#### In the Name of GOD

# MEMORANDUM OF UNDERSTANDING (M.O.U)

ON

## Educational, Research and Technological Cooperation

Between

#### Shiraz University of Arts, I. R. of Iran

And

## Institut Méditerranéen de Biodiversité et d'Ecologi, Aix-Marseille Université, French National Center for Scientific Research(CNRS)

And

## Institute of Plant Sciences, University of Regensburg

Recognizing the importance of academic, research and technological cooperation between universities and research centers for active engagement of academic members and researchers in the domain of science and technology and in order to expand the academic relationships, the Shiraz University of Arts And the Institut Méditerranéen de Biodiversité et d'Ecologie and French National Center for Scientific Research and Institute of Plant Sciences, University of Regensburg have accorded as follows:

Article 1: subject matter of the collaboration.

Paleoenvironmental studies in Persepolis Basin. This is a cooperation according between the abovementiond institutions to attempt reconstructing the vegetation dynamics, landscape and palaeoclimate of the Persepolis Basin since the end of the last glacial period at about 13,000 years ago. The Shiraz University of Arts has been investigating the archeology of the Persepolis Basin especially around the Persepolis in the framework of several joint international archeological missions including an extensive Iran-Italian missions. These missions have resulted in ample amount of information about the human presence in the basin. They have greatly contributed to the wealth of archeological information which have already been obtained from the basin since the 1970's.

The objective of this collaboration is to reconstruct the ENVIRONMENTAL CONTEXT in which the human communities have evolved in the basin since the Palaeolithic. It will try to produce high resolution palaeolithic and palaeovegetation data from the region to cross-correlate with archeologically and historically richest parts of the world.

Article 2: Partners contribution.

The IMBE and Regensburg Institue of Botany (RIB) have obtained an important Franco-German Fund to finance all laboratory analyses including radiocarbon datings, geochemical and geophysical measurements, palaeobotanical studies, sedimentological analyses etc related to their palaeoenvironmental project in the Persepolis Basin entitled "PALEO-PERSEPOLIS: The Persepolis Basin, a system model to investigate human-climate- ecosystem interactions during the Holocene" (codirected by Dr. Morteza Djamali and Prof. Dr. Peter Poschlod). While IMBE's is a pioneer research institute in palaeoenvironmental studies in Iran with numerous high-quality publications on the history of vegetation, climate and landscape in the Iranian plateau, the Regensburg Institute of Botany is specialized in the field of landscape ecology, palaeoecology and charcoal analysis and has conducted a number of studies to relate the historical ecology to modern ecological conditions in central Europe with an emphasis on the role of the man in shaping the landscape and vegetation. The Shiraz University of Arts will assist with logistic supports during the field for site selections and make a link between IMBE, RIB and the archeological community in the region.

Article3: Participating researchers.

Shiraz University of Arts: Dr. Alireza Askari Chaverdi.

IMBE: Morteza Djamali, Jacques-Louis de Beaulieu, Emmanuele Gandouin, Cyril Aubert, Coralie Santelli, Philippe Ponel,

Valérie Andrieu- Ponel.

RIPS: Peter Pschhold, Oliver Nelle, Silvia Balatti.

Article 4: Spreading of results, data property.

The results obtained from collaborated works will be published as joint publications. However, both partners will reserve the rights of using their own data in other publications in their research field.

This present memorandum shall remain valid for one year and may be renewed or terminated with in written notices to the other party.

1394/05/25 in Dated Articles, MOU is (solar year) corresponding to 16/08/2015 in the city of Shiraz, in 2 versions, in (Farsi, English) language. This

> Signature of the president of the Shiraz University of Arts

Shiraz, 16/08/15

Othe Ministry of Science

Research and Technology

Shiraz University of Arts

Signature of the representative of IMBE and French responsible of PALEOPERSEPOLIS project.

Signature of the vice-director of the lastitute of Plant Sciences of the University of Regensburg and German responsible of PALEOPERSEPOLIS project.