Paleolithic to Iron Age Life (Prehistory – 3,000BC)

Alastair Gray
In This Session…

• Healing practices
• Activity Levels
• Life span
• Natural selection
• Discuss the evolving role of medical practice throughout history and compare with the emerging paradigms of health within the 21st century.
• Identify the significance and current role of Traditional Medicine (TM) practices in a worldwide context.
• Recognise and identify traditional evidence, modern perspectives of the evidence hierarchy, the three prongs of evidence-based medicine (EBM) and evidence-informed practice (EIP).
• Understand traditional and complementary medicines (TCAM) as they currently fit into the health care landscape in Australia.
• Develop an awareness of the interrelationships among separate healing paradigms and their common ground.
• Explain the history and understandings of health and disease according to different cultural and historical frameworks.
• Understand the development of the scientific method and its increasing importance in Western medicine as well as its influence on other medical system paradigms.
• Identify how the changing ideas and perspectives about health over time relate to the present landscape of natural medicine in Australia and around the world.
3 key points - assessment

- Consider the cause of disease in different ages and cultures
- Consider the role of belief in healing
- Consider nutritional changes over time and its role in human health
“If you want to understand today, you have to search yesterday.”

Pearl Buck (1892 - 1973, American author, Nobel prize laureate for literature, 1938)
**Prehistory:**
The period of time before written records.

- Human and animal remains, and artifacts have survived
- Cave paintings from 30,000 years ago exist

**History:** History (from Greek: ἱστορία – historia, meaning “enquiry, knowledge acquired by investigation”) is the study of the human past through written records.

- First writing developed in Mesopotamia and Egypt, about 5,500 years ago
<table>
<thead>
<tr>
<th>Period</th>
<th>Tools</th>
<th>Economy</th>
<th>Dwellings</th>
<th>Society</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Paleolithic</strong>&lt;br&gt;2,600,000 to 12,000 years ago</td>
<td>Handmade wooden, bone and stone tools and objects found in nature</td>
<td>Hunting and gathering</td>
<td>Caves, hide tents</td>
<td>Clans and bands of 25-100 people; Late: Ritual burial</td>
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<tr>
<td><strong>Mesolithic</strong>&lt;br&gt;12,000 to 9,000 years ago</td>
<td>And also baskets</td>
<td>Hunting and gathering</td>
<td>Huts and hovels</td>
<td>Bands and tribes; Ancestor worship, ‘priests’</td>
</tr>
<tr>
<td><strong>Neolithic</strong>&lt;br&gt;9,000 years ago</td>
<td>And also pottery</td>
<td>Agriculture, fishing, domestication</td>
<td>Farmsteads</td>
<td>Chiefdoms; Sanctuaries</td>
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</tbody>
</table>
Prehistory – The Stone Age

Paleolithic

Mesolithic

Neolithic
Activity Levels

- Intense short burst
- Sleep
Hunting and Gathering

Climate changes: Cycles of ice ages with warmer periods every 10,000-12,000 years

Species extinction, changes in availability of food animals, vegetation and water availability

Necessitation of a nomadic lifestyle
- Dependence on environmental factors
- “Divine providence”
- “Spirit of place”
The Hunter

Paleolithic
Mesolithic
Neolithic

Mastodon (‘mammoth’)
34,000,000 to 11,000 years ago
The hunter

Aurochs – European wild cattle
European wild goat
The gatherer

Seasonal fruits and nuts
The gatherer

Paleolithic

Mesolithic

Neolithic

Grains and legumes
The gatherer

“Weeds” – many are edible wild greens
Significant in Healing:

Supernatural ideas regarding health, fertility, disease, vigour...
People were at the mercy of environmental and natural forces
- Cave paintings show animistic and totemic human and animal figures
- Ritualistic burial
- Devotional carvings relating to fertility
- Mother goddesses and matriarchy
- Development of a ‘priesthood’
- Development of shrines
Lascaux Cave painting - France
Aboriginal rock painting – NT Australia
Stonehenge - England
Animism (Latin - *anima* 'life, soul'): The attribution of a soul to plants, inanimate objects, and natural phenomena. The belief in a supernatural power that organises and animates the material universe.

Shaman (German *Schamane* and Russian *shaman*, from Tungus - *šaman*) a person regarded as having access to, and influence in, the world of good and evil spirits, esp. among some peoples of northern Asia and North America. Typically such people enter a trance state during a ritual, and practice divination and healing.
Present-day shamans
Disease caused by spirits and demons that possessed the body

Shamans, medicine men and women and witchdoctors very important in exorcising the demons from the body and restoring health

NB: Exorcism still a ritual in the Catholic Church!
Medicine man and shaman masks
African witchdoctor
Primitive surgery: Trepanation
Given the serious complications of trepanation, it is remarkable how many of the trepanned skulls found show signs of bone healing and survival for many years after the procedure.
Carnivorous animals will often seek out specific plants to eat in order to cure some complaint.

Humans quickly learned to distinguish between harmful and useful plants, including plants that had medicinal effects.

Transmission of such knowledge orally from generation to generation accompanied the development of human language (∼150,000 years ago).

**Empiricism** – “If it works, keep on doing it…”
Stone age: Ritual burial
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<tr>
<td>Bronze Age</td>
<td>Copper and bronze tools and weapons; potter’s wheel; wheel; metal ploughs, sickles</td>
<td>Agriculture, domestic animal breeding, crafts and trades; ships</td>
<td>Towns and cities</td>
<td>Complex social and religious structures; matriarchy, earth goddess cults; fertility rites; writing</td>
</tr>
<tr>
<td>3,000 - 1,000 years ago</td>
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<tr>
<td>Iron Age</td>
<td>Iron tools and weapons, some experimentation with steel</td>
<td>Increasing social sophistication</td>
<td>City states, “empires”</td>
<td>Patriarchy; increasing subjugation of women; literary traditions begin</td>
</tr>
<tr>
<td>1,000 years ago</td>
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Case study: Ötzi the Iceman

An ice-preserved natural mummy
Case study: Ötzi the Iceman

• A well-preserved natural mummy of a man who lived about 5,300 years ago in Europe and discovered frozen in ice in the mountains between Austria and Italy

• Intestinal contents: Two meals (last one about 8 hours before his death)
  • One of chamois meat one of red deer meat
  • Both were eaten with some grain as well as some roots and fruits
  • Grain from both meals was a highly processed einkorn wheat bran quite possibly eaten in the form of bread
Chamois and Red Deer
Neolithic agriculture and bone/stone sickle
Case study: Ötzi the Iceman

Found on and close to the body (provisions & environment):

- Chaff and grains of einkorn and barley
- Seeds of flax and poppy
- Kernels of sloe
- Berry seeds
- Pollen of wheat, legumes, hop-hornbeam,
Sloes, wild strawberries, blackberries
Life span

- http://en.wikipedia.org/wiki/Life_expectancy#Life_expectancy_variation_over_time
- http://www.stoneagedoc.com/Short_lived_Stone_Age.htm
Natural selection

Noun

• The process by which forms of life having traits that better enable them to adapt to specific environmental pressures, as predators, changes in climate, or competition for food or mates, will tend to survive and reproduce in greater numbers than others of their kind, thus ensuring the perpetuation of those favorable traits in succeeding generations.

• Survival of the fittest

The Role of Belief

• http://www.sciencemuseum.org.uk/broughttolife/themes/belief.aspx
Prehistory: Stone age humans lived a nomadic existence and were at the mercy of the elements and climate.

By about 11,000 BC they started to move from hunting and gathering to settlements and agriculture, animal domestication and husbandry.

Supernatural approach to health and disease, with shamans and medicine men “exorcising” demons and spirits.

Empiricism became increasingly important as social culture became more sophisticated.
Professionalisation of natural medicine in the 21st century

• Transition from Shamans, witch doctors and folk medicine to research, degrees and qualifications
Long hair and billowy shirts
New Clients
New Questions
New Expectations

More Hippies Less Hipsters
Science and honouring the traditions of healing

- Using empirical evidence with respect to ancient techniques
- If a therapy/product hasn’t been scientifically tested can it still be effective?
Research in its Infancy

- Difficult to complete studies on natural medicines due to individualised treatment
- Different dosages
- Different mechanism of action to pharmaceuticals
The traditions

- Spiritual healing
- Elders
- Traditional preparation or tinctures/poultices
Traditional Evidence

- Procedure based
- Provings
- Case studies
- Systematic observations
Induction and Deduction

• Inductive – “Bottom Up” logic
  – Applies generalisations ‘up’ to individual instances to provide probable conclusions

• Deductive – “Top Down” logic
  – Using general statements to work ‘down’ to more precise, logical conclusions
Apprentice and Curriculum

• ‘Hands on’ approach Vs text based approach
• Types of learning
  – Auditory
  – Visual
  – Kinesthetic
Stone Age:
1966 film: “One Million Years BC” – Anachronistic fantasy rubbish!
1981 film: “Quest for Fire” – Prehistoric humans on a quest for fire
1986 film: “The Clan of the Cave Bear” – Cro-Magnons vs Neanderthals
2008 film: “10,000 BC” – Life of a mammoth hunter (with added Atlantis fantasy later in film)

Bronze Age:
1977 film: “Iphigenia” – Based on Euripides’ play, authentic rendition
2004 film: “Troy” – Greeks vs Trojans in the Bronze Age

Iron Age:
For Further Investigation

Stone Age:
http://www.visual-arts-cork.com/prehistoric-art.htm - art and culture
http://www.wesleyjohnston.com/users/ireland/past/pre_norman_history/neolithic_age.html - Neolithic age in Ireland
http://archaeology.about.com/od/inventions/a/pottery_invent.htm - invention of pottery

Bronze Age:
http://www.ideafinder.com/history/inventions/wheel.htm - Invention of wheel
http://mygeologypage.ucdavis.edu/cowen/~gel115/115ch4.html - bronze history

Iron Age:
http://nautilus.fis.uc.pt/st2.5/scenes-e(elem/e02610.html - Iron history
http://history-world.org/hittites.htm - Hittites and iron
References

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