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From the east or the west?

Blade production in the Levant and northwest of Europe during the Middle Pleistocene

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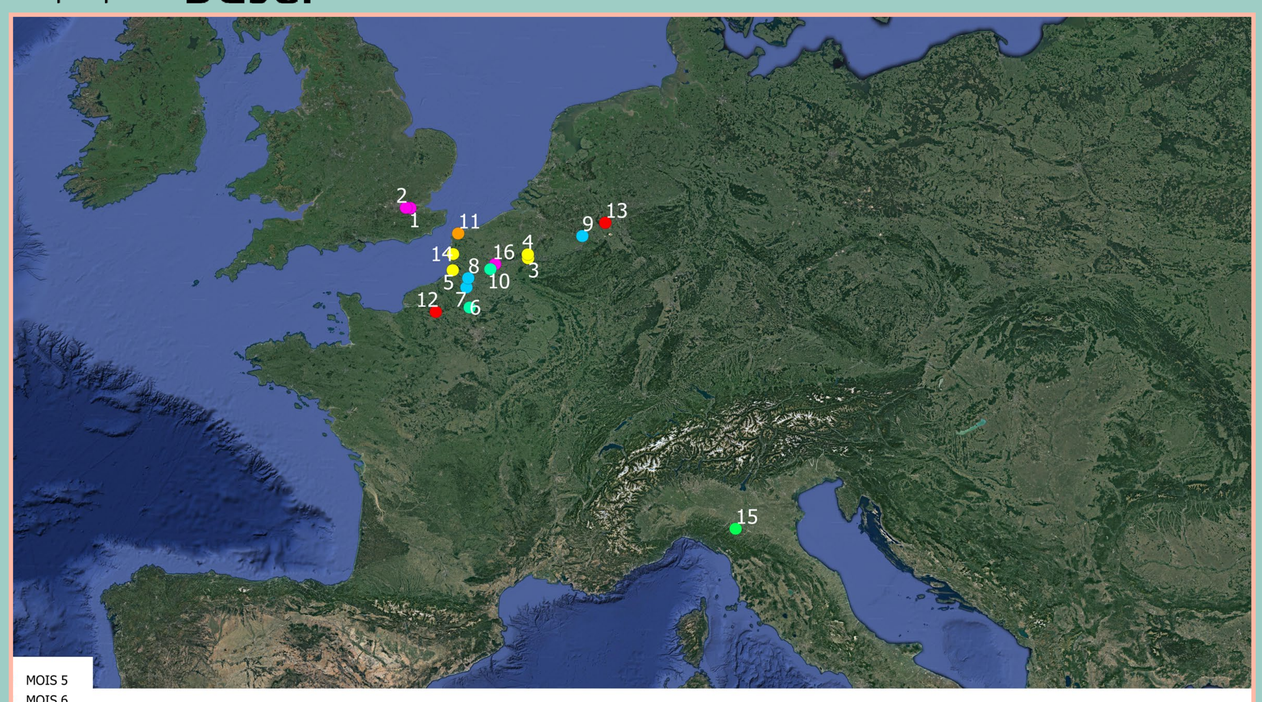
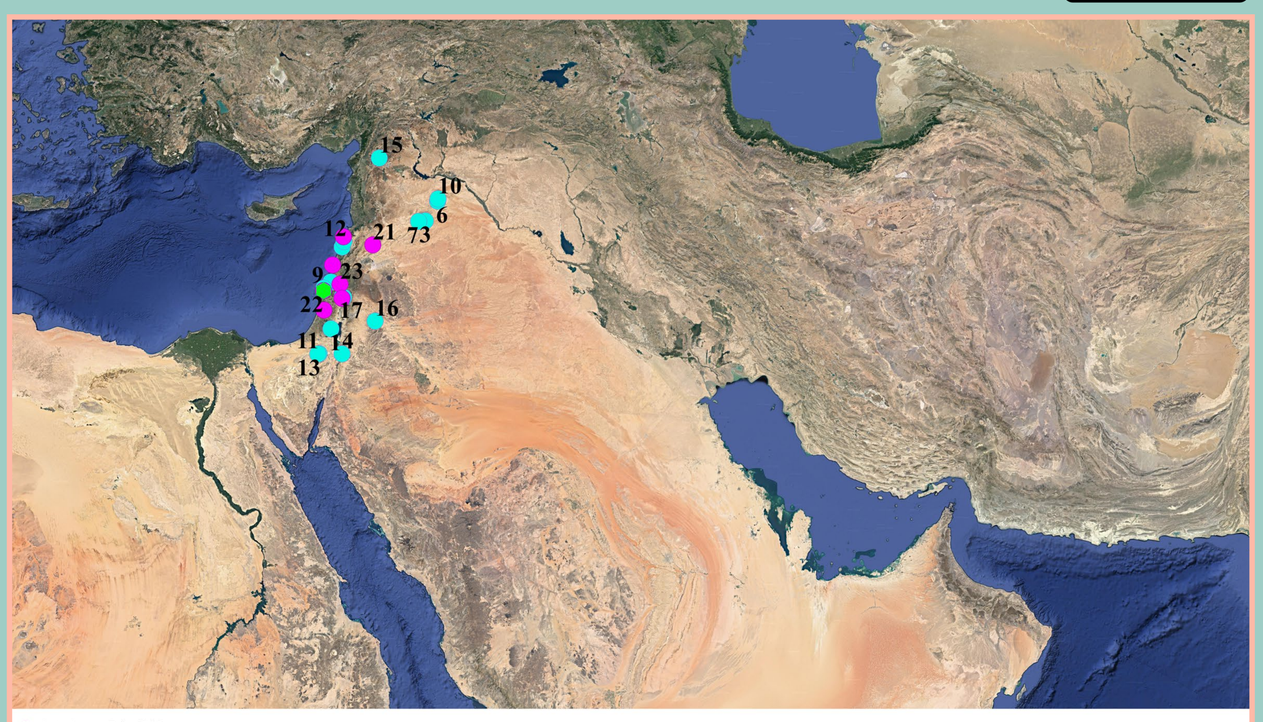
IPAS



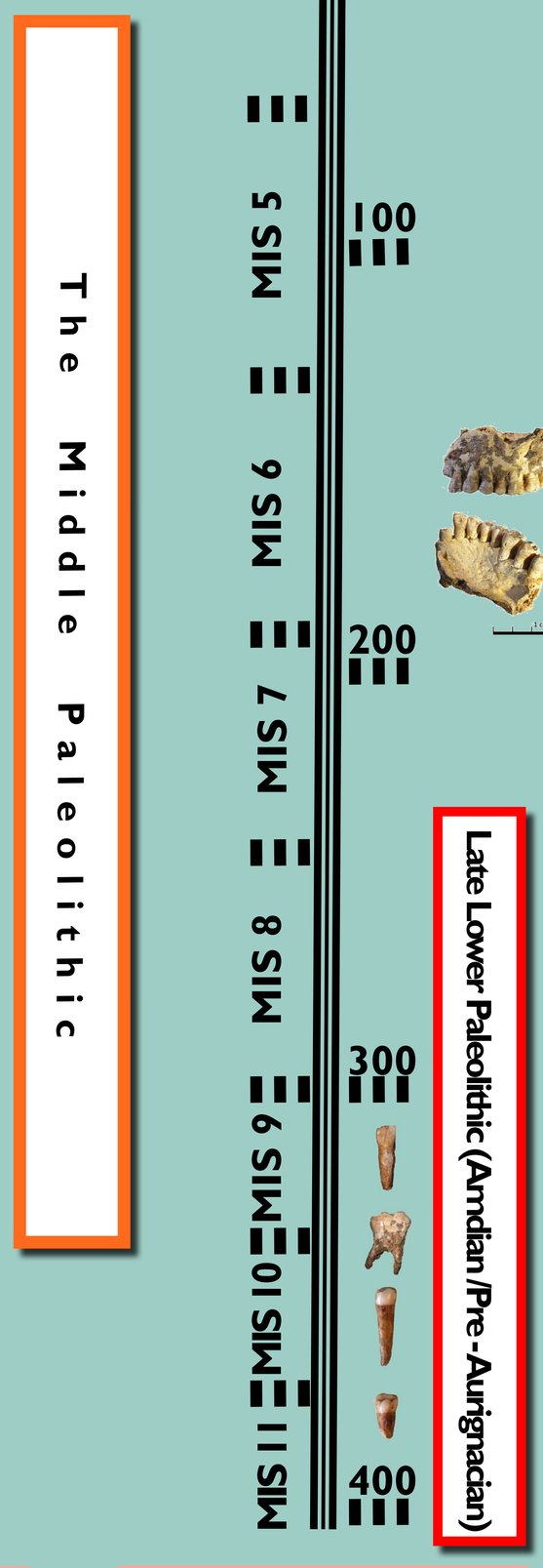
MOIS 5
MOIS 6
MOIS 7/6
MOIS 7
MOIS 8/7
MOIS 8
MOIS 9

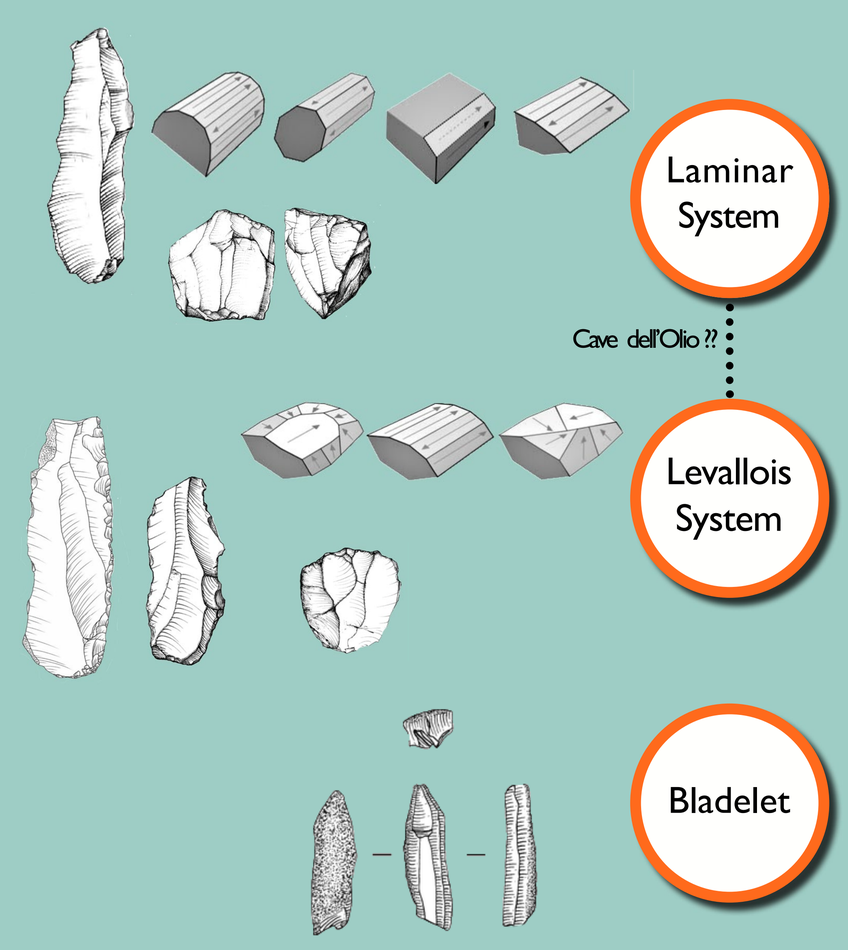
1-Baker's Hole 2-Crayford 3-Mesvin (IV) 4-Le Rissori 5-Saint-Valery-sur-Somme 6-Therdonne (N3) 7-Fresnoy-au-Val 8-Bettencourt-Saint-Ouen 9-Veldwezelt-Hezerwater 10-Bapaume- les Osiers 11-Coquelles 12-Tourville-la-Rivière 13-Rheindahlen 14-Bagarre-Étaples 15-Cave dell'Olio 16-Biche-Saint-Vaast



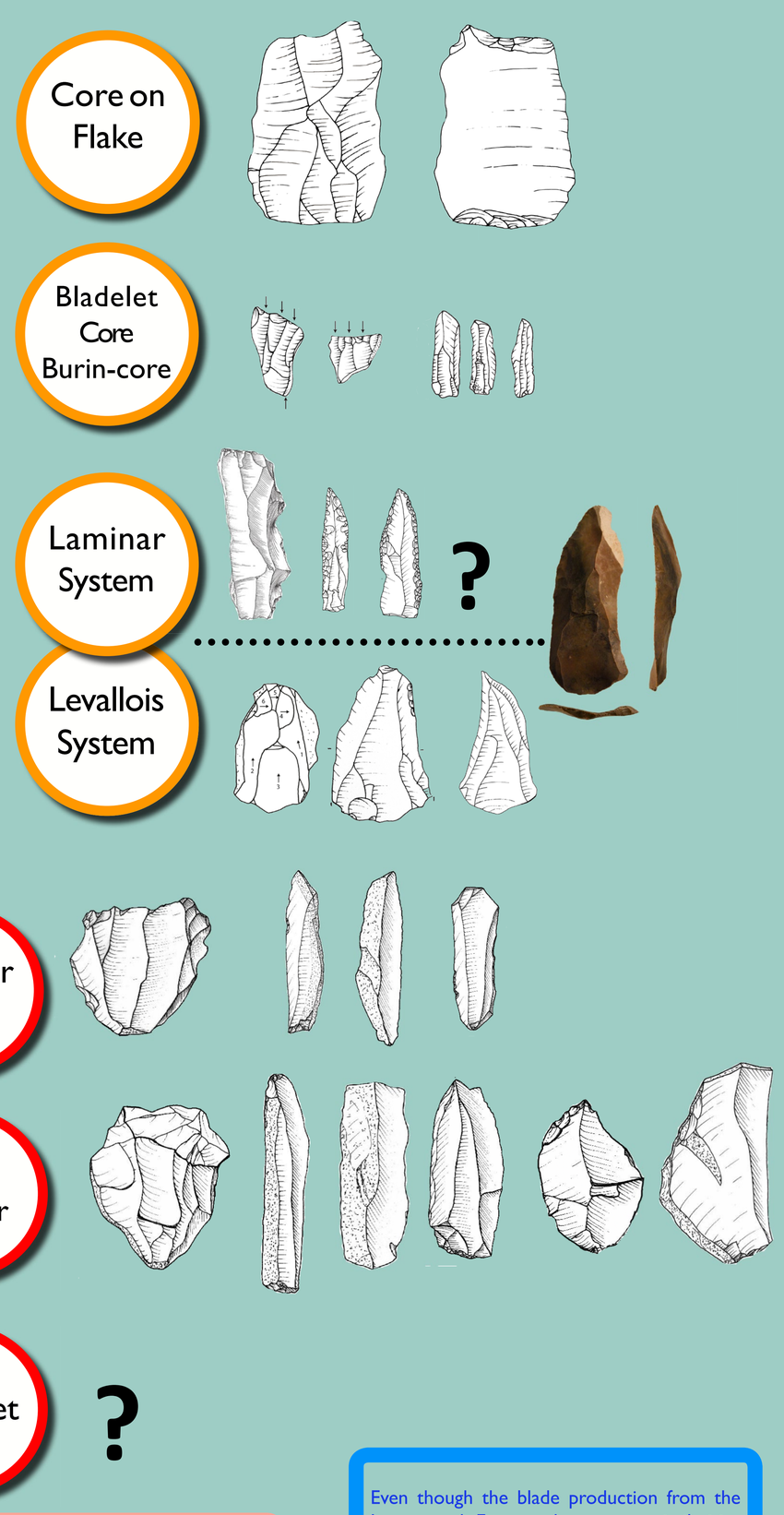
- Late Lower Paleolithic
- Late Lower Paleolithic and Early Middle Paleolithic
- Early Middle Paleolithic

1-Abu Sif 2-Bezez Cave 3-Doura Cave 4-Ain Difla 5-Hayonim Cave 6-Hummal 7-Jerf Ajla 8-Ksar Akil 9-Misliya Cave 10-Nadaouiyeh Aïn Askar 11-Nahal Aqev 12-Nahr Ibrahim 13-Rosh Ein Mor 15-Dederiyeh 16-Azraq 17-az-Zamliyah 18-Jaffin





The Middle Paleolithic



The latest chronological and geographical data suggests a multi-loci appearance of the laminar phenomenon in the heart of Paleolithic. The oldest indications of blade production are from Africa around 545 000 BP and later c.400 000 BP in the Levant. Only about 300 000 BP does the production appear in Europe. This activity seems to have developed over a long period and reflects different production strategies that always led to the production of an elongated support.

In the Levant, the systematic production of blades emerged during the transition between the LLP and the EMP. During the LLP, research clearly shows two distinct industries Pre-Aurignacian and Amudian. These industries reflect a great ability to systematically produce blades and present a new approach to core volume management. Despite the significant similarities between those two industries, there are some differences, which can be related to the nature of the raw material and/or site function. The Pre-Aurignacian and Amudian have been associated with term Acheulo-Yabrudian.

The EMP industries also contained systematic production of blades and are situated directly under the Levantine Mousterian. They are known under different names, Hummalian, Abou Sifian, or Tabun D and aimed to produce elongated, converging or parallel blanks using different core reduction strategies. Beside the Laminar system of debitage, the existence of Levallois system of debitage is also confirmed. In the case of Hummalian, the Levallois and the Laminar debitage systems seem to be used successively during the same core reduction process. Some of the EMP blade industries also included core on flake and bladelet production.

In the northwest of Europe, the shift from Lower to the Middle Paleolithic is characterized by the emergence of new behaviours. The lithic record from this period has undergone changes concerning the core reduction strategies; an increase in predetermined flaking systems. Blade production appeared primarily at the end of MIS 9. The oldest evidence of blade production is from Cave dall 'Olio (Italy) and Mesvin IV (Belgium). MIS 5 sees blade production spread across a widespread area of Europe, including northwest of Germany and central and southern France. The blade production is never exclusive and usually coexists with other core reductions strategies for flake production.

Even though the blade production from the Levant and Europe share many similarities such as producing elongated blanks and using hard hammer percussion, there are significant differences between them. Both EMP assemblages from the Levant and Europe (e.g., Cave dall 'Olio, Mesvin IV) show simultaneously the use of Laminar and Levallois reduction strategies to produce their blanks. Yet, in the Levant blade production is most prominent whereas in Europe blades appeared as a marginal phenomenon alongside flake production. Furthermore, there is a fundamental difference concerning the appearance of blade and Levallois technologies. In Europe, the oldest evidence of the Levallois (proto-Levallois) dated back to MIS 12-11 in France, MIS 10 in Italy and only at the end of MIS 9 beginning of MIS 8 did the Laminar system start to appear. While in the Levant, the Laminar system began around 400 000 BP before the emergence of the Levallois system in the EMP.