

The Development of Digital Technologies for
Use in Jewellery with Medical Applications

LEON B. M. WILLIAMS

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requirements of the Royal College of Art for the
degree of Doctor of Philosophy

VOLUME III OF III

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The Royal College of Art

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Symbolising creation of all life

b. Ancient Egyptian Icon

Nefer

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Symbol of vitality, ambition and success

c. Ancient Egyptian Icon

Scarab

Worn as a pendant, typically made from porcelain, basalt or glass
Symbol reflecting meanings transcribed on base

d. Ancient Egyptian Icon

Eye of Horus

Worn as a pendant, typically made from gold or silver

Symbol to protect the wearer from danger

e. Ancient Egyptian Icon

Buckle of Isis

Made from red crystal, red jasper and carnelian

Symbol of female fertility

f. Ancient Egyptian Icon

Tet

Symbol worn to protect the spine

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Symbol to protect travellers

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Representations a – h based on exhibits in the British Museum, London, Ancient Egyptian, Egypt.

Drawing representation by Leon B M Williams

Royal College of Art, London

British Museum, London – Egyptian Collection

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Selection of Rings from Medieval and Renaissance Period

a. 14th Century

Stone Set Ring

Possibly English

Gold and peridot

Bezel Hoop D:225

Found in the Thame Hoard in 1940.

Department of Western Art, Ashmolean Museum, Oxford (AN 1940.227).

b. 14th Century

The Thame Ecclesiastical Ring

Paris

Gold and amethyst

Bezel H:25 x W:16 x Hoop D:25

Found in the Thame Hoard in 1940.

Department of Western Art, Ashmolean Museum, Oxford (AN 1940.228).

c. 14th Century

Cameo Ring

Italian

Gold set with cameo sard

British Museum, London, (AF 1010).

d. 15th – 17th Century

Silver and Toadstone Ring

English

Silver with set toadstone

Horn mounted with silver

H: 39 x W: 30 x D: 15

Victoria and Albert Museum, London (Inv No 712-1871)

e. 14th – 15th Century

Magical Ring set with Toadstone

Possibly English

Gold set with toadstone

Bezel Hoop D:23

Found in the Thame Hoard in 1940.

Department of Western Art, Ashmolean Museum, Oxford (AN 1940.225).

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Possibly Italian

Gold and 2 oval garnets and pearls

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Department of Western Art, Ashmolean Museum, Oxford (13)

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Gold and turquoise

Found in the Fishpool Hoard, Nottingham,
1966

Room 40: Europe AD 1000-1540, British
Museum (M&ME 1967,12-8,1-9).

h. *15th Century*

Edmund Signet Ring

Unknown origin

Gold with bezel depicting stag at rest
Victoria and Albert Museum, London

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Italy

Coral Ring

Bezel Hoop D: 16

Department of Western Art, Ashmolean
Museum, Oxford (166).

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Gold

Triple Bezel Hoop D: 20

Department of Western Art, Ashmolean
Museum, Oxford (265).

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Department of Western Art, Ashmolean
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- a. **Agate**
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- d. **Carnelian**
- e. **Chrysoprase**
- f. **Citrine**
- g. **Coral**
- h. **Diamond**
- i. **Emerald**
- j. **Garnet**
- k. **Hematite**
- l. **Jasper**
- m. **Jet**
- n. **Lapis Lazuli**
- o. **Malachite**
- p. **Pearl**
- q. **Peridot**
- r. **Ruby**
- s. **Sapphire**
- t. **Sardonyx**
- u. **Topaz**

**Based on descriptions on gemstones
from 3 main sources:**

Nicols, T (1652) History of Precious
Stones - Gemstones | Lapidary |
Historic Work by Thomas Nicols
University of Cambridge

Magnus, A (1967) Book of Minerals.
(trans) Wyckoff D. Oxford: Oxford
University Press.

Heiniger, E. A. & Heiniger J. (1974)
The Great Book of Jewels. New York:
New York Graphic Society.

Thos, W. M. & Pavitt, K. (1922) The
Book of Talismans, Amulets and
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& Sons Ltd, pp. 120 - 131

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South Africa, About.75,000 BC
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Excavated from the Blombos Cave Project, South Africa.
Blombos Cave Project (2007) *The Blombos Cave Project* [online],
www.svp.uib.no/sfu/blombos [Accessed March 2007]

Fig. 2

Representational drawing of Primitive Beads

South Africa, About.75,000 BC
Artist's Reconstruction of 17 mollusc scavenger snail shells (Nassarius Kraussianus) strung from animal guts.
Illustrator Drawing
© Artist's Reconstruction by Leon B M Williams

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Egypt, Ancient Egyptian,
New Kingdom, Dynasty XVIII
Speckled Green Serpentine
H:32 x W:47 x D:67mm
From the 6th Chapter of the Book of the Dead
Oriental Institute Museum, Chicago
www-museum.unl.edu/research/entomology/Egyptian_Sacred_Scarab/egs-text.htm [Accessed 2006]

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www.writedesigonline.com/.../ancient.htm
2004, Second issue [Accessed June 2005]

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Metropolitan Museum, New York.
Bugbios
www.writedesigonline.com/.../ancient.htm
2004, Second issue [Accessed June 2005]

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Valley of the Kings, Egypt, Discovery made 4 November 1922
Private Collection
Bahn, P.G. (ed.) 2000, *Wonderful Things – Uncovering the World's Great Archaeological Treasures*, London:
Weidenfeld & Nicolson,
p. 32

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Wellcome Trust Collection, London
Arnold, K. & Olsen, D. eds. 2003, Medicine
Man, The Forgotten Museum of Henry
Wellcome, London: The British Museum
Press, p. 167

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Science Museum, London
The Science Museum - Picture Library:
London
Inv. no. A646752

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Rome, Greco Roman
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Wellcome Trust Collection, London
Arnold, K. & Olsen, D. eds. 2003, Medicine
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Wellcome, London: The British Museum
Press, p. 168

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British Museum, London
Cristofani, M & Martelli, M. 1983, L'Oro
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Etruscan, Dated around 3rd - 4th century B.C
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Etrusco Gregoriano, Vatican Museum, Rome
Cristofani, M & Martelli, M. 1983, L'Oro
degli Etruschi, Novara: Istituto Geografico De
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Possibly French, About 1538
Instrument used by medical practitioners
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patient complaint
Gilt ferrous metal
W: 50mm
Science Museum, London
The Science Museum - Picture Library:
London
Inv. no. 10315752

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Swiss, 17th – 18th Century
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Pharmazie – Historisches Museum, Basel,
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The Medical History Museum of the
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Haring, C. ed. 1996, Wohl & Sein,
Gemeinsame Ausstellungen von Basler
Museen und Institutionen, Basel: Editiones
Roche, p. 229

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Paris, 14th Century
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1940.228).
Found in the Thame Hoard in 1940
Department of Western Art, Ashmolean
Museum, Oxford
Scarbrick, D & Henig, M, 2003, Finger
Rings, Oxford: Ashmolean Museum pp.
40-41

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India, Deccan or Mughal, 17th Century

Diamond and Gold

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The al-Sabah Collection, Kuwait

National Museum (LNS 1804 J)

Silva, N. V. E., 2004, Jewels for the Great Mughal: Goa a Centre of the Gem Trade in the Orient, in: Jewellery Studies, Volume

10,

pp. 41 - 51

Society of Jewellery Historians: British Museum

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Printed in Augsburg

Ink on canvas and relevant gemstones

Shows the figure of the signs of the Zodiac with the best times for bloodletting

Representation by Leon Williams, Royal College of Art (2007-2008)

Hansmann, L. & Kriss-Rettenbeck, L. 1966, Amulett und Talisman; Munchen: Verlag Georg D.W Callwey, p. 31, ill, 26

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Gold filigree, with enamel

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Kunsthistorisches Museum, Vienna

Silva, N. V. E., 2004, Jewels for the Great Mughal: Goa a Centre of the Gem Trade in the Orient, in: Jewellery Studies, Volume 10,

pp. 41 - 51

Society of Jewellery Historians: British Museum

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a.

Healing Earth Cannikin

German, About 1635

Case 884, height 112mm

Kriss Collection, Bayerisches Nationalmuseum

Hansmann, L. & Kriss-Rettenbeck, L. 1966, Amulett und Talisman; Munchen: Verlag Georg D.W Callwey, p. 125, ill, 326

b.

Pharmacists Spoon

German, 17th Century

Box wood with 'terra sigillata' (Latin for healing earth)

W:185mm

Germanisches Landesmuseum, Nuremberg

Hansmann, L. & Kriss-Rettenbeck,

L. 1966, Amulett und Talisman; Munchen:

Verlag Georg D.W Callwey, p. 124, ill,

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c.

Healing Earth Tablet

German, 17th Century

20 x 10mm

Germanisches Landesmuseum, Nuremberg

Hansmann, L. & Kriss-Rettenbeck,

L. 1966, Amulett und Talisman; Munchen:

Verlag Georg D.W Callwey, p. 124, ill,

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Lower Austria, 18th Century

Burnt clay set in brass pilgrims breaks

parts off the gothic building, pulverize the

relic artefacts to form the edible earth

tables for later use as medicines.

Good for various complaints

Oberösterreichisches Landesmuseum, Linz

Keller, F. B. ed. 1995, Krank warum?;

Ostfildern: Cantz Verlag, p. 64, ill 69

Fig. 23

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a - d.

Earth Tablets in the shape of the Virgin Madonna

Einsiedln, Switzerland, 19th Century – first half of the 20th Century

Belief to provide relief to various

complications and to improve general

health.

Scratch off parts of the relic and use in tea.

Oberösterreichisches Landesmuseum, Linz

Keller, F. B. ed. 1995, Krank warum?

Ostfildern: Cantz Verlag, p. 69, ill, 84

e.

Black Madonna Earth Tablets of Altötting

Altötting, Bavaria, 1912

Pulverized to a fine powder medicine.

Believed to be good for diorama and cholera.

Oberösterreichisches Landesmuseum, Linz

Keller, F. B. ed. 1995, Krank warum?

Ostfildern: Cantz Verlag, p. 69 ill, 85

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Scrapping figurine of the Virgin Madonna from Altötting

Altötting, Bavaria, Dated 19th Century
Miniture cast figure of the miraculous image from blackened clay said to have healing powers.

H: 77mm.

Replicated from old models

Kriss Collection, Bayerische Nationalmuseum Munich A1031

Hansmann, L. & Kriss-Rettenbeck, L. 1966, Amulett und Talisman; Munchen: Verlag Georg D.W Callwey; p. 125, ill, 328 & 329

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Swiss, 1696

Carolino Augusteum Museum, Salzburg
Hutter, E. 1985, Abwehrzauber und Gottvertrauen – Klienodien Salzburger Volkfrömmigkeit, in: Katalog zur Weihnachtsausstellung, Salzburger Museum, Carolino Augusteum Jahresschritt, Vol 31, pp. 198 – 359_Inv. no. K 3317/49

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Unused figurines of the Virgin and Child statue in Einsiedeln in the splendor garment, on the back coat of arms and S. MARIA: EINSIDLN NSIS

Swiss, 1653

H: 102mm

Shows in the range of the Jesukindleins strong scraping traces

Carolino Augusteum Museum, Salzburg,
Hutter, E. 1985, Abwehrzauber und Gottvertrauen – Klienodien Salzburger Volkfrömmigkeit, in: Katalog zur Weihnachtsausstellung, Salzburger Museum, Carolino Augusteum Jahresschritt, Vol 31, pp. 198 – 359_Inv. no. K 504 b/25

c.

Unused figurine of the mercy Mother of God settling, with remainders of a version, the sceptre in her right hand missing, on the back coat of arms and the letters, VEBVME

Swiss, 1696

H: 111mm

Carolino Augusteum Museum, Salzburg,
Hutter, E. 1985, Abwehrzauber und Gottvertrauen – Klienodien Salzburger Volkfrömmigkeit, in: Katalog zur Weihnachtsausstellung, Salzburger Museum, Carolino Augusteum Jahresschritt, Vol 31, pp. 198 – 359_Inv. no. K 504 a/25

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Map of Europe, Africa and Coast of New World

13th – 14th Century Map

© Representation by Leon B M Williams Louden, I (ed.) 1997, Collation of information from Western Medicine. An Illustrated History, Oxford :Oxford University Press, pp. 179 - 181

Fig. 26

An Apothecary Shop

German, 16th Century

Ink on Paper

Meininghaus, H an Habrich, C. With an essay by Tanja Volz), 1998, Five Centuries of Scent and Elegant Flacons, Stuttgart: Arnoldsche Art Publishers; p. 41

Fig. 27

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German, 1685

Ink on Paper

Johann Schröders – Chymischer Apotheke Meininghaus, H an Habrich, C. With an essay by Tanja Volz), 1998, Five Centuries of Scent and Elegant Flacons, Stuttgart: Arnoldsche Art Publishers; p. 34

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Partially gilded silver

Croft Lyons Bequest

Victoria and Albert Museum, London, Case 11, Inv no. M.804:1, 2-1926

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Silver Pomander

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silver chain with cast silver engraved pomander

W: 48 x H: 240 mm,

Private Collection

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Dated around 1560 – 1565
Image depicts lady holding a Gold Pomander and Chain (with detail)
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Spain, 1607
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Kunsthistorisches Museum, Vienna, Inv 3268
Hansmann, L. & Kriss-Rettenbeck, L. 1966, [Amulett und Talisman](#); Munchen: Verlag Georg D.W Callwey; p. 221, ill, 738
Image commented by Leon Williams

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Kunsthistorisches Museum, Vienna
Hansmann, L. & Kriss-Rettenbeck, L. 1966, [Amulett und Talisman](#); Munchen: Verlag Georg D.W Callwey; p. 183, ill, 585
Image commented by Leon Williams

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England, About 1560
In the form of a ship; narwhal tusk and enamelled gold
Formerly the property of the Campion family of Danny
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[V&A Images / Photo Catalogue \(2006AN7762\)](#)

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Gold, enamelled in black & blue, set with hessonite garnet and a peridot, hung with sapphire bead.
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Victoria and Albert Museum, London (Inv no. M.242-1975)
[V&A Images / Photo Catalogue \(2006AN7754\)](#)

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France, 19th Century
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(a. though to h)

Salzburg, dated around 17th and 18th Century
Height varies between 23 and 110 mm
Catalogue Number 19
Carolino Augusteum Museum, Salzburg
Hutter, E. 1985, *Abwehrzauber und Gottvertrauen – Klienodien Salzburger Volkfrömmigkeit*, in: [Katalog zur Weihnachtsausstellung, Salzburger Museum, Carolino Augusteum Jahresschridt, Vol 31, pp. 198 – 359, Inv. no. 110/74 a-h](#)

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Carolino Augusteum Museum, Salzburg,
Hutter, E. 1985, *Abwehrzauber und Gottvertrauen – Klienodien Salzburger Volkfrömmigkeit*, in: [Katalog zur Weihnachtsausstellung, Salzburger Museum, Carolino Augusteum Jahresschridt, Vol 31, pp. 198 – 359, Inv. no. 385/921](#)

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a.

Austrian, 18th Century
H: 110mm
Bear's tooth in silver setting, flatly ornamented handle version of silver with bell
Carolino Augusteum Museum, Salzburg,
Hutter, E. 1985, *Abwehrzauber und Gottvertrauen – Klienodien Salzburger Volkfrömmigkeit*, in: [Katalog zur Weihnachtsausstellung, Salzburger Museum, Carolino Augusteum Jahresschridt, Vol 31, pp. 198 – 359, Inv. no. 3252/49](#)

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Carolino Augusteum Museum, Salzburg,
Hutter, E. 1985, Abwehrzauber und
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d.

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H: 44mm
Probably fox's tooth set in silver handle.
Carolino Augusteum Museum, Salzburg,
Hutter, E. 1985, Abwehrzauber und
Gottvertrauen – Klienodien Salzburger
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Fig. 39

**Photograph of Henry Solomon
Wellcome**

England, 1885
Advertising the forgotten Museum of
Henry Wellcome
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BBC News Online -
[news.bbc.co.uk/nol/shared/spl/hi/pop_ups/
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[Accessed March 2007]

Fig. 40

Life Saving Suitcase

Edlund's Combination travelling bag and
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Canada, 1915
Image copyright M.Gorodess, Glenbow
Archives, Canada, NA-1718-3

MAGIC, MARVEL AND MEDICINE

- An Historical Overview of Jewellery and Medicine -

Magic, marvel and medicine are closely linked, as this historical survey of jewellery and artefacts with medical function will prove. This exploration into jewellery and objects with protective and curative powers going back to prehistoric times shows how adornments have been linked with medicine over millennia, universally traversing boundaries or cultures. These protected the body not only physically but also spiritually, and at the same time helped man overcome personal fears and gave hope.

There are many historical connections between jewellery and magic, marvel and medicine - one of the most interesting relates to the use of jewellery as an aide for survival. Here the development of artefacts with medical associations will be analysed chronologically, beginning with pre-historic man, followed by cultures such as the Ancient Egyptian with their faith based medicine, then with Ancient Greece, as science begins to be valued as a craft in its own right, through to the medieval interpretation of medical adornments, and the advent of medicine as a science and continuing into the Age of Enlightenment when investigative science, as we know it today was born and changed the world of medicine, with a final focus on Victorian innovations and modern uses of digital jewellery. The artefacts have been carefully selected to show how body adornments like jewellery have historically been used as a bodyguard against, illness, disease, or death. Jewellery and medicine have been linked since pre-history with an understanding of protecting the body in a physical and spiritual capacity whilst overcoming personal fears.

PRE-HISTORICAL TIMES

-Craft and Survival -

Evidence going back to prehistoric times suggests that man's fascination with magic and medicine brought about many beliefs and perhaps even cures, by using crafted objects. In early cultures artefacts of adornment held a more meaningful survival purpose and were possibly held as symbols of unknown supernatural powers. Jewellery and objects of adornment have been used for millennia as carriers of medicines and as medical implements. Currently, Africa is one of the first places in the world where stone tools and bead jewellery artefacts have been found; supporting the belief that primitive man lived in groups.

In the Stone Age man lived in a threatening environment, subjected to dangers of the elements and the struggle for survival; bound to nature, to provide food and shelter. It is understood that man developed processes which included the skills to make the basic stone tools that in turn were used to chip, punch, or pierce holes in soft shells and stones to create the first hand-crafted jewellery. I believe that primitive jewellery was a form of early '*language*' to express hierarchies within groups, which had a major part to play in the evolution of what is now known as the 'modern mind'.

Dating the earliest jewellery is a controversial issue. Perforated shells dated approximately 75,000 years ago have been excavated from the 'Blombos Cave Project' in South Africa on the coast of the Indian Ocean.

Archaeological experts including Roger Highfield¹ (2007) have been enticed by the fresh evidences of Africa, believing that we should examine the view that the act of man using body adornments for the very first time did not originate in Europe. The findings comprised of tiny snail mollusc scavenger shells found in clusters of seventeen. Each shell is punctured with holes that are understood to be wear markings². The shell could have been punctured using sharp implements and possibly strung on leather or animal gut which has since disintegrated. Hand-crafted tool discoveries dated about this time also support the notion that these shells could have been made and used by primitive man as a form of adornment.



Fig. 1
Primitive Beads
About 75,000 BC
South Africa
Mollusc scavenger snail shells (*Nassarius Kraussianus*)

Excavated from the Blombos Cave Project
Private Collection

¹ Highfield, R. (2006) Birth of Bling, *The Daily Telegraph*, 23 June 2006, pp. 4-5

² Bradshaw Foundation (2006) *Shell Beads* [online] <http://www.bradshawfoundation.com/shell-beads.html> [Accessed January 2007]

However, it is important to note that the possible punctures are located at the weakest points of each shell. This would be the most logical place to penetrate the beads, but it also supports the theory that these holes could have appeared over time due to natural decay. It is also worth noting that the shells were all found in clusters of seventeen, which may be seen to bring support to the argument that they were in this specific location for a particular purpose and that primitive man developed the ability to count. Archaeologists today have no definitive explanation as to why primitive man valued the number seventeen, but it does give us a better insight into the mindset of primitive man in vulnerable times. One possibility is that the number was used as a form of identity within a group or to inform other groups of their alliance. Another possible explanation for the function is that the beads were used as a type of amulet and were believed to have curative powers.

Whether these beads were valued as body adornments or worn for having curative powers remains unproven. It is possible that primitive man used beads to communicate with the purpose of safeguarding themselves against threats and possible illness, which would have been a major issue at the time. The act of decorating the body would have provided the means to develop vital communication skills and mark the status of individuals long before any language was spoken.



Fig. 2

Representational drawing of Primitive Beads

About 75,000 BC

South Africa

Artist's Reconstruction of 17 mollusc scavenger snail shells (*Nassarius Kraussianus*) on string made of animal guts.

© Artist's Reconstruction by Leon B M Williams

The Blombos Cave discovery is regarded by experts such as Dr Mary Stiner, Professor in the Department of Anthropology, University of Arizona. She states that '*...our ancestors were quite selective about what they wore*'³, and by selecting rare marine shells to form a wearable piece of jewellery, primitive men and women expressed an acute sense of self-awareness.

I believe that jewellery could have been valued as a means of securing virility by men, and fertility by women, or as a tool emphasizing dominance

³ BBC News. (2002) *Standing Out in the Crowd* [online] <http://news.bbc.co.uk/>
[Accessed 08 May 2006]

and social hierarchy. There is still conjecture among other experts of whether this proves that primitive man was starting to show early signs of using body art for decorative and survival purposes. However these are not isolated finds, as many other bead artefacts are being reported, this supports the argument that the shell beads hold a specific significance to the progression of man.

PROTECTING THE BODY IN THE ANCIENT WORLD

-Early Medicine and Superstitions -









Medical practices and the art of healing go back to Antiquity - a time from which we have factual evidence. Pioneers in the field of medicine were the Ancient Egyptians, the Ancient Greeks and Romans. Even some of the remedies known today are not dissimilar to those used in these early cultures. By then metals had been discovered and various tools became more sophisticated and materials abundant through mining and trade, with this development medical implements were being produced and the imagery for protective devices became more intricate.

Magic and medicine became dependent on each other. Ancient Egyptian society held a general belief that in order to cleanse the body of evil spirits a person should pray, recite incantations, use injections of medicines and wear amulets to try and rid themselves of an illness. Egyptian culture did not have a generic name for 'science' and used the term 'Rh', which means 'to know'. Such evidence of this level of knowledge in medicine and amulets can be seen in the 'Papyrus Ebers Documents'⁴ 1900BC - 1500BC, consisting of 876 prescriptions, 400 different drugs and remedies for ailments.

⁴ Egypt Online. (2005) *Medicine, Health and Well Being*, [online] www.egyptologyonline.com/
[Accessed 07 October 2006]

The Ancient Egyptians were far advanced with herbal medicine, and knew not only about the therapeutic properties of herbs and plants, but also fruits and vegetables. Alongside this factual based medicine the Egyptians developed a cult, with amulets based on superstitious beliefs. The symbols were complex and based on their gods, which they believed to protect specific body parts. The most commonly used amulets are listed in Table 2 and show how Egyptians believed these artefacts protected the body in life:

TABLE 1: EGYPTIAN AMULETS USED IN LIFE

a.		Ankh	Symbolising the creation of all life—the source of all that lives. Identified by its cross-like appearance with a loop at its ‘head’.
b.		Nefer	A symbol of vitality, ambition, joy, prosperity, and success. Typically made from porcelain or stone and worn as a pendant.
c.		Scarab	Worn around the neck or placed next to the heart to promote good health. Symbolises rebirth and the rising sun. The scarab takes on many meanings depending upon the inscriptions and marking made on its flat underside. Typically made of basalt, porcelain, and glass.
d.		Eye of Horus	A white eye is regarded as representing the sun, as opposed to a black eye which represents the moon. Amulets bearing the marking of the Eye of Horus were worn during every day life to protect the wearer from danger. The Eye of Horus amulets and talisman tend to be made of gold or silver, and more rarely made in hematite, lapis lazuli, and glass.
e.		Buckle of Isis	A representation of Isis’ genitalia, fashioned from red crystal or red jasper and carnelian, more rare examples have been found covered in gold. Associated with the female virility, fertility and motherly wisdom of Isis.
f.		Tet	Symbolising strength of the back, worn to protect the spine. Associated with the myth of Isis who hid the body of Osiris in the hollow of a tall strong tree as a protection against the demon Seth.
g.		Coiled Snake	Protection from chaos, to ensure travellers a safe voyage.
h.		Frog	Associated with the goddess Isis. Blessings for good health, fertility and longevity.

Based on Ancient Egyptian Exhibits in the British Museum, London,
Drawing Representation by Leon B M Williams

Egyptian Collection - British Museum, London

A presumption held by Egyptian society was that the medicines prescribed by the priest / physicians were expected to divert pain momentarily and that the cure could be brought about by 'magic' through ritual ceremony, talismans or amulets.

Refined drugs such as opium, cannabis, thyme and juniper combined with various gems, were used in remedies during incantations and potentially utilised by being carried within amulets, which thereby increased functionality and usability. *'In fact the ancients wanted their techniques kept secret, it was good for business and brought worshippers with offerings to temples, over time many of these secret processes and remedies became part of medical folklore'*⁵. The combination of drugs and amulets could have produced positive placebo effects which contributed to recovery. *'...ancient Egyptian medicine was a mixture of magical and religious spells'*⁶, with diagnosis and remedies usually based upon a keen observation of the patient⁷.

The most widespread and commonly used amulet was arguably the scarab, first appearing about 2345-2183 BC, 6th Dynasty, signifying the dung beetle, containing physical inscriptions, detailing remedies and believed to have therapeutic or sterile properties⁸. The scarab was a sacred⁹ symbol in Egyptian culture, used as a medical symbolic entity to protect the wearer. It

⁵ Bellair, I. (2000) *History of Egyptian Medicine and Philosophy* [online]

<http://realmagick.com/articles/08/2108.html> [Accessed 05 February 2005]

⁶ Cambefort, Y (1994) *Beetles as Religious Symbols* [online] www.insects.org/ced2/beetles [Accessed June 2006]

⁷ Egypt Online. (2005) *Medicine, Health and Well Being*. [online] www.egyptologyonline.com/ [Accessed 07 October 2006]

⁸ Evan, E. A. (1996) *Ancient Egypt: The Sacred Scarab* [online] McClung Museum, <http://mcclungmuseum.utk.edu/permex/egypt/egs-text.htm> [Accessed 11 June 2005]

⁹ Kendall Bioresearch Services. (2005) *Dung Beetles – and the Sacred Scarab of Ancient Egypt* [Online] <http://www.kendall-bioresearch.co.uk/scarab.htm> [Accessed 28 February 2005]