

IOC Engaru 2023 Presentation Program

Oral Presentations

(PRP: Pre-Recorded Presentation)

Monday, 3 July 2023

Keynote speech

8:50 am – 9:20 am: Overview and prospect of obsidian provenance studies in Japan

Yoshimitsu Suda

Session 1: Formation of obsidian

Conveners: Keiji Wada and Kyohei Sano

Chairperson: Kuniyuki Furukawa (S1-1 – S1-2)

9:30 am– S1-1: Geology and petrology of Shirataki obsidian-rhyolite monogenetic volcano field, northern Hokkaido, Japan: Formation process of the obsidian-rhyolite magmas

Keiji Wada and Kyohei Sano

9:50 am– S1-2: The critical cooling rate required to form glassy obsidian: Application of time-temperature-transformation (TTT) diagram for cooling-induced crystallization

Kyohei Sano and Atsushi Toramaru

Break 10:10 am – 10:30 am

Session 2: Obsidian sources and their characterization

Conveners: Keiji Wada and Kyohei Sano

Chairperson: Kyohei Sano (S2-1 – S2-4)

10:30 am– S2-1: Geochemical characterization of obsidian from the island of Mindanao, Philippines

Leee Anthony Moreno Neri and Jacqueline Roanne G. Chua

10:50 am– S2-2: Source provenance of obsidian artifacts from the Upper Paleolithic site of Dadong, Helong city

Wugan Luo, Hailong Zhao, and Michael D. Glascock

11:10 am– S2-3: Provenance of the Carpathian obsidians: Multidisciplinary revision

Milan Kohút, Yoshimitsu Suda, Adrián Biroň, František Hroudá, Tomáš Mikuš, Stanislava Milovská, and Juraj Šurka

11:30 am– S2-4 (PRP): Carpathian obsidians reconsidered

Clive Bonsall and Milan Kohút

Lunch 11:50 am – 1:10 pm

Session 3: Analytical methods and databases of obsidian data

Convener: Yoshimitsu Suda

Chairperson: Milan Kohút (S3-1 – S3-6)

1:10 pm– S3-1: Geochemical characterisation of obsidian artifacts from El Tigre Island, Gulf of Fonseca, Honduras

Dennis Braekmans and Marie Kolbenstetter

1:30 pm– S3-2: Concentration-based XRF provenance analysis of Japanese obsidian: Utility test of factory-installed obsidian calibration mounted in a portable XRF (Bruker Tracer 5i)

Kazutaka Shimada and Yoshimitsu Suda

1:50 pm– S3-3: Effect of gamma- and electron-irradiation on the semitransparent gray color obsidian

Natella R. Aghamalyan, I. A. Gambaryan, E. A. Kafadaryan, M. N. Nersisyan, H. T. Gyulasaryan, G. N. Chilingaryan, and V. G. Khachatryan

2:10 pm– S3-4 (PRP): Non-destructive dating of obsidian by infrared transmission spectroscopy

Christopher M. Stevenson, Alexander Rogers, and Thegn N. Ladefoged

2:30 pm– S3-5: Calculating hydration rates for Pacific Northwest obsidian sources from temporally diagnostic archaeological material

Jason Alexander Cowan

2:50 pm– S3-6: Why does thermally-altered obsidian develop irregular hydration rims? a diagnosis using SEM-EDS

Yuichi Nakazawa and Akiko Matsumoto

Break 3:10 pm – 3:30 pm

Session 4: Cultural aspects of obsidian during different archaeological periods

Convener: Kazutaka Shimada

Chairperson: Yoshitaka Kanomata (S4-1 – S4-3)

3:30 pm– S4-1: Spatiotemporal patterns of obsidian exploitation in the later prehistory of eastern Kamchatka (Russian Far East)

Yaroslav Kuzmin, Michael Glascock, Sergey Chaukin, Varvara Chaukina, and Nikolai Krenke

3:50 pm– S4-2: Obsidian procurement and reduction strategy of the Sakkotsu type microblade core assemblages on Hokkaido, Japan

Noriyoshi Oda and Masami Izuho

4:10 pm– S4-3: Behavioral differences between terminal UP and incipient Jomon foragers in Hokkaido

Daigo Natsuki, Hiroyuki Sato, and Masami Izuho

4:30–4:40 pm: General discussion

Tuesday, 4 July 2023

Session 4: Cultural aspects of obsidian during different archaeological periods

Convener: Kazutaka Shimada

Chairpersons: Atsushi Uemine (S4-4 – S4-8); Kyle P. Freund (S4-9 – S4-13); Theodora Moutsiou (S4-14 – S4-18); Yaroslav Kuzmin Y.V. (S4-19 – S4-22)

8:30 am– S4-4: Obsidian transportation across the Tsugaru Strait in the Upper Paleolithic and the Jomon period

Yosuke Aoki

8:50 am– S4-5: Archaeological excavations of Hoshikuso Jomon obsidian mine site: Obsidian extraction and its changes in the Japanese Archipelago

Sachie Otake

9:10 am– S4-6 (PRP): Obsidian and diversity of lithic assemblages in the Late Paleolithic of Korea

Chuntaek Seong, Younbin Sung, and Jeonghun Choi

9:30 am– S4-7: A report of 2010 excavation of the Helongdadong site, Jilin Province

Ting Xu

9:50 am– S4-8: Post-glacial obsidian transportation in Eastern Indonesia

Christian Reepmeyer

Break 10:10 am – 10:30 am

10:30 am– S4-9: First Mousterian obsidian industry in the Northern Caucasus: New data from layer 6B at Saradj-Chuko Grotto

Ekaterina Doronicheva

10:50 am– S4-10: Patterns of obsidian procurement in the Middle Palaeolithic of western Azerbaijan (Trans-Caucasus)

Azad A. Zeynalov, Abbas Q. Seyidov, M.D. Glascock, R.A. Fataliyev, and Y.V. Kuzmin

11:10 am– S4-11 (PRP): River sources and non-local obsidian: interactions between prehistoric communities and raw materials in the Near East

Stuart Campbell, Elizabeth Healey, Osamu Maeda, Makoto Arimura, Boris Gasparyan, and Artur Petrosyan

11:30 am– S4-12: The obsidian evidence for the social organisation of hunter-gatherers in the Eastern Mediterranean islandscape

Theodora Moutsiou, Vasiliki Kassianidou, Stella Demesticha, Miltiadis Polidorou, Athos Agapiou, Zomenia Zomeni, Corey Bradshaw, and Christian Reepmeyer

11:50 pm– S4-13 (PRP): Reconstructing early Bronze Age interaction and practice in the insular Aegean: Integrated obsidian characterization studies from Dhaskalio and Kastri (Cyclades), Mochlos (Crete), and Poliochne (Northern Aegean)

Tristan Carter, Rose Moir, Vassilis Kilikoglou, Marisa Marthari, and Georgia Tampakopoulou

Lunch 12:10 pm – 1:30 pm

1:30 pm– S4-14: The use of obsidian of the Paleolithic period in North China

Shinji Kato

1:50 pm– S4-15: Importance of obsidian sources in Slovakia from Palaeolithic to Eneolithic period: Preliminary results of research project

Ivan Cheben, Michal Cheben, and Adrián Nemergut

2:10 pm– S4-16: Technological analysis and geochemical characterization of obsidian artefacts from the Neolithic sites from Poland: An overview

Dagmara H. Werra, Marcin Szeliga, Richard E. Hughes, and Rafał Siuda

2:30 pm– S4-17 (PRP): The obsidian blade from Csongrád (South-Eastern Hungary): A unique piece from the Copper Age

András Markó, Zsolt Kasztovszky, and Katalin T. Biró

2:50 pm– S4-18 (PRP): Detecting social processes related to obsidian during the 7th and the 3rd Millennium in the Carpathian Basin

Kata Szilágyi

Break 3:10 pm – 3:30 pm

3:30 pm– S4-19 (PRP): Prehistoric obsidian use in the Northern Adriatic: Italy, Austria, Slovenia, and Croatia

Robert H. Tykot

3:50 pm– S4-20: Obsidian circulation and prehistoric mobility in the Afar, Ethiopia: From the Late Stone Age to the advent of herding (11-3 ka)

Lamya Khalidi, Gourguen Davtian, Marzia Gabriele, Anna Gioncada, Bernard Gratuze, Joséphine Lesur, Clément Ménard, Carlo Mogni, Carolina Pagli, Olivier Scancarello, and Blade Engda Redae

4:10 pm– S4-21: Reflecting on obsidian conveyance zones and their utility for studying hunter-gatherer lifeways of the U.S. Great Basin

Kyle P. Freund and Daron Duke

4:30 pm– S4-22 (PRP): Obsidian hydration in northwestern Patagonia: Two case studies

Fernando Franchetti, Christopher Stevenson, Gustavo Neme, Adolfo Gil, and Laura Salgán

4:50–5:00 pm: General discussion

Public lecture

6:00 pm – 7:30 pm: Rare, shiny and deadly: why is obsidian so special?

Robin Torrence (Translator: Kazutaka Shimada)

Thursday, 6 July 2023

Session 5: Lithic technology and traceological studies

Convener: Satoru Yamada

Chairpersons: Yuichi Nakazawa (S5-1 – S5-5); Jun Takakura (S5-6 – S5-10); Wugan Luo (S5-11 – S5-15)

8:30 am– S5-1: Obsidian lithic artefacts from the Nishitomi site and their implications for the behaviours of microblade-making foragers in the late Upper Palaeolithic of southwestern Hokkaido

Jun Takakura, Kenji Suzuki, Shino Yabushita, Shuzou Muramoto, Fumito Akai, Yuichi Nakazawa, Masaki Naganuma, Yasushi Terasaki, Yorinao Shitaoka, and Tsutomu Soda

8:50 am– S5-2: Lithic use-wear analysis of Togeshita type microcores

Katsunori Takase

9:10 am– S5-3: Diversity of blade technique at the Shirataki sites: Perspectives from lithic refitted materials

Yasuo Naoe, Hiroyuki Suzuki, and Naofumi Sakamoto

9:30 am– S5-4: An overview of the Shirataki sites at an obsidian source in Hokkaido, Japan

Hiroyuki Suzuki

9:50 am– S5-5: An examination of the obsidian biface reduction from the microblade assemblage of the Ishikari low land, Hokkaido, northern Japan.

Fumito Akai

Break 10:10 am – 10:30 am

10:30 am– S5-6 (PRP): Common habitus of Oshorokko and Tougeshita methods: On the basis of scar pattern analysis and use-wear analysis

Ulanov Aleksandr

10:50 am– S5-7: Technical and functional relationship between Hirosato-type microblade core and burin in northern Japan

Yoshitaka Kanomata

11:10 am– S5-8: Nexus of biface production and characteristic of gray obsidian at central Japan

Atsushi Uemine

11:30 am– S5-9: The occurrence and variation of the microblade technology in Nihewan Basin, North China

Huijie Mei

11:50 pm– S5-10: Human adaptations during MIS 2: Evidence from microblade industries of northeast China

Jian-Ping Yue, Shi-Xia Yang, and You-Qian Li

Lunch 12:10 pm – 1:50 pm

1:50 pm– S5-11(PRP): Regional interactions on the Anatolian Plateau in the Early Chalcolithic through the techno-functional study of the obsidian toolkit

Alice Vinet

2:10 pm–5-12: Long-distance circulation of obsidian in Late Pleistocene Central Alaska

Yan Axel Gomez Coutouly, Jeff Rasic, and Joshua D. Reuther

2:30 pm– S5-13 (PRP): Obsidian jewelry from Teuchitlan tradition in West Mexico: An unknown technology in Mesoamerica

Rodrigo Esparza López

2:50 pm– S5-14 (PRP): Production and use of green obsidian central masses at Batchelor, Magallanes region in Chile

Constanza Arecheta Baratelli and Consuelo Huidobro

3:10 pm– S5-15 (PRP): Working with obsidian and bone: Toolkits and techniques in the Patagonian seas during the middle Holocene

Consuelo Huidobro, Josefina Macari, and Victoria Soto

Break 3:30 pm – 3:40 pm

3:40–4:00 pm: General discussion

Poster Presentations

Core time: Monday, 3 July 2023, 5:00 pm – 7:00 pm

Convener: Jun Hashizume

*Nominated Posters for the SAS presents: the IOC Student Poster Presentation Award

Session 1: Formation of obsidian

P-1: Origin of obsidian pyroclasts in the Holocene Kawago-daira volcano, Japan

Kuniyuki Furukawa, Hiroshi Oka, Motohiro Tsuboi, Tatsuo Kanamaru, and Koji Uno

P-2: Carpathian obsidialite: Obsidian and electrochemistry

Baráz Csaba

Session 2: Obsidian sources and their characterization

P-3: Where is the source? In the search of unknown primary obsidian locale in the northern Caucasus

Yaroslav Kuzmin Y.V., Sergey Kulakov, Michael Glascock, Sergei Budnitsky, and Andrei Grebennikov

P-4: Bimodal sources of prehistoric obsidian artifacts in Sinamri site, South Korea: Mineralogical and geochemical evidences

Yong-Joo Jwa and Seonbok Yi

Session 3 (poster): Analytical methods and databases of obsidian data

P-5: Obsidian exploitation in Sosruko rockshelter, North-central Caucasus: First results from pXRF

Ekaterina Doronicheva, Liubov Golovanova, and Vladimir Doronichev

P-6: A catalogue of Japanese obsidians

Takanori Sakashita, Masaki Kurihara, and Michinori Oya

P-7: Identification methods of obsidian provenance in northwestern Kyushu and Oki-Dogo areas

Naoko Iioka and Atsushi Kamei

Session 4: Cultural aspects of obsidian during different archaeological periods

*P-8: Occurrence of "Gray obsidian" and the prehistoric utilization

Saki Murase

P-9: Environmental changes and obsidian utilization at the Ofurukawa rock shelter site, Nagasaki, Japan.

Yuzo Yanagita, Hiroshi Kawamichi, Masaki Katata, and Akihisa Nakahara

P-10: «Museum imports»: An obsidian assemblage from Shikotan Island in the collection of HomeŃ Palace and Park Ensemble (Belarus)

Aliaksandr Vashanau and Dagmara H. Werra

Session 5: Lithic technology and traceological studies

P-11: A pilot study to understand the qualitative and quantitative feature of microwear polish on experimental obsidian chipped tools

Akira Iwase

P-12: Are they heat treated? Heat fractured obsidian in the archaeological record

Takashi Tsutsumi and Yuichi Nakazawa

P-13: How to hold a microblade core?: Technological analysis of obsidian microblade assemblages in northwestern Kyushu from the end of the Upper Paleolithic through Incipient Jomon Periods based on the concept of *chaînes opératoires*

Masayoshi Oba

P-14: The role of adaptation strategy in the early microblade technology in the Korean Peninsula: A focus on Hantan River basin

Kaoru Otani and Masami Izuhō

P-15: The use of obsidian by Neolithic communities in the light of the use-wear analysis: A few observations from Poland

Dagmara H. Werra, Katarzyna Pyżewicz, and Jolanta Malecka-Kukawka

*P-16: Use-wear analysis of obsidian artifacts from the site in Changbai Mountain area
Han Wang and Ting Xu

*P-17: Characterization of use-wear traces from obsidian hafted scrapers: experimental
hide-working for Southern Patagonia contexts
Victoria Soto González, Consuelo Huidobro Marín, and Josefina Macari Correa

**Session 6: Regional development in relation to geological heritage and archaeological
obsidian**

P-18: Use of obsidian resources for education and tourism in Shirataki geopark, Japan
Yoshifumi Matsumura and Naoto Seshimo

P-19: Educational activity using local resources of volcanoes and obsidian in Goto Islands
geopark, western Japan
Tomohiro Takaba, Masaru Yasunaga, and Kentaro Ideguchi

P-20: Jadeite from Itoigawa, one of the symbols of Niigata Prefecture, North Central Japan
Jun Hashizume and Tetsuya Yamamoto