

# THE STILL BAY INDUSTRY

*An introductory guide*



**HESSEQUA SOCIETY FOR ARCHAEOLOGY**



**Panoramic view of the interior of Blombos Cave**



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**An introductory guide**

Compiled by Brian Mathiesen

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## Hessequa Society for Archaeology

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*Front cover image and inside front cover image courtesy of Christopher Henshilwood & Magnus Haaland.*

*Compiled by Brian C Mathiesen*

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# INTRODUCTION

## What is “The Still Bay Industry”?

The term “Still Bay” is well known to archaeologists worldwide and refers to a specific style or technique used to manufacture stone implements in the Middle Stone Age. “The Still Bay” is particularly well known for beautifully made bifacial foliate stone points. During this process, the entire surface of the stone implement was gradually reduced and shaped by fine flaking known as ‘pressure flaking’<sup>1,2</sup>.

The term was originally coined by A.J.H. Goodwin, a prominent South African archaeologist, as a tribute to the pioneering work done in archaeology in the Still Bay-Blombos-Riversdale area by C.H.T.D. Heese, a retired school teacher from Riversdale. In a dune field close to the village of Still Bay (as it was generally referred to at the time) he recovered several laurel-leaf shaped foliate lithic points. Examples of bifacial points from the region are similar to those of the European Solutrean which were made more than 50 000 years later <sup>3</sup>.



Some “Still Bay” points from the Heese collection on display in the Blombos Museum of Archaeology Stilbaai

Photograph by Brian Mathiesen

## C.H.T.D. HEESE

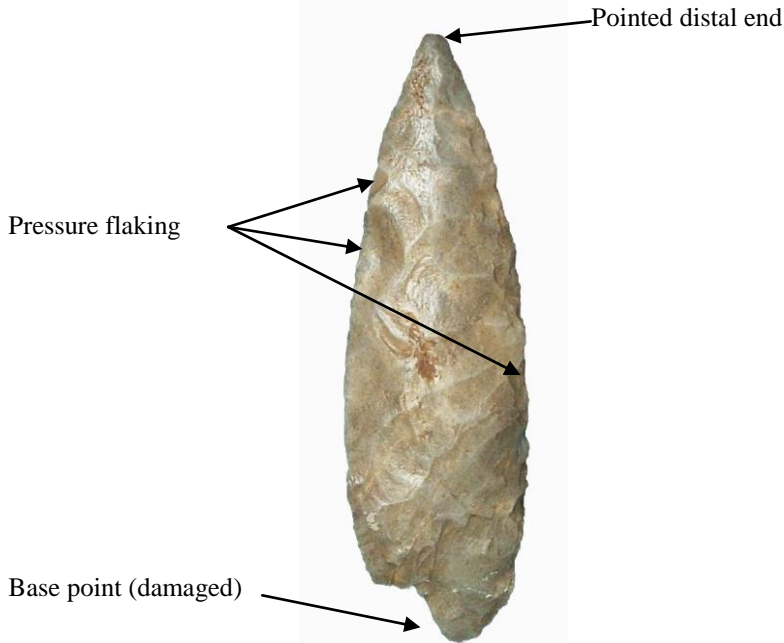
**Christoph Heinrich Theodor Daniel Heese** was born in 1870 in Riversdale, Cape Colony. He attended school in Pyritz, Germany and obtained a BA degree with honours at the Victoria College (later University of Stellenbosch) in 1899. He taught in various schools in South Africa.



After retirement he lived in Stilbaai and researched Middle Stone Age artefacts. Heese managed to build a large collection of Stone Age tools. Various articles by him in both Afrikaans and English appeared in the South African Journal for Science. In 1933 he published a thesis *The Evolution of Paleolithic Technique* in the Annals of the University of Stellenbosch. He received an honorary doctorate from the University of Stellenbosch for his work <sup>1</sup>.

The Heese collection is presently in storage at the Iziko South African Museum in Cape Town and the “Still Bay” bifacial points, originally found and described by him, form part of this collection.

## STILL BAY POINT DESCRIPTION



Example of a “Still Bay” point <sup>6</sup>

*Image courtesy of Brian C Mathiesen*

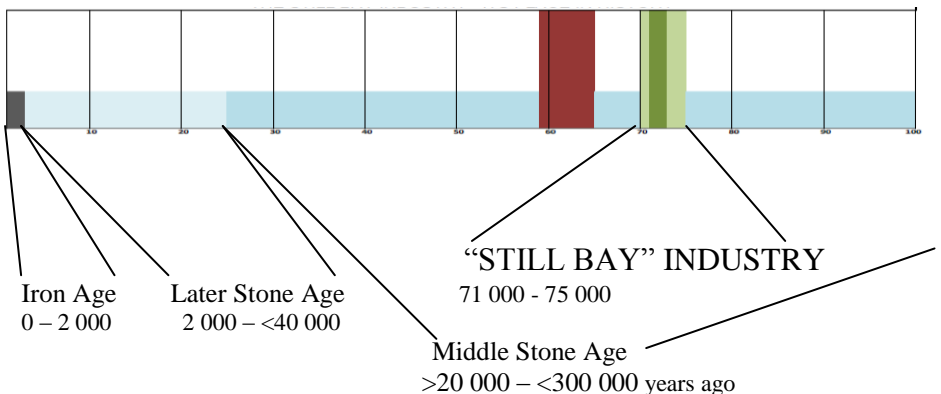
“Still Bay” points are defined as bifacially (on both sides) retouched, narrowly elliptic to lanceolate shaped tools, with two sharply pointed apices <sup>1,2</sup>. They generally have an elongated laurel-leaf form and display signs of fine pressure flaking over the whole surface. Goodwin and Van Riet Lowe <sup>4</sup> and also Heese later described the ‘lance-head’ in elongated laurel-leaf form as the *fossile directeur* of the “Still Bay” techno-tradition.



## A PLACE IN HISTORY

In addition to the Howiesons Poort, the “Still Bay” Industry was one of two short-lived bursts of technological and behavioural innovation in southern Africa during the Middle Stone Age. “The Still Bay” lasted for the relatively short period of roughly 5 000 years, a time when some of the first behaviourally modern humans inhabited the southern Cape 75 000 to 71 000 years ago <sup>1</sup>.

The technique of preheating the silcrete prior to knapping and the application of pressure flaking to the finished blanks during the manufacture of “Still Bay” bifacials 75 000 years ago was, until recently, thought to have been a skill first used in Europe at about 20 000 years ago during the Solutrean Period. We now know that the origins of this advanced technique lie in southern Africa and predate its first use in Europe by more than 50 000 years <sup>7</sup>.

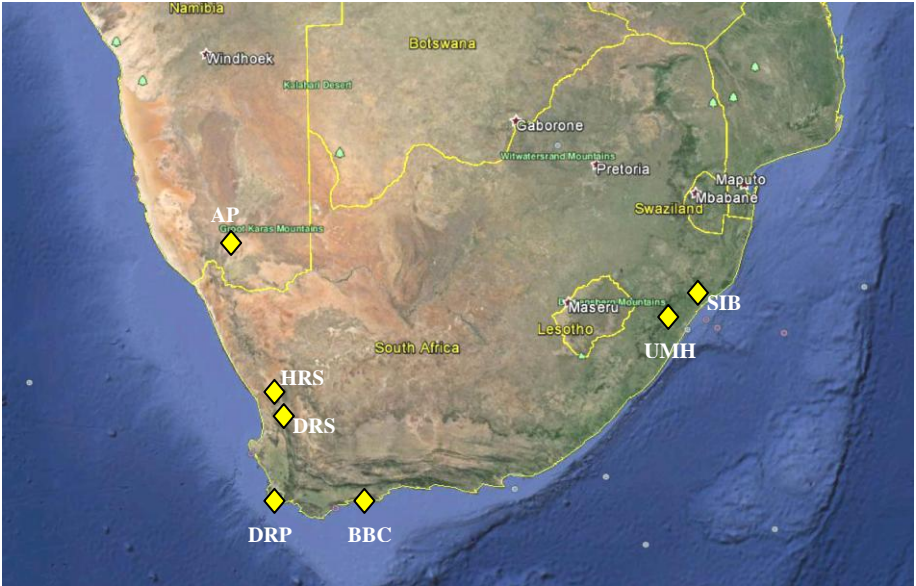


The second period of innovation, shown as ■, is the Howiesons Poort Industry which lasted from 66 000 to 58 000 years ago <sup>5</sup>.

A detailed comparison of these two industries is found in:

*Henshilwood, C. S. 2012. The Still Bay and Howiesons Poort: ‘Palaeolithic’ techno-traditions in southern Africa. Journal of World Prehistory 25:205-237.*

# DISTRIBUTION



The distribution of “The Still Bay” Industry is more widely spread than was previously thought and, although confined to southern Africa, has now been recorded at nine other sites in addition to originally being found in the dune fields around Stilbaai and Jongensfontein<sup>1</sup>.

AP	Apollo II Cave (Namibia)
BBC	Blombos Cave
DRS	Diepkloof Rock Shelter
DRP	Dale Rose Parlour (Peer’s Cave & Tunnel Cave)
HRS	Hollow Rock Shelter
SIB	Sibudu Cave
UMH	Umhlatuzana Cave

## SILCRETE AS A RAW MATERIAL

There was a preference for making “Still Bay” points from fine grained raw materials, the principle material being silcrete <sup>2</sup>, <sup>6</sup>. Silcrete is an indurated soil duricrust formed when surface quartz sand and gravel are cemented by dissolved silica. This material was found at sites quite remote (c. 20 – 30 km) from where the tools were made.



At first it was not known how the fine flaking and finishing of the “Still Bay” points had been achieved, as researchers could not replicate the process using raw silcrete. It was then discovered that heat treating raw silcrete for a specific time to a temperature of between 300°C and 400°C resulted in a much more workable material where fractures would follow the natural grain of the stone, rather than breaking across the grain. This allowed a much finer and sharper edge to be achieved <sup>6</sup>.

In addition to changes in the fracturing properties, heat treatment may change the stone's colour and increase its lustre. An example of raw and heat treated silcrete is shown in the photograph to the right.



## MANUFACTURING TECHNIQUE

Bifacial points served as multi-functional tools and were used as spear points and knives. The majority of the bifacial points found in Blombos Cave were made of silcrete and were heat-treated before flaking<sup>1, 2, 6</sup>. They were then finished by using an innovative and sophisticated pressure flaking technique<sup>7</sup>.

Pressure flaking takes place when implements previously shaped by hard stone hammer strikes, followed by softer strikes with wood or bone hammers, are carefully trimmed on the edges by directly pressing the point of a tool made of bone on the stone artefact.

The pressure flaking technique provides a better means of controlling the sharpness, thickness and overall shape of bifacial tools. Prior to the Blombos Cave discoveries, the earliest evidence of pressure flaking was from the Upper Palaeolithic Solutrean culture in France and Spain roughly 20 000 years ago.

What is interesting is that the high level of skill and the pressure flaking technique employed in the manufacturing process only appears to have been applied to points and not to other lithics of the period. This could indicate that these points may have served some symbolic purpose in addition to being used as the head of a weapon.



Example of a “Still Bay” point made by pressure flaking<sup>7</sup>

## OTHER ITEMS ASSOCIATED WITH THE STILL BAY INDUSTRY

“The Still Bay” Industry points have been recovered from layers precisely dated at between 75 000 and 71 000 years ago.

Other items have been found in these layers and they can therefore be associated with “The Still Bay” Industry.

### Abstract engraving on ochre

*Henshilwood, et al. 2002. Emergence of Modern Human Behaviour: Middle Stone Age engravings from South Africa. Science 295:1278-1280.*

*Henshilwood, et al. 2009. Engraved ochres from the Middle Stone Age levels at Blombos Cave, South Africa. Journal of Human Evolution 57: 27–47)*



### Marine shell beads.

*Henshilwood et al 2004. Middle Stone Age shell beads from South Africa. Science 304 (5669): 404.*

*d’Errico et al 2005. Nassarius kraussianus shell beads from Blombos Cave: Evidence for symbolic behaviour in the Middle Stone Age. Journal of Human Evolution 48:3-24.*

*Vanhaeren, M., d’Errico, F., van Niekerk, K., Henshilwood, C.S., Erasmus, R.M. 2013. Thinking strings: additional evidence for personal ornament use in the Middle Stone Age of Blombos Cave, South Africa. Journal of Human Evolution 64: 500-517.*



### Bone tools.

*Henshilwood et al 2001. An early bone tool industry from the Middle Stone Age at Blombos Cave, South Africa. Journal of Human Evolution 41: 631–678.*

*d’Errico, F. & Henshilwood, C.S. 2007. Additional evidence for bone technology in the southern African Middle Stone Age. Journal of Human Evolution 52:142-163.*



*Images courtesy of Christopher Henshilwood*

# COMPARISON BETWEEN “STILL BAY” BIFACIAL POINTS AND MIDDLE STONE AGE UNIFACIAL POINTS

“Still Bay” Points



*(Images courtesy of Christopher Henshilwood)*

MSA unifacialPoints



*(Images courtesy of Brian C Mathiesen )*

## **“THE STILL BAY” INDUSTRY AND MODERN HUMANS**

A study of the “Still Bay” Industry and the associated items found in the 75 000 to 71 000 year old levels at Blombos Cave indicates that *Homo sapiens*, living on the southern Cape coast of South Africa, had the capacity for fully modern cognitive abilities including syntactic language. Europe was previously believed to have been the birth place of modern humans and not Africa – but now we have the evidence that this Eurocentric assumption made decades ago was not correct <sup>1</sup>.

The finely worked “Still Bay” points indicate an advanced knowledge of how to process and work raw materials, including stone and bone <sup>12</sup>, and how to enhance them finally ending in the manufacture and use of sophisticated stone and bone tools <sup>10</sup>.

These early people exhibited the concept of abstract art in the form of engraved ochres found in the 100 000 to 75 000 year old levels <sup>8</sup>.

The discovery of shell beads in the 75 000 year old levels adds an unambiguous marker of symbolically mediated behaviour. These beads, found in Blombos Cave, represent some of the earliest evidence for human adornment <sup>9,12</sup>.

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