

Conference Report
9th International Conference on the
PPN Chipped and Ground Stone Industries of the Near East (PPN9)
University of Tokyo, 12th -16th of November, 2019

Hans Georg K. Gebel

More than 100 participants (Fig. 1) attended the ninth International Conference on the PPN Chipped and Ground Stone Industries of the Near East (PPN9) at the University of Tokyo from 12-19 November 2019. The meeting was hosted by Yoshiro Nishiaki of Tokyo University, assisted by Masashi Abe (Tokyo National Research Institute for Cultural Properties), Chie Akashi (The University Museum, University of Tokyo), Makoto Arimura (Tokai University), Sumio Fujii (Kanazawa University), Seiji Kadowaki (Nagoya University), Osamu Maeda (University of Tsukuba), and Takahiro Odaka (The University Museum, University of Tokyo).

While welcoming new results of lithic studies and theoretical considerations from Levantine areas in their invitation letter, the organisers particularly encouraged contributions on the Neolithization of the Zagros and Central Asia, aiming to support the PPN8 trend to increase research from regions beyond the Levant. This “trend undoubtedly contributes in turn to Neolithic research in the Levant”, and “permits the interpretation of the Neolithic of the Near East from a more balanced perspective.” In addition, contributions were specifically invited on the Neolithization Processes in the Fertile Crescent and Beyond, as well as on the Introduction and Development of Pressure Techniques in the Neolithic.

Despite the distant location of the conference, the number of participants was high due in no small part to the attractiveness of Tokyo. However, the PPN9 participant number may say little about an increasing number of PPN stone technology specialists: Because the organisers opened the meeting this time for non-lithic topics, approximately 25% of the 62 lectures and 16 poster presentations (Fig. 4) were substantially or exclusively devoted to non-lithic topics. While it is always highly interesting and necessary to have recent

news from excavations or share new ideas on the Pre-Pottery Neolithic, this at least would demand an open discussion to where we go from here. Is it possible that non-lithic topics were invited to balance an expected reduced registration for the conference, due to the long distance for most participants from Tokyo, and the feature not stands for a shift of the conferences’ policies?

There certainly is a back-to-the-roots faction among us whose aim is to concentrate only on the technological, chronological, and regional complexities of stone technologies. While this is justified we should not forget that stone technologies are embedded in and connected to larger socio-economic and cognitive systems of a site/ of cultures, requiring at least a minimum of contextual evaluation for lithic industries, including meta-theoretical levels of interpretation. While topics not immediately connected to lithic industries may dilute the aims and productivity of future gatherings, a balanced input of observations on general Neolithic developments is imperative for interpreting the developments and trends of lithic technologies. A new section in the PPN gatherings, assembling site and general news and not necessarily becoming part of the proceedings, might provide such essential information.

As the topics of the PPN Chipped and Ground Stone Industries of the Near East conferences widen, perhaps this requires a revision of their title (for instance “PPN stone technologies”). Many artifact classes share technologies, *e.g.* ground and building stones, beads and flint borers, whetstones and grinding slabs. Accordingly, additional fields of stone technologies have joined the original chipped stone orientation of the conferences (Gebel 2011), starting early with the groundstone and including presently mineral bead production (see contributions by Alarashi and Bar-Yosef Mayer/



Fig. 1 PPN9 group photo of participants and staff. (Photo: Jammo)

Groman-Yoaroslavski/ Porat; Fig. 2), stone rings, and building stones. Another trend becoming more visible than before but still hasn't gained the needed momentum are biographic approaches to stone tools and stone tool production. A missing trend – in my understanding – are the still needed studies of Neolithic stone modification (Gebel 2013).

Traceological studies are gaining increasing importance in chipped, ground and ornament stone research, as also attested with the PPN9. It will be necessary to apply these approaches and techniques to more concrete or systematically followed research questions, and to leave the current levels of randomly selected samples (also raised by Frank Hole as a critical issue). However, we should keep in mind that in this field we are still in a testing and experience-gaining phase, especially when it relates to high-power microscopy.

Presently Arabia's chipped stone specialists have their own meetings (*cf.* the contribution "Struggles To Make Sense" in the current issue of *Neo-Lithics* 2019), with a research not yet connecting with the Near Eastern approaches. While this segregation is understandable and good for sorting out Arabia's local lithic traditions and their chronologies as developments in their own right, the time has come for joint conferences and discussions to integrate efforts to create the general pictures of interacting socioeconomic and cognitive stone-use developments of the entire region Middle East.

Among the many new material assemblages and data analyses presented in Tokyo (*cf.* the contributions listed below), and impossible to record here, most interesting "non-lithics" ideas, hypotheses, and results included:

- The increase of arrowheads in Early Neolithic times a signal of increased violence? (Barzilay and May);
- Site areas reserved for cemeteries in the Late Natufian? (Grosman and Belfer-Cohen);
- Ba`ja flint daggers biographically pass through 3-4 types of commodity statuses before buried in a grave (Gebel *et al.*);
- LPPNB bird-of-prey catching/ hunting stations: Nahal Roded 110? (Birkenfeld *et al.*);
- Evidence for a hunting accident at Jabal Khashabi-yeh? (Crassard *et al.*);
- Nahal Yarmouth's "houses of the dead" (Ackerfeld *et al.*);
- Apart of attest knowledge transfer and learning in lithic production: Do debitage samples testify children playing with flint? (Purschwitz)
- Motza a FPPNB mega-site (Vardi and Khalaily);
- Rise of female life expectancy in the PN? (Eshed and Gopher);
- Gradual return of microliths a result of the 8.2 ka event? (Abe *et al.*);
- Asiab (9600-9300) a non-residential (ritual?) hunter-gatherer center? (Darabi and Richter);
- Gradual increase of pressure technique from the Pre-Mlefatian to the Mlefatian (Richter and Darabi);

- "Manuports" (geofacts) neglected by research show human ethological relations to nature products understood for their symbolic meaning (Szymczak);
- Motza's limestone rings a significant element of cultural inventory (Milevski *et al.*);
- Use of specific gestures in grinding tools' represent technological choices (Pedersen);
- ventilation shafts in Balıklı! (Goring-Morris *et al.*); etc.

In addition to the poster session (*cf.* the contributions listed below), the conference included a hands-on session in which a number of Japanese and foreign colleagues presented lithic assemblages and replicative demonstrations (Figs. 5-6) during which chert and obsidian cores were prepared and reduced by hard and soft hammer percussion as well as pressure techniques (see list of demonstrators in the caption to Fig. 5).

In the closing session Yoshiro Nishiaki presented a lecture on Japan's Jomon culture (Fig. 7), after which a short discussion took place on the location of the next meeting, PPN10. As has happened before, potential hosts could not firmly issue invitations – prior to negotiations with their institutions – for the next gathering in 2022. A prime option already offered at the PPN8 gathering is Copenhagen. Osamu Maeda suggested Berlin,



Fig. 2 Hala Alarashi introducing stone bead technologies in the first conference section. (Photo: Gebel)



Fig. 3 Frank Hole, Hans Georg K. Gebel, Karol Szymczak and Yoshihiro Nishiaki at the conference's welcome dinner which was also Frank Hole's 88th birthday eve. (Photo: Babazade)

proposing a kind of restarting of the cycle; Baku and Jerusalem were also mentioned. The departing organising committee will take care for the negotiations about the next meeting while preparing the proceedings of the Tokyo meeting; the deadline for the submission of contributions is July 31st, 2020.

An opulent Japanese welcome (Fig. 3) and Italian farewell dinner was served to participants, with long post-dinner social interaction. An excursion concluded the conference on November 16th, taking participants to the Yamanashi Prefecture Archaeological Museum with its focus on the Jomon Culture, to a lunch at Lake Kawaguchi (Fig. 8), and to a pilgrim centre near hot springs at the foot of Mount Fuji.

This gathering's intimacy and cosiness, vivid and fundamentally esteeming personal exchange crossing the intangible borders set by our own governments' aggressive policies, brought together again the colleagues and friends from 17 countries on a truly warm family's level. Maybe more than ever. It was touching to have seen and felt this, and maybe we have in this the real benefit of our meetings. For Tokyo, this, of course, also relates to the considerate policies of the organisers and staff around Yoshihiro Nishiaki, whom we deeply



Fig. 4 Scene of the PPN9 poster session. (Photo: Gebel)

thank for their devoted and efficient organisation of the meeting, and the flair and taste they gave to it.

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References

Gebel H.G.K.

- 2011 The PPN1-6 Workshops: Agendas, tendencies, future. In: E. Healey, S. Campbell and O. Maeda (eds), *The state of the stone: Terminologies, continuities and contexts in Near Eastern Lithics. Studies in Early Near Eastern Production, Subsistence, and Environment* 13: 1-22. Berlin: ex oriente.
- 2013 The Neolithic commodification of stone. In: F. Borrell, J.J. Ibáñez, and M. Molist (eds.), *Stone tools in transition: From hunter-gatherers to farming societies in the Near East. 7th Conference on PPN Chipped and Ground Stone Industries of the Fertile Crescent: 191-205*. Bellaterra (Barcelona), Universitat Autònoma de Barcelona. Servei de Publicacions.

Presentations and Sessions at the 9th International Conference on the PPN Chipped and Ground Stone Industries of the Near East, Hold at Tokyo University, November 12th – 16th, 2019

PRODUCTION AND USE OF TOOLS

T. YASHUV and L. GROSMAN: Drilling tools and perforated items at cultural crossroads

H. ALARASHI: Lithic tools involved in stone bead-making during the Pre-Pottery Neolithic: a beads' perspective

D.E. BAR-YOSEF MAYER, I. GROMAN-YOAROSLAVSKI and N. PORAT: The stone beads of Nahal Hemar Cave

H. KHALAILY, K. VARDI, A. KARASIK and O. BARZILAI: Morpho-metric analysis of arrowheads from Motza and continuity and change in PPNB assemblages

O. BARZILAI and H. MAY: Weapons or hunting tools? Evaluating the role of Pre-Pottery Neolithic B projectile points

F. ABBÈS and F. PICHON: Arrows and archery during the PPNB, an experimental approach: points production and use

H.G.K. GEBEL, C. PURSCHWITZ, D. STEFANISKO and M. BENZ: The flint daggers from LPPNB Ba`ja

YEGOROV, O. MARDER, H. KHALAILY and S.A. ROSEN: The heat treatment of flint in the Early Pre-Pottery Neolithic B site of Motza (Judean Hills, Israel)

NATUFIAN HORIZON: A PPN PREDECESSORS

A. YAROSHEVICH, E. BOARETTO, N. GREENBAUM, Y. ROSKIN, N. PORAT and V. CARACUTA: Aurochs horns in Natufian occupational context at Ein Qasish South, Jezreel Valley, Israel: implications for the understanding of site function and symbolic behavior of the last hunters-gatherers in the Levant



Fig. 5 PPN9 replicative session with demonstrations by Frédéric Abbès, Theresa M. Barket, François Briois, Fumika Ikeyama and Miho Suzuki, Masoyoshi Oba, Karsuhiko Ohnuma, Juan Antonio Sánchez Priego. (Photo: Gebel)

L. GROSMAN, A. BELFER-COHEN: The Natufian: burials as a cultural marker

A. JÖRGENSEN-LINDAHL: Preliminary results from a functional analysis of Natufian chipped stone tools from Shubayqa 1, Jordan

NEW DISCOVERIES IN THE ARID AREAS

L. EDELIN, O. MARDER and J. VARDI: On the edge of sedentism at the northwestern Negev dune-fields and subsistence strategies during the Middle to Late Epipaleolithic: the Ashalim chipped stone assemblages

F. BORRELL and J. VARDI: The lithic industries of Nahal Efe and the PPNB of the Negev

M. BIRKENFELD, L.K. HORWITZ and U. AVNER: Investigations at Nahal Roded 110: a Late Neolithic ritual site in the southern Negev

R. CRASSARD, J.A. SÁNCHEZ PRIEGO, W. ABU-AZIZEH and M. TARAWNEH: A Late PPNB lithic assemblage associated to kite hunters from Jibal al-Khashabiyeh, southeastern Jordan



Fig. 6 PPN9 replicative session: participants' children imitating chipping, as if they want to support Christoph Purschwitz' claim that our debitage samples include material from children's activity. (Photo: Gebel)

S. FUJII: Wadi Sharma 1 and the Hijaz PPNB: new insight into the Neolithization in NW Arabia

OUTLOOK FROM THE WEST: LEVANTINE LITHIC TRADITIONS (chair: M. Arimura)

J.J. IBÁÑEZ, F. BORRELL and I. CLEMENTE: PPNA and PPNB lithic industries at Kharaysin (Jordan)

M. ULLMAN: A new Early Pre-Pottery Neolithic B site at Neshar-Ramla Quarry, Israel

T.M. BARKET: Different strokes for different folks? Comparing the flaked-stone assemblages from the Neolithic sites of 'Ain Ghazal and Wadi Shu'eib

A. LEVY: Intra-site variability in the Pre-Pottery Neolithic B site of Yiftahel: lithic techno-typological analyses

A. EIRIKH-ROSE, K. ZUTOVSKI, H. ASHKENAZI and A. GOPHER: Nahal Yarmuth 38: a new PPNB and PN site in central Israel

K. ZUTOVSKI: Aspects of techno-typological change in sickle blades from the PPNB to the EBA: a socio-economic view based on Ha-Goshrim, Nahal Zehora II, Ein Zippori, and Nahal Yarmuth 38, Israel

D. ACKERFELD, A. EIRIKH-ROSE, H. ASHKENAZI, K. ZUTOVSKI and A. GOPHER: Entangled in lime: a contextual materialistic examination of the multi layered plaster floors at PPNB Nahal Yarmuth 38

C. PURSCHWITZ: Household-level lithic production and knowledge transfer at LPPNB Ba'ja, southern Levant: first results

D. ROKITTA-KRUMNOW: The lithic assemblage of Eh-Sayyeh and the PPNC of northern Jordan



Fig. 7 Yoshihiro Nishiaki gives his lecture about the Jomon Culture in the closing session. (Photo: Gebel)

J. VARDI and H. KHALAILY: The Final Pre-Pottery Neolithic B mega site of Motza (Judean Mountains)

L. BRAILOVSKY and D. SHALEM: The elusive Neolithic occupation of 'En Asur, central Israel

PPN SOCIETIES BEYOND LITHICS

G. HAKLAY and A. GOPHER: Architectural planning and geometric regularities in Natufian and PPN architecture: case studies from the southern and northern Levant

M. KINZEL: Building Göbekli Tepe. New insights and results

A. GOPHER, S. ABBO and S. LEV-YADUN: The cultural distinction between plant domestication and crop evolution: comments on the archaeological process and resolution

V. ESHED and A. GOPHER: Agriculture and life style: a paleodemography study of Pre-Pottery and Pottery Neolithic farming populations in the southern Levant

A. BELFER-COHEN and N. GORING-MORRIS: Social turmoil: 'Us and Others' in the Pre-Pottery Neolithic

EGYPTIAN CONNECTION IN LITHICS

N. SHIRAI: A lithic perspective on the Neolithisation of Egypt

Y. TRISTANT, F. BRIOIS and B. MIDANT-REYNES: Go west: new discoveries concerning the PPNB in the Eastern Desert of Egypt between the Sinai and the Nile Valley

EXTENDED VIEW FROM THE EAST: LITHICS FROM THE CAUCASUS TO ZAGROS

M. ARIMURA, K. MARTIROSYAN-OLSHANSKY, A. PETROSYAN and B. GASPARYAN: What are the differences between the Mesolithic and Neolithic sites in Armenia? A comparison of the chipped stone tools from Lernagor and Masis Blur

L. ASTRUC, D. GUILBEAU, B. GRATUZE, B. LYONNET and F. GULIYEV: Neolithic chipped stone industry of Mentesh Tepe, (Middle Kura Valley, Azerbaijan): technological markers and relations to eastern Anatolia

S. KADOWAKI: Spatial analysis of Neolithic chipped and ground stone artifacts at Hacı Elamxanlı Tepe in the southern Caucasus

H. FAZELI NASHLI and M.W. GREGG: Pre-agricultural plant and animal management and the emergence of a low-level, food-producing society in the southern Caspian basin during the early Holocene



Fig. 8 Excursion lunch at the Lake Kawaguchi on the gathering's last day. Standing: Chie Akashi, one of the organisers. (Photo: Gebel)

M. JAYEZ and H.V. NASAB: A brand new thing: bladelet production techniques and methods in Caspian Mesolithic and Neolithic chipped stone industries

D. BAIRD: The development of early Neolithic chipped stone industries in the northern Zagros: the Palegawra and Karim Shahr assemblages

J. THOMALSKY: Lithic pathways between the Zagros and S-Caucasus (and beyond)

H. DARABI and T. RICHTER: Re-investigating Neolithic transition in the central Zagros as seen from recent excavations at Asiab and Ganj Dareh

T. RICHTER and H. DARABI: The chipped stone industries from the new excavations at Asiab and Ganj Dareh: dating, comparisons and insights

B. MILIĆ, B. HOREJS and L. NIAKAN: Towards the understanding of the Early Neolithic in the Zagros Mountains: results of new investigations in the Ilam province, Iran

M. ZEIDI, J. LINTON and N.J. CONARD: Lithic use-wear analysis from the Early Neolithic site of Chogha Golan in western Iran

M. ABE, S. ARAI and M. KHANIPOUR: Returning to hunting and re-microlithization during the Mushki phase in Fars, the southern Zagros

LITHIC TRADITION IN SOUTHEAST ANATOLIA

Ç. ALTINBILEK-ALGÜL, S. BALCI, D. MOURALIS and N. KARUL: A PPNA settlement in the upper Tigris basin (southeastern Anatolia): Gusir Höyük

O. MAEDA: Change and continuity in the lithic industry of Hasankeyf Höyük: a PPNA hunter-gatherer site on the upper Tigris

J. SCHLINDWEIN: The chipped stones of Göbekli Tepe: new insights into the PPNA and PPNB

Hands-on and Knapping Session

USE OF GROUND, POLISHED AND UNWORKED STONES

K. SZYMCZAK: The symbolic meaning of the Neolithic manuports: the examples from Nemrik 9, northern Iraq, and Ayakagytna 'The Site', Uzbekistan

I. MILEVSKI, H. KHALAILY and J. VARDI: The stone rings from Motza

P.N. PEDERSEN: Initial use-wear analysis of ground stone from two Natufian-PPN sites in the Qa' Shubayqa of Eastern Jordan: ground stone and changing foodways

CHIPPED AND GROUND STONES IN CYPRUS

A. MCCARTHY: Flaking or grinding as preform ground stone reduction techniques: habits of stone tool production in prehistoric Cyprus

C. MCCARTNEY: Blade technology at Ais Yorkis, social and cultural associations

PROCUREMENT AND USE OF OBSIDIAN

E. HEALEY, S. CAMPBELL and O. MAEDA: Big data! Obsidian in the Levant

R. MOIR, T. CARTER and O. MAEDA: Hasankeyf Höyük: preliminary results of the geochemical sourcing of obsidian from a southeastern Anatolian, PPNA site

H.C. SCHECHTER: Late Neolithic Çatalhöyük: lithic procurement, production and use in a pan-regional perspective

D. GUILBEAU: Tepecik Çiftlik (Turkey) and the exploitation of Cappadocian obsidian during the 7th millennium: preliminary results

NEW PERSPECTIVE FROM CAPPADOCIA

A. VINET, D. GUILBEAU and M. GODON: The exceptional chipped stones and pottery assemblage from the “BY space” at Tepecik Çiftlik (Cappadocia, Turkey, ca 6000 cal BC): a techno-functional study

N. KAYACAN, G. DURU, M. ÖZBAŞARAN and N. GORING-MORRIS: Integrating the processes of sedentism atop the Central Anatolian Plateau in light of the Cappadocia Prehistoric Survey (CAPs)

N. GORING-MORRIS, G. DURU, M. ÖZBAŞARAN, M. ERGUN, N. MUNRO, M. STINER and N. KAYACAN: Introducing Balıklı: an early Holocene settlement in Cappadocia

Lecture at the Intermediatheque Y. NISHIAKI: A Levantine view of the Jomon culture of the Japanese Archipelago

Discussion and Closing

POSTER PRESENTATIONS

D. ACKERFELD, A. EIRIKH-ROSE, H. ASHKENAZI, K. ZUTOVSKI and A. GOPHER: The lithic assemblages of Nahal Yarmuth 38: a new PPNB site in central Israel

H.C. SCHECHTER, K. ZUTOVSKI, A. EIRIKH-ROSE, H. ASHKENAZI and A. GOPHER: Shells from Nahal Yarmuth 38

H. PAROW-SOUCHON and C. PURSCHWITZ: Diachronic change in raw material procurement and use during the Upper Palaeolithic and Early Neolithic of the southern Levant

F. PICHON: Traces and function: the case of “ergot” blades and proximal notched blades, EPPNB Dja’de el-Mughara (northern Levant)

M.R. IOVINO: Practical and symbolic obsidian function(s) in

PPNB societies: interpretative insights through a revision of technological and traceological approaches

E. HEALEY and S. CAMPBELL: Innovation, adaptation or development? The non-tool use of obsidian in the PPN

S. BALCI and Ç. ALTINBILEK-ALGÜL: A new site in the volcanic Cappadocia (Anatolia): Kayırlı-Değirmenyolu

B. MILIĆ, A. TIMPSON, B. HOREJS and M.G. THOMAS: Results of the pilot study on the computer modelling of the spread of pressure technique from the Near East to Aegean

F. IKEYAMA, F. GULIYEV and Y. NISHIAKI: Regional variability of obsidian pressure blade technology in the Neolithic of the South Caucasus

Y. NISHIAKI, A. ZEYNALOV, M. MANSUROV and E. BAZADE: The Mesolithic and Neolithic flaked stone assemblages from Damjili Cave, west Azerbaijan

T. ODAKA, O. MAEDA, K. SHIMOGAMA, Y.S. HAYAKAWA, Y. NISHIAKI, N.A. MOHAMMED and K. RASHEED: Late Neolithic in the Shahrizor Plain, Iraqi Kurdistan: a new evidence from Shakar Tepe, the excavations in 2019

A. YAROSHEVICH, D. KIRZNER, E. VAN DEN BRINK, E. BOARETTO and N. GREENBAUM: Technological variability during the early Pottery Neolithic of the Levant: a view from Tel Izhaki, a recently discovered early PN site in the Jezreel Valley, Israel

M. KHANIPOUR and S.J. YEGANEH: Investigation of ground stone function in Hormangan, a Neolithic site in the south of Iran

I. MILEVSKI: The evolution of basalt bowls from the Late Pottery Neolithic to the Chalcolithic period in the southern Levant

H.G.K. GEBEL: LPPNB building stones: craft and cognition

S. JAMMO and A. TSUNEKI: Gender-based division of labour between household members: an investigation from Tell el-Kerkh, northwest Syria

Chairpersons of sessions were: T. Richter, S. Kadowaki, M. Arimura, M. Barzilai, F. Borell, D. Rokitta-Krumnow, B. Milic.