Understanding the Truth Hidden in Indigenous and Shamanic Cultures

An Introduction to, and commentary on, the work of Dr. Lynne Kelly, in particular the book *The Memory Code.*

The Druids sang the songs to activate a secret ancient technology. It sounds strange, but truth can be stranger than fiction. Four thousand years ago, before any written language, preliterate Aboriginal people sang to the standing stones at Stonehenge. They sang the songs to read and write scientific knowledge to a sophisticated computer database—the database was contained within the stone circle. Sounds like a sci-fi movie plot? Or perhaps a magic-trick?

Here is the secret: the "technology" is actually a system of mental "techniques." The database of information is not really inside the stones, but within the minds-eye of the user, in relationship to the stones. The memorized information is encoded into images, stories, and songs. Each stone is a distinct location that acts as a spatial cue for the images, stories, and songs. **Very pragmatic information was embedded inside those images, stories, and songs.** That information was about animals, birds, insects and plants; how to navigate the land; where to find water and food; and what plants to use as medicine. And "some research has shown that up to 70% of the songs are… all the sorts of information you need to survive and know that environment".[1]

> Any sufficiently advanced technology is indistinguishable from magic.
> —Arthur C. Clark, science fiction writer and inventor

Information technologies are modern and also ancient. Today, when we don't know something we say: "look it up" or "Google it." In preliterate oral traditions, they used visual-perceptual mnemonic techniques. To "look something up" they would sing the song or go to the tribal holder of wisdom and ask them to sing the song to find the answer.

> Everything got a song, no matter how little, it's in the song—name of plant, birds, animal, country, people, everything got a song.—Eileen McDinny of the Yanyuwa people[2]

This story about Stonehenge is a dramatized account of the theory that science writer Lynne Kelly explores in her book, *The Memory Code.* Now it may or may not be factually true—it is a "theory." However it is a good illustration of something that is absolutely true. It fulfills the first rule of a good myth: illustrate something that is true in the form of a story. Her work is an initiation to the most ancient forms of mnemonics and cultural arts. This shamanic art of memory has very practical value to us today. This story is about how indigenous cultures used memory techniques and also how they used the art and science of symbols, or semiotics.

Arthur C. Clarke actually formulated three laws about science fiction and science fact:

1. When a distinguished but elderly scientist states that something is possible, he is almost certainly right. When he states that something is impossible, he is very probably wrong.

2. The only way of discovering the limits of the possible is to venture a little way past them into the impossible.
3. Any sufficiently advanced technology is indistinguishable from magic.

At the core of this consideration is: What is magic? And what is science? Is science magic? Is magic science? There is an intriguing relationship between the two disciplines. The earliest "scientists" in western history were generally religious men involved in disciplines such as alchemy, astrology, and other "occult" practices. Much of the literature about magic is absolute nonsense, but so is much of the literature about science. Anyway, what we are considering here is not so much about magic but what we call "cognitive science"—particularly the science of memory and symbols. So let's see what practical examples we can find in indigenous cultures.

> There is ample evidence that the knowledgeable elders in indigenous cultures across the world effectively memorised field guides to all the flora and fauna in their environment. They stored extensive navigational charts in memory, along with the legal system, trade agreements and the cultural expectations that bind communities together. The most complex data sets of all, intricately interwoven genealogies, are found in all oral cultures, held in memory and often used to structure other aspects of the knowledge system. Oral traditions always record lessons from the past to provide knowledge for the future, especially about how to survive in times of extreme resource stress or cultural conflict.
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> My research into the indigenous stories of the 23 crocodilian species around the world indicated that the stories reflect a very detailed observation of the physiology and behaviour of the specific species in the local environment, those which are eaten, avoided or simply observed. This started me on the journey through years of research discovering the extraordinary depth of animal knowledge stored in the oral tradition of indigenous cultures across the world. The natural sciences provided a database which is essentially consistent for both literate and non-literate observers, providing a particularly valuable insight into the way knowledge is stored so differently across the orality/literacy divide.[3]

This type of mnemonic technology is often misunderstood: either it is overhyped or completely underestimated—this is by people who have not taken the time to study and experiment with it. This is a new way of thinking, only it is not actually new, it is ancient.

A perfect allegory for the revival of visual-perceptual mnemonics is the story of the Antikythera mechanism. It was an Ancient Greek computational device. This device was discovered in the year 1900 in an underwater shipwreck. The mechanism was far more advanced in its construction and capability than thought possible for Ancient Greece. A visual-perceptual mnemonic system is like that: some ageless clockwork machine—lost at the bottom of the Mediterranean Sea, rediscovered, then allowed to sit unnoticed in a backroom for many years. Yet, here it is now… extant, real, as though made of solid metal gears, and it still works. Wow, fantastic! Did they really have this advanced technology? Yes, they did.

Megalithic structures like Stonehenge and Gobekli Tepe were the original computational devices. They were used for remembering and predicting cyclic temporal astronomical events. These structures are the precursors to the Antikethera mechanism, Astrolabes, and related devices. These machines are the essential precursors to modern-day computers, audio-visual media, and other communications technology. Stonehenge and other megalithic structures have great spiritual, cultural, and scientific significance.

The preliterate oral traditions had to keep track of a lot of information: cultural values, lineages of kings, genealogies, laws, natural histories of animals, birds, insects, plants, and there were philosophies and mythologies—much like what we keep track of today, with books and the internet. To understand how they functioned, let's look at the still living culture of indigenous Australian aboriginals, and see what they do.

> I wasn't far into my research when I began to understand that songlines were key to the way Indigenous Australians organised this vast store of information so that it would not be forgotten. Songlines are sung narratives of the landscape, singing tracks that weave across the country and enable every significant place to be known. At each location, rituals are performed that enact the knowledge associated with that specific place. …
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> By repeating the stories of the mythological beings through songs and dances at sacred landscape sites, information could be memorised, even if it was not used for tens, hundreds or thousands of years. Songs are far more memorable than prose. Dances can depict animal behaviour and tactics for the hunt in a way no words can do. Mythological characters can act out a vivid set of stories that are unforgettable.
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> I recognized that Aboriginal elders were using their songlines in a similar way to the ancient Greek orators who mentally walked through their buildings and streetscapes from location to location to help them memorise their speeches. They called it 'the method of loci'. [4]

Memory spaces functioned as databases of knowledge, utilizing integrated mnemonic techniques. How could a sequence of locations in a landscape or architecture hold a data-set comparable to a written encyclopedia? These memory-cue-systems are observed in many shamanically-oriented indigenous traditions. They are tightly integrated with their graphic arts, song, dance, ritual theater, architecture and monuments. They facilitated the "encyclopaedic memories of the elders."

Even people, animals, and organisms that share the same environment have different "kens" (ranges of perception). For instance, some animals can hear ultrasonically or see infrared. The cognitive linguist George Lakoff uses the term "Frame," and the psychologist Carl Jung uses the term "Collective Unconscious." Every person has unconscious assumptions or frames of reference. These frames are inherited from the structure of our anatomy, and the culture of our childhood upbringing, and our experience in general. These frames are largely unconscious—but

they exist mightily. They limit us. They define our understanding of the world we live in. **These frames form our prejudices and the limits to our understanding of other cultures, other religions, and other sciences.**

> The songs and dances tell the stories of mythological characters who act out the highly memorable narratives. Mythology is the perfect medium for storing critical knowledge because it makes the information so vivid and so memorable.[5]

Mythologies can help us to understand what may be beyond the edges of our frame of comprehension, but the primary function of mythology is not merely metaphoric and mnemonic, as Dr. Kelly emphasizes. The primary function of mythology is to serve to restore human feeling of the Sacred. This is seen in the works of Carl Jung and mythologist Joseph Campbell.

Indigenous cultures demonstrate a way of life that is more psychophysical and participatory. We are not merely physical beings—we participate in other levels of being. We breath and experience emotions and feelings. We experience life-energy and subtle energies. We participate in subconscious, unconscious, and even superconscious dimensions of the human body-mind. We must recognize this as a virtue rather than dismissing it as irrational.

> Despite being active in natural history groups, I know no one today who could identify all the insects they may encounter even with a guide book, let alone all animal species. Yet, that is common practice among indigenous people.
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> In oral traditions, dance acts as a complementary memory cue to the sung narratives. Not only do the dances entertain but information can also be encoded in dance that defies clear expression in words. As a natural history writer, I doubt I could accurately describe details of the movement of a kangaroo—the flick of an ear, the subtle change in stance as it detects an approaching human—despite having observed them for most of my life. Australian Aboriginal dancers can represent this behaviour in a matter of moments.
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> Rituals performed before a hunt are often referred to as ‘hunting magic’, the word 'magic' implying that they are simply superstitious acts performed in the belief that they increase the fortune of the hunt through a call to supernatural beings. A little more investigation shows otherwise. Many of the songs reinforce details of animal behaviour, such as indicators that the animal may be aware of the hunters, or the way in which a mob of animals may disperse in fleeing. These rituals confirm planned hunting strategies and so, exactly as claimed, enhance the likely success of the hunt. When I discussed ‘hunting magic’ informally with Australian Aboriginals and Native Americans, they indicated that they were well aware of this rational link. The songs, for them, combine practical and magical aspects.[6]

Perhaps the most important yet underexplored implication is this—that we have much more to

learn from these indigenous cultures.

> Western science is still learning from traditional knowledge. [7]

> We store our books in neat categories; science on one side of the library, ethics on the other and mythology somewhere else. These silos of generic information are an artefact of literacy, where so much is written and research is so focused that much of the interconnectedness of the human experience is lost. The extraordinary depth within each genre has come at the cost of the integrated format of oral tradition. [8]

> What astonishes me is that these memory skills were allowed to fade from the Western educational system during the Renaissance and are today used only by a smattering of people keen to memorise the order of shuffled decks of cards for competitions. [9]

Despite the benefits of computers and internet and digital media, there is a need for a different type of education and culture. Not an education and culture that merely encompasses the potentials of current and future technologies. We need a new type of education that gets to the root of human existence. This new education reintegrates the mnemonic techniques as seen in the Ancient Greco-Roman and Australian Aboriginal traditions. It also reintegrates all the arts, including song, dance, and theater (as well as digital media). Dr. Kelly may not be saying it explicitly but it is implied—**Science, Technology, Engineering, and Mathematics cannot be divorced from the Arts**—or even divorced from the Sacred dimension of human existence. We need a new type of education that also promotes sensitivity to the natural world and the connectedness of all things.

> Oral traditions always records lessons from the past to provide knowledge for the future, especially about how to survive in times of extreme resource stress or cultural conflict. [10]

Humanity, through its modern technology, now stands in a state of global intercommunication. All the different traditions and points of view can be seen in one place, perhaps for the first time in history. This diversity of culture is a valuable asset, just as the biodiversity of animal and plant species in the natural world is essential for the preservation of our environment. Preservation of the diversity of languages and cultures is even interdependent with the biodiversity of the environment. This work reminds us of the great value of the totality of our human cultural inheritance. The cultural traditions seen in ancient monuments, like Stonehenge, are no longer in existence as living communities. We who are still alive have our own traditions and frames of reference. **If we can more cooperatively embrace unfamiliar cultures, we will find our own sphere of culture and community all the richer for it.**

Dr. Lynne Kelly's work explores the spaces between science and magic. Her work explores the evidence in anthropology, archeology, and mythology for a preliterate cross-cultural system of mnemonics. This is a fertile zone for innovative thinking. She comes from a firmly materialistic point of view that would please the most extreme skeptic. However, she has been confronted by

the very different cultural views of her new friends, who are not materialists. She has experimented with techniques that are subjective, and perhaps border on esoteric. This is not irrational, but like Jung, Campbell, and Lakoff, she is peeking outside of her paradigm. There is virtue in the indigenous shamanic world-view, and she seems to advocate for this virtue. She presents an interesting body of evidence. How will she reconcile these more pantheistic and clearly non-materialistic ways of thinking and understanding the human experience? We will have to ask her. Dr. Kelly's work is a significant contribution that helps to contextualize the art and science of memory and mnemonics. It also introduces us to a new way of understanding indigenous cultures.

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More information on this work about memory, learning, and creativity: www.geniusdojo.art

Footnotes

1. "The Indigenous memory code", interview on ABC Radio National, 2016
2. "The Memory Code", p. 3
3. "Indigenous Knowing in a Concrete Reality"
4. "The Memory Code", p. XIII
5. p. 6
6. p. 4
7. p. 7
8. p. 29
9. p. 35
10. Indigenous Knowing in a Concrete Reality