# Living in Sangiran

Mika R. Puspaningrum[1, 2], Christine Hertler[2], Angela A. Bruch[2], Iwan P. Anwar[1], Ericson Hölzchen[3], Susanne Krüger[2], Agus T. Hascaryo[4] & Jan-Olaf Reschke[2]

[1] Palaeontology and Quaternary Geology Research Group, Faculty of Earth Sciences and Technology, Inst. Teknologi Bandung, Jalan Ganesha no 10 Bandung 40132, Indonesia
[2] The Role of Culture in Early Expansions of Humans (ROCEEH), Heidelberg Academy of Sciences and Humanities, Senckenberganlage 25, 60325 Frankfurt am Main, Germany
[3] Business Informatics I, Trier University, Behringstraße 21, 54296 Trier, Germany
[4] Archaeology Dept., Gajah Mada Univ., Bulaksumur, Yogyakarta, Indonesia 55281

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Among many fossil-bearing localities in Java, Indonesia, Sangiran is the best-studied locality for hominid fossils. The stratigraphic sections in Sangiran hold a record of hominin occupation since at least 1.3 million years ago. The fossil and archaeological records in Sangiran includes hominid fossils, vertebrate and invertebrate fossils, pollen and other microfossils as well as artifacts throughout the stratigraphic section. Therefore, this site represents a unique window to study the early life of humans in Indonesia. As a follow up of fossil findings, paleoenvironmental aspects related to hominin occupation also have been long-studied in Sangiran. However, each study only focused on a certain proxies to reconstruct some environmental aspects in a limited area, covering hundreds of thousand years of interval. As a result, these studies did not give a comprehensive environmental background where hominin lived. Therefore, a reconstruction of a wider span of living area inhabited and exploited by a group (or more) of hominins in a scale of their lifetime is needed as a background to understand their behavior and interaction through modeling and simulation.

In this study we focused to reconstruct the topography, hydrology, climatic/seasonal pattern and vegetation cover of Eastern part of Java, including Sangiran, at one million years ago. The result and implication will be discussed during the presentation. This reconstruction will later be used as a background to model and simulate hominin behavior and interaction with their environment by using agent based modelling (ABM).

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**ORCID®**

Mika R. Puspaningrum https://orcid.org/0000-0002-5486-4213
Christine Hertler https://orcid.org/0000-0002-8252-9674
Angela A. Bruch https://orcid.org/0000-0002-4629-1507
Iwan P. Anwar https://orcid.org/0000-0003-4279-5051
Ericson Hölzchen https://orcid.org/0000-0002-1036-4495
Susanne Krüger https://orcid.org/0000-0002-0539-1894

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