

STEP BY STEP
TOWARDS SUSTAINABILITY
RESEARCH AND ACTIONS
BY ITALIAN SCIENTIFIC MUSEUMS

Italian Association of Scientific Museums
(ANMS - Associazione Nazionale Musei Scientifici)

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ANMS ASSOCIAZIONE
NAZIONALE
MUSEI
SCIENTIFICI

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*In Memory of
Elisabetta Falchetti*

Introduction

Every time we have attempted to describe the Italian Association of Scientific Museums (*ANMS - Associazione Nazionale Musei Scientifici*) in a brochure or in booklet which would sum-up its characteristics beyond a simple formal summary, we have encountered difficulties towards providing an overall picture which would adequately describe its functions and its affiliated Museums.

Such a difficulty is also reflected in the Association's Website where each associated Museum is given the opportunity to show an image representing its own state-of-the-art. However, the collection of these photos, rotating within a slide presentation, does not provide a meaningful overview – an issue resulting from the fact that most of these institutions have submitted photos of their buildings. Such a pattern highlights the difficulties which Museums encounter in identifying themselves either with a flagship exhibit or with a symbolic exhibition – difficulties which can be clearly explained by the consideration that the Scientific Museums do not really identify themselves with what they own, but with what they actually do, given their commitment to today's cultural challenges related to contemporary and current themes.

This book favours this perspective and strives to collectively promote the ANMS Museums' activities on the theme of sustainability, by achieving a very homogenous overview which is almost unexpected for an extremely culturally-diverse community as the one of the Scientific Museums. In fact, the Museums are represented as well-aligned in their objectives and vision – a vision consistently focused on the environment, the society and the territories.

The immense and inestimable heritage of the scientific collections housed by our Museums appears – as ever before – highly valued with respect to uses which go beyond the disciplinary historical interest, but which can contribute to safeguarding the Earth, via further knowledge of its characterizing diversity, as well as to individual and collective wellbeing.

For once, the Museums are the main protagonists, with their established activities, their planning and their commitments. They are described by some of the people who – acting here just as spokespersons – facilitate their operations thanks to their passion, know-how and professionalism.

This is a format which complements the one of the annual Congresses where the sector's practitioners are the authors of contributions which provide a collection of the varied and heteroclite experiences implemented within the Scientific Museums.

This edited book can be finally considered an adequate tool to represent the ANMS and the community of the Italian Scientific Museums, thanks to this anthology of the first 25 institutions which have enabled its implementation: first institutions, of course, not in a hierarchical order, but only in a chronological order, as we hope to develop other similar publications in the near future.

Fausto Barbagli
President, ANMS

Preamble

This publication comprises some of the many research initiatives and activities implemented by the Italian Scientific Museums and aligned with the sustainability principles and objectives which have been adopted by the international community first within the “Agenda 21” (Rio de Janeiro, 1992), and then renewed within “Transforming our world: the 2030 Agenda for Sustainable Development” of the United Nations (2015) (hereinafter, referred as the 2030 Agenda). The 2030 Agenda is a plan of action for Planet, People and Prosperity. For the Planet, the Agenda delineates the actions to safeguard it from degradation, through an informed consumption and production, sustainable management of natural resources, and the adoption of urgent measures with respect to climate change, in order to ensure that the Planet can satisfy the needs of present and future generations. For the People, the Agenda aims at strengthening universal peace in larger freedom and promotes peaceful, just and inclusive societies which are free from fear and violence. It promotes societies which enable an equal and universal access to quality education, health coverage and social protection and where physical, mental and collective wellbeing is ensured, where there is equality and non-discrimination, equal opportunities and rule of law, and respect for cultural diversity. The Agenda fosters the end of poverty and hunger, in all their dimensions, and aims at ensuring that all human beings could fulfill their own potential with dignity and equality in a healthy, equal, and tolerant environment and within sustainable and resilient communities. For Prosperity, the Agenda aims at ensuring that all people could enjoy a good quality of life and that the economic,

social and technological progress could be developed in harmony with nature. All the signatory Member States and all the stakeholders, acting in a collaborative partnership, will implement this plan, by pursuing, through an integrated approach, the interlinked and indivisible 17 Sustainable Development Goals (SDGs), and related 169 Targets which are based on the Objectives and Principles of the UN Charter, inclusive of the total compliance with international law, on the Universal Declaration of Human Rights as well as on the Millennium Development Goals (MDGs), also by focusing on completing what was not achieved by MDGs. They consider the dimensions of sustainable development: the environmental, cultural, social and economic dimensions. In the next 15 years, the Goals and Targets will foster actions within areas of crucial importance for the People and the Planet.

The Italian Scientific Museums have been active in promoting and implementing sustainability actions, for a long time, even prior to the Rio Conference and the “Agenda 21”. They have adopted the “Recommendation on the Protection and Promotion of Museums and Collections, their Diversity and their Role in Society”, co-produced by the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the International Council of Museums (ICOM) (2015). Such a document defines guidelines for Museums with respect to environmental sustainability and the related attainment of socio-cultural transformations in line with UNESCO and ICOM principles and objectives: the dissemination of culture, universal education to justice, freedom and peace, the promotion of moral and material solidarity, full and equitable educational opportunities for all within the free exchange of ideas and knowledge.

The Italian Scientific Museums are then ready to contribute towards the attainment of all the Sustainable Development Goals of the 2030 Agenda.

The heritage of scientific collections housed by our Museums has acquired a new value which goes beyond the historical-cultural one, but which is framed towards the knowledge and conservation of bio-diver-

sity, geo-diversity, and of the Planet. Furthermore, such a heritage has increasingly become a reference-point for ecological research, territorial and climatic analysis, environmental impact assessment as well as for projects related to sustainability and human wellbeing in European and extra-European areas.

Given that sustainability is a pathway which includes environmental but also social and territorial actions, our Museums have strengthened the education-training services as well as all the studies and activities which can contribute to raise public awareness of the value of intangible and tangible heritage of the Country and of the Planet, as well as citizens' conscious participation in sustainability initiatives. Thus, today, the activities implemented by our Museums target – even through experimental projects and innovative studies – not just the usual audience comprising school groups or the usual Museum-goers, but also all “old and new” citizens with particular attention to underprivileged or potentially marginalized citizens. This is also achieved by following the guidance of the Faro Convention (European Commission, 2005) for which the knowledge and the use of heritage are encompassed in the citizens' right to participate in cultural life (“Universal Declaration of Human Rights”). The Convention attributes to cultural heritage an ethical interpretation which benefits the whole of society and the quality of life. In fact, it considers heritage as a facilitator of social linkages: a useful source of human development, validation of cultural diversities and promotion of intercultural dialogues. *The cultural heritage must have a role in building democratic and peaceful societies and in sustainability processes.*

The interactions with our territories, their communities and their problems are essential components of the socio-cultural mission of our Museums, in line with the Namur Declaration (European Commission, 2014) and with the OECD ICOM Guide for Cities and Museums on Culture and Local Development (OECD/ICOM, 2018) which promotes an integrated approach to tangible and intangible heritage: cultural, economic, social, historical, educational, environmental and scientific heritage.

ICOM has organized his latest Conferences on sustainability-related themes, such as “Museums for Social Harmony” (ICOM, 2010) and “Museums for a Sustainable Society” (ICOM, UNESCO, 2015), and thus, it has strengthened the awareness and the direction towards sustainability within Museums all over the world.

Taking into account the global and system approach to sustainability (natural environment, culture, society, economics), also organized in the principles of Sustainability Science, this book includes contributions on environmental and ecological sustainability implemented through Museum collections, studies and fieldwork; on cultural, social and economic sustainability developed through inclusive and democratic educational practices; as well as on cases-studies of sustainability-targeted actions by Museums for their territories and their communities.

Thus, the value of this publication is to be appreciated not only for the many Museum experiences described, but also for the quality of the reported studies and actions – achievements positioning our Scientific Museums at the same level of the best international Museum community. Furthermore, its importance is also reflected in its message about the essential roles that Scientific Museums already play (and will increasingly do so in the future) in overcoming the 21st Century environmental and social crises, either as producers of new theoretical and applied knowledge or as cultural practitioners and reference-points for sustainability at the individual, society and ecosystem levels.

Italian Association of Scientific Museums
(ANMS - *Associazione Nazionale Musei Scientifici*)

The Manifesto, reported here as adopted in 2017, has been developed in line with the 2030 Agenda, and is also consistent with new developments and commitments within international fora, including the Declaration of the World Science Forum 2019 on “Science, Ethics and Responsibility”.

**MANIFESTO OF THE ITALIAN ASSOCIATION
OF SCIENTIFIC MUSEUMS
(ANMS - *Associazione Nazionale Musei Scientifici*)**

The Italian Association of Scientific Museums (ANMS - *Associazione Nazionale Musei Scientifici*) connects and represents “...the Museums which house documents and records related to the Sciences and their history... Botanical Gardens, Zoological Gardens, Aquariums as well as entities which institutionally implement activities concerning the communication and/or conservation as well as research within the scientific sphere” (Statute, Art. 1).

This document establishes its expression of intents and articulates the main values, the general principles, the action guidelines and the ethical and professional dimension of the Association.

It has been adopted within the General Assembly of the Members on 26 October 2017 in Genova (Italy).

Preamble

Scientific Museums are essential and constructive institutions at the service of society, citizens as well as human culture. They have contributed to nourish, shape and inspire human culture by renewing and diversifying themselves in harmony with historical and local contexts. Their relevance and social function are measured by their capacity in identifying needs, responding to the community’s stimuli, as well as in providing services and benefits. The current historical period is affected by deep and rapid transformations within cultures, societies and the natural environment. The communities are evol-

ing, also due to movements and exchanges among peoples, products, ideas, economies and communication forms which can all be clash-generating phenomena. Hence, the scientific Museums feel the responsibility to address these challenges and comply with the societal transformations in order to accompany the transition towards new social and cultural organizations which are more conscious, peaceful, equal and sustainable. The role of the Scientific Museums, which is summarized in its basic functions, namely Conservation, Research, Communication and Education, confirms the importance of the Museums as training institutions and as custodians of the cultural scientific heritage of humankind. In fact, the conservation, study and communication of tangible and intangible heritage are crucial elements towards interpreting the past, building communities' identities, transmitting values from one generation to the next, guaranteeing social cohesion, dialogue and knowledge among peoples, and towards safeguarding the natural environment. Scientific Museums have the cultural asset and the competences to promote change.

The educational experiences delivered by Scientific Museums can improve the quality of life of the community and strengthen social linkages and resilience. They support and build knowledge, values, awareness and critical conscience, and foster new way of thinking as well as intercultural and intergenerational exchange, while they also play a crucial role in safeguarding and promoting diversity in its varied natural and cultural manifestations. They also contribute to overcoming conflicts. Today, scientific Museums are positioned as venues for knowledge and research, capacity-development, attitudes-and values-building, participation and civic engagement, promotion of social projects, as well as for new visions and ideas. They are places for peace, gathering, dialogue and for exchange.

The ANMS brings together many institutions and competences in the field of national scientific museology. These have a significant impact on our communities, as they safeguard communities' heritage, collaborate in cultural production, inspire learning and interest,

foster social relations, and provide support and expert advice to institutional and territorial actors concerning options in the political, cultural, scientific, technological and environmental arenas.

ANMS Guiding Principles and Priorities

The ANMS identifies itself in the principles stated in the Constitution of the Italian Republic and in particular in its Articles No. 9 “The Republic promotes cultural development and scientific and technical research” and No. 33 “The arts and sciences as well as their teaching are free”, as well as in the Charter of Fundamental Rights of the European Union.

Science is the cultural heritage and legacy of humanity and as such it belongs to every individual and every societies in all its forms, themes and expressions.

1) ANMS adheres to the UNESCO, ICOM and EU principles and directives which define objectives and priority strategies for culture in the 21st Century: the right to education and to cultural participation, accessibility and equity, gender justice and equal opportunities, intercultural dialogue; international cooperation; promotion of diversity of cultural expressions; lifelong learning; inclusion of minorities and underprivileged individuals. In particular, it adheres to the “Declaration on Science and the Use of Scientific Knowledge” (UNESCO, 1999; “Science for the Twenty first Century. A new Commitment”, 2000) which encompasses, as a cultural, programmatic and operational Manifesto, Science for knowledge, Science for peace, Science for development, and Science in society and science for society.

2) ANMS adheres to, and applies, the objectives and the recommendations of the Faro Convention (EU Commission, 2005) which foster an ethical interpretation of heritage – an interpretation which also benefits the whole of society and the quality of life, given its role in promoting social cohesion and belonging, in providing historical memory and preservation of traditional know-how, and in being use-

ful to human development and to the promotion of cultural diversity and intercultural dialogue.

3) ANMS follows ICOM approaches on the roles of Museums in the attainment of peace, justice, human rights, in harmony and within social and environmental sustainability.

4) ANMS adopts the principles defined in the 2013 ICOM Ethics Codes, namely ICOM Code of Ethics for Museums and the ICOM Code of Ethics for Natural History Museums (2013), and is committed to monitoring its members in the application of the rules and provisions in the above-mentioned Codes.

5) The ANMS Members feel part of a community which recognizes the value of scientific culture and fosters its knowledge among all citizens, through the resources and actions of their museums. The ANMS Members consider the dialogue with visitors and with the territory, cultural exchanges, the sharing of heritages, experiences, values and know-how, in particular on the subject of bio- and geo-diversity, as fundamental aspects, given their aspiration in the engagement and participation of the entire community. The objective is wellbeing and sustainability for all the living beings of the Planet and for the Planet.

6) An ANMS paradigm is the enhancement of the cultural, intellectual and ethical aspect of science, as well its encompassing philosophical, methodological, research and social aspects, given their educational, political, historical value and their influence on social and environmental choices. In fact, the Scientific Museums are conscious of their decisive role in building critical, systemic and complex thinking (a key challenge of our times) and in fostering dialogues among people, ethnicities and cultures.

7) ANMS encourages the promotion, recovery, conservation, safeguard, and the transparent and sustainable management and development of tangible and intangible scientific heritage. It also fosters accessibility to collections for research, the exchanges of inclusive, intercultural, intergenerational cultural and educational experiences; as well as professional competences and civic skills. Furthermore, it

nourishes the knowledge of bio- and geo-diversity as scientific cultural values – aesthetic and ethical values – through the collections’ heritage and related professionalism.

8) ANMS recognizes the economic value of Museums, as they provide job and employment opportunities, foster individuals’ professional growth, tourism as well as the development of territories.

9) ANMS, through its Museums, intends to be a network of excellence, and a reference point for the scientific and environmental management of the territory. Moreover, it aims at leading the way towards new forms and models of cultural and social services for the community, by promoting cooperation and synergies between Museums and other national and international Museum associations, as well as dialogue, exchanges and collaborations among people and with institutions, entities, public and private agencies and with volunteer organizations.

10) ANMS is aware of the need for training and participation in science at all ages and phases of individual and social life; therefore, it is committed to actively collaborate towards the attainment of these objectives in partnership with Schools, Universities, and with all the categories and citizen associations outside the formal education system. In particular, ANMS is dedicated to promote physical, economic and cultural accessibility to Museums for all members of the communities, by implementing schemes fostering inclusion, participation and audience development. This pertains not only an increase in the publics, but also their active contribution to, and engagement with, Museum policies. In particular, ANMS intends to facilitate the accessibility to scientific Museums and to involve disadvantaged people or those at risk of exclusion and marginalization, by eliminating or overcoming physical and cultural barriers.

11) ANMS strategically implement the exchange, partaking and the cultural growth of its members, through its congresses, publications, social contacts as well through *ad hoc* initiatives and activities specifically developed and planned. ANMS promotes scientific research

collaboration and adheres to the European Charter for Researchers. It fosters the development of projects, resources and partnerships amongst the Members of the Association. It encourages the establishment of Association's cross-cutting working groups on selected themes.

12) ANMS enables the sharing of all the themes and activities concerning the Museum professions and the life of the Museums themselves, by promoting the development and adoption of relevant formal procedures.

13) ANMS is the publisher of the journals "*Museologia scientifica*", "*Museologia scientifica - Memorie*" and "*ANMS e-book*" which are disseminated among Museum and scientific communities. The publications are the expression of the cultural direction of the Association and they are in line with the guiding principle of its Manifesto. ANMS accepts, and publishes on its journals, those scientific contributions which adhere to international standards of peer review and accountability of authors, respect the democratic and ethical principles of science and do not violate the values of other cultures.