

**Report on the 2013 archaeological excavations at Blombos Cave,
southern Cape, South Africa and update on current research with regards
to the Blombos site and materials.**

Report compiled for Heritage Western Cape by:

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PERSONNEL PRESENT AT EXCAVATION - 2013

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Masters student, AHKR Institute, University of Bergen, Norway

Ole Unhammer

Housekeeper

Marilyn Fielies

Participating Researchers

1. University of Royal Holloway, United Kingdom

Dr Simon Armitage

(Optically Stimulated Luminescence Dating)

2. University of Tübingen, Germany

Christopher Miller (Geoarchaeology)

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Susan Mentzer (Geomorphology)

3. Cambridge University

Cynthia Larbey (Botanical analysis)

**BLOMBOS CAVE PROGRESS REPORT FOR THE PERIOD
24 NOVEMBER 2013 – 05 DECEMBER 2013**

Introduction

This report relates to the permit issued by Heritage Western Cape according to Reference numbers:

1. HWC REF. No. 2007/03/APM 003, C13/3/6/2/111/1/1/C21 BLOMBOS CAVE PROJECT PERMIT NO. 2007-03-003

2. HWC REF No. 2010/02/APM 001

HM/EDEN/HESSEQUA/JONGENSFONTEIN/BLOMBOS CAVE PROJECT PERMIT NO. 201002-001

3. HWC REF No. 2011/09/APM 001

HM/EDEN/HESSEQUA/JONGENSFONTEIN/BLOMBOS CAVE PROJECT PERMIT NO: 2011/09/001.

On 22 March 2007 a permit (# 2007-03-003) was issued to excavate the M3 phase in Squares E5/6; F5/6; G5/6; H5/6 and I5/6 at Blombos Cave (BBC). Permits (2010-02-001 and 2011-09-001) were issued on 25 February 2010 and 09 September 2011 to further excavate at Blombos Cave.

This report discusses excavation progress during the 2013 excavation season related to the above permits. A progress report for the 2011 season has already been submitted and processed by Heritage Western Cape.

The Blombos Cave site preserves an extensive record of archaeological evidence in the Middle Stone Age, integral to research on the oldest evidence for modern humans in sub-Saharan Africa and bears a unique or at least exceptional testimony to a cultural tradition which has disappeared. Results from the site significantly contribute to current debate about the origins of modern human behaviour.

The site represents an outstanding example of a traditional human settlement, land-use or sea-use which is representative of a culture, or human interaction with the environment and the material presented here illustrates the importance of sustained excavation and research at Blombos Cave.

General background to excavation methods followed at Blombos Cave

Blombos Cave (34° 25'S, 21°13'E, Figure 1) is situated in a steep cliff, 100 m from the Indian Ocean and 34.5m above modern sea level. The sediments of the cave were well protected as the cave elevation sheltered it from erosion by the high sea level stands during Marine Isotope Stage 5e and MIS 1. The cave is situated in the calcified sediments of the Tertiary Wankoe Formation, which contributes to the good preservation of faunal and human remains recovered from the site.

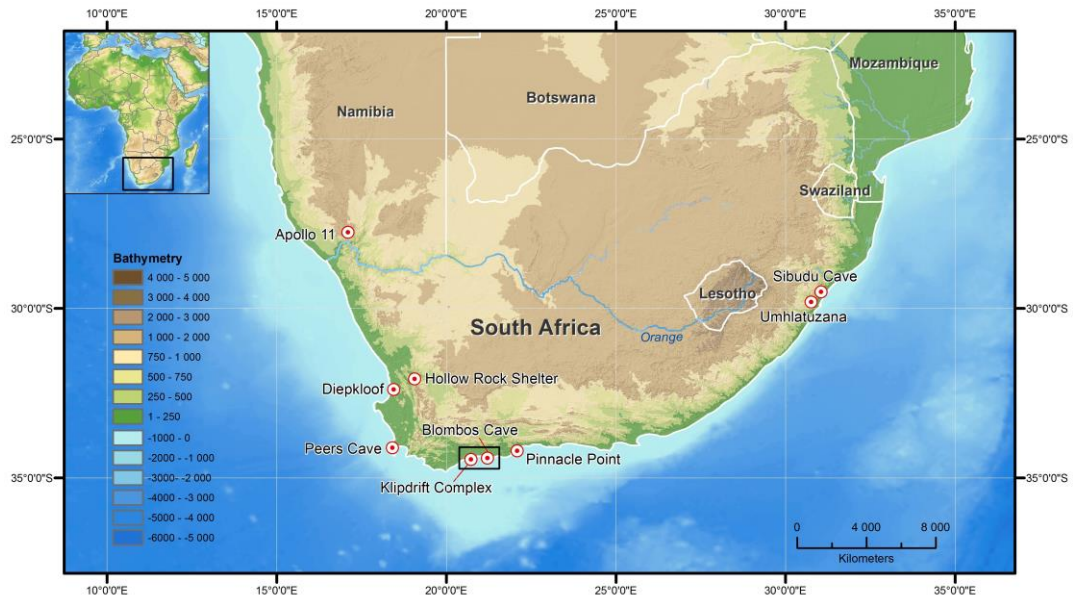


Figure 1. Map showing the location of Blombos Cave

Systematic excavation and analyses of the Middle Stone Age (MSA) layers at Blombos commenced in 1992 and is ongoing. The MSA at BBC occur below LSA layers in the small cave and extend into a recently-discovered antechamber. The MSA layers are divided into three phases, M1, M2 and M3, each comprising a number of discrete layers or units (Figures 2 & 3). These phases have been dated using a number of methods, including thermoluminescence (TL), optically stimulated luminescence (OSL) and electron spin resonance (ESR).

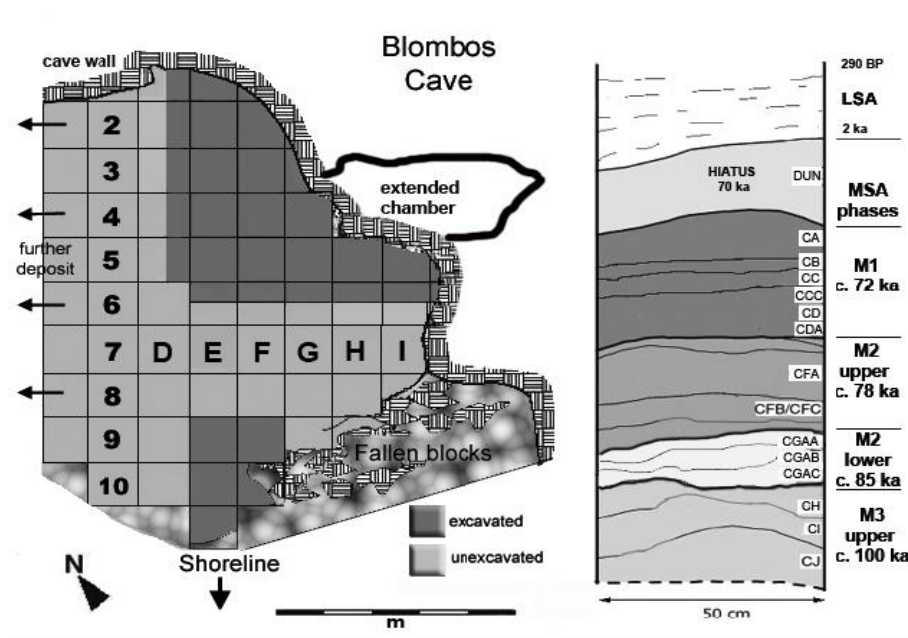


Figure 2. Blombos Cave floor plan

Excavation Method

Excavation methods follow those described in previous reports submitted to Heritage Western Cape and follows the Standard Best Practice for Middle Stone Age and Middle Palaeolithic excavations.

The excavations were carried out by a multi-disciplinary team led by Christopher Henshilwood and Karen van Niekerk.

The surface of Blombos Cave is divided into square metres (D-H), and further subdivided into 0.5m quadrates (a-d) as shown in Figure 2. Different units are identified, based on texture, composition, colour, thickness and features.

Excavations proceeded with brush or small trowel following individual strata or layers. The term ‘‘layer’’ describes a single stratum that accumulated through natural and/or human deposition. Counts of buckets of deposit provide a measure of volume excavated. All plotted pieces were individually bagged, labelled and numbered according to square, unit and artefact category as well as entered on the site record form and systematically 3D plotted on a Trimble Total station. Recovered deposits were sieved through both 1.5 and 3.0 mm meshes. The plotted data included stone artefacts, bone, shellfish, ochre and features. Material smaller than 15 mm is wet sieved, through 3mm and 1.5 mm screens, and air-dried. Coarse fraction (>3mm) material is sorted on-site as well as at the Wits Satellite laboratory situated at 167 Buitenkant Street, Gardens, Cape Town.

A photographic record is kept of all surfaces before excavation and the context of any special finds. Soil, dating and other samples are systematically collected during excavation. Figure 6 indicates the stratigraphy of the site, the different phases and dates of the various layers.

A full set of records, field notes, and data sheets of the plotted material, is currently housed at 167 Buitenkant Street, Gardens, Cape Town, but will ultimately be archived at the IZIKO South African Museum. All the records and excavation data for the 2011 excavation seasons are available to Heritage Western Cape upon request. Raw data sets are being processed within the scope of individual research projects that form part of the larger Blombos project, and some results are available in the listed published material. Below is a summary report on excavation dates, squares and stratigraphic levels excavated during the 2013 season.

Plotted artefacts

The details of the plotted lithics, bone, ostrich eggshell and ochre are listed below. These tables do not include the pieces sorted in the field after washing of the sediment. It is likely that material from this process will expand these lists, especially the small lithic and faunal elements.

Units and Quadrates excavated 2013 season

Excavations started with the removal of loose collapsed sediment in square I6a. Table 1 lists the units and quadrates excavated in the 2013 field seasons. The 2013 excavation season was conducted from 24 November until 05 December 2013. Quadrates in squares I, F, G, H were excavated (Figure 2 & Table 1). Stratigraphic levels from CA to CPA were excavated. Refer Figure 3, for stratigraphy and dating phases, Blombos Cave, 2013.

Table 1. Units and Quadrates excavated 2013 season

Unit	Quadrate
NE corner trench	H4a, H4a,H4b,H3d
DUN+CA	I6c
CA	I6c
CB and CC	I6c
Section collapse	I6c
CD	F7b, G7a
CDA	F7b
CDB	F7b, G7a

CF	I6c
CFA	F7b, G7a
CFB/CFC	F7b, G7a
CFD	F7b, G7a
CGAA	G7b, H7a
CGAB	G7b, H7a
CGABh1	G7b, H7a
CGAC	G7b, H7a
CH	G7b, H7a
CIA	G7b, H7a
CIB	G7b, H7a
CIBh2	H7a
CJ	H7a

OCHRE

Blombos Cave is almost synonymous with ochre utilization in the Middle Stone Age. Modified and unmodified pieces were recovered during the 2013 excavations. Two grindstones were retrieved with ochre residue (Table 2). Analyses of ochre and related artefacts are ongoing.

Table 2. Quartzite grindstones with ochre

Unit	Quadrant	Plot number
CDB	G7a	L1 2505
CH	G7b	L5 2773

Table 3. Plotted and unplotted ochre finds

Unit	Quadrant	Plot number	Description
CDA	F7b	L7 2502	'polished' ochre
CFB	G7a	L11 3123	ochre
CFB/CFC	F7b/F7b	L3 2741	ochre/unplotted ochre
CGAB	H7a	L1 2461	ochre
CGAC	G7b	L4 2737	ochre
CH	H7a	L1 2535, L6 2543,	ochre/unplotted ochre
CIA	G7b	L3 2802	ochre
CIB	H7a	O1 2601	ochre (with stone/shell/bone)
CIB	H7a	L15 2602	ochre on stone
CIB	H7a		soil sample -ochre layer
CIB	H7a	L52 2645 / L1 2585	ochre with striations/ ochre scraped/ochre

CIBh2	H7a	L40 2965, L97 3324, L188 3152, L204 3173, L232 3216 (ochre in Turbo), L271 3213, L277 3284, L279 3288, L280 3290, L294 3320, L277 3284, L296 3322, L129 3077	ochre
CIBh2	H7a	O2 3116	Shell with ochre

FAUNA

The faunal collection from BBC shows that MSA people practiced a subsistence strategy that included a very broad range of animals and food gathering. Apart from small bone fragments all identifiable bones were plotted and individually bagged during the excavation. Micromammal remains were found in most of the excavated units and quadrates.

Dr Shaw Badenhorst's research on the large mammal remains from the *c.* 100 ka layers of the M3 phase at Blombos Cave in the southern Cape show that a wide range of mammal taxa are present dominated by small game animals, including rock hyrax, Cape dune molerat, steenbok/grysbok and Cape fur seal. An increase in larger mammals such as Bovidae, Equidae and Suidae over time, compared to small ground game, suggests changes in hunting and prey acquisition strategies at Blombos Cave. Most of the animals were collected by humans, with minimal evidence for raptor or carnivore activities. The fauna suggests an open and rocky environment.

Postdoctoral research fellow, Dr. Discamps' research approach involves a systematic search for bones that can be refitted that will aid in identification to species or genus and a detailed analysis of the burnt bone fraction. Species identified by Discamps in the M1 presently comprise the buffalo Cape fur seal, eland, hartebeest, steenbok/grysbok, southern reedbuck. Eland and steenbok/grysbok are the most abundant. Smaller animals include Cape dune molerat, rock hyrax and tortoise which are by far the most abundant. There is ample evidence of anthropic involvement in the accumulation of all the fauna (cut marks, percussion marks, notches, burnt bones). Jerome Reynard analysed the fauna from the Still Bay layers as part of his PhD, which is nearing completion.

The material is currently under analysis in order to better assess the variability of subsistence strategies and butchering practices throughout the BBC sequence, by taking into account all the faunal material (e.g. including small unidentifiable fragments).

SHELLFISH & FISH

The Blombos cave shellfish provide early evidence for the use of seafoods possibly dating from 100 000 – 110 000 years. Shellfish were recovered from most layers, but were most abundant in the M3 layers, and least abundant in the M2 lower layers. This follows the pattern of shellfish abundance already observed from previous shellfish analyses.

Table 4. Plotted Bone

Unit	Quadrate	Plot No.	Description
CA	I6c	B1 2362	Longbone fragment
CA	I6c	B2 2365	Longbone fragment
CA	I6c	B3 2366	Femur?
CA	I6c	B4 2371	Fragment
CA	I6c	B5 2372	Fragment
CA	I6c	B6 2374	Fragment

CA	I6c	B7 2375	Fragment
CB/CC	I6c	B1 2377	Unidentified epiphysis bone
CD	F7b	B1 2473	Large bone with other group
CD	F7b	B2 2482	Rib fragments
CD	F7b	B3 2483	Foot bones x3 articulated
CD	F7b	B4 2484	Tooth
CD	G7a	B1 2382	c.1.5cm long x 1.2cm wide
CD	G7a	B2 2427	c.3cm long
CD	G7a	B3 2432	Distal end?
CD	G7a	B5 2449	Burnt epiphysis /humerus
CDA	F7b	B1 2492	Unidentified bone
CDA	F7b	B2 2498	epiphysis
CDA	F7b	B3 2503	Tortoise /Turtle?
CDB	G7a	B1 2506	Small bone
CDB	G7a	B2 2508	Small bone
CDB	G7a	B3 2510	Unidentified bone
CF	I6c	B1 2421	Unidentified bone
CFA	F7b	B1 2599	Burnt
CFA	G7a	B1 2540	Vertebra
CFA	G7a	B2 2550	Unidentified bone
CFA	G7a	B1 2540	Vertebra
CFA	G7a	B2 2550	Unidentified bone
CFB/CFC	F7b	B1 2734	Rib?
CFB/CFC	F7b	B2 2739	Rib
CFB/CFC	F7b	B3 2762	Rib?
CFB/CFC	F7b	B4 2770	Premaxilla
CFB/CFC	F7b	B5 2777	Rib? 3 pieces
CFB/CFC	F7b	B6 2779	Small bovid, lower M3
CFB/CFC	F7b	B7 2780	Astragalus
CFB/CFC	F7b	B8 2797	Sternum
CFB/CFC	F7b	B9 2804	Terminal phalange(Toe)
CFB/CFC	F7b	B10 2807	Phalange x4
CFB/CFC	G7a	B1 2649	Collection of bones; including cranial bone, scapula etc.
CFB/CFC	G7a	B2 2654	Modified
CFB/CFC	G7a	B3 2665	Unidentified bone
CFB/CFC	G7a	B4 2675	Longbone
CFB/CFC	G7a	B5 2677	Large burnt
CFB/CFC	G7a	B6 2679	Longbone
CFB/CFC	G7a	B7 2689	Fish
CFB/CFC	G7a	B8 2696	Axis bone -in 2 pieces; eland size
CFB/CFC	G7a	B9 2699	Longbone
CFB/CFC	G7a	B10 2703	Longbone

CFD	F7b	B1 3243	Phalanx
CFD	F7b	B2 3244	Vertebra
CFD	F7b	B3 3255	Longbone
CFD	F7b	B4 3256	Articular ends
CFD	F7b	B5 3257	Small fragments
CFD	F7b	B6 3258	Eland; large joint
CFD	F7b	B7 3259	Teeth
CFD	F7b	B8 3260	Phalange?
CFD	F7b	B9 3264	Phalange
CFD	F7b	B10 3265	Longbone
CFD	F7b	B11 3266	Vertebra fragment
CFD	F7b	B12 3267	Atlas
CFD	F7b	B13 3268	Vertebra fragment
CFD	F7b	B14 3274	Articulated snake vertebrae
CFD	F7b	B15 3275	Axis
CFD	F7b	B16 3277	Unidentified bone
CFD	F7b	B17 3281	Scapula
CFD	F7b	B18 3282	Joint end
CFD	F7b	B19 3285	Vertebra fragment?
CFD	F7b	B20 3289	Unidentified bone
CFD	F7b	B21 3292	Part of scapula?
CFD	F7b	B22 3295	Longbone
CFD	F7b	B23 3296	Unidentified bone
CFD	F7b	B24 3297	Costal cartilage
CFD	F7b	B25 3298	Astragalus
CFD	F7b	B26 3299	Mandible
CFD	F7b	B27 3308	Maxilla
CFD	F7b	B28 3317	Unidentified bone
CFD	F7b	B29 3318	Metacarpal distal end
CFD	F7b	B30 3323	Mandible with teeth
CFD	F7b	B31 3329	Mandible with tooth fragment
CFD	F7b	B32 3331	Longbone
CFD	F7b	B33 3335	Mature adult with right maxilla
CFD	F7b	B34 3339	Small tibia
CFD	F7b	B35 3340	Metacarpal
CFD	F7b	B36 3344	Bone; cut marks
CFD	F7b	B37 3349	Articular end
CFD	F7b	B38 3370	Vertebral disc
CFD	G7a	B1 2846	Left humerus of bovid size 1
CFD	G7a	B2 2847	Right patella of bovid size 1

CFD	G7a	B3 2851	Two small longbones
CFD	G7a	B4 2885	Part of mandible
CFD	G7a	B5 2892	Eland? large tooth-right upper 3rd molar
CFD	G7a	B6 2893	Part of a vertebra of a small sized bovid
CFD	G7a	B7 2895	Vertebra-large
CFD	G7a	B8 2904	coastal cartilage mature adult
CFD	G7a	B9 2906	Long
CFD	G7a	B10 2914	Small tooth
CFD	G7a	B11 2916	Longbones x2 unfused epiphysis
CFD	G7a	B12 2937	Vertebra-juvenile
CFD	G7a	B13 2938	Burnt
CFD	G7a	B14 2959	Axis
CFD	G7a	B15 2960	Sesamoid
CFD	G7a	B16 2986	Juvenile metatarsal
CFD	G7a	B17 2987	Juvenile metatarsal?
CFD	G7a	B18 2988	Burnt metatarsal
CFD	G7a	B19 2989	Vertebra fragment
CFD	G7a	B20 2990	Sesamoid
CFD	G7a	B21 2991	Left maxilla
CFD	G7a	B22 3012	Ball joint and ball x2
CFD	G7a	B23 3013	Distal end of bone?
CFD	G7a	B24 3014	Sesamoid?
CFD	G7a	B25 3015	Distal end?
CFD	G7a	B26 3032	Ball joint?
CFD	G7a	B27 3033	Distal end?
CFD	G7a	B28 3034	Scapula
CFD	G7a	B29 3035	End bone
CFD	G7a	B30 3065	Tool
CFD	G7a	B31 3076	Diagnostic
CFD	G7a	B32 3114	Unidentified bone

CFD	G7a	B33 3214	Burnt
CFD	G7a	B34 3215	Longbone
CGAB	H7a	B1 2444	Unidentified bone
CGAB	H7a	B2 2445	Unidentified bone
CGAB	H7a	B3 2448	Unidentified bone
CGAB	H7a	B4 2450	Unidentified bone
CGAB	H7a	B5 2451	Unidentified bone
CGAB	H7a	B6 2459	Unidentified bone
CGAB	H7a	B7 2462	Unidentified bone
CGABh1	G7b	B1 2709	Unidentified bone
CGABh1	H7a	B1 2520	Unidentified bone
CGABh1	H7a	B2 2522	Unidentified bone
CGAC	G7b	B3 2731	Unidentified bone
CGAC	G7b	B4 2733	Rib?
CGAC	H7a	B1 2523	Long bone
CGAC	H7a	B2 2527	Unidentified bone
CGAC	H7a	B3 2530	Unidentified bone
CH	G7b	B1 2763	Unidentified bone
CH	G7b	B2 2774	Unidentified bone
CH	H7a	B1 2541	Unidentified bone
CH	H7a	B2 2545	Unidentified bone
CH	H7a	B3 2546	Unidentified bone
CH	H7a	B4 2554	Unidentified bone
CIA	H7a	B1 2561	Unidentified bone
CIA	H7a	B2 2568	Teeth
CIA	G7b	B1 2799	Longbone
CIA	G7b	B2 2805	Longbone
CIA	G7b	B3 2808	Skull fragment?
CIA	G7b	B4 2810	Long bone
CIA	G7b	B5 2825	Seal with metapodial distal end
CIA	G7b	B6 2835	Left maxilla - buck
CIA	G7b	B7 2838	Long bone tibular?
CIA	G7b	B8 2839	Unidentified bone
CIA	G7b	B9 2841	Very small tibula
CIB	G7b	B1 2858	Humerus?
CIB	G7b	B2 2859	Humerus?
CIB	G7b	B3 2860	Scapula

CIB	G7b	B4 2861	Longbone
CIB	G7b	B5 2882	left mandible
CIB	G7b	B6 2897	Tibia?
CIB	H7a	B1 2613	Unidentified bone
CIB	H7a	B2 2628	Metapodial
CIB	H7a	B3 2630	Longbone
CIB	H7a	B4 2640	Catfish?
CIB	H7a	B5 2646	Unidentified bone
CIB	H7a	B6 2650	Unidentified bone
CIB	H7a	B7 2651	Unidentified bone
CIBh2	H7a	B1 2917	Longbone
CIBh2	H7a	B2 2933	Longbone
CIBh2	H7a	B3 2949	Longbone shaft
CIBh2	H7a	B4 2958	Scapula
CIBh2	H7a	B5 2983	Longbone
CIBh2	H7a	B6 3036	Scapula
CIBh2	H7a	B7 3059	Unidentified bone
CIBh2	H7a	B8 3100	Unidentified bone
CIBh2	H7a	B9 3110	Tool?
CIBh2	H7a	B10 3124	Unidentified bone
CIBh2	H7a	B11 3189	Unidentified bone
CIBh2	H7a	B12 3224	Unidentified bone
CIBh2	H7a	B13 3240	Unidentified bone
CIBh2	H7a	B14 3313	Unidentified bone
CIBh2	H7a	B15 3346	Horncore
CJ	H7a	B1 3380	Unidentified bone
CJ	H7a	B2 3381	Unidentified bone
CJ	H7a	B3 3382	Unidentified bone
CJ	H7a	B4 3384	Unidentified bone
CJ	H7a	B5 3386	Unidentified bone
CJ	H7a	B6 3388	Unidentified bone
CJ	H7a	B7 3389	Unidentified bone

LITHICS

The raw materials are dominated by silcrete, quartzite and quartz (Table 5). The lithics from the various BBC phases are being analysed by Dr Sarah Wurz , Dr Katja Douze, Dr Paola Villa and Dr Luca Pallarollo.

Table 5. Lithics

Description	Quartz	Quartzite	Silcrete	?	Other
Blades	5 (x1 broken)	3 (x1 broken)	25 (x8 broken)		
Convergent		1			

Flake Blade					
Flake Blade			3		
Bifacial /Bifacial tip			2		
Retouched, debordante flake			1		
Broken bifacial			2		
Broken bifacial?			1		
Cortical flakes	1	4	23 (x1 elongated/x1 burnt)	3 (1 blank)	
Cortical	1		1		
Flake	83	41	239	1 silcrete?	x1 quartz flake with ochre (L4 K2539 CH H7a)
Elongated flake with cortex			1		
Broken end scraper				1	
Broken pebble	1				
Burnt Lithic				1	
Chunk	11 (x1 cortical fragment)	4			
Cluster	1		1		
Core	7	5	1		
Core?	1				
Cortical			1		
Cortical?			4		
Cortical blade			2 (1 broken)		
Flake deborant			1		
Flake with retouch			1		
Flake with refit			1		
Flake with cortex			3		
Flake fragment			4		
Flake					1 CCS

unifacial tool					
Rectangular fragment	1				
Grinder		1			
Large fragment		1			
Lump		1			
Tool-refit	1				
?	1	1	3		
Point	1				

GEOMORPHOLOGICAL SAMPLING

Geomorphological analysis will be undertaken at Tübingen university by Christopher Miller, Susan Mentzer and Magnus Haaland.

Geomorphological samples for analysis are indicated in Table 6.

Table 6. FTIR and Geoarchaeological samples

Unit	Quadrat	Plot No.	Description
CD	G7a	O2 BBC2368	Geoarchaeological sample from hearth and sediment beneath
CGAC	H7a	O1 BBC 2585	FTIR sample
CGAC	H7a	O3 BBC2528	Shell with soil /(FTIR sample)

OSTRICH EGGSHELL

Ostrich eggshell were fairly numerous displaying a variety of colours from pale beige/cream to orange, brown and black, evidence that some pieces were burnt. Ostrich eggshell retrieved is indicated in Table 7.

Patrick Roberts, (University of Oxford) has undertaken isotope analysis on ostrich eggshell with the aim to construct palaeoenvironmental proxy records.

Table 7. Ostrich Eggshell

Unit	Quadrat
CD	F7b
CFB/CFC	F7b
CFD	F7b, G7a
CIBh2	H7a, H7c
CJ	H7a

DATING

The MSA layers are divided into four phases based on their stratigraphic position and composition: the M1 phase; upper and lower M2 phase; and a M3 phase. The four upper-most layers below BBC Hiatus have been assigned to the M1 phase. This phase consists of medium brown sands surrounding lenses of shell, stone and bone, and numerous small basin-shaped hearths. The upper M2 also consists of medium brown sands containing shell, stone and bone. In stratigraphic order from youngest to earliest, the M1 phase consists of Layers CA, CB, CC, CD while the upper M2 phase consists of Layer CF.

The Still Bay levels at Blombos Cave have been dated using a number of methods including thermoluminescence (TL), optically stimulated luminescence (OSL) and electron spin resonance (ESR). An hiatus level composed of undisturbed aeolian sand above the M1 phase is dated by OSL to 69 ± 5 ka and 70 ± 5 ka. An OSL age of 72.7 ± 3.1 ka was obtained for the upper part of the M1 phase. TL ages for the M1 phase are 74 ± 5 and 78 ± 6 ka. The OSL age of the upper M2 phase is 76.8 ± 3.1 ka. In 2010 the Still Bay levels were resampled for OSL dating and the new ages for the Still Bay at Blombos Cave are from 75 – 72 ka. Jacobs *et al.* consider that there is a one in twenty chance that the Still Bay commenced at 75 ka.

Dr Warren Sharp (Berkeley Geochronology Centre) is applying a novel approach of dating ostrich eggshell fragments from BBC using U-Th analysis. Dr Simon Armitage (Royal Holloway) collected samples for OSL dating.

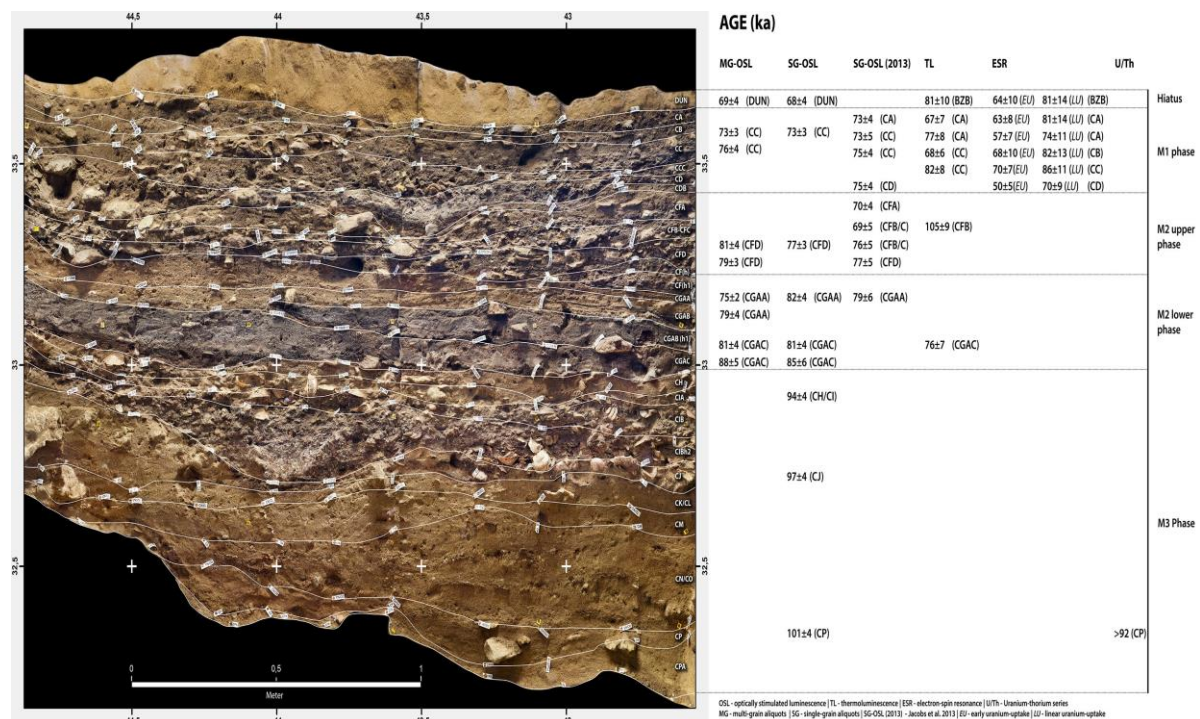


Figure 3. Stratigraphy, Blombos cave indicating phases and dating (image, M Haaland)

The lower M2 phase is a low density occupation and contains small quantities of flakes, blades and cores, bone, shell, and some ochre and hearths. Shell beads, bifacial points and bone tools are absent from this phase. The lower M2 layers (layer CG, CGAA, CGAB, CGAC) have an age of 84.6 ± 5.8 ka. Jacobs *et al.* (2012) recently dated two samples from the top layer, CGAA.

The OSL dates for Layer CGAA are 78.8 ± 5.6 ka and 78.9 ± 5.9 ka.

A burnt lithic was collected for future TL dating from unit CIBh2 (Table 8).

Table 8. TL Dating sample

Unit	Quadrat	Plot No.
CIBh2	H7a	L191 3156

CHARCOAL

Charcoal flecks were observed throughout the layers during excavation and samples were collected as indicated in Table 9.

Table 9. Charcoal

Unit	Quadrat	Plot No.
CD	F7b, G7a	
CFA	G7a	
CFB	G7a	
CFD	F7b	
CFB/CFC	G7a	
CFB/CFC	F7b	
CGAA	H7a	
CH	G7b	
CH	H7a	
CIA	G7b, H7a	
CIB	G7b	
CIBh2	H7a	
CJ	H7a	

Publications emanating from research on Blombos Cave material

The research directed by Prof Christopher Henshilwood in the ERC funded FP7 Tracsymbols project (www.tracsymbols.eu) from 2010-2015 resulted in project members publishing more than 60 papers in peer reviewed journals, including Science (2), PNAS (5), PLoS One (2), Nature (1); 27 papers in prep or in press; 19 book chapters and 1 book; 56 conference presentations; review articles of our research covered in Science (4), Nature (3) e.g. <http://www.nature.com/news/human-evolution-cultural-roots-1.10025>), PNAS (2); more than 2,000 Television/Newspaper/Magazine articles and 11 documentary films.

BOOKS & MONOGRAPHS

Henshilwood, C. & d'Errico, F. (editors). 2011. *Homo symbolicus: The dawn of language, imagination and spirituality*. Amsterdam, Benjamins.

Henshilwood, C. S. 2008. *Holocene prehistory of the southern Cape, South Africa: excavations at Blombos Cave and the Blombosfontein Nature Reserve*. BAR S1860, Cambridge: Cambridge Monographs in African Archaeology 75: 1- 171. ISBN 978-1-4073-0343-7.

PEER-REVIEWED JOURNALS

In Prep

Rifkin, R., Coetzee, M., Quinn, L., Henshilwood, C.S., Baker, C. in prep. Attraction inhibition and repellency efficacy of a replicated ethnographic red ochre compound against *Aedes aegypti* (Diptera: Culicidae)

Rifkin, R.R. Reilly, E., Henshilwood, C.S. in prep. *Ctenocephalides felis damarensis* (Siphonaptera: Pulicidae) from c. 95 000 year-old levels of Blombos Cave, South Africa. To be submitted.

Rifkin, R.R. Reilly, E., Mitchell, P.D., Henshilwood, C.S. in prep. *Ascaris lumbricoides* (Nematoda) from c. 95 000 year-old levels of Blombos Cave, South Africa. To be submitted to The Lancet.

Delagnes, A., Wurz, S., Douze, K., Henshilwood, C.: Heat treatment of silcrete in the Howiesons Poort layers of Klipdrift Shelter, South Africa. Journal of Archaeological Science, Submission, April 2015.

Douze K., Delagnes A., Wurz S., Henshilwood, C.: A new classification for Howiesons Poort cores. South African Archaeological Bulletin, Submission July 2015.

Douze, K., Delagnes, A., Wurz, S., Henshilwood, C.: The Howiesons Poort sequence of Klipdrift Shelter, southern Cape, South Africa. Journal of Human Evolution. Submission, September 2015.

Rifkin, R.F., Thackeray, F., Henshilwood, C.S., Morris, D., Haaland, M.M., Moyo, S. Elemental and technological analyses of Holocene engraved art mobilier from Wonderwerk Cave, Northern Cape Province, South Africa. To be submitted to the Journal of Archaeological Science in November 2015.

Rifkin, R.F., Henshilwood, C.S., d'Errico, F., Baker, C., Chimuka, L., Lilburn, T., Kgatitsoe, M.M. Analytical perspectives on the efficacy of ochre as a mosquito repellent. To be submitted to Quaternary Science Reviews in July 2015.

Roberts, P., Henshilwood, C., van Niekerk, K., Keene, P., Gledhill, A., Lee-Thorp, J. In prep. Stable isotope evidence enables testing of correlation between environmental change and records of 'behavioural modernity' in South Africa.

Schmidt, P., Porraz, G., Delagnes, A., Douze, K., Henshilwood, C., Parkington, J., Texier, P.-J., Wurz, S., Bellot-Gurlet, L., Conard, N., Heat treatment of silcrete in the southern African Middle Stone Age: The heating procedure and its implications for the chaîne opératoire, Journal of Archaeological Science, Submission, April 2015.

Henshilwood, C.S. & van Niekerk, K.L. (submitted). Blombos Cave: The Middle Stone Age levels. In (eds. Anderson, J.M. & de Wit, M.) Homo sapiens Corridor. Port Elizabeth: AEON.

In Press or Submitted

Badenhorst, S., van Niekerk, K.L. & Henshilwood, C.S. (in press). Large mammal remains from the c. 100 ka Middle Stone Age Layers of Blombos Cave, South Africa. South African Journal of Science.

Publications in peer-reviewed journals and books

Reynard, J., Discamps, E., Badenhorst, S., van Niekerk, K.L., Henshilwood, C.S. In press. Prey selection, occupation intensity and environmental changes during the Howiesons Poort at Klipdrift Shelter, southern Cape, South Africa. Paleo3.

Moyo, S., Mphuthi, D., Cukrowska, E., Henshilwood, C.S., van Niekerk, K.L., Chimuka, L. In press. Blombos Cave: Middle Stone Age ochre differentiation through FTIR, ICP OES, ED XRF and XRD. Quaternary International.

Rifkin, R.F., Henshilwood, C.S., Haaland, M.M., Vogelsang, R., Lozano, E., Prinsloo, L.C., Kambombo, F. in press. Elemental and technological analyses of 30 000 year-old mobiliary art form Apollo II Cave, Namibia. Journal of Archaeological Science Reports.

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- Reynard, J., Discamps, E., Badenhorst, S., van Niekerk, K.L, Henshilwood, C.S., In press. Subsistence intensification in the southern Cape during the Howiesons Poort: taphonomic and zooarchaeological analyses of Klipdrift Shelter, South Africa. Quaternary International
- Douze K., Wurz S., Henshilwood C. 2015. Techno-cultural characterization of the MIS 5 (c. 105 - 90 ka) lithic industries at Blombos Cave, southern Cape, South Africa. PlosOne.
- Rifkin, R.F., Henshilwood, C.S., Haaland, M.M. 2015. Late Pleistocene figurative art mobilier from Apollo 11 Cave, Karas region, southern Namibia. South African Archaeological Bulletin 70 (201): 113–123.
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- Badenhorst, S., van Niekerk, K.L. Henshilwood, C.S. 2014. Rock hyraxes (*Procapra capensis*) from Middle Stone Age Levels at Blombos Cave. South Africa. African Archaeological Review 31 (1) 25-43.
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- Henshilwood, C.S. 2014. Origins of symbolic behaviour. In: McGraw-Hill Yearbook of Science & Technology. California, McGraw-Hill. ISBN-10: 0071831061; ISBN-13: 978-0071831062
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Henshilwood, C.S., Sealy, J.C., Yates, R.J., Cruz-Uribe, K., Goldberg, P., Grine, F.E., Klein, R.G., Poggenpoel, C., van Niekerk, K.L., Watts, I. 2001a. Blombos Cave, southern Cape, South Africa: Preliminary report on the 1992 – 1999 excavations of the Middle Stone Age levels. *Journal of Archaeological Science* 28(5): 421-448.

Henshilwood, C.S., d'Errico, F.E., Marean, C.W., Milo, R.G., Yates, R. 2001b. An early bone tool industry from the Middle Stone Age at Blombos Cave, South Africa: implications for the origins of modern human behaviour, symbolism and language. *Journal of Human Evolution* 41:631-678.

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Henshilwood, C.S. 1997 Identifying the collector: Evidence for human consumption of the Cape dune mole-rat, *Bathyergus suillus*, from Blombos Cave, southern Cape, South Africa. *Journal of Archaeological Science* 24:659-662.

Henshilwood, C. S. 1996. A revised chronology for the arrival of pastoralism in southernmost Africa: new evidence of sheep at ca. 2000 b.p. from Blombos Cave, South Africa. *Antiquity* 70:945-949.

Henshilwood, C.S., Nilssen, P. & Parkington, J. 1994. Mussel drying and food storage in the Late Holocene, sw Cape, South Africa. *Journal of Field Archaeology* 21:103-109.

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Publications in Conference Proceeding

d'Errico, F., Henshilwood, C., García-Moreno, R., van Niekerk, K., Coquinot, Y., Menu, M., Jacobs, Z., Lauritzen, S.E. 2014. Il y a 100 000 ans, un atelier pour la préparation et le stockage de mélanges pigmentés. *L'art préhistorique : micro-analyses, contextes et conservation. PALEO* : 117-124.

INVITED PRESENTATIONS/PLENARY SPEAKER (2008-2015 selected)

Henshilwood, C.S. 2015. Symbolic Decoration. Plenary speaker, International Society for Human Ethology, Athens, Greece, 13th – 16th May, 2015.

Henshilwood, C.S. 2014. Homo sapiens in southern Africa: Tracing the behaviour of our common ancestors from 100 000 years ago. Invited lecture, Bergens Tidende, Bergen 10th June, 2014.

Henshilwood, C.S. 2014. Homo sapiens in the southern Cape, South Africa: Modernity or non-Modernity? Invited lecture, South African Archaeological Society, Cape Town, 18th March, 2014.

Henshilwood, C.S. 2013. TRACSYMBOLS (2010 -2015): Tracing the evolution of symbolically mediated behaviours within variable environments in Europe and southern Africa. Invited lecture, University of Bergen, Department of Finance, Bergen, 22nd October, 2013.

Henshilwood, C.S. 2013. Tracing the behavioural evolution of *Homo sapiens* in southern Africa: R.R. Inskeep memorial lecture, Cambridge, 4th June.

Henshilwood, C.S. 2013. Behaviourally modern *Homo sapiens* in southern Africa. Palaeolithic and Quaternary Seminar, Research Laboratory for Archaeology, Oxford, 30th May.

Henshilwood, C.S. 2013. The evolution of modern human behaviour , Human Evolutionary Studies Discussion Group, Leverhulme Centre for Evolutionary Studies, Cambridge, 21st May.

Henshilwood, C.S. 2012. Tracing the origins of behaviourally modern *Homo sapiens* in southern Africa. Invited Plenary Speaker, Brain and Behaviour Initiative symposium titled "Evolution of Brain and Behaviour", Valkenberg Education Centre, Cape Town. November 14th.

Henshilwood, C.S. 2012. Symbols and Climate: Tracing the origins of behaviourally modern *Homo sapiens* in southern Africa. Invited lecture for the Horizons lecture series, Faculty of Mathematics and Natural Sciences, University of Bergen, 25th May.

Henshilwood, C.S. 2011. Symbols and Climate: Tracing the origins of behaviourally modern *Homo sapiens* in southern Africa. Invited lecture, Origins Centre, University of the Witwatersrand, Johannesburg, South Africa, 25th October

Henshilwood, C.S. & d'Errico, F. 2010. Tracing the evolution of symbolically mediated behaviours within variable environments in Europe and southern Africa. Invited lecture presented at the Cape Nature Biodiversity Review 2010, Driftsands Nature Reserve Conference Centre, Cape Town, 9th November.

Henshilwood, C.S. 2010. Attracting Global talent – A South African Perspective. European Parliament Hearing on Science and Technology Cooperation with South Africa, European Parliament, Brussels, 17th November.

Henshilwood, C.S. & Lauritzen, S. 2010. The Origins of Modern Human Behaviour. Dating human occupations and reconstructing the palaeoenvironment in the Middle Stone Age, southern Cape, South Africa. National Research Foundation/Norwegian Research Council, South Africa – Norway Programme of Research Cooperation Conference, Kameeldrift, South Africa, 21st September.

Henshilwood, C. & Dubreuil, B. 2010. Language and Material Culture : Relating the Middle Stone Age in southern Africa to the origins of language. Summer Institute Conference 'On the Origin of Language' held at the Cognitive Science Institute, l'Université du Québec, Montréal, 21st - 30th June 2010.

Henshilwood, C.S. 2009. Continuity or discontinuity? Symbolically mediated behaviours in the Still Bay and Howiesons Poort Industries of southern Africa - and beyond. Invited lecture at the Max Planck Institute for Evolutionary Anthropology, Leipzig, 19th May, 2009.

Henshilwood, C.S. 2009. The Origins of Modern Human Behaviour The Howiesons Poort, Still Bay and beyond. Invited lecture by the Hessequa Archaeological Society, Still Bay, South Africa, March 21st, 2009.

d'Errico, F & Henshilwood, C. 2008. Les ocres gravées de Blombos Cave (Afrique du Sud) : découverte d'une tradition symbolique qui remonte à 140 00 BP. Représentations préhistoriques. Images du sens.Paris, Musée de l'Homme, 19-21 June, 2008.

Henshilwood, C. S. 2008. The origins of modern humans and human behaviour in the Hessequa

Region, southern Cape. Invited lecture held at the Hessequa Municipality, Riversdale, at the invitation of the Premier of the Western Cape, Ebrahim Rasool and the Mayor of the Hessequa Region, Chris Taute.

CONFERENCES – 2015

Haaland, M.M. Miller, C., Czechowski, M., Henshilwood, C.S.. 2015. High-resolution 3D documentation of micromorphological block samples: bridging the gap between micro-scale and macro-scale investigation of archaeological sites. JIA 2015: SESIÓN TRADICIONAL: 6. Microarchaeology, Lisbon, Portugal.

Rifkin, R.F., Henshilwood, C.S., Haaland, M., Moyo, S, 2015. Elemental and technological analyses of 30,000 year-old mobiliary art form Apollo II Cave, Namibia. XIX International Rock Art Conference IFRAO 2015 "Symbols in the Landscape: Rock Art and its Context. Cáceres (Spain) 31st August - 4th September. 2015.

Thompson, J.C., Towers, J., Henshilwood, C.S. 2015. Tortoises as indicators of diet, site formation, and palaeoenvironments in the Middle Stone Age record of the Southern African coast. Society for American Archaeology, San Francisco, California, April 15-19.

Henshilwood, C.S. & van Niekerk, K.L. 2015. New archaeological excavations of Later and Middle Stone Age deposits at the Klipdrift Complex, southern Cape, South Africa: 2010-2013. AFQUA, Inaugural Conference and Workshops, 30 Jan - 7 Feb, 2015, University of Cape Town, Cape Town, South Africa

Armitage, S., Henshilwood, C.S, and van Niekerk, K.L. 2015. Single-grain OSL dating of the Howiesons Poort layers at Klipdrift Shelter, Southern Cape, South Africa. AFQUA, Inaugural Conference and Workshops, 30 Jan - 7 Feb, 2015, University of Cape Town, Cape Town, South Africa.

Haaland, M.M., Rifkin, R.F. & Henshilwood, C.S. 2015. Late Pleistocene figurative art mobilier From Apollo II Cave, southern Namibia. Poster Session. AFQUA, Inaugural Conference and Workshops, 30 Jan - 7 Feb, 2015, University of Cape Town, Cape Town, South Africa.

Moyo, S., Mphuti, D., Cukrowska, E., Henshilwood, C., van Niekerk, K. & Chimuka, L. 2015. Mineralogical and geochemical investigation of Middle Stone Age soils at the Blombos Cave in South Africa. Poster Session. AFQUA, Inaugural Conference and Workshops, 30 Jan - 7 Feb, 2015, University of Cape Town, Cape Town, South Africa.

van Niekerk, K.L. & Henshilwood, C.S, 2015. The engraved ostrich eggshell from the Howiesons Poort layers from Klipdrift Shelter, southern Cape, South Africa. Poster Session. AFQUA, Inaugural Conference and Workshops, 30 Jan - 7 Feb, 2015, University of Cape Town, Cape Town, South Africa.

CONFERENCES (2008 – 2014 selected)

Roberts, P., Henshilwood, C., van Niekerk, K., Keene, P., Gledhill, A., Lee-Thorp, J. 2015. Stable carbon and oxygen isotope analysis of ostrich eggshell provides evidence for climatic change during the emergence of the Still Bay and Howiesons Poort technocomplexes on the southern Cape coast of South Africa. Pan African Archaeological Association Conference, University of the Witwatersrand, Johannesburg, South Africa, 14-18th July.

Henshilwood, C., & van Niekerk, K. 2014. New archaeological excavations of Later and Middle

Stone Age deposits at the Klipdrift Complex, southern Cape, South Africa: 2010-2013. Pan African Archaeological Association Conference, University of the Witwatersrand, Johannesburg, South Africa, 14-18th July.

Rifkin, R.F., Henshilwood, C.S. 2014. Preliminary report on the ochre assemblage from the Howiesons Poort layers of Klipdrift Shelter, southern Cape, South Africa. 14th Congress of the Pan African Archaeological Association, University of the Witwatersrand, Johannesburg, South Africa, 14 to 18 July 2014.

Ryano, K., Wurz, S., Henshilwood, C.S. 2014. The technology of the Oakhurst Industry at Klipdrift Cave, southern Cape, South Africa. Pan African Archaeological Association Conference, University of the Witwatersrand, Johannesburg, South Africa, 14-18th July.

Reynard, J., Badenhorst, S., Discamps, E., Henshilwood, C.S. 2014. Zooarchaeological analyses of macromammal and tortoise remains from the Howieson Poort layers of Klipdrift Shelter, southern Cape, South Africa. Pan African Archaeological Association Conference, University of the Witwatersrand, Johannesburg, South Africa, 14-18th July.

Badenhorst, S., van Niekerk, K.L., Henshilwood, C.S. 2014. Middle Stone Age fauna from Blombos Cave. Pan African Archaeological Association Conference, University of the Witwatersrand, Johannesburg, South Africa, 14-18th July.

Armitage, S., Henshilwood, C.S. & van Niekerk, K.L. 2014. Single-grain OSL dating of the Howiesons Poort layers at Klipdrift Shelter, southern Cape. Pan African Archaeological Association Conference, University of the Witwatersrand, Johannesburg, South Africa, 14-18th July.

Douze, K., & Henshilwood, C. 2014. First insights into the lower layers of Blombos Cave (M3 phase) lithic assemblages dated to ca. 100 ka. Pan African Archaeological Association Conference, University of the Witwatersrand, Johannesburg, South Africa, 14-18th July.

Henshilwood, C.S., van Niekerk, K.L., Rifkin, R.F., d'Errico, F. 2012. Analytical techniques: Deciphering a 100,000 Year Old Ochre Processing Workshop at Blombos Cave, South Africa. 10th Scientific Methods in Archaeology Conference, Aalborg University, Esbjerg, Denmark, 27 to 29 September 2012.

Rifkin, R.F., Henshilwood, C.S., d'Errico, F., van Niekerk, K.L., Summers, B. 2012. Red ochre: The earliest cosmetic known to man? 27th International Federation of Societies of Cosmetic Chemists Congress, Sandton, Johannesburg, South Africa, 15 to 18 October 2012.

Henshilwood, C.S. 2012. The evolution of symbolically mediated behaviours: a perspective from the southern Cape. Second TRACSYMBOLS Conference, De Hoop Nature Reserve, Western Cape Province, South Africa, 15 November 2012.

Henshilwood, C.S., van Niekerk, K.L., Rifkin, R.F., d'Errico, F. 2012. Analytical techniques: deciphering a 100,000 year old ochre processing workshop at Blombos Cave, South Africa. SMIA-X conference, Aalborg University, Esbjerg, Denmark, 27th -29th September.

Vanhaeren, M., van Niekerk, K., d'Errico, F., Henshilwood, C.S. & Erasmus, R. 2012. Fashion Change in Middle Stone Age Shell Beads from Blombos Cave (South Africa). European Society for the study of Human Evolution (ESHE), Bordeaux, France, 21- 22 September.

Henshilwood, C.S. & van Niekerk, K. 2012. Tracing the evolution of symbolically mediated behaviours within variable environments in Europe and southern Africa. The 3rd SANORD

International Symposium, Aarhus University, Denmark. 6th-7th June.

d'Errico, F., Henshilwood, C., García-Moreno, R., van Niekerk, K., Coquinot, Y., Menu, M., Jacobs, Z., Lauritzen, S.E. 2011. Il y a 100 000 ans, un atelier pour la préparation et le stockage de mélanges pigmentés. MADAPCA - Paris, 16-18 November.

Henshilwood, C.S., van Niekerk, K., d'Errico, F. 2011. Tracsymbols Project: symbolically mediated behaviours within variable environments in Europe and southern Africa. AHKR Institute symposium, University of Bergen, 15th August.

d'Errico F, Henshilwood, Ch. Garcia Moreno R., Rifkins R., Van Niekerk K., Rosso D. 2011. The emergence of symbolic material cultures in Africa and Europe. Preliminary results of an ongoing ERC funded interdisciplinary research project. 2èmes Rencontres d'art rupestre, 3 et 4 Mai 2011. Centre National de Préhistoire, Périgueux, Centre National de Préhistoire, Périgueux

Daniau, A-L., Sánchez Goñi, M.F. d'Errico, F., Henshilwood, C.S. 2011. The use of fire for ecosystem management: tracking the emergence of *H. sapiens* behavioural the modernity in Southern Africa. XVIII. INQUA Congress Bern, 20-28th July.

Henshilwood, C.S. van Niekerk, K. & d'Errico, F. 2011. 'Punctuated' Cultural Evolution & Climate Change: An update on the latest excavations at the southern African sites Blombos Cave and Klipdrift Shelter - 100 – 60 ka' European Society for the study of Human Evolution, Inaugural Meeting: Leipzig, 23 - 24 September 2011

Daniau, A. Sánchez Goñi, M.F., Henshilwood, Ch., d'Errico, F., C.S., 2011. The use of fire for ecosystem management: tracking the emergence of the modernity in Southern Africa. INQUA, Berne. 21st – 30 July 2011. Poster

d'Errico, F., Henshilwood, C.S., Garcia Moreno, R., Rifkin, R.F., Van Niekerk, K., Rosso, D. 2011. The emergence of symbolic material cultures in Africa and Europe. Preliminary results of an ongoing ERC funded interdisciplinary research project. Centre National de Préhistoire, Périgueux Centre National de Préhistoire, Périgueux.

Faith, T & Henshilwood, C.S. 2010. Seasonal exploitation of neonate blue antelope (*Hippotragus leucophaeus*) during the Middle Stone Age at Blombos Cave, South Africa: implications for modern human origins. 11th International Council for Archaeozoology, Paris, 23-28 August 2010

d'Errico, F. Garcia Moreno, R., Henshilwood, C.S., Rifkin, R.F., Soressi, M., Queffelec, A., Rosso, D. 2010. Matières colorants préhistoriques: Nouvelles avancées méthodologiques et interpretative Journées scientifiques organisées dans le cadre du GdR 3174 ChimARC à proximité du site de Régismont-le-Haut (Hérault) 2 Septembre 2010.

d'Errico, F., García-Moreno, R., Henshilwood C., van Niekerk K., Coquinot Y., Menu, M., Lauritzen, S-E 2010. Deux kits pour le traitement de pigment vieux de 100 000 ans. Colloque MADAPCA, Paris, MNHM, 16 - 18 November.

d'Errico, F., Garcia Moreno, R., Henshilwood, C.S., Vanhaeren, M., Rifkin, R.F, Queffelec, A., Rosso, D. 2010. L'utilisation des matières colorantes dans le contexte du débat sur l'origine de la modernité culturelle. Journée Pigments, Org. Martine Regert, Regismont-le-Haut, France

d'Errico, F., Henshilwood, C.S., Vanhaeren, M., Backwell, L., Garcia Moreno, R. Rifkin, R.F. 2010. The origin of symbolic material culture. Models, methods, data, and research perspectives. Pleistocene Art of the World, IFRAO Congress, Tarascon-sur-Ariege and Foix, France.

d'Errico, F. & Henshilwood, C.S., F. 2009. Origins of symbolically mediated behavior. From antagonistic scenarios to a unified research strategy. Paper presented at the international conference "Homo symbolicus: the dawn of language, imagination, and spirituality" organised by Henshilwood & d'Errico and held at the Commodore hotel, Cape Town, 16 – 19th January 2009

Henshilwood, C.S. & d'Errico, F. 2009. Ochre as a media for symbolic expression during the Southern Africa Middle Stone Age: examining the evidence from the Western Cape, South Africa. Paper presented at the international conference "Homo symbolicus: the dawn of language, imagination, and spirituality" organised by Henshilwood & d'Errico and held at the Commodore hotel, Cape Town, 16 – 19th January 2009.

d'Errico, F. & Henshilwood, C. 2008. Les ocres gravées de Blombos Cave (Afrique du Sud) : découverte d'une tradition symbolique qui remonte à 140 00 BP. Représentations préhistoriques. Images du sens. Paris, Musée de l'Homme, 19-21 June, 2008.

Villa, P., Henshilwood, C. S. & Mourre, V. 2008. The Still Bay Points of Blombos Cave (South Africa). Paleoanthropology Society Conference, Vancouver, B.C., Canada: 25–26 March.

Henshilwood, C.S. & van Niekerk, K. 2008. The > 100 ka levels at Blombos Cave, southern Cape: an update on recent and older excavations at the site. Paper presented at the Association of South African Professional Archaeologists, University of Cape Town, 27th March 2008.

Henshilwood, C.S. 2008. The >100 ka levels at Blombos Cave, southern Cape: early pointers to modern human cognition? Paper presented at the Society for Africanist Archaeologists Conference, Frankfurt, Germany, 7th – 11th September.

Henshilwood, C.S. 2008. The origins of modern human behaviour and its implications for the European archaeological record. Invited paper at the University of Bergen, Norway.

Villa, P., Henshilwood, C. S. & Mourre, V. 2008. The Still Bay Points of Blombos Cave (South Africa). Paleoanthropology Society Conference, Vancouver, B.C., Canada: 25–26 March.

DISSEMINATION OF RESEARCH IN POPULAR MEDIA

There have been many articles on Blombos cave research in international newspapers including front page articles in The Times and New York Times, and numerous articles in popular journals including New Scientist, Scientific American, National Geographic Magazine and Time.

Following the publication of our 2011 paper in Science on the Blombos Cave ochre processing toolkits, 794 articles appeared in the popular press in 66 countries with a potential viewership of nearly 600 million people (Newsclip Media Monitoring).

Blombos cave research has been widely publicised on CNN, BBC, CBC, National Geographic, Japanese, Scandinavian and other European television channels.

A large scale museum exhibition focussing on Blombos research is planned for the Varldskulturmuseerna (World Culture Museum) in Stockholm for 2016. In January, 2015, my work at Blombos Cave & Klipdrift will feature on the cover, and as the lead story, in National Geographic Magazine.

DOCUMENTARIES 2008 -2015 (selected sample)

2015 – The Great Human Odyssey, directed by Niobe Thompson, Canadian Broadcasting Corporation
<http://www.cbc.ca/greathumanodyssey/episodes/episode-1-rise-of-a-species>

2013 - CNN's Inside Africa documentary on Blombos Cave: <http://edition.cnn.com/AFRICA/>

2013 - Clearwater Documentary involving Blombos Cave: <http://clearwaterdoc.ca/about/>

2012 - NHK Japanese Television Special Human Series. Presenter: Tatsuya Fujiwara narration (narrator): Seiko Nakajo

2009 - TV film made with Henshilwood at Blombos Cave for the Swedish Broadcasting Society Directed by Martin Widman and presented by Lasse Berg

2010 - Film made at Cape Point Nature Reserve with Henshilwood on the ‘Origins of H. sapiens’ for Foster Brother Film Productions, South Africa.

2008 - Film made at Blombos Cave with Henshilwood in March, 2008 for display in the ‘Anne & Bernard Spitzer Hall of Human Origins’, American Museum of Natural History, New York.

POPULAR ARTICLES (selected)

- National Geographic Magazine 2015 <http://ngm.nationalgeographic.com/2015/01/first-artists/walter-text>
- Dybas, C.L. 2013. Ripple marks—The story behind the story. Oceanography 26(3):10–13, <http://dx.doi.org/10.5670/oceanog.2013.69>
- Dybas, C.L. 2013. Article on Blombos Cave in Oceanography . http://www.tos.org/oceanography/archive/26-3_dybas.html#abstract
- Henshilwood, C. & van Niekerk, K. 2012. Middle Stone Age Chemists: A 100,000 Year Old Pigment Processing Workshop at Blombos Cave, South Africa. The Digging Stick.
- Jeff Tollefson, 2012. Human evolution: Cultural roots. Nature 482, 290–292 (16 February 2012) doi:10.1038/482290a <http://www.nature.com/news/human-evolution-cultural-roots-1.10025>

20 POPULAR LINKS TO OUR RESEARCH: September, 2014 – July, 2015 (selected sample)

1. <http://www.cbc.ca/player/Shows/Shows/The+Nature+of+Things/ID/2440373757/>
2. <http://ngm.nationalgeographic.com/2015/01/first-artists/walter-text>
3. <http://www.cbc.ca/greathumanodyssey/episodes/episode-1-rise-of-a-species>

4. <https://vimeo.com/117470487>
5. https://www.youtube.com/watch?v=G5_JctzoxXA&feature=em-upload_owner
6. www.tracsymbols.eu
7. http://www.wits.ac.za/newsroom/newsitems/201507/26853/news_item_26853.html
8. <http://www.uib.no/aktuelt/84984/uib-arkeolog-i-national-geographic>
9. http://www.wits.ac.za/newsroom/newsitems/201501/25466/news_item_25466.html
10. <http://www.uib.no/en/ahkr/90323/diachronic-change-within-still-bay-blombos-cave-south-africa>
11. http://www.wits.ac.za/newsroom/newsitems/201501/25535/news_item_25535.html
12. <https://www.facebook.com/groups/SouthernSapiens/>
13. <http://highlycited.com/#henshilwood>
14. <https://uib.academia.edu/ChrisHenshilwood>
15. http://www.wits.ac.za/newsroom/newsitems/201503/25965/news_item_25965.html
16. <http://whc.unesco.org/en/tentativelists/6050>
17. <http://www.uib.no/ahkr/82096/feltforskning-p%C3%A5-film>
18. <https://vimeo.com/108896344>
19. <http://www.iol.co.za/scitech/science/discovery/rare-sa-artefacts-go-on-display-1.1755974#.VcijZfnzoQ9>
20. <http://www.journals.elsevier.com/journal-of-archaeological-science/most-downloaded-articles/>