THE FUTURE OF MOON
Exploration and Settlement

Lundi 25 mars 2019
De 9h à 13h
Amphi 310 / Entrée libre
25 March 2019
9.00 to 9.30 am  Arrive and get seated (coffee at the cafeteria)
9.30 am  Start

9.30 to 9.40 am  Welcome – By Director of Faculty Architecture, Philippe Bach

9.40 to 10.10 am  Introduction: ARCHES – Emmanuel DUFRASNES
- ISU – Chris Welch
- MVA – Giuseppe Reibaldi

Moon Village Challenges and Opportunities:
10.10 to 10.30 am  Technical – John Mankins – VP MVA
10.30 to 10.50 am  Human:
- Michel Tognini
- Claudie Haignere

10.50 to 11.00 am  Economical – Alain Dupas

11.00 to 11.35 am  Long-term prospective:
- CNES – François Spiero
Views from Industry:
- Large Industry – To be announce
- Stéphane LEVIN scientific explorer – To be announce

11.35 to 11.45 am  Cultural:
- Jacques Rougerie

11.45 to 12.05 am  Educational:
- ISU MSS19A Team Project Moonwalk
- A sustainable approach for the establishment and evolution of a lunar settlement for science and exploration purposes
- by Monika Lipinska and Charlotte Nassey

Winner of 2018 ARCHES/MVA Architecture competition:
- by Kyungwhan Kim

Announcement of a new MVA/ARCHES competition in 2019:
- by Emmanuel Dufrasnes/Giuseppe Reibaldi

12.05 to 12.15 am  Outreach:
- Emeline De Antonio

12.15 to 12.20 am  MVA French Network Presentation
- by Sébastien Drochon

12.20 to 12.50 am  Q/A
12.50 to 13.00 am  Ministry of culture

INTENTION

In this 21st century, we are trying to reach the moon and the stars once again. But this time we want to settle there.
This event is to present the main challenges and opportunities of the Moon Village and the contribution that MVA is bringing to its implementation. This event will represent the opening of the MVA French network and explain how people can join MVA.
Background

The Moon Village Association (MVA) fosters the implementation of the Moon Village vision by providing a platform for collaborative global discussions and bringing together efforts from the private sector, governments, academia, and others. This vision includes space-faring and non-space-faring nations as well as the public and offers an opportunity for all countries and organizations to play a role in this endeavor. The implementation of the Moon Village will be a major step forward for humanity — including the enhancement of knowledge, progress and world peace.

Purpose

The purpose of the Principles of the MVA is to make a significant contribution to Moon Village “Coordination and Cooperation”, without necessarily requiring the existence of formal international framework agreements or regulatory instruments. The Moon Village Principles represent a general consensus point-of-view of the Moon Village Association but are strictly non-binding.

The MVA will assess annually the missions and activities of various organizations with respect to the “Moon Village Principles” and state in a highly public way whether or not those missions and activities are (or are not) in line with the Principles.

Principle 1: Adhere to applicable International Rules and Agreements dealing with human activities in space, such as the Outer Space Treaty of 1967 and others, and conduct peaceful activities with thoughtful consideration and respect for the cultural heritage of humanity on the Moon.

Principle 2: Improve Knowledge of the lunar environment and its use for scientific research.

Principle 3: Reduce the Cost and Risk of transport to and from Earth and the Moon, and within cis-Lunar space.

Principle 4: Support the Economic Development of the lunar community.

Principle 5: Employ or establish and document open-source engineering Standards of broad applicability and/or usefulness.

Principle 6: Develop and build elements / systems that provide Critical Services for lunar missions and activities, such as navigation, communications, power, and resources.

Principle 7: Develop and demonstrate Technology enabling cost-effective, reliable and safe robotic and human operations on the Moon’s surface and surroundings.

Principle 8: Make available sufficient information to allow global cooperation and engagement involving the general public in the expansion of human activities to, and eventual settlement of the Moon.

Principle 9: Contribute ethically to human society in terms of Culture, the Arts, Education or other fundamentals.
International Space University
http://www.isunet.edu/

ISU was founded in 1987 as a not-for-profit institution of higher learning, dedicated to the development of outer space for peaceful purposes education and research. ISU provides an interdisciplinary, intercultural, and international environment for educating and training graduates and professionals in order to develop future leaders of the global space community.

Master of Space Studies

Designed for students looking for the competitive edge that will help them obtain a career in the space sector, professionals interested in making a career move into or within the space sector, and researchers wishing to broaden their knowledge or make the move from academic life into the space industry.

Space Studies Program

Two-month course for postgraduate students and professionals of all disciplines. The curriculum covers the principal space related fields, both non-technical and technical. The shared experience of an international, interactive working environment is an ideal networking forum leading to the creation of an extensive, international, multidisciplinary professional network.

Southern Hemisphere Program

Intensive five week, live-in experience built around an international, intercultural, and interdisciplinary educational philosophy for which ISU is renowned. The program provides a multidisciplinary understanding of the key activities and areas of knowledge required by today's space professions.

Executive Space Course

Provides an overview of space-related subjects for professionals of diverse backgrounds, including marketing, finance, law & contracts management. Professionals leave with the knowledge and skills that will enable them to communicate more effectively with their technical colleagues.
RST ARCHES - Le réseau disruptif sur les architectures en milieux extrêmes
http://www.arches.urbicoop.eu/

Relegated for a long time to the field of building sciences, conditioning techniques – ventilation, air-conditioning, lighting, sound or odorisation systems – play a decisive role in the contemporary urban and architectural production. They are fully implemented in commercial architecture, which promotes experiential and sensory marketing. They are developed in accordance with regulations of energy efficiency in buildings that establish new requirements in terms of flux between architecture and environment. They become necessary in inhospitable climates (tropics, deserts, poles), in some constrained spaces (places of care, entertainment, conservation or specific facilities), or in extreme environments (underwater, underground or extra-terrestrial architectures). They naturally question our relation to the environment and to our living spaces, to energy and material flows, and to the visible and invisible technologies that rule our living environments.

Jean-Jacques FAVIER - astronaut

The lines of thought developed within the "ARCHES" Network concern the International Space University (ISU) by their interdisciplinarity, including the SHS that we also deal with in our space-related ecosystem. Different topics are of interest to us, such as spin-offs from the space sector to green techs, and in general the technologies from the laboratories to advance the achievements of the general public on Earth. Our partnership with the Strasbourg School of Architecture (ENSAS) made it possible to associate our partners with partners from all over the world, but also, especially in Alsace and France.

Jacques ROUGERIE - Architect

Throughout my life I gave shape to my dreams and realized them through meetings with men who believed in my vision of a prospective architecture and helped me to implement it. Without their support, many of my projects would not have been possible. Today, it is my duty to help new generations, to give them the benefit of this support that they need to build the future. This is my commitment and that of the Jacques Rougerie Foundation dedicated to space and the sea... Because it is space and the ocean that will be born the destiny of future civilizations. I will bring my expertise to the "ARCHES" Network.

At the crossroads of architecture, technology, culture and environment, this scientific network "ARCHES" aims to eventually generate knowledge and breakthrough innovations by confronting the boundary conditions generated by extreme environments such as space and planets of the solar system, the oceans and underwater universes, the high mountain, the deserts or the ice caps of our planet,...