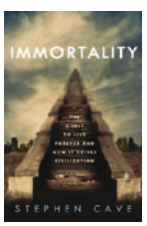
To live forever

Our desire to thwart death is the driving force of human civilisation, finds **S. Jay Olshansky**

Immortality: The quest to live forever and how it drives civilization by Stephen Cave, Crown, $25



EVERY once in a while a book comes along that catches me by surprise and provides me with an entirely new lens through which to view the world. My surprise is even greater when that "aha" moment comes within my own field of expertise. Such is the case with Stephen Cave's book *Immortality*.

Having written *The Quest for Immortality*, I am intimately familiar with Cave's theme. However, where I found that the "quest" was the wellspring of all religions, Cave convincingly demonstrates that it is much more than that. Humans will die like all living things do, but we have the added burden of knowing that we will. To cope with this, Cave maintains humanity has created four narratives, consistently used in one form or another in all societies across time.

Plan A is to stay alive by battling biological ageing and disease. We build elaborate mechanisms to forestall death, but ultimately they all fail, and we know it. This plan is the origin of both sorcery and medical science, but also the basis for reproduction – achieving immortality through the germ line – and much more.

Plan B is resurrection. If we can not be alive in this world forever, at least we can come back to life in another one. This is the basis for monotheistic religions and their elaborate rituals. (Ironically, it also led to cryonics.)

Plan C is the soul. If A and B don't work, at least there is some inner spirit that will persist through time so your essence will not be lost forever. All major religions perpetuate this view.

Plan D is legacy. If A, B, and C fail, at least we can plaster our names and faces as many places as possible; build cities to honour our existence, write great books, and create music and art. Our desire for legacy is the font of ingenuity.

Paying particular attention to the ancient Egyptians, Cave demonstrates how these four narratives are woven together by all great societies.

He does make errors here and there, misstating the likely demographic consequences of immortality, for example, or omitting due attribution for some ideas, but his message is clear nonetheless: societies, civilisations, and all humans who live long enough to contemplate their own demise, construct such narratives in one form or another. As a result, civilisations rise and fall, countries form, medicine evolves, science advances, religious beliefs form and crystallise, pyramids and great walls are built, temples constructed, destroyed and rebuilt, artistic expression flourishes, and so on. We seem to owe a lot to our inability to contemplate our own demise.

Many will resist Cave's premise, but I think he is right on point. He presents an extremely compelling case – one that has changed my view of the driving force of civilisation as much as Jared Diamond did years ago with his brilliant book *Guns, Germs and Steel*. I won't tell you Cave's vision of where he thinks it will all end up – I'll leave that mystery for you to discover for yourself. This is a must read. n

S. Jay Olshansky is a biodemographer specialising in ageing and longevity at the University of Illinois in Chicago

PHOTOLIBRARY/GETTY

Once we conceived of our mortality, we devised strategies to dodge death

Body of wonder

The Universe Inside You by Brian Clegg, Icon Books/Totem Books, £12.99/$17.95

Reviewed by Helen Thomson

DID you know that if you find yourself in space without suitable attire, your head will not explode like Hollywood would have you think? You would get an unpleasant drying up of the eyes as the water within them boils away, but the pressure of your skin and circulatory system would prevent your blood from doing the same. In fact, you are most likely to just suffocate from a lack of oxygen.

"Brian Clegg eloquently exposes the extreme science found in the human body"

The Universe Inside You is science writer Brian Clegg's latest attempt to catalogue a world of science that you probably should remember from school but realistically never quite paid enough attention to. By exposing the extreme science found in the human body, Clegg eloquently passes through the basics of physics, biology and chemistry. He sporadically inserts intriguing facts – from dogs who can work cash machines to why humans can't walk on water but can on custard. *New Scientist* readers may find certain chapters too basic, but the book contains many a tale worthy of discussion at the dinner table.

The book lacks a convincing thread, though, which prevents it from having the pace needed to be a page-turner. Regardless, if you are ever plagued with thoughts of how big a human egg is (it's roughly the size of the full stop at the end of this sentence) or why our bodies contain atoms from the beginning of life itself, you