

**THE ART AND SCIENCE OF INTERSTELLAR MESSAGE COMPOSITION:
A REPORT ON INTERNATIONAL WORKSHOPS TO ENCOURAGE
MULTIDISCIPLINARY DISCUSSION**

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With advances in SETI technology, the chances of detecting extraterrestrial intelligence are improving rapidly. In recognition of these increasing prospects of success, the SETI Institute and The International Society for the Arts, Sciences and Technology (ISAST) initiated a series of workshops to encourage discussion between artists, scientists, and scholars from the humanities about interstellar message composition. In the event of a signal detection, this advance preparation will be especially useful as humankind decides whether to reply, and if so, what to say.

Participants in these workshops came from a range of disciplines in the arts, humanities, and sciences. Contributing artists provided expertise in drawing, film, musical composition, new media, painting, sculpture, and space arts. Speakers from the humanities included scholars in classics, history, journalism, law, literature, philosophy, and theology. Scientific disciplines represented included anthropology, astronomy, biology, computer science, economics, engineering, mathematics, physics, planetary sciences, and psychology. In many of the presentations, authors expanded beyond their primary disciplinary backgrounds to engage alternative approaches to message composition.

The first workshop, held in Toulouse, France in October 2001, provided a broad overview of interstellar message construction. Over two and a half days, a dozen participants discussed the range of approaches to designing interstellar messages that may be comprehensible to intelligence and Earth.

A second workshop, held in Paris in March 2002, focused on the interface of art, science, and technology, and was held in conjunction with the sixth annual Leonardo Space Arts Workshop. Several of the papers examined whether there might be aesthetic principles that would be either universal or, lacking that, potentially explicable across interstellar space, even if these principles are culturally contingent. In several cases, mathematics and physics were suggested as possible bridges between worlds, with interstellar languages based on these disciplines potentially also capable of expressing aesthetic sensibilities across interstellar space.

A year later, in March 2003, a third workshop was held in Paris to continue a dialogue between artists and scientists, as well as to focus on the specific theme of encoding concepts about altruism in interstellar messages. The 2003 workshop provided greater cultural diversity than earlier workshops, with participants representing twelve countries on five continents in 2003. A satellite workshop, held in Zagreb immediately after the second Paris workshop, provided an opportunity for a range of Croatian scholars to contribute to interstellar message design.

Extended abstracts from these workshops will be published in two forthcoming issues of the journal *Leonardo*, and papers based upon some presentations will be published in 2004 by The MIT Press in a collection of essays on interstellar message composition.