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研究課題名（和文）Ethnography of Archaeological Excavation, Laboratory Analysis, and Site Development

研究課題名（英文）Ethnography of Archaeological Excavation, Laboratory Analysis, and Site Development

研究代表者

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研究成果の概要（和文）：この研究では、いかに多角的に考古学的知見を浮き彫りにするかについて検討した。縄文時代の竪穴式住居がどのように復元されるかに焦点を当て、発掘調査から、実験室での分析、建築設計、建設までの流れを追った。文化人類学的な要素は、遺跡の特徴から関連情報を「見る」方法を学ぶプロセスに焦点を当てた。諏訪原遺跡では、2つの竪穴住居跡を中心に発掘調査を行い、当時の建物の素材や構造に関する情報を探った。 フィールドワークでは、日本各地の遺跡における先史時代や古代時代の過去の復元例を調査した。北米では、先住民族の伝統建築の復元を調査した。実験考古学では、石器製作、木の伐採と材料採取、竪穴住居の組み立てなどを行った。

研究成果の学術的意義や社会的意義
The aim of this project is to build a Jomon pit house to critically investigate the practices of archaeological knowledge-production in Japan. Ethnographies of archaeology seek to understand the interaction between archeology’s scientific and social agendas.

研究成果の概要（英文）：This ethnographic project examined the creation of archaeological knowledge in Japan. It focused on how Jomon pit houses are reconstructed, following the flow from excavation, laboratory analysis, architectural design, to on-site construction. The ethnographic component focused on the processes by which one learns how to "see" relevant information in site features, and how they acquire the skills to make remains accessible and meaningful. Excavations at Suwahara site centered on two pit dwelling features, seeking information on the materials and structure of the original buildings. Comparative fieldwork looked at previous examples of prehistoric and ancient period reconstructions at sites throughout Japan. Fieldwork in North America examined Native American reconstructed traditional architecture. Experimental archaeology included stone tool making workshops, felling trees and collection of materials, and assembling a pit dwelling.

研究分野：cultural anthropology

キーワード：cultural anthropology　archaeology　architecture

１．研究開始当初の背景

This multi-sited ethnography has attempted to detail the and complex interactions that go into the planning, excavation, laboratory work, building design, and on-site construction of prehistoric architecture. Worldwide, archaeology is increasingly used in nation-building projects, heritage tourism, and ethnic identity struggles. As such, the people involved in archaeology struggle with the demands to collect “objective data about the past” alongside various calls for it to be used for “social and political aims.” To understand these conflicts, this project involves archaeological excavation, laboratory analysis, and comparative studies, all of which are directed toward building a Jomon pit dwelling. Reconstructed prehistoric buildings are among the most deceptive representations of the past, as complex processes of their design and construction are concealed in their final forms.

２．研究の目的

The aim of this project is to build a Jomon pit house to critically investigate the practices of archaeological knowledge-production in Japan. Ethnographies of archaeology seek to understand the interaction between archeology’s scientific and social agendas. This ethnography has furthered such goals by analyzing the social and scientific archaeological practices of a reconstruction project from inception to completion.

This project contributes to the field of design anthropology, an emerging genre of research that emphasizes proactive collaboration, intervention, and co-creation with the people under study. The aim has been to show how design, or “the building of the world,” is not only done by specialists but is created through the messy actions of diverse people, who often employ ad hoc practices and on-the-spot foresight. With the rebuilding of Jomon pithouses, the typical flow begins with 1) excavation by archaeologists, followed by 2) design by architects, and ends with 3) construction by contractors. Each of these phases is built upon information garnered from the previous phase. Because each task is overseen by its own experts, the result are fragmented practices. Usually there is no feedback where the results, concerns, or questions from the latter phases might be used to illuminate or encourage changes in earlier ones.

３．研究の方法

Research activities have involved: 1) summer field-school excavations at Suwahara site (Hokuto City, Yamanashi), 2) processing, cataloging, and analysis of remains in university laboratories and observations of this work at municipal-run archaeology centers, 3) interviews with archaeology site managers about the history and process of designing pit dwelling reconstructions, 4) documenting prehistoric architectural reconstructions at sites in Japan and overseas, 5) participation in experimental archaeology workshops, including the rebuilding of Jomon pithouses, at Umenoki site (Hokuto City, Yamanashi).

４．研究成果

Excavation: Summer field-school excavations are central to this project. Suwahara site is a large Middle Jomon circular settlement located in Hokuto City, Yamanashi Prefecture. Our excavation area is limited to a rectangular area approximately 8 by 14 meters, and digging has focused on an area with two overlapping pit dwellings. The survey methodology includes taking x-y-z measurements of all potsherds and other remains as a way to create a three-dimensional model of their location in the site. Combining this with relative dating of the pottery typology, we can garner a comprehensive picture of the patterns and time frame of their deposition. Our hope is to find a layer of pottery that is "out of place" (older than the remains below and above it) which might show that the roof of the original pithouse was covered with the dirt from when the pit was initially dug. Even though measurements of over two thousand potsherds have been taken, the results of this analysis await the completion of the excavation and typological analysis remains.

Each excavation season has been detailed in yearly research reports. The 2019 season report outlined some of the socio-political hurdles that restrict academic excavations in Japan. The ethnographic analysis examined the overt practices involved in "seeing" archaeological features (Ertl and Yoshida 2020). Pits and postholes are identified by differences in soil color, where they form circles of dirt darker from the surroundings. The report explained that soil variations are not obvious, even to experienced archaeologists, and require an orchestration of movements, tool usage, and communication with others to come into view. With a hiatus in 2020, the 2021 field season identified the first pit dwelling (code PJ1) and a trench was dug bisecting it. Much of this year's report examined the limitations of standard excavation practices in Japan for garnering information that may be useful for reconstructing prehistoric architecture. It outlined our objective to encourage communication and feedback throughout the different phases of activities (excavation, design, construction) involved in rebuilding prehistoric buildings (Ertl, Yoshida, and Ikari 2022). The 2022 excavation season furthered the digging of PJ1 but also revealed a previously unnoticed pit dwelling feature (coded PJ5) that was directly overlapping. This season greatly expanded the participants, and the ethnographic focus was trained on the subject of learning and expertise in archaeology. Interviews, observations, and diaries were collected from students and videos documentation of several different kinds of archaeological activities were collected for future review. PJ1 and PJ5 were not fully excavated by the end of the 2022 field season.

Laboratory Analysis: Following, the artifacts and remains excavated from Suwahara have been processed by faculty and students in university laboratories (Keio, Morioka, and Chuo Universities). For this study, we are observing the laboratory work as it is central for transforming three-dimensional artifacts into transposable data. It is also one of the key locations in which novices learn what kinds of relevant information can be pulled out of broken potsherds. The basic processing work that has been observed includes washing pottery, writing codes on them with acrylic paint, measuring and weighing, identifying type, repairing broken pieces, and creating databases. Ethnographic data has been collected on the lab work, including video recordings, interviews, and diaries. Fieldwork has also been conducted at the Hokuto City Archaeology Center. The 2019 Suwahara report details some of the data, with an episode on how unique artifacts, recognized for their objective qualities and shared experiences pulling them out of the ground, are condensed into a code that makes them similar to all the other potsherds (Ertl and Yoshida 2020).

Design: Interviews with site managers were conducted at Togariishi-Yosukeone site (Chino City, Nagano), Idojiri site (Fujimi Town, Nagano), and Umenoki site (Hokuto City, Yamanashi) to learn about the history and decisions surrounding the design of the pit dwellings at each site. These sites were selected due to their close proximity and the similarity of remains at these Middle Jomon period settlements. The results detailed clear connections between the shape of the pit dwellings and the idiosyncrasies of the designers and the political-economic contexts at the time they were first built. The pit dwelling at Togariishi-Yosukeone was the first prehistoric reconstruction of the postwar era and key for bringing public attention to the site and prehistoric archaeology as a whole. It was designed by modernist architect Horiguchi Sutemi, who connected traditional forms of Japanese architecture to modernist design principles. The design and construction at Idojiri were led by local residents, who purposively engaged with archaeology as a resistance to the centralizing forces in the 1950s in Japan. Lastly, Umenoki uniquely drew from research in ethnology and experimental archaeology and mirrored their pit dwellings on Native American earth houses (Ertl and Yoshida 2021a; 2021b).

Survey of Prehistoric Buildings: To understand the practice of prehistoric architectural reconstruction, research has included building a database with information on these buildings and where they are located. A comprehensive survey was completed and included 984 buildings at 340 different locations (Ertl 2021). This survey found that there has been a lack of documentation on these buildings and that this impacts the public's understanding of archaeology as a whole, deeming sites with reconstructions as more significant than those without. The data collected includes the names of sites, archaeological period represented, dates of construction, types of buildings, locations, and name of designers. Follow-up fieldwork has involved visits to sites to collect information and photograph the current conditions of these buildings. Research in Western Honshu has found that many sites have been practically abandoned, with buildings are on the verge of collapse (Ertl and Yoshida 2021c).

５．主な発表論文等

〔雑誌論文〕　計10件（うち査読付論文　4件／うち国際共著　0件／うちオープンアクセス　10件）

１．著者名 John Ertl, Yasuyuki Yoshida	４．巻 1
２．論文標題 Approaches to Experimental Pit House Reconstructions in the Japanese Central Highlands: Architectural History, Community Archaeology and Ethnology	５．発行年 2022年
３．雑誌名 EXARC Journal Digest 2022	６．最初と最後の頁 36-41
掲載論文のDOI（デジタルオブジェクト識別子） なし	査読の有無 有
オープンアクセス オープンアクセスとしている（また、その予定である）	国際共著 －

１．著者名 John Ertl, Yasuyuki Yoshida	４．巻 33号
２．論文標題 Survey of the Present Conditions of Prehistoric Architectural Reconstructions in Hokuriku and Tokai Regions in Japan	５．発行年 2023年
３．雑誌名 慶應義塾大学日吉紀要．社会科学	６．最初と最後の頁 21-62
掲載論文のDOI（デジタルオブジェクト識別子） なし	査読の有無 無
オープンアクセス オープンアクセスとしている（また、その予定である）	国際共著 －

１．著者名 John Ertl, Yasuyuki Yoshida, Ikari Yoko	４．巻 37
２．論文標題 Archaeological craftwork 2021 : ethnography of archaeology at Suwahara site, Hokuto city, Yamanashi 2021	５．発行年 2022年
３．雑誌名 慶應義塾大学日吉紀要．人文科学	６．最初と最後の頁 1-35
掲載論文のDOI（デジタルオブジェクト識別子） なし	査読の有無 無
オープンアクセス オープンアクセスとしている（また、その予定である）	国際共著 －

１．著者名 John Ertl, Yoshida Yasuyuki	４．巻 36号
２．論文標題 Archaeological Craftwork: Ethnography of Archaeology at Suwahara Site, Hokuto City, Yamanashi 2020	５．発行年 2021年
３．雑誌名 慶應義塾大学日吉紀要 人文科学	６．最初と最後の頁 37-76
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1．著者名 John Ertl, Yoshida Yasuyuki	4．巻 2021/4
2．論文標題 Approaches to Experimental Pit Dwelling Reconstructions in the Japanese Central Highlands: Architectural History, Community Archaeology, and Ethnology	5．発行年 2021年
3．雑誌名 EXARC Journal	6．最初と最後の頁 1-13
掲載論文のDOI（デジタルオブジェクト識別子） なし	査読の有無 有
オープンアクセス オープンアクセスとしている（また、その予定である）	国際共著 －

1．著者名 Ertl, John, Yoshida Yasuyuki	4．巻 32号
2．論文標題 Survey of the Present Conditions of Prehistoric Architectural Reconstructions in Kansai, Chugoku, and Shikoku Regions in Japan	5．発行年 2022年
3．雑誌名 慶應義塾大学日吉紀要 社会科学	6．最初と最後の頁 1-50
掲載論文のDOI（デジタルオブジェクト識別子） なし	査読の有無 無
オープンアクセス オープンアクセスとしている（また、その予定である）	国際共著 －

1．著者名 Nancy Ji, John Ertl	4．巻 37
2．論文標題 Between Archaeology and Architecture: The Jomon in the works of Fujimori Terunobu	5．発行年 2021年
3．雑誌名 PROCEEDINGS OF THE SOCIETY OF ARCHITECTURAL HISTORIANS AUSTRALIA AND NEW ZEALAND (SAHANZ)	6．最初と最後の頁 571-583
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1．著者名 吉田泰幸 and John Ertl	4．巻 32
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3．雑誌名 比較文化研究	6．最初と最後の頁 17-30
掲載論文のDOI（デジタルオブジェクト識別子） なし	査読の有無 無
オープンアクセス オープンアクセスとしている（また、その予定である）	国際共著 －

１．著者名 Ertl, John, Yoshida Yasuyuki	４．巻 35
２．論文標題 Archaeological craftwork : ethnography of archaeology at Suwahara site, Hokuto city, Yamanashi 2019	５．発行年 2020年
３．雑誌名 慶應義塾大学日吉紀要．人文科学	６．最初と最後の頁 137-170
掲載論文のDOI（デジタルオブジェクト識別子） なし	査読の有無 無
オープンアクセス オープンアクセスとしている（また、その予定である）	国際共著 －

１．著者名 Ertl, John	４．巻 8
２．論文標題 Survey of Prehistoric and Ancient Period Architectural Reconstructions in Japan	５．発行年 2021年
３．雑誌名 Japanese Journal of Archaeology	６．最初と最後の頁 1-44
掲載論文のDOI（デジタルオブジェクト識別子） なし	査読の有無 有
オープンアクセス オープンアクセスとしている（また、その予定である）	国際共著 －

〔学会発表〕　計3件（うち招待講演　0件／うち国際学会　3件）

１．発表者名 Nancy Ji, John Ertl
２．発表標題 Between Archaeology and Architecture: The Jomon in the works of Fujimori Terunobu
３．学会等名 37th Annual Conference of the Society of Architectural Historians Australia and New Zealand（国際学会）
４．発表年 2020年

１．発表者名 John Ertl, Yoshida Yasuyuki
２．発表標題 Approaches to Experimental Pit Dwelling Reconstructions in the Japanese Central Highlands: Architectural History, Community Archaeology, and Ethnology
３．学会等名 EAC 12 Experimental Archaeology Conference（国際学会）
４．発表年 2021年

１．発表者名
Ertl, John

２．発表標題
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３．学会等名
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４．発表年
2019年

〔図書〕　計0件

〔産業財産権〕

〔その他〕

Experimental Pit Dwelling Reconstructions (EAC 12)
https://www.youtube.com/watch?v=JzW86eSaTw8
Database of Reconstructed Prehistoric Buildings
https://r.bloxi.jp/

６．研究組織

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７．科研費を使用して開催した国際研究集会

〔国際研究集会〕　計0件

８．本研究に関連して実施した国際共同研究の実施状況

共同研究相手国	相手方研究機関