

A New Perspective on Human History from Old Indian Literature The Power of Language

Old Indo-Aryan language, commonly known as Sanskrit, is a descendent of Proto-Indo-European, from which also many European languages are derived. An intermediate stage is Proto-Indo-Iranian. The studies of Indo-Aryan and Indo-European provide the most important materials and methods for linguistics. Professor Goto is working on the origins of the Indian language culture, introducing a new wave into our Department of Indology and History of Indian Buddhism renowned for its tradition. His "I. Präsenksklasse" (Österreichische Akademie, 1987) and other leading activities were cited more than one thousand times in Etymologisches Wörterbuch des Altindoirischen by M. Mayrhofer. His life work is a grammar of Old-Indian verbs, one of the primary desiderata of the discipline in more than 130 years. Now, he is writing Morphology of Indic in Handbücher zur Sprach- und Kommunikationswissenschaft for Gruyter Publishing.

The first title of the new giant project "Verlag der Weltreligionen" (Germany) is a German translation of the Rigveda, the oldest collection of ritual poetry in India, which goes back to ca. 1200 BC, and which is one of the most important monuments of human history. Professor Goto translates, edits, and provides a commentary for it with Professor Witzel (Harvard University). The first volume of this new standard work in 80 years was published in September 2007, and has already obtained a great response.

He is also working on religious thought in Brahmanism, Buddhism, and Zoroastrian Avesta, and tries to elucidate with colleagues and students the theory of karman and samsara in their beginnings. Convinced of the necessity of popularizing the knowledge gained among specialists, he spoke and wrote in the past year on general surveys about old Indian rituals, Indian and European languages, and monotheism from the Indo-Iranian view.

In old Indian literature the thoughts and Weltanschauung at the time are condensed, providing basic materials for understanding the cultures of Indo-European peoples which were to expand ultimately to form a "global history." Professor Goto has cooperated also in the Indus-Project of the Research Institute for Humanity and Nature (Kyoto), endeavoring to reconsider the history of mankind as "not a clean or purified process", based on new archaeological findings in Europe and Asia.



At the press conference for the International Book Fair, Frankfurt, October 2007.

Graduate School of Arts and Letters
[Department of Indology and History of Indian Buddhism]

Toshifumi Goto, Professor
Born 1948, Dr.phil. (Indogermanistik, Erlangen). Assistant at the University of Erlangen, lecturer at the University of Freiburg, professor at Osaka University, guest professor at the University of Vienna, and since 1996 professor at Tohoku University. Beirat der Indogermanischen Gesellschaft, Mitglied des Münchener Sprachwissenschaftlichen Kreises.



Rig-Veda. Das heilige Wissen. Frankfurt 2007. 889pp.



A rock drawing from Ryland (Sweden). The Sun changes from a ship to a horse. On the right are Hesperus and Lucifer. A good counterpart illustrated the Asvins' myth in the Rigveda.



The sun-chariot from Trundholm, Denmark (from: H. Miller, Der geschmiedete Himmel, 2006), used to reconstruct Hesperus' myth in the Rigveda.

<http://www.sal.tohoku.ac.jp/indology/eng.htm>

Development of an Aluminum Alloy to Generate Hydrogen in Room-Temperature Water



Through the simple contact of room-temperature water with developed alloys generates hydrogen gas



Advantages
Low cost and high safety

Expected applications for batteries such as mobile phones, emergency generators, etc.

An Al alloy in water, generating hydrogen and floating

Kiyohito Ishida, Professor of Tohoku University Graduate School of Engineering, and Yoshikazu Takaku, research fellow (Ph.D.) at the Japan Science and Technology Agency (JST), et al., developed an aluminum alloy that generates hydrogen only with room-temperature water.

The research group has sought the method for hydrogen generation from inexpensive Alloys, by making full use of simulation with a computer aided phase diagram.

The newly developed Al alloy can be obtained through the same production process as that for conventional Al alloys; however, it has great advantages over the conventional production methods of hydrogen and in much more simple and inexpensive measures. Moreover, the new alloy has a unique feature; the proportional amounts of hydrogen, which are contained in the Al Alloy, are extractable in proportion to the content of Al. The new Al alloy can be produced anytime and anywhere through activation in different water conditions, including tap water. For this reason, the new alloy is expected to be applicable in many capacities such as portable batteries, emergency electric producing devices etc..

The research group has already applied a patent for the new Al alloy through JST and seeks collaborative research with companies which show interest in its practical application.

Professor Ishida has been honored with a number of awards, including a 2006 Commendation for Science and Technology by the Minister of Education, Culture, Sports, Science and Technology for Science and Technology, and has held many important positions including President of the Japan Institute of Metals.



Graduate School of Engineering
[Computational Microstructure Design]



Kiyohito Ishida
Professor

Born in 1946. Graduated from the Department of Materials Science, Faculty of Engineering, School of Engineering, Tohoku University in 1969. Finished the Ph.D. course in the Department of Materials Science, Graduate School of Engineering, Tohoku University 1974. Professor at the New Industry Creation Hatchery Center of Tohoku University in 1998. Since 2005, he has been a professor in the Department of Metallurgy, Materials Science, and Materials Processing, Graduate School of Engineering, Tohoku University.

<http://www.material.tohoku.ac.jp/~seigyolab.html>