

There are few issues in lithic studies that have captured the imagination and attention of researchers as much as laminar (blade) technologies (see Bar-Yosef & Kuhn 2009). This has resulted in a rich and detailed body of academic work partly reflected in Pierre M. Desrosiers' (Ed.) *The Emergence of Pressure Blade Making: From Origin to Modern Experimentation*. This voluminous and highly specialised collection of papers is the outcome of a session held in honour of Pierre-Jean Texier and Marie-Louise Inizan, at the union of Prehistoric and Proto-historic Sciences held in Lisbon in September 2006.



Overall this is an impressive book and one that will be of unarguable value to lithic specialists working across a range of time periods and regions. Its technical focus and attention to minute detail may, however, make it a less-useful and expensive purchase for a more general audience.

The book's chapters cover three thematic areas including the history of research into pressure blade production; global perspectives on the emergence and diffusion of these technologies and the role of experimental archaeology in this research. The book brings together a wide variety of researchers and contains reams of technological and experimental detail to accompany a rich set of archaeological case studies. No lithic publication is complete without a strong visual component and Springer's dedication to publishing in the fields of science and technology show through in this book, with ample space given to illustrations and images.

Marie-Louise Inizan and John Clark place their indomitable marks on the volume by tracking the historical details of research on pressure blade production in the introductory section. Those looking for a detailed sketch of the main personalities to have played a role in pressure blade experimentation can do no better than their two chapters.

These, as well as the concluding sections discussing recent advances in experimentation by Jacques Pelegrin and Peter Kelterborn, form the backbone of the experimental material covered in the book. In them the reader is provided with countless experimental datasets outlining the key technological attributes associated with pressure blades and how these elements can be recognised in the archaeological record.

The research outlined in these chapters falls into two broad categories: measureable and replicative experiments. These are two poles on a spectrum of contemporary experimental work that have varying levels of applicability in archaeological research. Pressure blade experiments have tended towards the replicative side of the spectrum, but Peter Kelterborn's work in Chapter 19 suggest that this may be changing as archaeologists debate the merits of different theoretical approaches to experimentation. This is a relevant debate for contemporary experimental archaeology and these chapters give the reader a chance to ponder the merits of controlled, laboratory-like experimental practices (measureable

flintknapping) as opposed to more folk-knowledge and craft-based studies (replicative flintknapping).

Nearly all of the case studies presented in the intermediate sections of the book draw from the data presented in these experimental chapters. The reason for this is that much of this experimental research was, and still is, driven by a dialectic of needing to identify products of pressure blade production in archaeological assemblages and an increasingly variable and less predictable prehistoric record for the use of these technologies. This experimental work also highlights the subtle technological variations of pressure blade production that compliment and enrich the historically typological approaches to pressure blade research discussed in many of the archaeological case studies in the book.

The book's central chapters deal with the archaeological evidence for pressure blade production in the Near East, Europe, Asia and the Americas. These sections focus predominantly on the origins of this technology during the late Pleistocene in Asia (c. 35 – 20 thousand years ago; Chapters 11, 12, 15) and its wider spread and proliferation during the terminal Pleistocene and Holocene periods (c. 11 thousand years ago onwards; e.g. Chapters 4, 9, 17). Discussions of population migration, diffusion and dispersal feature prominently in these chapters with, for example, the Nenana and Swan Point pressure micro-bladelet production in Alaska and the dispersals of humans into the new world during the last 12 – 13 thousand years ago (Chapter 14). Certain of these case studies (e.g. Chapters 5, 10 and 12) provide a more theoretical discussion of how it is technological systems that are transferred between generations and across regions and provide an initial discussion into the cultural evolutionary scenarios that may have taken place during these processes.

The chapters dealing with blade production during the Neolithic of the Near East (Chapters 5 and 6) focus on craft specialisation and the social conditions under which pressure blade production developed. Hirth and Darras' chapters (16 and 17) on late Holocene (c. 2500 B.C) Meso-and South American pressure blade production are, not surprisingly, some of the most detailed in the book. These chapters discuss pressure blade production in complex societies relying on stone technologies; the role of sedentism in the development of technological "complexity" and the primarily commercial, rather than political, role of this technology. Darmark's work in Chapter 10 takes a slight divergence from the general theme of the book to consider the evidence for surface pressure flaking of projectile points in Eurasia, and in the process does an impressive job of synthesizing the variable evidence for this method. While the central chapters of this book are concerned with archaeological data they also successfully weave together the experimental and technological information provided in the initial and concluding chapters. These inter-woven case studies provide excellent examples of the rich, multi-disciplinary, research that has made pressure blade research so attractive.


In spite of the book's numerous merits, there are a few critiques of its contents that are worth discussing. One of the most obvious and pervasive is a lack of information and discussion about why people would want to adopt pressure blade production in the first place. When the topic is broached, the answers are typically framed within purely economical terms with less concern being given to the social aspects of technological evolution. There is also a general lack of engagement with literature from the field of cultural evolutionary theory and of attempts at modelling knowledge transmission and evolutionary processes as they relate to pressure blade production (but see Pelegrin's work in Chapter 18). For example, the frequent correlation of complex technologies with skill development / training are rarely accompanied by discussions of how these processes might work and what their material correlates would look like. A frequent assumption found in many of the book's chapters is the notion that lithic technologies can be equated with cultural groups. Culture, as the term is used in lithic studies, is reductionist and seldom refers to anything resembling the complex and variable cultures that are studied by behavioural scientists such as cultural anthropologists. It is therefore unlikely that archaeologists can track human cultures through time by reference purely to their stone artefacts. The general lack of ethno-archaeological case studies in the book could well underlie this problem (but see Chapters 3 and 15).

The primary critique I have of this book is its almost complete lack of reference to the African archaeological record south of the Sahara Desert (see Chapters 2 and 4). The pioneering work of many Africanist archaeologists working in this broad region over the past 40 years has shown that micro-bladelet production is an intricate component of the late Pleistocene lithic record here (see Barham & Mitchell 2008). It is true that we frequently lack detailed technological studies of these materials, but they none-the-less warrant discussion in a context such as this for potentially being as old, if not older, as those in Asia (see Mitchell 2002). In addition, the recent work by Vincent Mourre and colleagues on surface pressure flaking during the Stillbay period in South Africa (c. 73.5 – 70.5 thousand years ago) has shown this to be the oldest currently known (Mourre et al. 2010). In general the book's references to the African archaeological record are outdated, a fact likely stemming from the lengthy publication times commonly associated with edited volumes.

Overall this is an impressive book and one that will be of unarguable value to lithic specialists working across a range of time periods and regions. Its technical focus and attention to minute detail may, however, make it a less-useful and expensive purchase for a more general audience. The book's discussion of experimental data and its integration into archaeological research are exceptional and for this reason I would recommend it to anyone wishing to pursue an experimental research trajectory in lithics.

### Book information:

Pierre M. DESROSIERS (editor), 2012, *The Emergence of Pressure Blade Making: from Origin to Modern Experimentation*, New York: Springer-Verlag, ISBN: 978-1-4899-9110-2.

 Keywords [review](#)  
[flint](#)  
[knapping](#)  
[book](#)

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