

Nancy Roman Telescope

by GWYNNE DYER

Last Sunday (Aug. 30) a Falcon Heavy rocket delivered the Nancy Grace Roman Space Telescope onto a direct transit trajectory to its permanent home at the Lagrange Two Point (L2) 1.5 million km. from Earth. In 100 days, it will reach its station, power up, and start observing the universe.

Astronomers will use it to try to understand the nature of dark matter, which makes up most of the mass in the universe (but some say may not even exist).

It is expected to find up to 100,000 new exoplanets circling other stars, and may be able to spot ones even smaller than Mars. Current methods can only see much bigger ones.

It will test a new technology called a coronagraph that may one day be able to detect life on some of those planets by analyzing the light reflected from them. It would be nice to have a better answer to scientist Enrico Fermi's famous question 'Where is everybody??'

The Nancy Roman telescope reflects well on the human race and particularly on the United States, which has devoted a great deal of money over several generations to seeking scientific answers to such questions. However, it cannot be denied that there is another side to the coin.

We are marking a couple of anniversaries this month. It has now been four and a half years since Russian president Vladimir Putin launched an unprovoked surprise invasion of Ukraine, and half a year since U.S. president Donald Trump launched an equally unprovoked surprise attack on Iran.

The 'anniversary' device is a bit shabby, admittedly, but it is justified because the other parallels between the men are so strong. Both launched their attacks in the confident but utterly ignorant expectation that victory would come in days or a few weeks at most. Both are now trapped in wars that they cannot win, but also cannot find an exit from.

Quibbles are always possible about such sweeping statements, of course. Putin would certainly lose power and probably lose his life if he gave up his war now, but Trump could still 'declare a victory' and walk away intact. Only his overweening pride keeps him looking desperately for a 'win' that is not available.

There's nothing new about this kind of behaviour. History offers us hundreds of examples, and if you could expand your sample to include the numberless little groups of hunter-gatherers who fill our long-forgotten pre-history then you would probably find hundreds of thousands of scaled-down examples of the same sort of behaviour.

In fact, primatologists are now finding similar behaviours, even the same apparent psychology, in our closest biological relatives, the chimpanzees (who also fight wars). But let's stick with humans, and admit that a great deal of our culture still derives from our long hunter-gatherer past.

Well, of course it does! How could it ever have been different? It's perfectly legitimate to visualize Trump and Putin as scantily clad warriors with bones in their noses, as long as you remember that there's an invisible bone in your nose too. Moving from tiny bands to big civilizations was probably a good idea, but there was bound to be a lot to sort out.

There has even been a suggestion that we are now encountering the Great Filter, the notion that intelligent civilizations may emerge on many planets in a universe with so many bazillions of stars, but that most of them are too weighed down by the baggage of their past to adapt to their new circumstances.

It doesn't have to be a specifically 'hunter-gatherer' past, but every intelligent species (if any) must have a pre-civilized past before it develops a civilization. If it retains some behaviours that were useful in that past but are potentially lethal in a high-tech civilization, then the Filter takes them out.

Our own now-almost-global civilization is in a multi-generational transition from what you might call Late Hunter-Gatherer (human sacrifice, slavery, nuclear weapons) to something more appropriate to our current state of knowledge and social skills. It's only natural that almost everything comes as a mixed bag.

Like the Nancy Grace Roman Space Telescope, for instance. Its origin was a project for the US National Reconnaissance Office for a new spy satellite that would practically be able to read a newspaper from orbit - typical H-G stuff. A number of prototypes were built before the project was cancelled in 2005.

Soon afterwards, the NRO told NASA that it had some high-resolution optical telescope hardware available for free. NASA said yes, please, and \$4 billion and twenty years later there it is.

Everything is mixed. Don't despair.