edu/e-journals/Leonardo/isast/spec.projects/synesthesiabib.html>

Compiled by Crétien van Campen (E-mail: <c.vancampen@scp.nl>) and Greta Berman (E-mail: <guberm@aol.com>).

Psychologists have identified synesthesia as a specific condition that occurs when an individual who receives a stimulus in one sense modality simultaneously experiences a sensation in another. In the last two centuries, the subject has aroused the interest of many artists and scientists. The existence of synesthesia seems at odds with the common-sense worldview of five separate senses that channel impressions to our minds. Intrigued by this apparent anomaly of the senses, artists and psychologists have experimented with synesthesia in order to reveal how the senses are interrelated. This bibliography contains a list of references to literature on these explorations and experiments by visual artists, musicians, writers, psychologists, neurologists (and other scientists) into the strange phenomenon of synesthesia. The bibli-

ography also includes a number of links to Web sites on the topic.

BRAZILIAN ELECTRONIC ART

<http://mitpress.mit.edu/e-journals/Leonardo/isast/spec.projects/brazilbib.html>

Compiled by Eduardo Kac. E-mail: <ekac@artic.edu>.

The Brazilian Electronic Art bibliography is part of the *Leonardo* special project entitled "A Radical Intervention: The Brazilian Contribution to the International Electronic Art Movement," guest-edited by Eduardo Kac. The project consists of a wealth of information in the form of a gallery, chronologies and a series of articles published in various issues of *Leonardo* and/or on Leonardo On-Line. The artists, scholars, critics and theorists whose work is represented in this bibliography share an interest in the exploration of contemporary issues in art through the use of new technologies—e.g. digital photographs, CD-ROMs, experimental telecommunications events and interactive installations. The artworks covered in the citations range from personal journeys to reflections on larger social issues and the impact of new media in our lives.

THE VISUAL ARTS AND THE NATURAL SCIENCES IN HISTORICAL PERSPECTIVE: AN ANNOTATED BIBLIOGRAPHY

<http://mitpress.mit.edu/e-journals/Leonardo/isast/spec.projects/art&sciencebib.html>

Compiled by David Topper. E-mail: <Topper@UWinnipeg.ca>.

This bibliography has a clear and simple aim: to provide the reader/researcher with an annotated list of some of the best scholarship in English on the subject of the historical interrelationship and interaction between the visual arts and the natural sciences. (Ex-

cluded from this bibliography is material that is sometimes grouped under the more general heading "Art & Science," such as matters pertaining to technology, medicine, literature, music, psychology [e.g. psychoanalysis and creativity], as well as the wealth of material on perspective, the camera obscura, photography, and the Golden Section (although a few are mentioned) and the huge volume of writings on Leonardo da Vinci. Also excluded is material on contemporary art, since much of this has been covered in *Leonardo* since its inception in 1968 [1].)

In addition to being annotated, the Visual Arts and the Natural Sciences in Historical Perspective Bibliography includes cross-listings of citations with similar themes. Its focus is mainly on writings that posit direct and often specific historical instances and relationships, rather than on those covering general philosophical or methodological matters. Such a focus betrays the compiler's slant on art/science historiography: that the most genuine historical work entails a real causal link between art and science (with concrete evidence), rather than an appeal to some nebulous "spirit of the times" or a zeitgeist [2].

References and Notes

1. In two earlier bibliographies ("Interrelationships between the Visual Arts, Science, and Technology: A Bibliography," *Leonardo* 13, No. 1, 29–33 [1980]) and "Interrelationships of the Arts, Sciences, and Technology: A Bibliographic Up-Date," *Leonardo* 18, No. 3, 197–200 [1985]), compilers David R. Topper and John H. Holloway attempted a relatively comprehensive (un-annotated) list of writings over a wider range of material than delineated here. Some of the (pre-1985) writings cited in these previous two bibliographies will be found online, but much is new.

2. This position can be found in David R. Topper's short article "On a Ghost of Historiography Past," *Leonardo* 21, No. 1, 76–78 (1988). As Topper writes in the introduction to his bibliography on Leonardo On-Line, "Frankly, I am, at best, uncomfortable and, at worst, highly critical of much that I read on art/science matters. Therefore, this is, unashamedly, a biased bibliography." Topper's introduction to his bibliography contains additional useful commentary on bibliographies.

NEW MEDIA POETRY, HYPERTEXT AND EXPERIMENTAL LITERATURE BIBLIOGRAPHY AND WEBLIOGRAPHY

<http://mitpress.mit.edu/e-journals/Leonardo/isast/spec.projects/newmediapoetry.html>

*Compiled by Eduardo Kac. E-mail:
<ekac@artic.edu>.*

The New Media Poetry, Hypertext and Experimental Literature bibliography focuses on particular directions of experimental poetry in the twentieth century, with emphasis on innovative poetics developed with new media (including computers, video, holography and the Internet). Readers will find references to movements and styles (Lettrism, Concretism, Sound Poetry, Oulipo, Process/Poem, etc.) as well as to critical writings relevant to the study of experimental writing (Barthes, Derrida, McLuhan, etc.). Historical perspectives are also represented (Bohn, Drucker, Jackson, Kostelanetz, Perloff, etc.). Recent discussions of new media poetry (Kac, Blaine/Bootz, etc.) and new media-based verbal phenomena are also included (Aarseth, Landow, Rosenberg, Bolter, etc.). The New Media Poetry, Hypertext and Experimental Literature webliography (originally published in *Visible Language* 30, No. 2, 1996) provides direct links to web sites by or about writers represented (directly or indirectly) in the bibliography.

IANNIS XENAKIS BIBLIOGRAPHY AND DISCOGRAPHY

<http://mitpress.mit.edu/e-journals/Leonardo/isast/spec.projects/Xenakisbib.html>

*Compiled by James Harley. E-mail:
<JHarley239@aol.com>.*

For more than 40 years, Iannis Xenakis has created a steady stream of remarkable works, and his impact on contemporary music has been of crucial importance. Along with his acoustic works, he has produced a number of important

electroacoustic pieces, as well as a series of multimedia creations involving sound, light, movement and architecture (*polytopes*). In the domain of computer music, Xenakis was a pioneer in the area of algorithmic composition and also developed an approach to digital synthesis based on random generation and variation of the waveform itself. In addition, he designed a computer system utilizing a graphic interface, which has proven to be a liberating, provocative pedagogical tool, as well as a powerful environment for computer composition.

The Xenakis bibliography lists only the main publications on and by Xenakis (books, journal issues, dissertations). Some can be found in, or ordered from, bookstores; others can be found in university music libraries. More complete bibliographies can be found in several of these publications, with listings of articles, reviews, interviews and so forth.

The Xenakis discography is organized into two parts. The first lists the compact disc recordings that are presently available (though some may require diligent searching or special order). They are arranged in reverse chronological order. The second part lists in alphabetical order the pieces that are known to have been released on compact disc, along with the details of the recordings. Some of these recordings are out of print or otherwise difficult to track down.

The pieces recorded constitute just over half of Xenakis's catalogue, which now numbers some 140 works. While most of the electroacoustic/computer music pieces have been released, along with many of the chamber works, only a handful of the orchestral compositions have been recorded. This is truly a shame, as Xenakis has written a large number (around 40), and this medium is central to his musical concerns. Indeed, it is difficult to gain an understanding of Xenakis's evolution as a composer without being able to hear more of these works. In North America, particularly, there are very few performances of his orchestral music, making the availability of recordings essential.

ART, SCIENCE AND TECHNOLOGY BIBLIOGRAPHIES AVAILABLE ON-LINE

<http://mitpress.mit.edu/e-journals/Leonardo/isast/spec.projects/biblios.html>

- Rudolf Arnheim Selected General Bibliography
- Rudolf Arnheim Leonardo Bibliography
- Art and Camouflage
- Art and Genetics
- Bibliographie générale de l'art technologique
- Copy Art
- Intellectual Property and the Arts
- Leonardo Articles on Art and Technology in the Former Soviet Union
- New Media Poetry, Hypertext and Experimental Literature Bibliography and Webliography
- Russian Books on Art and Technology
- Space Art
- Spurious Images Bibliography
- Telepistemology Bibliography
- Iannis Xenakis Bibliography and Discography
- Afrique Virtuelle (in French)
- Vilém Flusser in Brazil (in Portuguese)
- Vilém Flusser in Brazil (in German)