

Issue No. 47 ■ AUG - SEP ■ 2021

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What is the Universe Made of?

A Philosophical Take on
Embracing Diversity

Some Thoughts on
Homeopathy

The Legend of Bagger
Vance

PHILOSOPHY
CULTURE
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Editorial Team

Sabine Leitner - Director
Julian Scott - Editor
Agostino Dominici - Project Manager and Designer
Natalia Lema - Public Relations



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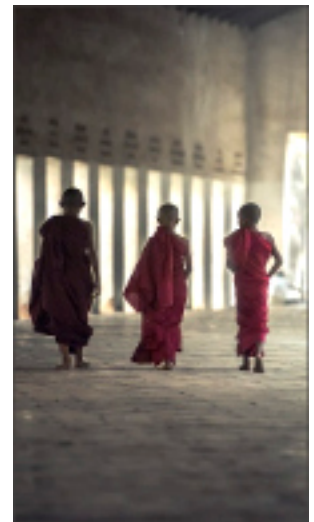
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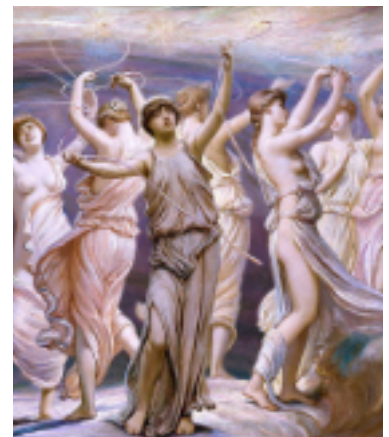
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Editorial

Is Truth Dead?

Truth used to seem quite simple: something was either true or not, and there was usually a general consensus as to what was true. Today, it seems we are living in a post-truth world where the 'Truth' doesn't exist anymore, only 'your truth' and 'my truth'. And where, obviously, one's own truth is always more true than someone else's truth. But is truth really dead? And has it ever been so simplistic and one-dimensional?

Maybe the only thing that has really changed is that we have realized that truth is more complex than we thought. And that even facts are not purely 'factual', but actually have several layers to them. Imagine the following scene: a loving and conscientious mother gives her two children cod liver oil on the recommendation of the paediatrician. Both children dislike it because at that time there were no tablets available to mask its awful taste. However, one child has a positive experience because her mother's action makes her feel loved. The other has a negative experience because she feels forced to do something against her will and therefore does not feel loved. Two very different experiences and narratives of the same event and the same mother. Was the mother good or bad?

Maybe truth used to be more simple because we kind of believed that it was something absolute. When our world became more multicultural and a global village, we were suddenly faced with the relativity of what we thought was right, decent and good. We became more conscious that simple 'facts' like the time of day are relative. It might be 5 pm in one place and 5 am on the other side of the world. Similarly, is it day or night, summer or winter? It depends.

The safety and comfort of 'absolute truths' has been shattered and we are overwhelmed by the unfathomable complexity of everything. But the world has not changed. Maybe we have only woken up from a more childlike 'binary' understanding of the world (true or false, right or wrong) and need to develop a higher form of consciousness that

enables us to perceive the unity behind the different appearances. Imagine you were a 2-dimensional being who is unable to 'see' a 3-dimensional cylinder. All you can see is its 2-dimensional shadow, for example a circle or a rectangle. Only by developing a 3-dimensional consciousness would you be able to understand that both the circle and the rectangle can be part of the same thing.

The previous example of the mother shows that we create our own experience of reality. The reality of the loving mother who does what she thinks is best for her children can be experienced in very different ways. However, the fact that we create our own experience of reality does not imply that there is no underlying reality.

In Eastern philosophy the distinction between the underlying reality and the experienced reality is sometimes referred to as the Absolute and the Relative. The Absolute is the underlying reality, which does not change according to who is experiencing it. It is as it is, an independent reality. The Relative is the reality we observe and experience, the reality generated in our minds.

In Greek philosophy a distinction is made between the phenomenon ("appearance") – the reality generated in the mind – and the noumenon, or unknowable reality, that underlies it. According to both philosophies, there is only one Absolute, but there are numerous relative realities, each relative to a particular experiencer at a particular point in time and space.

The antidote to the relativity of truth is not a return to the comfort of simple truths. The antidote is to embrace the complexity and rise up to a higher dimension where the differing viewpoints can be understood as facets of the same 'archetype'. Truth is not dead, only our understanding of it needs to change. Maybe we just need to be more 'inclusive' with the truth and accept that different and even contradictory accounts of the same fact can all be true. And the first step towards Truth would be to learn to put ourselves into someone else's shoes and try to see the world from their point of view.

A Philosophical Take on Embracing Diversity

Diversity is a big topic and probably one of the biggest cultural values of our time. Diversity means “a range of people or things that are different to each other”; and in our society’s context it goes hand in hand with inclusion, which in practice is the act of including someone within a group without concern for any difference. The difference could be of ethnicity, gender, education, ability, sexual orientation, wealth, etc. A particular



‘hot rod’ that this article will explore is gender diversity. I won’t be going into the philosophy of human rights here (it would need the entire magazine for a bare introduction!), but will explore this topic from a more simple and mystical

perspective. Most people today know that we all need to embrace diversity and practise inclusion in order to achieve a harmonious coexistence, but there are some deeply ingrained aspects of our personality which sometimes cloud over our higher functions.

Why do some of us feel triggered when watching super-extravagant Pride parade-goers; or when our children come home after their first lesson at school about same-sex relationships and we fear they’re now at risk of ‘turning gay’? If they weren’t offered this education at school, they would certainly grow up heterosexual, but now there’s a risk they won’t... is this true?

There is a common fear amongst parents that their children are influenced by pressures from their peers, and we see it continuously by their choices of clothing, make-up, music, style, language and friends. The pressure to conform these days is huge, and the consequences can sometimes be devastating to individuals and families. When it comes to gender identity and orientation, there is a fear that they’ll want to be or act in a way that’s not in their nature.

Students and lovers of philosophy understand that the soul has no gender, and the human spirit has no gender either. Gender, race and our other physical, social and ‘mental’ diversities are parts of our

1. Ikeda, D. Faith into Action. 1; p.25

personality – our intersectionality, the many parts that make up our whole. These parts are what we learn that enable us to feel a sense of belonging in this humanity. Being attracted to a particular gender (or more than one) is something we're born with. What we experience thereafter is driven by our preference and confirms it; it isn't a choice we make according to what we see around us. If that were the case, there wouldn't be homosexual people, since according to current UK statistics about 90% of the population is heterosexual. Daisaku Ikeda, a Japanese peacebuilder and Buddhist philosopher, says "Life is diverse, human beings are diverse. That is the natural way of things. The opposite would be standardisation"¹. Standardisation is in itself inequality; as Aristotle puts it, "the worst form of inequality is to try to make unequal things equal".

What is important is dialogue. Dialogue to become aware of one's curiosity and explore what it really means; to become aware of conformity and of one's true self. The people to lead this dialogue aren't necessarily teachers, who are often blamed and judged by unhappy parents, but at the same time have limited influence over young people, especially in the middle and higher school years. These young people are mostly influenced by their peers, and nowadays they turn to their peers for support, even though neither has enough experience, discernment or internal resources to deal with the question without bias.

Young people typically don't open up to adults about their experiences for worry of judgement and a feeling of "generational gap". Adults have good intentions in supporting young people with these questions, but can have the fear described above that the young person will act in a way that's different to what the adult believes their nature is. So how to address this fear that young people can sway and conform to things beyond their nature?

Let's return to dialogue. Good dialogue is without judgement; it's opening up the conversation, even if it feels awkward and out of the comfort zone. From the Bhagavad Gita we can take a good internal position for dialogue: "There is no wisdom for a man without harmony, and without harmony there

is no contemplation"² and "A man free from the chains of selfish attachments, free from his lower "I am", who has determination and perseverance, and whose inner peace is beyond victory or defeat – such a man has pure Sattva"³. Referring to selfish attachments and the lower "I am", the Bhagavad Gita can explain how the prospecting philosopher can engage in dialogue about diversity and



differences. It describes the 3-fold division of wisdom and steadiness according to the 3 Gunas, the 1st as pure wisdom, the 2nd as impure wisdom, and the 3rd as "a wisdom obscured in darkness when wrong is thought to be right, and when things are thought to be that which they are not"⁴. This latter can prevail when humans are surrounded by temporal morals which actually divide people, rather than unify.

To conclude, this approach of dialogue spreads tolerance, principles of wisdom and encourages respect for the many ways there are to understand the world and to live what the Greek philosophers understood as the 'good life'. Socrates' approach gives us adults inspiration: "I cannot teach anybody anything, I can only make them think".

Sofia Venuti

2 – Bhagavad Gita 2;66

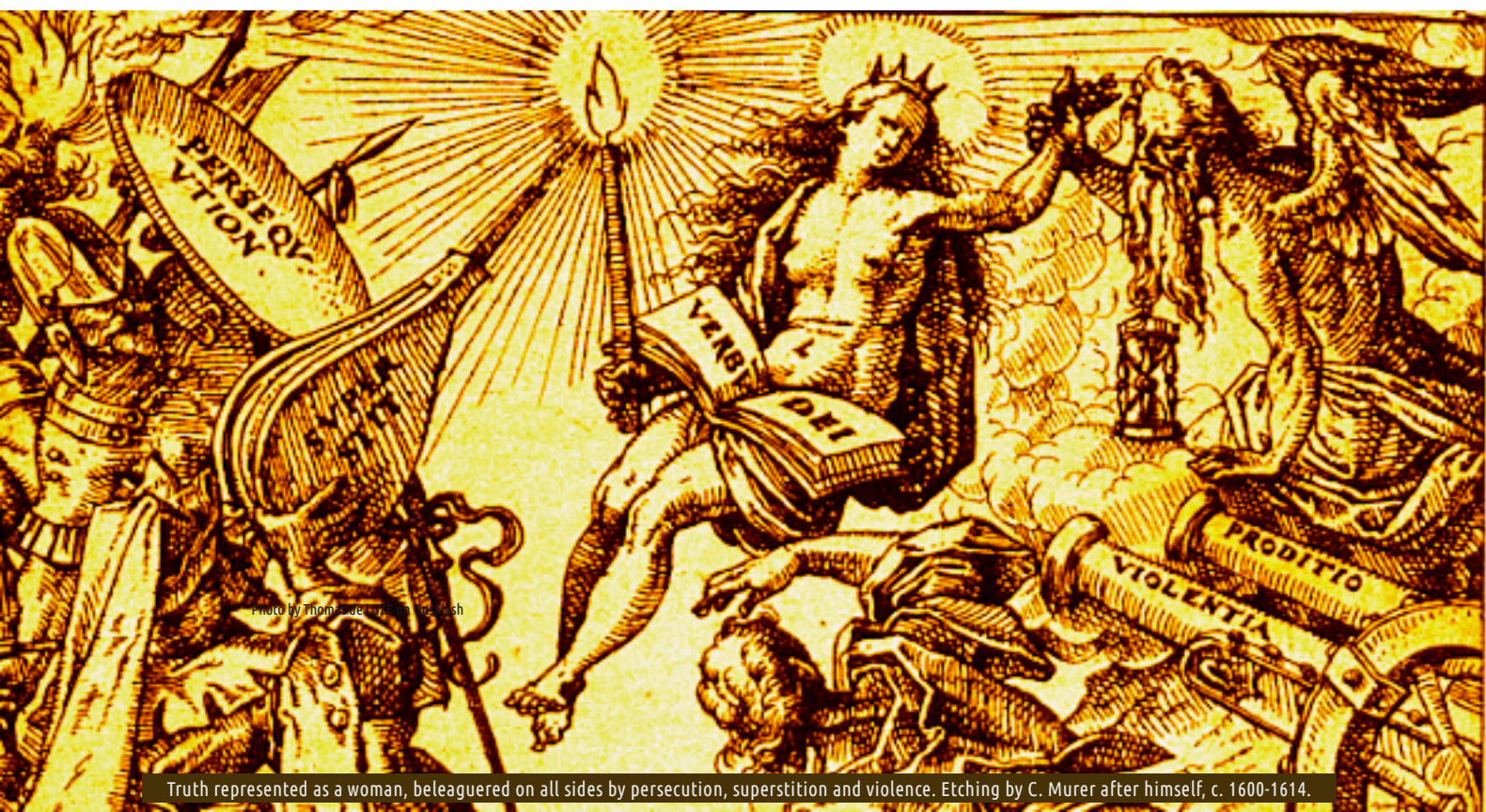
3 – Bhagavad Gita 18;26

4 – Bhagavad Gita 18;31

The Persistence of Superstition

There is an old Buddhist story about a monk who lived with his disciples in a monastery. One day a lost kitten came into the monastery and the monk and the disciples started to care for it. From that time on, the kitten never left them. When the monk started to meditate, the kitten often disturbed him by coming over to him, sitting on his lap or climbing onto his shoulder, so the monk told his disciples to tie the kitten to a tree in the monastery's garden before his meditation. It became a daily routine to tie the kitten to the tree. Later, the old monk passed away and one of his

disciples took his place. He also followed the routine of tying the cat to the tree before meditations. But the cat died one day too and the inhabitants of the monastery missed the cat. They thought that if a cat is not tied to a tree the meditation may fail. So, they brought another cat and followed the old routine. As decades passed, the tradition of tying a cat to the tree before meditation did not fade, even though nobody remembered why this act had to be done. This is a good example of how a superstition changes people's habits.



Truth represented as a woman, beleaguered on all sides by persecution, superstition and violence. Etching by C. Murer after himself, c. 1600-1614.

Superstitions are as old as humanity itself. Most of them are based on a false belief or a misunderstanding. Or a simple prejudice. One of the most well-known superstitions is that if a black cat crosses our path, it brings disaster. But not everywhere. In Scotland, for example, a strange black cat which arrives on the doorstep means luck. Or in Japan, black cats help single women find suitors. Superstitions are fed by fear and ignorance. When people are afraid of something, they create an explanation or a solution to eliminate the problem. In this case, the black cat causes no harm, but there is a long tradition that can be traced back to the Middle Ages, when black cats were often connected with the devil and witches.



In classical times, the Romans understood superstition as an excessive fear of the Gods. Cicero wanted to abolish superstitions and distinguished them from religion. He wrote that superstition imitates religion in the same way that rashness (a vice) imitates courage (a virtue). Some superstitions demand a rite or act to be done. For example, in Spain on New Year's Eve, 12 grapes have to be

eaten at midnight, one with each stroke of the clock, in order to bring good luck and prosperity for the next 12 months. This tradition, which was introduced by wine growers at the end of the 19th century, quickly became popular not just in Spain, but in Latin America and in the Philippines too.

Eating grapes at New Year is not a harmful superstition, but there are some that can cause serious issues, such as the fear of the number 13 in some countries. As 12 symbolizes wholeness and is often seen as positive, the number 13 is considered an unlucky number by many people and Friday the 13th is regarded as a day with bad luck. It is connected to the Last Supper, where Judas Iscariot was the 13th guest, and it was he who led Jesus to crucifixion. There is no evidence for the truth of this belief that 13 causes bad luck, but there are people who suffer seriously from this superstition and try to avoid the bad luck by keeping themselves away from this number in every possible way. In medical science, it is called *triskaidekaphobia*, based on the Greek words *treiskaideka* (thirteen) and *phobos* (fear). For this reason, in some hotels the number 13 is removed.

In Asian countries, like in China, instead of 13 the number 4 is considered as a bringer of bad luck, and in the hotels all numbers ending in 4 are skipped, because the word four is a homonym of death in their language, and they pronounce it in a similar way. On the other hand, the number 8 is considered as a lucky number in Chinese numerology.

Despite the longstanding efforts of philosophers and scientists, superstitions have survived and are still with us, even in our techno-civilized society. One of the explanations as to why we need them may be that our mind always needs reasons to explain and control the unknown, and to hide our ignorance. But until we reach knowledge, it may be better for our peace of mind not to walk under a ladder and to put a horseshoe on the front door of our house.

Istvan Orban

Some Thoughts on Homeopathy



A portrait of Samuel Hahnemann (1755-1843)

Homeopathy seems to be very controversial these days, although it has not always been like this. Most people know very little about it, some swear by it and some oppose it vehemently. Since I grew up in a country where homeopathic remedies were (and still are, I believe) readily available in every single pharmacy, I maybe have a positive mindset about it. That's why a year ago, due to chronic and worsening health problems of my cat, I started to

look for alternative treatments and consulted a homeopathic vet. The treatment worked incredibly well and she is now better than she has been for many years. This made me curious and I started to read up on the subject.

Homeopathy was founded by the German physician Samuel Hahnemann (1755 – 1843), who was dissatisfied with the state of medicine in his times, and is based on two principles: “Like cures like” (*Simila similibus curantur*) and the “principle of potentisation”. Hahnemann discovered the first principle when he was researching why cinchona (also called *China*, the bark of a Peruvian tree) was effective in treating malaria. When he took a dose of cinchona to test it on himself, he discovered that it produced malaria-like symptoms. This led him to the conclusion that “that which can produce a set of symptoms in a healthy individual, can treat a sick individual who is manifesting a similar set of symptoms.”

This idea was not completely new in the history of medicine. Similar ideas exist in the writings of Hippocrates and Paracelsus, the pioneer of the ‘medical revolution’ of the Renaissance (according to Wikipedia), who wrote: “Never a hot illness has been cured by something cold, nor a cold one by

something hot. But it has happened that like has cured like.”

Since some of the remedies of Hahnemann’s time, like arsenicum, lead or mercury, were actually poisons (the Greek word *pharmakon* interestingly means both remedy and poison), Hahnemann therefore tried to find out what the necessary minimum amount of a remedy would be in order to bring about a curative effect. He discovered that that by diluting it in a specific way, the remedy became more potent in its healing power. To give an example of this methodical way of dilution which is called *potentisation*: a tincture produced from the fruit of the plant Belladonna is diluted by taking 1 part of the tincture and 9 parts water (or alcohol or other carrier substance), and shaking it rhythmically (*succussion*). This results in Belladonna D1 (the first decimal power). This process (taking 1 part of this D1 solution and shaking it with 9 parts water) is repeated and leads to D2. Another repeat will lead to D3 and so on. After D23, not a single molecule of the original substance can be detected.

This has led to the somehow understandable accusation that homeopathic remedies contain nothing but alcohol with some impurities and that all the hundreds of different remedies are indistinguishable from each other. However, according to homeopathy, the more potentised (“diluted”) a remedy is, the more powerful it is and, as a tried and tested result, higher potencies need to be taken less frequently than the lower ones. Furthermore, homeopathy not only works with decimal potencies but also C potencies (and even M potencies!) where 1 part is mixed with 99 parts (or 999 parts!) of a solution and even sooner not a single molecule of the original substance can be detected.

It is not surprising that homeopathy can be easily labelled ‘quackery’. Wikipedia quotes the following from the book *Philosophy of Pseudoscience*: “[...] homeopathy is a paradigmatic example of pseudoscience. It is neither simply bad science nor science fraud, but rather profoundly departs from scientific method and theories while being

described as scientific by some of its adherents (often sincerely).”

I think it is legitimate to say that homeopathy is scientific because it has always been empirical and follows the rules of careful observation, hypothesis, experiment, results and conclusions. Hahnemann was a physician and a chemist himself and completely insisted on stringent procedures. However, where homeopathy departs from modern science is its theoretical framework. But there is no



doubt that homeopathy works, otherwise its success would not have been attributed to the placebo effect. Which, by the way, would not work on animals or small children and these are groups where homeopathy has proven particularly useful. But modern science does not have an explanation of why homeopathy has achieved such remarkable results, for example with the cholera outbreaks in the late 1830s and early 1840s and a yellow fever outbreak in 1878. As a result of these successes, homeopathy spread fairly quickly all over Europe, to the United States, South America and India, where there are still a large number of homeopathic doctors.

As a thought experiment, let’s think outside the box for a moment. What if the healing property of a plant – let’s call it its ‘information’ – does not lie in

its material aspect? What if the actual ‘information’ is intangible and independent of its physical ‘carrier’, much in the same way as music is independent of the CD through which I can listen to the music? If we analysed the CD in a laboratory, we would not find any music on it. Imagine we had several CDs with different types of music recorded on them – a laboratory analysis would not be able to distinguish between them. They would all be shown to be made of the same material although they also contain very different



types of music. The same would happen with the information contained in a book. A chemical analysis would not yield the information contained in the book. Having two books with the same content would also not give more information than having one book, which might explain why taking double the amount of the prescribed homeopathic dose does not make it any more effective.

I can think of a lot of examples of the difference between information (or the ‘idea’) and the means (or carriers or vehicles) through which it is expressed. I could write my ideas on paper, on a

computer, put them on a USB stick, a microchip, upload them to a cloud, burn them on a CD, etch them into metal or stone or wood. The carrier is secondary, whereas the information is something almost immaterial. What if each plant contains information which constitutes its healing property and the specific homeopathic process of dilutions actually ‘liberates’ the information from its carrier and makes it more ‘accessible’? In an age where a small kindle device can contain a whole library, it is maybe less strange to think of the possibility that less can be more.

We currently live at a time where the conventional worldview is ‘materialistic’ – in the sense that it is believed that physical matter is the only reality and that everything, including thoughts, feelings, mind and will, can be explained in terms of matter and physical phenomena. However, from a more ‘alternative’ or ‘traditional’ point of view, which does not automatically rule out more ‘subtle levels’ of existence and a ‘meta-physical dimension’ beyond the physical one, it is not so difficult to understand that the ‘information’ of belladonna could be present in the highly diluted solution, even if there is no detectable material trace of the plant itself any more.

Every new theory is a break with the existing one and it is logical that the new will sometimes be opposed by the old. The German philosopher Schopenhauer, a contemporary of Hahnemann, coined the following adage: “All truth passes through three stages. First, it is ridiculed. Second, it is violently opposed. Third, it is accepted as being self-evident.”

My intention with this article is not to encourage anyone to drop conventional treatments for homeopathy. But I would like to encourage every one of us to keep an open mind and not to discard something that has been proven to produce very good results on countless people and animals, just because it does not fit with our accepted way of thinking. It is good to remember that today’s orthodoxy can easily become tomorrow’s fallacy.

Sabine Leitner

The Legend of Bagger Vance

This film, with its strange title, was made in 2000 as an adaptation of a book by Steven Pressfield, who is most famous for his best-selling novel about the Spartans, *Gates of Fire*. In *The Legend of Bagger Vance*, Pressfield tried to transfer to the world of golf the teachings of the Indian Bhagavad Gita, a mystical work which had greatly impressed him.

For those who have read the Bhagavad Gita and assimilated the richness of its teachings, this might create great expectations. But we have to bear in mind that the film is only an adaptation, which uses the model of a dialogue between master and disciple, in which the master awakens the disciple from the lethargy into which he had fallen. It does not, however, reproduce all the other teachings of

the Bhagavad Gita itself, which would probably be an impossible undertaking, especially for Hollywood!

The Storyline

Directed by Robert Redford, with a script by Jeremy Leven, the film is characterized by a sober tone and beautiful photography. The story is set in the early decades of the 20th century and has as its protagonist a hugely talented young golfer called Rannulph Junuh — played by Matt Damon — with a brilliant future ahead of him. The First World War arrives and he sets off as an officer commanding a company of soldiers from his homeland, Savannah, Georgia, in the southern United States, returning traumatised after the war as the only survivor from his company.



On his return, he simply disappears from circulation, ignoring the fiancée who had been waiting for him — played by Charlize Theron — and never touching a golf club again. In other words, he becomes lost in his own hell and refuses to come out of it. He remains in that state for the entire decade, until the famous stock market crash of 1929 and the subsequent Great Depression. His fiancée's father had invested in a hotel and golf club, but is ruined by the crash and dies. His daughter, faced with the threat of losing everything and with predators hovering around her to take possession of her property, takes the decision to organise a grand exhibition golf match. With this end in view, she invites the two great golf stars of the day — managing to persuade them to take part against all expectations and with great skill — but the dignitaries of Savannah demand that a local participant should also take part in the match as the city's representative. The problem then arises of finding a local golfer, which is solved by a young boy who remembers the long-forgotten Captain Junuh.

Undoubtedly, everything makes much more sense if the person watching the film is a golf fan. The two great figures who were invited to take part in the match — Walter Hagen, played by Bruce McGill, and Bobby Jones, by Joel Gretsch — are real figures, who were hugely famous in their day. They had completely opposite and complementary personalities in the eyes of the public. Walter Hagen was a professional and a lover of the good life, while Bobby Jones — golf perfection personified — always remained an amateur in spite of being perhaps the best golfer in history.

It is here that a mysterious character called Bagger Vance — Will Smith — makes his appearance and offers to become Junuh's caddie. From that moment on, the author tries to represent somehow the dialogue that takes place in the Bhagavad Gita, giving Bagger Vance the role of the master who guides the confused disciple, helping him to rediscover himself. The guidance he offers him is reminiscent of the idea of becoming one with the arrow to hit the target in Zen archery. Adapted to golf, it is about seeing the course in one's mind and becoming one with it so that the ball will find the hole naturally when hit. The process, of course, has its ups and downs until reaching an unexpected but

happy ending, at which point Bagger Vance says goodbye, having accomplished his mission.

The figure of the narrator, who recalls the events as an old man, was the young boy who had found Junuh at the time of the match and asked him to come back, and was with him and Bagger Vance throughout the process as assistant caddie. I mention this, because in his role as an old man he is played by Jack Lemmon in what was his last cinema appearance before he died. If you're a cinema lover, it's worth watching the film just for this.



What the critics said

For one reason or another, many critics were scathing about the film, finding it “pretentious and silly”, even if “magnificently photographed” (BBC), or criticizing it for presenting Will Smith in the stereotypical role of a “magical Afro-American friend” (*Time*). Be that as it may, I enjoyed it and would recommend it to anyone who wants to see a portion of the Bhagavad Gita portrayed in Hollywood style.

Alfredo Aguilar

The Role of Religion in Culture and History



Christopher Dawson (1889 - 1970)

This article is based on the writings of a 20th century historian called Christopher Dawson. Few people in the UK will have heard of him (he is more popular in the USA and, curiously, Brazil) and I am only aware of him because he was my grandfather and I inherited his literary estate. So when this came into my possession I decided to familiarize myself with his work and promote his books via a website (www.christopherdawson.org). As he was a historian of ideas rather than bare facts (though his erudition was immense), many of these ideas are still very relevant today.

One of his main themes is the importance of Culture. To describe its function, he compares

it to a plant in this very striking image:

“Every culture is like a plant. It must have its roots in the earth, and for sunlight it needs to be open to the spiritual. At the present moment we are busy cutting its roots and shutting out all light from above.”

It is, he says, “a fragile thing”, which, like a plant, needs to be nurtured and can be easily destroyed. But, in many cases, it can also be revived, as any plant lover knows, and this has happened many times in history.

What did he mean by “cutting the roots”? He was referring to the lack of importance given to history, especially the European past, and in particular the Middle Ages. For this reason he

advocated the study of Christian culture, which in his view had contributed much more than people generally think to the development of Western culture, which has now been transformed into a global culture. I cannot go into all the reasons he cites for this, but you can find more details on the website mentioned above.

His study of history, however, embraced the entire world, and his first book entitled *The Age of the Gods*, surveyed the great cultures of the ancient world. He did not look at those cultures with a condescending eye, but valued them equally with an open mind. One of his maxims was: “a culture can only be understood from within”. This sympathetic approach to all cultures of the past led him to point out, for example, that the sophisticated administration of ancient Egypt “exerted a vital formative influence on the tradition of European state administration through its inheritance by the Hellenistic monarchies and the Roman Empire.” Egypt, therefore, would be one of those ‘roots’ of modern culture.

He also criticized the modernist tendency to specialisation and the focus on technological progress, which has led to the neglect of truly ‘human’ progress. In his book *The Crisis of Western Education*, he warns that by progressively abandoning the ‘liberal arts’, in favour of more practical, career-oriented subjects, we are in danger of losing the ‘soul’ of our culture. Teachers and students today might resonate

with the following words: “The mind of the student is overwhelmed and dazed by the volume of new knowledge which is being accumulated by the labour of specialists, while the necessity for using education as a stepping-stone to a profitable career leaves him little time to stop and think. And the same is true of the teacher, who has become a kind of civil servant



tied to a routine over which he can have little control.”

In Dawson’s view it was fundamental to become familiar with our past in order to reconnect with those roots. “The crisis of Europe is the crisis of the world”, he wrote. “All the living forces that are moving the world today, whether scientific, economic or political, have their roots in European culture and would wither if that culture were to break down.”

This statement will certainly grate with our modern sensibilities and sound ‘ethnocentric’, or ‘eurocentric’. However, I think we

also need to practise tolerance towards earlier views if we are to extract ideas that can be useful for us today; and Dawson was well aware that culture (like a plant) is not a closed system, but is constantly being transformed by a multitude of influences. Science, for example, re-entered the West through the influence of the Arabic world in the Middle Ages. Likewise, many ideas of

European origin, such as communism or the ideals of freedom, equality and democracy, spread from Europe to other parts of the world. And in today’s global village, cross-fertilization is constantly occurring.

Let us now look at the second part of the sentence quoted earlier, where he states that we are “shutting out all light from above”. Here we come to one of the main ideas that permeates all of Dawson’s writings – that religion is one of the great driving forces of history and a crucial factor in the rise and fall of civilizations: “The world religions

are the great spiritual highways that have led mankind through history from remote antiquity to modern times.”

Nowadays, religion is very much out of fashion, at least in much of the Western world. Dawson's view, however, is that “the religious instinct is part of the nature of man”. Even more, he states that “the forms of violence and aggression that threaten to destroy our world [he was writing this in the 1940s] are the result of

because it will be deprived of its vitality. As he says in one of his works, “what our civilisation lacks is not power and wealth and knowledge, but spiritual vitality”. Through all his wide-ranging historical research, he came to the following conclusion: “A society which has lost its religion becomes sooner or later a society which has lost its culture”.

Living through a large part of the 20th century (1889-1970), Christopher Dawson witnessed

the complete subordination of the individual to the State and to the economic process.

What can save us from this? In Dawson's view, the best way to combat totalitarianism in any of its forms is by “a turning of the human mind from the circumference to the centre”. In other words, “it is only by the rediscovery of the spiritual world and the restoration of man's spiritual capacities that it is possible to save humanity from self-destruction.”

To conclude, Dawson's view of the importance of religion in the history of culture may be currently unfashionable, given the prevailing worldview that religion is something that belongs to the past, whereas the future belongs to technology. But who knows what the position may be in 20 or 100 years' time? While many have claimed that religion is a force that obstructs the development of science, Dawson points out the flaw in this argument, because science flourished in the early centuries of Islam and it was from that religious culture that science returned to the West. The probable etymological root of the word ‘religion’ – from ‘religare’ meaning to bind together – shows us that it is not in itself a divisive force. Every human idea can become divisive if it is wrongly used by human beings. If used rightly, religion, like politics or science, can be a force for union and harmony.

Julian Scott



the starvation and frustration of man's spiritual nature.” Dawson was not entirely alone in this view. The great historian of religious ideas, Mircea Eliade, remarked that instead of ‘Homo Sapiens’, we should talk about ‘Homo Religiosus’, so central is religion – or the idea of the sacred, as Eliade referred to it – to the structure of human consciousness.

In Dawson's view, therefore, if we collectively deprive ourselves of spiritual nourishment, our civilization will wither and die,

the horrors of the First World War, followed by those of the Second. Like many of his contemporary thinkers, he was profoundly disturbed by these events and could see mankind's seemingly unstoppable ‘progress’ towards totalitarianism. Unlike many others, however, he saw this movement as not only being characteristic of Fascism and Communism, but also of Capitalism. He saw them as three forms of the same thing – a materialistic tendency towards the mechanization of human life and

What is the Universe Made of?

An Introduction to Dark Matter and Dark Energy

Ever since human beings have been looking at the stars, we have been wondering what the universe outside of our little planet is made of. From religious beliefs to scientific theories, the wonders, and many unanswered questions, remain.

As our tools evolved and became more precise, enabling us to look beyond our solar system and

galaxy, we started to observe the patterns, sizes, shapes and movements of the distant stars, galaxies and nebulas. From those observations, great minds came up with theories to describe the laws of physics in mathematical terms. Following the relatively simple observations of Copernicus, Kepler and Newton, to name but a few, Einstein came up with



the theory of General Relativity. It is so far the most complete theory that has allowed us to determine the movement of all objects in time and space.

In the 20th century we were able to observe other galaxies apart from our own and we discovered that the stars on the outer rim of galaxies such as Andromeda are spinning faster than those at the centre. This goes against the laws of gravity and it was for that reason that astrophysicists have assumed that there must be more matter out there than we can see. This is known as Dark Matter, a type of matter that does not interact with light, which must exist in order for the General Relativity theory to make sense. But how much Dark Matter is out there? Scientists have estimated that matter must be made from at least 85% Dark Matter for the theory to work. Unfortunately, as this Dark Matter does not interact with light, it is extremely difficult to measure and we have yet to detect any of it physically.

But this is not all. Astrophysicists have also observed that the universe is expanding, meaning that there is a force greater than gravity (coming from both visible and dark matter) which is “pushing” the universe outward. Again, in order for the General Relativity theory to make sense, there must be an undetected force that achieves this. This force, as you

might have guessed, has been called Dark Energy. How much Dark Energy would be necessary for the theory to work? Well, as Einstein explains with his famous equation “ $E=mc^2$ ”, energy (E) and mass (m) are connected with the speed of light (c). So, the equivalent of 75% of what our Universe is made of would be dark energy.

To recap, according to the General Relativity theory and recent observations, our Universe is composed of 75% dark energy, 20% dark matter and only 5% visible matter. It is difficult to grasp that 95% of our universe might be made of something that we cannot see or measure, at least so far. But this is just a theory, like other theories such as MOND (Modified Newtonian Dynamics) or String Theory, which are trying to make sense of reality.

There might not be any dark matter or energy, as they are for now only a product of our imagination. And this is the point of the great exercise of trying to understand the world we are living in: it requires all the imagination we can muster and then the patience, discipline and love for the truth to make it a reality.

Florimond Krins



Myths of the Pleiades

The Pleiades is an open cluster of stars located in the zodiacal constellation of Taurus. It contains over 1000 stars but with the naked eye it is possible

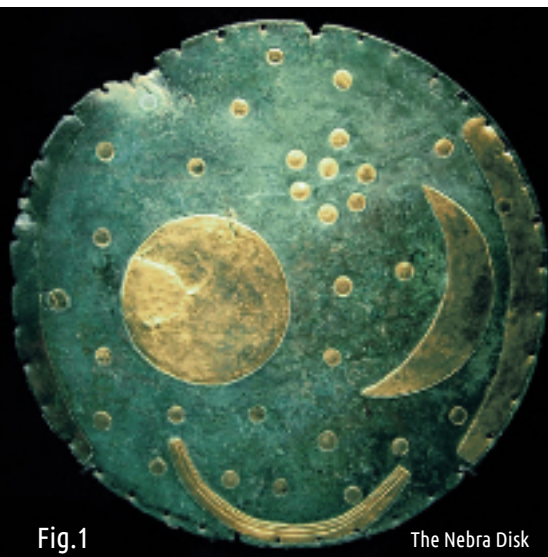


Fig.1

The Nebra Disk

to see only about six of them, depending on the conditions of visibility.

The Pleiades have been known since antiquity to cultures all around the world. They are amongst the first stars mentioned in ancient literature, appearing in Chinese annals from about 2350 BC. Seven Pleiades are depicted on the *Nebra* disk (Fig.1), the

oldest representation of the night sky that has come down to us, dating back to around 1600 BC.

The earliest references in European literature are in a poem by Hesiod (around the 7th C. BC) and in Homer's *Odyssey* and *Iliad*, where they are referred to as the "seven maidens" or "seven sisters".

How did this cluster come to be called the *Pleiades*? Their most likely origin resides in the maternal lineage of the "seven sisters" of Greek mythology. According to this myth, the "seven maidens" are the daughters of Atlas and his wife, Pleione. Since the seven came forth from their mother Pleione, her offspring were thus collectively known by a slight adaptation of her name.

There is another possibility for the origin of their name. One of the many versions of the story associated with this star grouping maintains that the seven Pleiades are in fact the "seven doves" (from the Greek word *peleiade*) who carried *ambrosia* (a drink which bestowed immortality on men and

gods) to the infant Zeus. Some have held that when these "seven doves" flew up to the heavens, one was lost, and this is why only six stars are now readily visible to the naked eye. In Greek mythology, an important role of the Pleiades was that of companions and attendants to the goddess of the hunt, Artemis. The seven Pleiades were also thought to be nursemaids and teachers to the young "vine god" Dionysus.

Finally, one more source claims that the name 'Pleiades' originates from the ancient Greek word *plein*, meaning 'to sail'. Indeed, since remote antiquity, sailors have relied on the stars for navigation.

Just as the classical Mediterranean mind saw the Pleiades as a group of closely related (female) individuals, so other cultures around the world have also seen this cluster of stars as emblematic of groups of people, herds of animals, flocks of birds, and the like. For example, one of the North American Indian tribes saw what is now

called the Pleiades as a group of children who had become lost while wandering among the stars, now huddled together for warmth and reassurance. Other star watchers echoed the maternal theme and saw this star grouping as a hen with her chickens. Some perceived this constellation as a group of sisters, brothers, or animals, the number being as few as six and as many as sixteen. Central to all these notions is the idea of a family or intimate assemblage, with the implied need for attention to the welfare of its members.



The Pleiades (1885) by the Symbolist painter Elihu Vedder

The risings and settings of the Pleiades together with or opposite to the Sun have been used the world over as time signals indicating the right point at which to undertake critical agricultural tasks at both the beginning and the end of the growing season. These seasonal indicators were of utmost importance to the peoples who relied upon them for accurate guidance in matters of physical survival. Hence, the Pleiades became emblematic of the seasonal rituals that kept

communities alive and insured the continuity of human life.

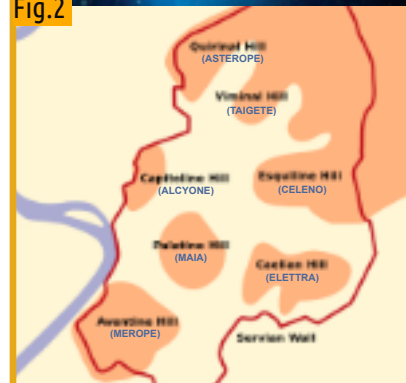
Given the importance of rainfall and moisture to agriculture, it is not surprising that the Pleiades were sometimes associated with rain, rivers, hail, snow and even with floods. This linkage no doubt arose because the conjunctions and oppositions of the Sun with the Pleiades (in the Zodiacal sign of Taurus and Scorpio) indicate the time of spring and autumn rains, respectively (in the northern hemisphere).

However, not all groups and cultures have associated the Pleiades with typical feminine qualities such as reproduction, nurturing, protecting, harvesting, etc. The Hindu system of astronomy calls this star grouping *Krittika*, the “seven nurses” of Kartikeya, the Hindu god of war. Perhaps even the Greek association with the warlike goddess Artemis is a reference to an older myth of Hindu origin. In ancient Mesopotamia the Pleiades are mainly associated with the god of the *netherworld*, Nergal, who corresponded to the Roman god of war, Mars.

In this regard, the story of the founding of Rome and the importance of Mars, father of the twins Romulus and Remus, is well known. Interestingly, the Roman poet Ovid also tells us of the importance of the Pleiades and the star *Maia*, the older of the “seven sisters” and her connection to the secret name of Rome. There is good reason to believe that not only the seven hills of Rome, but even their



Fig.2



Correspondence between the 7 hills of Rome and the position of the Pleiades in the sky.

arrangement on the territory bounded by the ancient *Servian Wall*, seems to reflect that of the Pleiades in the sky (Fig.2). Maia’s counterpart would be the Palatine Hill, where Romulus ploughed the furrow that started the founding of Rome. The traditional date of the founding of Rome, April 21st (at the start of the astrological month of Taurus), also brings us back to the Pleiades. Ancient Rome thus reflects the appearance of the Pleiades on Earth, but also the date of its founding makes a precise reference to their annual cycle in the celestial sphere.

In summary, in this mysterious group of stars and their hidden symbolism we find interwoven together mythological, astrological, astronomical and philosophical teachings which open up the door to the lost world of the ancients.

Agostino Dominici

