

Tiziana Lanza, Giuliana Rubbia & Aquiles Negrete

1) Istituto Nazionale di Geofisica e Vulcanologia Rome-Italy, 2) Universidad Nacional Autonoma de México



Hard breathing in Pechino - China Indonesia Palm oil installation orangutan rescue Desertification in Sahel Banda Aceh Sumatra 2004 tsunami devastation Shark finning Poaching in Africa

Climate change, pollution, desertification, natural hazard, animal extinction are some of the problems we face everyday. Very often Science and Technology are charged of the solutions while Art is intended mainly for entertainment. Are we sure this is the right attitude?

C.P. Snow, the two cultures and the present challenge

C.P. Snow writing about the need of a link between the two cultures underlined how, at the time he was writing his essay, the humanities dominated the traditional culture denying the raising scientific revolution (Snow 1959). Today things have radically changed. R.Kimbal in his essay on The two cultures today writes: "As we look around the cultural landscape today, we see the debris of a civilization seemingly bent on cultural suicide: the triumph of pop culture in nearly every sphere of artistic endeavor, the glorification of mindless sensationalism, the attack on the very idea of permanent cultural achievement—in the West, anyway, the final years of the twentieth century are years of unprecedented material wealth coupled with profound cultural and intellectual degradation" (Kimbal 1994). Today, technology dominates our life threatening the essence of culture itself. The net revolution has accustomed us to express ourselves in no more than 140 characters, as in twitter, or pressing the "like" button, as mainly in FaceBook, such a primitive operation. Our attention is captured by tons of informations coming from the web, and this makes every day more difficult to educate people according to the original meaning attributed to culture by Cicero who wrote about "cultural animi" meaning the cultivation of the soul, by using an agricultural metaphor.

References:

- C.P. Snow (1959) The Two Cultures and the Scientific Revolution
- R. Kimbal (1994) The Two Cultures Today in The New Criterion <http://newcriterion.com:81/archive/12/feb94/cultures.htm>.
- A.I. Kolomak (2014) Western philosopher about human freedom at the technogenic and mass society in Science and world (Vol.2, No. 6) pp 106-107
- Albert Einstein (1931) "Einstein Sees Lack in Applying Science", The New York Times (16 February 1931)
- Johan Lehrer (2008) To answer our most fundamental questions, science needs to find a place for the arts. The Future of Science... is Art? In Seedsmagazine.com Jan 2008
- SIS-RRI (2014) http://ec.europa.eu/research/swafs/pdf/rome_declaration_RRI_final_21_November.pdf
- Creative Europe (EC 2015.). http://ec.europa.eu/culture/policy/culture-policies/index_en.htm

The technogenic society

Snow in his essay was defending applied science, disapproving the behavior of his contemporary pure scientists proud that their research didn't have practical implications. He was hoping industrialization of the underdeveloped countries, as Africa, South-Asia, India and Latin America to solve the gap between richness and poverty, to prevent overpopulation and avoid a nuclear war. Unfortunately, with industrialization the gap between the richest and the poorest is increased, denying the peculiarity of each country and mortifying the rural world and nature in favor of mass production. In contrast with Snow essay, we can today write that the modern society is a product of science and technology development. We don't intend to denigrate technology, but we believe that the time has finally come to embed more ethics in the use of technology preferring the planet sustainability to wild innovation. Technology in the last twenty years has penetrate every single space of the individual life, and so quickly that people hadn't the time even to realize it. The result is mass production, the pursuit of profit at all cost and mortification of life, at its worst. Moreover, technology has transformed the world in a way that is going out of the human control with dangerous consequences. Some philosophers write about a process of "estrangement" intending the process within the limits of which the transformation of humans' activities and products into independent force dominates over its creators and suppresses them. In other terms, things are going in the directions feared by german philosopher M.Heidegger, that in the last century was envisaging a mechanized future where the techniques will be brought to perfection but individuality and freedom would disappear completely (Kolomak 2014).



"Nature never breaks her own laws"
Leonardo da Vinci

Earth Sciences and Art

The need of a common field for Science and Art is widely accepted today. Disciplines as Physics but also the Neurosciences have shown that modern sciences are still far from any unified understanding of everything. To say it with the words of Russian novelist Vladimir Nabokov: "The greater one's science, the deeper the sense of mystery". Indeed, even if Science adheres to a strict methodology, relying on experimental data and testability, this method could benefit from an additional set of inputs. The cultural hypotheses of artists can inspire the questions that stimulate important new scientific answers (Lehrer 2008). On the other side, in solving the impelling problems that are deteriorating not only our planet resources but also our quality of life, humanities can find a powerful ally in science for re-awakening in everybody the sense of beauty, values and respect for the planet. To know Earth is to love Earth, since nature is in itself a work of Art. Earth sciences dig out all the secrets that make our planet a unique place in the Universe we know. Every single phenomena can be seen then in a double face value. An Aurora, for instance, can inspire poetry for its beauty and colors but always remains the result of the interaction between the solar wind and the Earth magnetic field. And, most important, an Aurora will never inspire negative feelings. Significant actions and initiatives are in place in the framework of "Creative Europe" Programme of the European Commission (EC 2015). To make our part in creating a common field between Art and Earth sciences, we have created a blog and a related FaceBook page to collect, browsing the web, experiences in this trend, to find out that many scientists and artists are already working in this direction as a final and enjoyable surprise. The blog will be enriched by the contributions of the EGU 2015 EOS 7 session on "The use of Art in Earth sciences for a better planet sustainability"

Photo credits

1. learn.com
2. Copyright Alejo Saburgo - IAR Indonesia in forestheroes or 3. A.Bee in pavonerisorse.it
4. rasalhague eklablog.com
5. G. Deichmann in anthonyamarr13.wordpress.com
6. cmzoo.org



<http://earthandart.altervista.org>