

# Comprehensive Clarification of the Transition from Neanderthals to Modern Humans in the Dead Sea Rift Valley of West Asia

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## 【Outline of survey】

This project deals with the Neanderthals (200,000 ~ 40,000 BP), Proto-Cro-Magnons (100,000 ~ 40,000 BP), and Cro-Magnons (40,000 BP~) who formerly inhabited the Dead Sea Rift Valley of West Asia, a vital region in the dispute over modern human origins, and has as its goals the investigation of the still controversial relationships among these three groups and the construction of a novel and concrete model for the origin of modern humans, (1) by the comprehensive, multilateral, and cutting-edge analysis of the accumulated archaeological and fossil hominid materials from this region, and (2) by the examination of Dederiyeh Cave where many Neanderthal remains have already been discovered.

This project has Dederiyeh Cave at its core, where excavations conducted during 15 seasons have produced many scientifically important data. Through the compilation of the accumulated scientific data, and comparative research on new data from Dederiyeh Cave and related materials from other sites, we investigate what happened in West Asia 40,000 years ago, argue the fate of Neanderthal society, and offer a new perspective on the arguments surrounding modern human origins.

## 【Expected results】

We establish a method/technique for the virtual precision restoration of the cranium/brain of fossil hominids. Toward the clarification of the genealogic relations among Neanderthals, Proto-Cro-Magnons, and Cro-Magnons, we apply this method/technique to these three groups to obtain precision restored crania and virtual restored brains, which will be used to verify the organic relations among behavior, cranium, and brain. In particular, we verify the relations between left-right asymmetry of cranium/brain and the products of behavior, and aim for new findings on the historical background to the acquisition of language faculty.

## 【References by the principal researcher】

T. Akazawa, S. Muhesen, Y. Dodo, O. Kondo, and Y. Mizoguchi 1995. Neanderthal Infant Burial. *Nature* 377: 585-586

T. Akazawa and S. Muhesen (eds.)2003. Neanderthal Burials: Excavationbs of the Dederiyeh Cave, Afrin, Syria. Auckland: KW Publications Ltd.

【Term of project】 FY 2005 - 2009

【Budget allocation】 79,500,000 yen

【Homepage address】 <http://www.kochi-tech.ac.jp/akazawa/index.html>