Des Sociétés en mouvement. Evolution des sociétés magdaléniennes et aziliennes des Alpes du Nord françaises


reviewed by
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Ludovic Mevel’s book is mainly based on his doctoral thesis about the Abri de la Fru (Saint-Christophe-la-Grotte) in the French department Savoie. The book was published in 2017 by the “Comité des travaux historiques et scientifiques” as 34th volume of the “Documents préhistoriques”. The Abri de la Fru was excavated between 1980 and 1991 by Gilbert Pion (Pion et al.1990). The more than 100-meter long rock-shelter was not excavated in total. At three locations, called Aires 1 to 3, Pion excavated approximately 150 m² in total and revealed several layers from the late Magdalenian up to the Azilian. All layers are attributed to climatic phases such as older Dryas up to the Allerød. Not many sites have delivered complete sequences from the late glacial period. Apart from the Abri de la Fru, the Abri Pont d’Ambon (Célérier 1993, 1998) and the open air sites in the Paris Basin (Bodu & Valentin 1997) are well known for their lithic material, which has helped to develop evolutionary models of late glacial hunter-gatherer industries.

Mevel’s Book is subdivided into five chapters, which describe – after an introduction into the working area, the applied methodology and the evaluation of the settlement layers – the main cultural layers at the Abri La Fru, beginning with the late Magdalenian during the older Dryas / Bolling cold period and ending with the Azilian of the Allerød warm period.

The introduction leads the reader into the study area, the northern region of the French Alps and southern Jura. This region has changed a lot during the late glacial period. During that period, the glacier thawed and large lakes formed. Around 15 000 BC people must have started to explore the region at the border of the Alps and settled there continuously since 13 000 BC. Of course, the main scientific efforts in France to understand the change from the Magdalenian to the Azilian have been achieved in the Paris Basin. Therefore, a summary of the results must precede the main part of the work, since the interpretation of this work also refers to that research. Abri de la Fru has the best potential to give similar information on the development of the Azilian, because about one dozen layers are attributed to different phases of the late glacial period.

Chapter 1
The initial chapter describes the site formation of la Fru. Situated at the extreme south part of the subalpine massif of the Chartreuse, one of the last chains of the Jurassic massif, the rock-shelter of la Fru itself opens to the south at an altitude of around 570 m. After his excavation of the Azilian site of Gerbaix (Pion 1981), Gilbert Pion looked for similar locations. He found them at the 100-meter long Abri de La Fru, where he opened and excavated three trenches between 1981 and 1990. Pion named the three trenches Aire 1 – where he documented layers of the early Mesolithic and Azilian in approximately 70 m². Aire 2, 40 m to the south of Aire 1, yielded layers of the Mesolithic, younger and older Azilian and upper Magdalenian. Aire 3 is located directly beside Aire 2. Its stratigraphic sequence differs completely from that of the two others. The recent phase of the Azilian can only be attested in layer 5, all other layers contained Mesolithic occupations, all together ten litho-stratigraphic levels. At the end of the first description, Mevel points out his main focus: the evaluation of the homogeneity of the archaeological assemblages identified during the excavation. Subsequently, the interpretation of the levels according to their archaeological material follows.

The discussion about the chronological frame is essential to understand exactly when the occupation of the Jura during the late glacial started. By presenting all radiocarbon dates in comparison with dates gained at Magdalenian and Azilian sites in the northern Alps and the southern Jura area, he defines a chronological frame and points out that at Abri de la Fru a succession of several occupations from the upper Magdalenian to the older Mesolithic can be attested.

Mevel did not analyze all lithic material from the site, but took representative samples to reconstruct the occupational levels. His main focus is on projectile points, some blanks such as blades and bladelets, cores and refittings to understand lithic technological behavior. Only the material from Aire 1 and 2 are included completely, from Aire 3 only the Magdalenian layer was considered. The Mesolithic material from Aire 3 was not part of his research. Within the first chapter the author discusses the integrity of the layer documented at the excavation areas (Aires 1-3), by referring to the archaeological layers the lithic material...
comes from. He subdivides between two collections or corpora to separate the Magdalenian from the Azilian. In some sequences, a clear subdivision is not possible due to direct superposition. He used the projection of the finds onto the stratigraphy, but it is still not easy to define an intact occupation level, which is further evidenced by refittings across the complete stratigraphic sequence. With the help of well-designed graphics, he underlines his arguments in chapter 1. It can be pointed out that, although at the first view a strong disruption of the archaeological layers is visible, the occupation can still be reconstructed.

Chapter 2
The second chapter deals with the early Magdalenian occupation by comparing the occupation layer from the sites La Fru Aire 1 and 2 in layer 4 with the assemblages from the Grottes Jean-Pierre 1 and 2 at Saint-Thibaud-de-Couz. All occupations are chronologically placed between the period of the older Dryas and the end of the Bolling-Interstadial. The focus lies on the analysis of the technological and economical behaviors of the hunter-gatherers of the upper Magdalenian (Magdalenien supérieur). The tool-kit of Aire 1 is dominated by backed bladelets with a share of approximately 75%, followed by some burins and their production waste. By the means of technical aspects, the intention was to produce long blades and bladelets. Mevel points out that the assemblage originates from different occupations at the site. Mainly local lithic raw material has been used. The author concludes that the oldest settlement took place during the Magdalenian in the time frame between 14 000-13 500 BP. The second site, Aire 2, is only preserved fragmentarily. In accordance with Aire 1, the lithic production was focused on blades and bladelets of about 7 cm lengths. Again, backed bladelets dominate the specter of the tool-kit and again mainly silex raw material from local or regional sources has been used.

The second half of chapter 2 recapitulates the results of the excavation of the Grottes Jean-Pierre 1 and 2 dating into the Magdalenian as well. The author focuses on the layers 9a and b from the Grotte Jean-Pierre 1, published by Pierre Bintz in 1994 and 1995. The intention is to compare the technological and typological aspects from the Jean-Pierre Grottes with the results from the lower levels of the Abri de La Fru. At these sites, lithic raw material from local or regional sources has predominantly been used. The tool-kit at Jean-Pierre is characterized by burins en dièdre. From a technological point of view, the production of blanks was orientated towards the production of blades and bladelets of about 5 to 7 cm length. They were transformed to backed bladelets with a width of 6 mm and an approximate length of 30-35 mm. It is remarkable that many backed bladelets are truncated or bi-truncated. The results from both layer 9a and 9b from Jean-Pierre 1 and layer 4 from La Fru are at least comparable but different in detail. In La Fru, Aire 1 the collection results from different occupation during a longer period. The Magdalenian people produced blades from local, but imported material to transform them into backed bladelets. Aire 2 differs from the precedent by a less sophisticated blade technology. Based on the find distribution, it can be assumed that the main activities took place outside the excavated zone. Many of the backed bladelets were abandoned during tool production. Moreover, many of them show damages that might have happened during their use as projectiles. Therefore, people might have used the site for retooling and re-hafting activities.

By referring to the Magdalenian assemblages of Jean-Pierre, both sites allow a first inside into the development of the final Magdalenian in the region.

Chapter 3
The time span in-between the climatic phases at the end of the Bolling and the beginning Allerød might be related to the classical Azilian in France. According to the results from the excavations in the Paris Basin and e.g. in the Dordogne at the Abri Pont d’Ambon the most recognizable tool is the bipointe. The cultural development from the Magdalenian to the Azilian is summarized as Azilianization, which includes not only typological, but technological aspects as well as the change of the landscape use during a period of a rapid climate change. Ludovic Mevel discusses the processes of the Azilianization in the northern Alpine region in France based on the layer 3 of Aire1 and layer 3 of Aire 2 of La Fru, by comparing them with results from the sites in the Paris Basin and their vicinity. The material from theses layers is attributed to the early Azilian (Azilien ancien), based on typological aspects, especially the presence of backed points of the bipointe-type.

Layer 3 from Aire 1 contains 3 750 objects with 518 tools. Layer 3 from Aire 2 comprises 1 951 pieces with 214 tools that have been manufactured mainly from lamellar blanks. Bipoints dominate among backed projectile points, but monopoints are also present. Thus, this assemblage is coherent with the lithic material attributed to the oldest phase of the Azilian in France. Because of its richness, layer 3 of Aire 1 was chosen as reference. The aim of chapter 3 is to document – in comparison with the well know sites of the early Azilian mentioned above – the technical and economical differences and similarities by means of chronological and regional differences.

The assemblage of Aire 2 contains some pieces from somewhat older and younger Azilian layers (palimpsest), but is in general very homogeneous. Almost the complete material derives from local sources. Only a few pieces come from regional raw material sources. The size of the raw material units does not exceed 10 cm. The chaîne-opératoire is focused on two lamellar production concepts. The production of lamellar blanks with sizes of about 80 to
60 mm – used to manufacture common tools (end-scrapers, retouched blades, burins and splintered pieces) – and in-between 55 to 30 mm, that were mainly used to produce backed points (bi- and monopoints). Many of the bi- and monopoints have been used as projectile points. Especially the diagnostic backed points were made from short, narrow but regular bladelets. The differentiation is not that obvious, as many pieces are preserved as fragments. The regular blades were transformed into scrapers. It seems that the blanks have been produced and used (consumed) at the site itself, and have not been exported.

### Chapter 4

The focus of Chapter 4 lays on the analysis of four assemblages attributed to the younger Azilian (Azilien récent). These are layer 3 from Aire 1, layer 5 from Aire 3 and sublayer 1c within layer 3 from Aire 1. Due to 14C data of about 11 500 BP, layer 5 from Aire 3 is attributed to the climatic phase of the Alleröd. Similar to Chapter 3 the assemblage from layer 5 of Aire 3 is analyzed as key reference to comprehend the Azilien récent.

Layer 2, Aire 1 contains 915 pieces with 151 retouched objects. It is one of the rare Paleolithic layers that have revealed anthropogenic features such as hearths. The presence of only four bipoints indicates only little mixture with the layer above, so that this layer is described as “pure” or “clean”. The lithic industry mainly consists of flakes and contains only a few blades or bladelets of about 10%. The short blades have been modified into backed points and other tools. Scrapers for instance were exclusively made from flakes, while all other tools were made from elongated supports.

Layer 4, Aire 3 dates into the Azilien récent, but is said to represent the oldest phase. This layer marks a change within the stratigraphic sequence. The chaîne opératoire differs fundamentally from the layers analyzed so far and shows a clear focus on lamellar artifacts. The tool-spectra of 100 pieces consists mainly of monopoints (30%), followed by end-scrapers (25%).

As striking instrument a soft mineral hammer(stone?) was used. Local raw material was preferred. The inventory of layer 5, Aire 3 can be interpreted as typical for the late Paleolithic period. It consists of monopoints, end-scrapers and retouched blades with a few burins. Most of the retouched pieces (p = 65%) were made from blades, especially the backed points, while the other tools were made from products that occurred earlier in the production process. Thus, the main idea was to produce blades that were modified into backed pieces. The fact that all blanks for the monopoints are very similar indicates an intentional selection of supports within the wide range of flakes and blades. An intentional flake production cannot be attested, but a sufficient amount of flakes occurred as byproducts within the blade production sequence.

Within the layers attributed to the younger Azilian (Azilien récent) a cultural change is observable. Blade-products are rare, but show a strong rentabilization of the supports, which is to be interpreted as an essential change in the production technique. The common tools, such as end-scrapers, were made mainly from flakes. Supports for backed pieces occurred at the end of the production process. Elongated flakes have been used for cutting activities, similar to the site Le Closeau in the Paris Basin. This process of homogenization has been observed by many authors before. Parallel to this, the used raw material variety basically changes. The spectrum of the used raw material reflects the settlement area around the site.

The inventory of layer 5, Aire 3 obviously differs from that. Here, a high percentage of blades can be observed, which have been struck with soft hammer stones. At the same time, the sequences of blade production decrease. This inventory seems as if it has been azilianized strongly. Therefore, it might be related to the climatic phase of the Alleröd.

Do the differences between the series of Aire 1 and Aire 3 have a chronological value, or are these functional differences? The next and final chapter tries to find some answers.

### Chapter 5

Chapter 5 attempts to create a synthesis of the presented analyses and results. All studied series have delivered a manageable number of pieces resulting from short-term stays at the site. Creating a valid development from the upper Magdalenian to the final Azilian remains illusory. However, some aspects of a regional final Magdalenian become visible. At layer 4 in Aire 1 a development from an "old" Magdalenian superior – dating around 14 100 to 13 800 uncalBP, to a Magdalenian final within the Bolling-period is visible. The repopulation of the Alps begins shortly after the retreat of the glaciers around 15 000 BP calibrated. With exception of La Fru layer 4 at Aire 1, no site has revealed objects similar to the oldest Magdalenian superior. So, the repopulation must have taken place selectively. Only new excavations in the future will allow for a better understanding of the early Bolling-period.

Between 13 000 and 12 400 uncalBP, the Magdalenian began to expand into the Alpine region. The settlement area has been quiet large according to the used raw material. While mainly local raw material was used in the valley of La Couze, it was much more diverse at the Magdalenian sites elsewhere. At that time, the raw material procurement at sites in Switzerland and in the southern Jura Region was quite similar. Art objects such as mollusks are evidence for an intensive exchange between different Magdalenian groups. The oldest phase of the Azilian begins around 12 100 uncalBP, therefore a three-phase approach
first an oldest phase pre-Bölling phase, followed by a phase within the Bölling (including a ¹⁴C-Plateau) and finally the oldest phase of the Azilian – can be proposed based on comparison with other sites. Based on the findings of La Fru a detailed stratigraphic classification is not possible. It can be testified, that in the late Magdalenian, there is no observable transformation from backed bladelets into backed points. So the question might be, whether the oldest Azilian does not represent the transformation stadium itself?

The analyzed series of La Fru allows a new understanding of the Azilian outside of the Paris Basin. The oldest phase of the Azilian at La Fru contains a characteristic tool - the bipoint. The chaîne opératoire reveals two types of blade production. First about 70 to 100 mm long blades and other blanks have been produced. Those blades of second choice served for common tools such as burins and laterally retouched pieces at Aire 1 or end-scrapers at Aire 2. The soft mineral hammer stone was used regularly. This is comparable with those sites in the Paris Basin, like Le Bois-Ragot and Le Closeau. The second production sequence aimed to spend regular blades of 60 to 35 mm length. They were used for projectile tips. Mainly local raw material have been used. The middle Azilian has developed from the local Azilian. Unfortunately, parallels are missing for the comparisons, but a simplification of the striking technique and the use of monopoints can be observed over a wide range. Some elements, such as the use of raw material and the regularity of blades are still in the tradition of the previous phase. There is a tendency to use raw materials from the regional environment. The people stayed in a more regional context, which is likewise observable e.g. at the Pyrenees (Lacombe 2005; Kegler 2007).

The site of Abri de la Fru (Saint-Christophe-la-Grotte) in the French department Savoie is – until now – the only site that allows a closer look on the development from a chronological, cultural and evolutionary perspective in the French Alps. During the late glacial Interstadial, many innovations took place, visible on this regional basis. The development at the site from the late Magdalenian to the Azilian can however be related to a wider European context too. Ludovic Mevel’s work about the Abri de la Fru (Saint-Christophe-la-Grotte) is a spatially limited study. That is the strength of his work. It shows that a thorough analysis of individual aspects such as technological, typological but also chronological ones, can significantly contribute to the understanding of a region. By comparing his results with the ideal sequence for France in the Paris Basin at the end of the last ice age, he made a second comparative region available with his work. It concentrates mainly on the conclusive French model of Azilianization. However, it can serve as a model for other regions, in which such sites have already been excavated. For these regions, such a comprehensive presentation would equally be desirable.

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**Literature cited**


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**La Grotte d’Enlène. Immersion dans un habitat magdalénien**


rezensiert von

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Das hier zu besprechende Buch über die Grotte d’Enlène beschließt die Vorlage bzw. Neuauflage der so genannten Volp-Höhlen (Les Cavernes du Volp) – Tuc d’Audoubert (Bégouën et al. 2009), Trois Frères (Bégouën et al. 2014) und Grotte d’Enlène –, so dass nach einer ersten gemeinsamen Vorlage der beiden erstgenannten Höhlen (Bégouën und Breuil 1958) nunmehr drei moderne Monographien den...