

LITIKUM

A Kőkor Kerekasztal folyóirata
Journal of the Lithic Research Roundtable
8. évfolyam • Volume 8 • 2020



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TIXIER

PAPERS IN THE MEMORY OF JACQUES TIXIER



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Szerkesztők • Edited by
Zsolt Mester, György Lengyel, Attila Király

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PAPERS IN THE MEMORY OF JACQUES TIXIER

Jacques Tixier, the scholar of lithic technology passed away on April 3rd, 2018. He was one of the great French archaeologists who have renewed the study of Palaeolithic sites and assemblages for reconstructing the life of past humans. He taught how lithics communicate their biography via technological stigmata and showed the importance of lithic experiments in understanding what past knappers were and were not able to do in stone tool production. Jacques' talks and demonstrations were always engaging which emerged from a lucky combination of two characters of human nature: charm and professionalism. He fundamentally affected our thinking about Prehistory, and his loss reminded us we have forgotten to thank him for all he did for us.

Shame on us for being late, we would like to express our gratitude by dedicating the volumes of 2020 to the memory of Jacques Tixier.

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STUDIES COMMEMORATING JACQUES TIXIER
A LITIKUM JOURNAL SPECIAL VOLUME

Reflections upon Discussions with Jacques Tixier

Christopher Bergman

Abstract • Kivonat In memoriam Jacques Tixier. The author shares his experiences about the archaeology in the Near East and reflects upon the role of Jacques Tixier in a personal account.

Keywords Jacques Tixier, in memoriam, stone tools, Levant, Ksar 'Aqil, Üçağızlı Cave, Upper Palaeolithic

Kulcsszavak Jacques Tixier, in memoriam, kőeszközök, Levante, Ksar 'Aqil, Üçağızlı-barlang, felső paleolitikum

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“The spiritual aspect of knowledge about the world taught the people that relationships must not be left incomplete... Completing the relationship focuses the individual’s attention on the results of his or her actions.” (Vine Deloria, Jr., *Oglala Lakota*)

Introduction

Both Jacques Tixier and I were affected by the events of the civil unrest in Lebanon, a profound human tragedy the causative factors of which are still reverberating throughout the region today.

For Tixier, the onset of the war terminated his long anticipated and important excavations at Ksar 'Aqil (Ksar 'Akil, Ksâr 'Akil) resulting in just a handful of papers detailing his investigations. I believe the discontinuation of his work was lamented by all prehistorians in the region, due to the fact that the site's 23 meters of deposits represents the longest and most complete record of any Levantine Upper Palaeolithic site. Indeed, in 1987 Ofer Bar-Yosef commented to me that he wished Tixier would publish more of his ideas on Ksar 'Aqil and the technology of blade and bladelet manufacture, especially twisted *débitage*.

For me, I spent the years 1974-1979 as a student at the American University of Beirut, a direct witness to the horrific events of the Lebanese Civil War. This included sustaining shrapnel wounds from an 82 mm mortar round on the American University campus, the kidnapping and death of family and friends, and the ongoing daily destruction of the city. These memories have remained with me throughout my later years, but it was during this time that I met Ingrid Azoury (who passed away on September 29, 2017) and, under her guidance, started working on Ksar 'Aqil by examining the small collections made by Alfred E. Day in the 1920s. When lulls in the fighting occurred, I often visited Ksar 'Aqil and looked at Tixier's excavation sections, which remained open as he had left them in 1975.

Préhistoire du Levant – 1980

The first time I met Tixier was at the 1980 conference entitled, *“Préhistoire du Levant,”* held in Lyon. He was attending with Marie-Louise Inizan and presenting the results of his 1969-1975 excavations at Ksar 'Aqil. We did not interact too much during the meeting as I was a new graduate student, although I did pay close attention to his thoughts



Figure 1. Liliane Meignen, Jacques Tixier, Christopher Bergman, Catie Tixier, Institute of Archaeology, London, 1987.

on the site. It was clear that he did not regard the material collected in the 1930s and 1940s to be of much scientific value. Later, in 1988, he rightfully took me to task for my paper which, admittedly, provided weak definitions of the el-Wad point and its variants.

I think Tixier's concerns about the earlier excavations, sometimes voiced rather vehemently, are well founded and still need to be addressed. Echoing his words of caution, I would point out that: 1) the 1937-1938 and 1947-1948 stratigraphic designations are not the same and a complete correlation between the two field seasons does not exist, except for the later Upper Palaeolithic levels that also align with Tixier's 1969-1975 excavations; and 2) in as much as the general assemblage descriptions throughout the sequence appear similar from researcher to researcher, up to and including recent analyses that place greater emphasis on the technology of core reduction, it remains to establish the level of confidence that can be placed in the reported results. It is my thought that broad trends can be discerned and compared to more up-to-date investigations like those at Üçağızlı Cave, for example. However, given that materials from 1937-1938 and 1947-1948 are currently being used to consider questions related to precision dating and models for human dispersal, we must seriously assess the quality of these data for addressing this exacting level of research, while bearing in mind they provide the only samples from the Initial and Early Upper Palaeolithic.

The Levantine Aurignacian with Special Reference to Ksar 'Aqil, Lebanon – 1987

In 1987, I organized a roundtable discussion entitled, “*The Levantine Aurignacian with Special Reference to Ksar Akil, Lebanon*,” which was held at the Institute of Archaeology, London. The roundtable was modelled after a 1969 Wenner Gren Symposium, which focused on the Institute of Archaeology's Ksar 'Aqil collections and included, among many other prominent participants, the late François Bordes. The focus in

1987 was to bring together a number of prehistorians working in the northern and southern Levant to consider changing paradigms for cultural development in the region, but most specifically to address what constitutes the Levantine Aurignacian.

The participants working in the southern Levant described the then newly modelled framework of two discrete Upper Palaeolithic traditions, the “blade-oriented” Ahmarian and the “flake-oriented” Levantine Aurignacian. While considering the latter, Tixier interjected, “what about the bladelets?” He was referring to the presence of significant numbers of twisted bladelets, many quite tiny and comma-shaped in appearance, found in levels he regarded as the Levantine Aurignacian evolving *in situ*. Twisted bladelets occur throughout Tixier's excavations and, indeed, twisted *débitage* appears in the form of larger blades detached from single platform cores in the levels just below the depth he reached. During one of the breaks, we had a long discussion about twisted bladelets and their production from a variety of cores, flat-faced burins, burins on a notch, carinated scrapers and burins, lateral carinated scrapers, etc., and the methods for inducing a twist by delivering a percussive blow offset to the main axis of the flaking face.

When the debates got heated some attendees reverted to their first languages, evoking an image of the “Tower of Babel.” This might be the reason why it has been suggested that the roundtable was not as influential as its predecessor in 1969. However, it did provide some pause for thought as follows: 1) there was considerable geographic and chronological variation in what was described as Ahmarian in the northern and southern Levant; 2) the Levantine Aurignacian was not just a flake-based industry and its technological expression needed better description; 3) Tixier's insistence upon more accurate characterization of lithic manufacturing sequences was essential for addressing cultural affinity; and 4) Ksar 'Aqil, not surprisingly, was more closely connected with developments in the northern Levant and did not represent a region-wide type sequence as previously thought.

At the closing social event (Figure 1), I handed Tixier an opposed platform blade core made from Brandon flint. He asked who had made it, thinking it was perhaps Mark Newcomer. I said no, and indicated I had prepared the core. He passed it back and said, “Ahmarian!,” a subtle poke at the tendency for some Levantine prehistorians to treat technology in a typological manner, rather than identifying the distinct operating chains that are more accurate cultural signatures.

Préhistoire du Levant 2 – 1988

Based on the results of the roundtable, Francis Hours asked me to chair the Upper Palaeolithic session for the conference, “*Préhistoire du Levant 2*,” also held in Lyon. Regretfully, Père Hours passed away before the conference and I never had the opportunity to thank him for his confidence in me. The session was small and included only four papers by Isaac Gilead, Gerd Albrecht, Jim Phillips, and me. It was during the general

discussion that Tixier not only criticized my rather poor attempt to define the el-Wad point, a shortcoming of which I was not the only guilty party, but also the tendency for some prehistorians to use frequencies of various debitage classes to define prehistoric cultures rather than a careful mapping of the step-by-step procedures used to work stone.

After the session I sat down with Tixier, literally on the floor, and he told me he was quite cross upon reading the published results of the 1987 roundtable where Nigel Goring-Morris and I reverted to the 1937-1938 Ksar 'Aqil sequencing, rather than that of 1969-1975, as the basis for characterizing cultural development at the site. He was right to complain and it took me 30 years to correct this inaccuracy (see Bergman, C., Williams, J., Douka, K., and Schyle, D., 2017. The Palaeolithic Sequence of Ksar Akil, Lebanon. In: Enzel, Y. and Bar-Yosef, O. (eds.), *Quaternary of the Levant*. Cambridge University Press: 267–276). Hopefully, Tixier would have been satisfied with this revision, albeit greatly delayed, because it makes more sense as he indicated.

A final memory of this meeting concerns an ill-advised comment made by an American archaeologist who intimated that Near Eastern prehistorians had a more sophisticated methodological approach than their French counterparts. Needless to say, this immediately caught Tixier's attention and he responded in a fit of pique, "Speak about what you know!" Wise words, professionally or otherwise, and I have never forgotten them.

Reflections

The last time I saw Tixier was in 1988 and I showed him some pictures of the refitting I was doing at Boxgrove. He was quite

interested in these results and we discussed the nuances of preparing the tip of an ovate handaxe for delivering a *tranchet* blow, while looking at some refitted examples. After disagreeing about the merits of the old collections at Ksar 'Aqil, this was an area we could agree on, the value of the experimental approach for elucidating aspects of prehistoric technology.

I have been flintknapping since the mid-1970s and while I certainly have not achieved the level of artisanship demonstrated by many other colleagues, the tools I make are quite functional. In the early 1980s, working with Mark Newcomer and Nick Barton, I studied blade and bladelet-based projectile point technologies, specifically breakage patterns resulting from impact. Others have pursued similar studies, for example by standardizing experimental parameters through use of synthetic materials to cast morphologically identical points or by examining the incidence of impact fractures to try and isolate the expected frequency of occurrence.

Looking back at my own work on projectile technology, I think there was a marked *naïveté* in the design of the experiments and their results. Simply put, they were not very realistic, even if they did provide a certain level of insight into the morphology of impact breakage. Obviously, the use of dead targets and purposeful attempts to induce breakage do not consider the operational dynamics of projectile use in actual hunting situations. The focus of hunting is not to break points, but to kill game.

Since 2016, I have been bow hunting with friends using a number of projectile point styles including facsimiles of

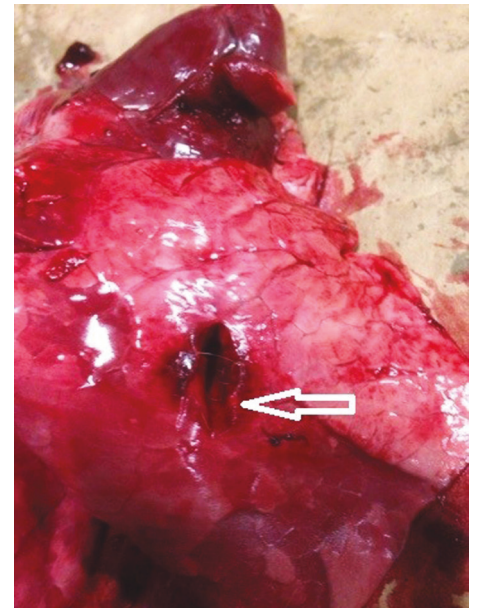


Figure 2 (left). Facsimile Upper Paleolithic composite point with two parallel backed bladelets slotted into reindeer antler, pine resin, charcoal and fiber adhesive, deer back sinew binding (arrowshaft is 8 mm in diameter, early winter 2018).

Figure 3 (center). Composite point entry wound at white-tailed deer rib cage, which dislodged one of the backed bladelets as the arrow passed through, but nonetheless proved fatal (Christopher Bergman and Johnny Lamb, autumn 2017).

Figure 4 (right). Composite point passed through lung, single bladelet edge visible at bottom of the wound channel, and reached the heart (Christopher Bergman and Johnny Lamb, autumn 2017).

Upper Palaeolithic composite points (reindeer antler/stone) and generic bifacial side-notched forms that are common during the Late Archaic Period (beginning ca. 5000 years BP) of the eastern United States. In the case of the composite points (Figure 2), I consider them to be “facsimiles,” due to the fact that the overall point width must be at least 2.2 cm in order to comply with local bow hunting regulations. I think the backed bladelets on Upper Palaeolithic points were generally narrower, which may minimize a tendency for the experimental bladelets to be displaced on impact. Second, there is the question of the delivery system, atlatl dart or arrow, with my own belief that the bow is an earlier invention than we currently have evidence for. Regardless of these caveats, as well as many other factors, it can be confidently stated that the experimental composite points are extremely effective and possess considerable cutting power, creating a wide wound channel (Figures 3 and 4) causing an animal to drop within 30 m of a shot in some cases. Of course, fundamental to the effectiveness of any projectile is accurate targeting, which in the case of stone points can minimize characteristic impact damage.

Perhaps the most interesting observations concern the experimental bifacial projectile points, two of which are illustrated in Figure 5. Both were used in successful hunts, the example on the left displays impact damage which, in my opinion, is minor and atypical, while the example on the right displays no macroscopic damage at all and can be reused without sharpening. In the absence of identifiable microwear traces, the activities evidenced by these points would be archaeologically invisible, beyond mere guesswork. They are also relatively large and wide due to the requirements of hunting laws, meeting the size criteria of atlatl dart tips posited by some North American prehistorians, but they nonetheless can be hafted onto commercial 8 mm diameter wooden arrowshafts. It has always amazed me what is, and can be, placed at the end of an arrow, both in terms of morphological variation and size.

Tixier was always insightful in his thinking about prehistoric technology and, building upon his pioneering research, subsequent generations of flintknappers have shown increasing sophistication in their own work. Expanding our understanding of the behavior of prehistoric peoples, their material culture and lifeways, must be founded on the academic rigor that Tixier advocated and practiced throughout his distinguished career. This requires being able to look critically at our individual efforts, test our ideas repeatedly, and revise them as often as necessary over the years. In this manner, it is possible to successfully answer his challenge to “speak about what you know.”

PS – In reading the Litikum Postcards and Tixier’s lament of “less and less time” to work stone, I would add to his comments that as the years go by and eyesight begins to diminish, good lighting is essential!



Figure 5. Bifacial side-notched points, both used for successfully hunting white-tailed deer. The example on the left has an atypical notch-like impact fracture at the tip, while the example on the right has no visible damage and can be hafted and used again without modification. (Christopher Bergman and Johnny Lamb, autumn 2016 and 2017).

Statements

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