CHINA AND ITALY:
SHARING CULTURAL HERITAGE EXPERTISE

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CHINA AND ITALY:

SHARING CULTURAL HERITAGE EXPERTISE

Edited by
Heleni Porfyriou and Laura Genovese

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INTRODUCTION

Riccardo Pozzo

Director of the Department of Human and Social Sciences, Cultural Heritage of the National Research Council of Italy - CNR

Research in the Department Human and Social Sciences, Cultural Heritage of the National Research Council of Italy embraces social sciences as a whole as well as material and immaterial cultural heritage. The activity is focused on four disciplinary macro-areas: cultural studies, law, social sciences, linguistics and cognitive research, that are very different from each other but unified by the common goal of contributing to knowledge, preservation, use of cultural identity and cultural heritage.

Among its lines of investigation we find: information and communication technology, research evaluation and indicators, e-publishing, smart cities, innovation, creativity for knowledge society economics SME, democracy and laws, analysis of European, national, regional and communal institutions, migrations and transmission of culture, multilanguage, teaching technologies, communications security, social cohesion and competitiveness patterns, cognitive science, computational linguistics, history of language and lexicography, history of philosophy and science, history of ancient and modern Mediterranean, cultural heritage preservation, archiving, cataloguing and representation, cultural heritage diagnostic, conservation, and restoration, archaeology; archaeometry; cultural heritage valorization.

"Social and Cultural Innovation" is a syntagm that has become of current usage among researchers in recent years due to the name chosen by European Strategy Forum Research Infrastructures for the working group whose object are the landmarks and projects that are primarily connected with Social Sciences and Humanities.[1] For

1 http://www.esfri.eu/working-groups/social-and-cultural-innovation: "The Social and Cultural Innovation SWG proposes possible solutions (related to RIs) that are able to help tackle the Grand Challenges facing society, such as health or demographic change, or the 'Inclusive, innovative and secure societies' challenge from the third pillar of Horizon 2020, called 'Tackling societal challenges.' It establishes possible methods through which social sciences and humanities could be used as an evaluation criterion for the activity of other RIs in the ESFRI roadmap (e.g. social impact, etc.). It also explores how RIs can contribute to social innovation or better knowledge transfer towards society."

itself, innovation means the creation of new products and services by bringing to the market a new idea. While fundamental research is curiosity driven, it also has a translational impact, because the transfer of knowledge makes innovation possible, which is product driven, in so far as it generates new products and production lines. Innovation is the affair of research councils all over the world, which are quite different from both universities and academies. Research councils were founded about a century ago, at the time of World War I, while universities date back to the Middle Ages, and academies to the Renaissance. They differ because universities are devoted to teaching and professors are free to teach and investigate whatever they like; academies were funded by kings who wanted scholars to live at court, so that they might able to pose questions of their interest and receive answers; while governments funded research councils in order to achieve results of strategic relevance for the country.

Knowledge conservation, protection, and use trigger integration policies; they also promote cultural, economic and social growth. We are talking about areas such as knowledge and in-situ protection of cultural contexts and artifacts, post-war archaeology, virtual reality, and sustainable museography,[2] whose impact implies (a) making Cultural Heritage instrumental for science and cultural diplomacy; (b) protecting and promoting cultural diversity; (c) documenting, conserving, monitoring, using it, and eventually (e) protecting it from environmental and anthropic threats in the Middle East and in North Africa. In Brussels, the strategic approach to cultural diplomacy points to cultural diversity as an integral part of the values of the European Union.

The great challenge is the passage from data science to data humanities. The European Union has recognized the need and urgency to provide advanced facilities for interdisciplinary cutting-edge research in Social and Cultural Innovation. The main goal is to deal with every aspect of science and technology related to the field, offering innovative solutions to the societal challenges of the new millennium. As a matter of fact, also Social and Cultural Innovation researchers are confronted with huge amounts and an increasing complexity of data in highly interdisciplinary settings. Let us only think of enabling technologies such as: NFC-Near Field Communication; CRM-Content Rights Management; contents-aware networks

2 E.g. satellites and topographical techniques, drones and sensors for heritage protection in wide areas; advanced diagnostic systems; nano-materials and nano-technologies for conservation; 3D for the enhancement of cognitive access in historic and archaeological contexts; methodologies and protocols for 3D rendering in hazardous contexts; monitoring artefacts/context interaction; advanced exhibition systems: smart showcases.

(fruition and enjoyment); low-latency networks (warning and security); and huge-bandwidth networks (augmented reality).

Cultures are part of national identities, in which case they are bound to one country's language and history. However, cultures are fundamentally the constituent of transnational ties and identities. Cultures are in themselves more than their means of support. Cultures are immaterial. They are lights, namely the aura of invisible light that the civilized human being attaches to the object as a token of appreciation, veneration, and awe. At the center of all research on cultural heritage are auratic objects, be they material of immaterial (artifacts, books, social findings), but always set by a person, which makes today a repositioning as regards technological development more and more urgent. Persons are not out there only to make sure machines work, they are expected to pose the questions the human being finds it necessary to pose while going on the via humanitatis.

The object of China and Italy Sharing Cultural Heritage Expertise is to provide readers and users with top-rate solutions for data analysis in archeology and cultural heritage, in-situ non-invasive technologies for monuments and artifacts and generally ICT and sensing technologies for cultural heritage. Currently, six research infrastructures for "Social and Cultural Innovation" are up and running, among them, E-RIHS (European Research Infrastructure for Heritage Science) creates synergy for a multidisciplinary approach to heritage interpretation, preservation, documentation, and management. China and Italy Sharing Cultural Heritage Expertise is a substantial contribution towards the implementation of the grand Italian project of establishing the European Research Infrastructure for Heritage Science.

January 2017

Chai Xiaoming
Director of the Chinese Academy of Cultural Heritage - CACH

Chinese Academy of Cultural Heritage, formerly the Commission for the Preservation of Cultural Objects of the Old Capital established in 1935, is a knowledge-intensive, research-based and innovative nonprofit public institution directly under the State Administration of Cultural Heritage of China. It is mainly engaged in research on cultural relics, protection and restoration of cultural relics and related trainings. With the basic feature demonstrated by the integration of humanities and social science, natural science and engineering science for application purpose, it is one of the most important professional forces in the field of cultural heritage of China. It has obvious strengths in protection of underwater cultural heritage, world heritage monitoring and research, DYZ conservation, restoration of cultural relics and specialized trainings and education. It has qualification for archaeological excavation, Class-A qualification for design for technical protection of movable cultural relics, Class-1 qualification for restoration of movable cultural relics, Class-A qualification for survey and design for cultural relic protection projects, and Class-1 qualification for implementation of cultural relic protection projects. It serves as a postdoctoral workstation approved by the Ministry of Human Resources and Social Security of the People's Republic of China. In recent years, it has undertaken 12 national significant research projects under the National Social Science Fund and the National Natural Science Fund, and more than 120 research projects under other funds of the central government. It has won a number of awards at national, provincial and ministerial levels. It has published more than 110 kinds of professional works and more than 1,100 academic papers.

Chinese Academy of Cultural Heritage has established good partnership with cultural heritage organizations in more than 20 countries to launch cooperation and communication with each other on science and technologies for cultural relic protection. In November 2014, based on early long-term cooperation, Chinese Academy of Cultural Heritage and National Research Council of Italy entered into the *Agreement on Scientific Cooperation between the Chinese Academy of Cultural Heritage and the National Research Council of Italy* and the *Cooperation Programme of the Agreement on Scientific Cooperation between the Chinese Academy of Cultural Heritage and the National Research Council of Italy*, aiming to launch more strategic and profound academic cooperation and communication between national cultural heritage protection and research institutions of the two countries. Based on

the cooperation framework, five selected projects under the cooperation between the Chinese and Italian parties have been initiated and launched in 2016 to carry out cooperation and researches concerning large-scale cultural route protection, utilization and management, archaeological site exhibition and promotion, dehydration and consolidation of waterlogged culture relics, innovative consolidation of earthen sites, photo-electronic techniques and testing of cultural relics of organic texture.

To show and exchange the achievements of cooperation, both sides plan to jointly edit a series of academic publications. This book, as the first collection of papers, includes papers on both sides' achievements in researches of protection, exhibition and utilization of urban archaeological sites in recent years, especially those on different measures adopted to protect Rome and Luoyang and similar significant ancient capitals under current development. It is very inspiring. The collection of papers also covers research achievements on protection and utilization of stone cultural relics, discussions about principles and concepts on protection of such cultural relics, heritage monitoring and protection strategies, application of diagnostic analytical methods in protection of stone cultural relics, application of information technology in protection of stone cultural relics, and studies on application of protection materials, technologies and methods. It is believed that, these papers will provide very good references for improving scientific researches of Dazu Rock Carvings and other similar cultural relics.

It is hoped that both sides will enhance communication on existing cooperation projects, make better research achievements and publish more works. It is also hoped that, the cooperation between Chinese Academy of Cultural Heritage and National Research Council of Italy will be expanded to cover a wider range of fields so that great contributions will be made to the academic development for cultural heritage protection of China and Italy, which have abundant cultural heritage resources and great strengths in cultural heritage protection.

Finally, please allow me to express my sincere appreciation for all the Chinese and Italian organizations and people who have made great efforts for the book.

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