Climate, confusion or manipulation?

Session nr 12 from 18 November 2024 –English translation - Original French. Place : Mezzaverde in Belgium.

Note Wivine :

We are overwhelmed by information - true and false - on many subjects via the internet, the media, social networks, whether it is on climate change, politics, wars, all the different beliefs and religions coming from the East and the West. One can feel that our opinions on many subjects as well as our faith are being manipulated. But where is the truth? Who and what to believe?

The Urantia Book speaks of the 'Spirit of Truth' of Jesus that he poured out on our world when he left. This Spirit of Truth would help any seeker of spiritual Truth. It also speaks of a Fragment of God that lives in us and that instills Divine Wisdom in us.

So I meditate to receive an answer. Do we have a lamp within us that can enlighten us in this bush of information from the media, social networks, the internet and on any subject? Is this inner lamp only used to find truths on the spiritual level? Can it also be used in the case of research on more worldly subjects, such as climate change and respect for the environment?

If scientists start to contradict themselves, where are we going? Same thing with religions and spiritual beliefs of all kinds which also contradict themselves. So if our religious priests and spiritual masters tell us false things, voluntarily or through ignorance, where are we going?

This transcription is an example to illustrate the response of Jesus to come, because 'climate change and global warming' have become similar to religions. With true and false beliefs, with its fundamentalists, its believers, and its skeptics, which politics has seized and which sows fear everywhere.

The world is once again running towards disaster.

You have to know that science has two feet. There are exact sciences – their experiments are proven and can be reproduced – and there is the other science where one starts from a discovery and then make a theory. We therefore assume that ... etc. These theories sometimes hold for a long time. Until someone

discovers something else, decades or a hundred years later, that refutes this theory. This does not mean that the new theory based on new facts, is immediately accepted, not at all. It will be fought for a long time. Schools will continue to teach the false truth for decades. Until we can no longer do otherwise because other researchers in other continents have made the same discovery, and they do not encounter this hostility and are more open minded.

A new spiritual truth that comes into the world and wants to expand will encounter exactly the same problems.

Science and faith go hand in hand. We need science to have material foundations that support faith, in order to avoid any form of superstition that comes from our ignorance. Let's say, to see more clearly.

Advanced mathematics is also a tool to understand, to approach certain spiritual phenomena. All the great mathematicians, physicists, those of microbiology etc., realize and know pertinently well that all 'Creation' was thought and realized by a Great Superior Intelligence because nothing was left to chance in Creation. They will not easily use the word 'God', no. It is an agreement between them to remain free and objective in their research. Personally, I see no inconvenience. Science is not there to give reason to this or that religion or belief.

An individual belief can only evolve when the person is truly in search of spiritual truths. Personally, I no longer believe at my 72 years in the same things as I did at my 20 years. A personal belief must evolve, must be alive to advance spiritually.

It is different with organized religions, based on dogmas and Holy Books. Europe has experienced many religious wars since the last millennium following the crystallization of the beliefs of different Christian fractions used by politics.

Jesus came to explain. This will be session nr 13-2024.

Wivine.



https://www.youtube.com/watch?v=zcPcOaXFMR8

Book from Daniel Husson (French scientist) about:

Climate, from confusion to manipulation.

A real scientist exposes climate misconceptions.

Le Zoom – Martial Bild with as guest Daniel Husson .

Martial: you are a physicist and a teacher, a researcher and trainer at the agrégation of Physics. Daniel Husson teaches thermodynamics at the University of Strasbourg - France.

Martial: Daniel Husson, hello.

Daniel: hello.

Martial: professor, you are publishing a book that is causing debate 'Climate, from confusion to manipulation'. My first question is simple: when we look with horror at the deadly floods in Spain, anxiety-provoking images that arouse strong emotions, can we obviously, as you profess, maintain resources of rationality when we approach the issue of climate. There are messages that, faced with images, are immediately disqualified.

Daniel: yes, thank you for the invitation and for this introduction. Of course, we are caught up in current events. I started this book 2 years ago. On the specific subject of floods that we see, of course covered extensively on television, there are several things to say. On one hand,

there is a magnifying glass effect due to the media coverage of all events. The fact that we are now aware of everything that is happening, in real time, whether it's in Bogota or Greenland, is something that never existed before these continuous news channels. So be careful of this bias. The other thing is that we can make a list of all the catastrophic phenomena that assail us almost daily, many of which are attributed to the famous global warming and many of which are in fact to be attributed to other phenomena.

I can take the example of megafires. The megafires that also made headlines, which were located on the edge of the Pacific basin in Indonesia, Australia, California that are obviously linked to what is called the "El Nino" phenomenon, which are climate oscillations in the Pacific and which have repercussions throughout the world. This is totally misunderstood by climate science, whether it be meteorologists or people who simulate the climate over the long term.

On floods, specifically in Spain, there are now hydrologists who have been working for years and who have shown that our agricultural practices of deforestation and over-pumping have accelerated the water cycle by a factor of 2 in 50 years and this leads to situations where there is more water here and less water elsewhere, regardless of temperatures. I can recommend reading Charlène Descollonges who writes books on the water cycle and how we are responsible for this and which has no direct relationship with temperature.

It must still be said that the average temperature of the Mediterranean Sea is increasing more significantly than that of the Atlantic ocean and more significantly than the Pacific ocean. In other words, there are local effects that cannot be attributed to the carbon dioxide (CO2) of the entire planet. So, I insist a little in the book on the fact that the ocean and the aqueous masses have an intrinsic power of absorption of solar energy, independently of what happens in the atmosphere above them and which is lower by a factor of thermal mass, let's say a factor of 1,000 and we cannot attribute what happens in the oceans to any chemistry of the atmosphere.

Martial: we will come back to all that. But there is a statement in the exercise of your demonstration in the book that caught my attention. You say, and I quote: "the physicist that I am hesitated a lot before taking up the pen but there comes a time when we feel obliged to react to untruths. The subject of climate has become a totalitarian, dangerous religion. " Are you telling me that impartiality is nothing more than a dream on this issue?

Daniel: on this issue there are indeed very big problems. Let's say, of the dissemination of scientific truth and of exclusive discourse which is obviously linked by the IPCC. I remind you that the "I" in GIAC means 'Intergovernmental'. It is therefore <u>not</u> a group of scientists.

Martial: It is an emanation of the EU, it is not the 'I' of Independence, it is the 'I' of Intergovernmental.

Daniel: Absolutely. This organization does a rather scientific job and regularly publishes very thick reports that ultimately no one reads and if we open them we see a lot of science and <u>no alarmism</u> at all.

Following these big reports there is a smaller report of about <u>forty pages</u> which is intended for decision-makers and in this report the <u>scientists do</u> <u>not put a comma</u>. They are only entities, senior UN officials and people who are not scientists . Unfortunately the scientists who work at the IPCC <u>never come to contradict</u> the alarmism that we find in this little postscript. It is a bit of a shame because by also looking for what the IPCC retains as scientific literature and what it rejects, we realize in fact that there is almost half of the literature which goes in the opposite direction. A scientific literature which is not retained simply because that is not the mandate of the IPCC.

The IPCC's mandate is to alert politicians to the harmful effects of hydrocarbons. That's its mandate. <u>It's not to tell the truth about the</u>

<u>climate, not at all</u>. It's the harmful effects of hydrocarbons, which are great, but unfortunately, carbon does not fall into this category. There are other harmful effects of hydrocarbons that we will have to look straight in the face.

Martial: so in your way, your very educational desire is to put an end to the confusion as you say it from the first page. I still recognized a certain form of confusion in a few pages. On the one hand, you denounce what you call the terrors of the year 1,000, you say that climate variations are a smokescreen. On the other hand you denounce unbridled productivism, the nuclear lobby, those who did not listen to the warnings of René Dumont who was the pioneer of the environmental movement. Aren't we really swimming in confusion here. Is the earth suffering or not???

Daniel: Yes, the earth is suffering much more from attacks on biodiversity and when we say biodiversity, we also need to clarify the point a little. For many people, it's the death of the black rhinoceros or the snow leopard. In fact, that's not the problem with biodiversity. Biodiversity is the problem that entire habitats are attacked in such a way that species, entire sections of life, disappear. We know the emblematic case of the orangutans. Nobody blames the orangutans. In fact, we just need more forest to grow crops that bring in a lot of money for the country and as a result, we eliminate entire sections, not just the orangutans, but the entire ecosystem in the area.

So, yes, humans do a lot of stupid things in their management of the biosphere and it turns out that CO2 is one of those that we could put in this long list of stupid things. But I demonstrate in the book <u>that CO2 is</u> not causally linked to rising temperatures. That's all what I'm saying.

Martial: You even say things that are a bit surprising, for example about the polar bears. We complain about their disappearance, but they don't disappear. We would do better to focus on the disappearance of insects or

cockchafers because we don't see them anymore and they are much more important to humans.

Daniel: Absolutely, so in the biosphere chapter there are animal totems or objects like corals that make people's hearts beat and here too we are once again mistaken about the cause.

It is not the rising waters that are making corals disappear. Corals live very well underwater. What is making corals disappear is the chemical modification of the oceans and in particular we have demonstrated this in Australia by the sun creams used by bathers there. So for corals we are also forgetting the link with the climate because it is false.

For polar bears, it turns out that in the 2,000's, the polar bears that were counted were about 5,000. Today, there are 30,000 and there is a researcher, a lady whose name escapes me now, who wrote, I translate from English on the fly, '*the polar bear catastrophe that never happened*'. Because obviously a polar bear on an ice floe is very media-friendly, we say to ourselves "the poor thing is going to sink". In fact people don't know that the polar bear uses the drifting ice floes to go fishing for seals a little further away. The polar bear swims perfectly well in the water and that's the kind of little media error that sows confusion.

We are indeed witnessing at the North Pole, a warming in recent decades. But we are also mistaken about the origin of global warming and we are mistaken, for example, about the effect that the Gulf Stream plays in this matter.

Martial: and the story of cockchafers, it is true that we do not see them anymore in France.

Daniel: Yes, but there too the causes are perfectly well known and it is certainly <u>not</u> the rise in temperatures. It is the massive use of chemical inputs in mass crops. We have chosen to have industrial agriculture. The matrix that we use above all is GDP, trade, the trade balance. We want our agriculture to be export-oriented, it is a choice of France, but it has a price

to pay and this price is never included in the calculations of orthodox economics. We invented "Carbon credits" by setting a ridiculous price. What is needed is that there are economists who work on these subjects, who work on an economy that includes the biosphere - but then in an honest way. That is to say '*which calculates the price that we make the biosphere pay to obtain a gain of one point of GDP'*. This has not been done for the moment, and it is very regrettable. So we keep the focus only on the economy, in the strict sense, without looking at what it costs the environment to make the economic engine roar in this way.

Martial: There are some fascinating things to remember in this book. First of all, I note that for you climate concern is not new and that the manipulation of minds by fear is really nothing new in the history of humanity.

Daniel: yes, that is the more political chapter. Indeed, I have the impression that nowadays we have rediscovered Gramsci (Antonio Gramsci Italian Marxist 1891-1937) who took cultural hegemony to take power from the left at the time. Now I realize that this author is even taken up by other political parties. In any case, this man understood that to get important ideas and reforms across, you first have to win the hearts and minds of people so that a certain vocabulary is used, so that certain ideas seem more and more natural, until the long-awaited revolution finally emerges. So Gramsci was a revolutionary. We can classify him in different boxes, let's say on the ultra-left.

But we know that <u>manipulation through fear is very effective</u>. Fear is an archaic foundation of man and we see that it is a register that <u>is very</u> <u>often used today</u>. At any time of the day or night, we have a new reason for concern in the media, whether it's floods, viruses, or plastics. Let's say there is choice.

Martial: from there to say that our mental schemas are barely more evolved than those of Machiavelli and Christopher Columbus, that's steep.

Daniel: well I don't think we've evolved much, let's say from an anthropological point of view, since Cro-Magnon man. We have simply added cultural layers but somewhere, in the depths of the soul in particular, we have been prey and hunters. We forget it a little. So there is both the predatory side and then the anxious side and in our human nature today Machiavelli is still very close. So I quote Christopher Columbus simply to date the beginnings of climate concern.

Martial: Was Christopher Columbus afraid of the climate?

Daniel: absolutely, Christopher Columbus was caught by his flotilla in tropical storms that he had never seen and he was the first who asked himself questions about the origin of these disorders. He attributed it at the time to the height of the trees and the tropical climate. A few years after him we began to colonize the islands of West Africa and we saw in 50 years the climate change of the island of Madeira for example, which was almost entirely deforested. So, let's say since 1,550, humans know that they can, at least locally, have an influence on the climate. But it was local. Today we talk about the global climate and of course this concern is the same. It is even worse.

We say to ourselves that it is the whole planet that is impacted by our activities. But I tell them, <u>CO2 as such is a false enemy</u>.

Martial: we will see elsewhere on this question of confusion or manipulation. Let's go, I'm launching into the work. A mantra constantly recalled since the Earth Summit, it was in Rio in 1992, the youngest will remember it, the global warming was estimated between 1.5°C to 4.5°C within a century. In 2024 for example the world has never been so hot. Confusion or manipulation??.

Daniel: I also take time in the book to remind where these two figures come from. We are made to believe that these are figures that come from current science. In fact we find 1.5°C and 4.5°C in the writings of Svante Arrhenius (1859-1927) who is the recognized ancestor of climate science

in 1896, I remind you. His first estimate, he is the first who made a link, let's say mathematical, between the concentration of carbon dioxide and the temperature, and his first estimate was **4.5°C**.

Following this, another physicist Knut Johan Ångström (1857-1910), also Swedish, told him, listen, you forgot to take into account a certain number of phenomena, and Arrhenius heard the message.

He brought his predictions back to **1.5°C**, and these two figures date from Arrhenius. Today, climate science makes us believe that it has evolved a lot because we have slightly more solid equations and very large computers that crunch the data. But we are not able to do better than that, and so we have kept these two limits, 1.5°C and 4.5°C.

But we no longer present them in this form at all.

We present them in the form of a <u>CO2 emission trajectory</u>: by emitting less or by emitting more, we arrive at the top (4,5°C) or the bottom (1,5°C) of the scale, and this is completely <u>unscientific</u>.

Martial: 1896 - 2024 you estimated the increase in temperature over this period of 160 years.

Daniel: the increase is of the order of <u>1°Celsius</u>, or something.

It all depends because in those times we didn't have satellites. Today we measure the global temperature of the earth. This is the first time that we have a tool with satellites that precisely measures infrared radiation. It's the most solid measurement that we can give. Before, there were weather stations, we have readings of agricultural almanacs, we try to reconstruct, we didn't have such a network of thermometers all over the earth. So, let's say, we did reconstructions. But somewhere we have models that work more or less and that work precisely with the <u>cycles of the sun</u>. If you look at the temperature curves of the last few decades, the highs and lows perfectly <u>match the activity of the sun and not the emission of carbon dioxide</u>. This is quite extraordinary!

Martial: So to those who tell you it's the hottest year or the hottest years ever recorded in the world, what do we say to them? I know what you're saying, you tell them but at the South Pole we recorded the lowest temperatures. We went down to -99° in 2021, but that's not an answer. Everyone can see that it's getting hotter.

Daniel: Yes, that's an answer, let's say on the focus. We can focus on this or that parameter while forgetting others. So, overall the Earth is not warming up in a catastrophic way. I spend time in the book showing all the feedback phenomena which are in fact moderation effects, temperature differences. The Earth has been doing this for 4 billion years, it knows how to do it. On the other hand, there is indeed at the moment a warming trend. We agree, no one denies that. Simply what I say and what I repeat with several examples is that the phenomena at the origin of this <u>are poorly understood and by the scientists themselves</u>.

When some ecologists tell us that it is happening at a rate never seen before, it is false, because in my chapter on the poles, I show that there are phenomena that we reconstruct in ice cores by measuring everything we know in the air bubbles that contain many things that we can exploit. We can show that there have been extremely rapid events on the scale of ten years very and very often in the life of the North Pole with catastrophic temperature rises of 6 to 7°C followed by a period of slow relaxation, well before man arrived on Earth. So it is false to say that we have never seen these amplitudes and that we have never seen this speed. <u>It is objectively false.</u>

Therefore I said to myself after a while this is a bit hilarious, when seeing the pile of false propositions in the media, on websites and we can even go back to the Golf Stream. By putting that in parallel with the anxiety of my students, I said to myself I have to start by writing down what I see, what I suspect and what I would like us to discuss a little more scientifically in the public square. **Martial**: If I understood correctly, it is the wind that deflects the Golf Stream?

Daniel: Well, no, that is what you find on websites. The Golf Stream is a giant current. You have to imagine that it is a river more imposing than the Amazon. It is an oceanic river that is 1,000 meters deep and 300m wide. We can calculate the kinetic energy of an object like that. The winds, no, it's really too ridiculous. The winds have no power, except on the surface to move this thing - which actually circulates all over the earth. The Gulf Stream is a small element of the entire 'thermohaline circulation' that circulates on the surface that descends into the depths that goes around all the continents, that goes into the Pacific, that goes around the Antarctic.

It's a huge object that we have no idea of because we can't see it. And this Gulf Stream is turning in this direction mainly because of the <u>thermal</u> <u>tension between the North Pole and the Equator</u>. That's the engine and so when we are told "*watch out, the Gulf Stream is slowing down, it will be a disaster for the climate in Europe*", it's an argument that actually contradicts the speech itself, because it's actually <u>the Gulf Stream that</u> <u>warms the poles</u>. It is hot water that comes from Mexico, from these regions, that will <u>warm the North Pole</u>. So if the current drops, there will be less warming of the pole and this means that with the air theorem we will therefore have a reacceleration of the current. It is typically a feedback effect, barely a moderation of an effect, an effect that moves in one direction.



There is a <u>mechanism that brings it back in the opposite direction</u>. The Earth's climate is full of mechanisms of this kind that constantly bring the system back to a step, not divergent but <u>convergent</u> and with very, very slow evolution.

Martial : The physicist also explains in the book that we receive energy, and that the earth returns energy. But I leave the pages to physicists and not to ignorant people like me. It's more complicated. I'll stay in the ocean, if you don't mind.

You also refute the notion of rising sea levels. You say NO, the sea level is not going to submerge us tomorrow morning. So you don't take into account the melting of ice or the thermal expansion of water and above all you ignore flooding, the erosion of our coasts, salinization and then also obviously the consequences, that is to say climate refugees.

Daniel So just for salinization. When we want to use this argument, we talk about salinization when we want to talk about the Gulf Stream. We say that there is fresh water that comes down from the glaciers which prevents salinization. You see, that depending on the desire we have, we can use any argument in one direction or the other.

I come back to the <u>rise of the waters</u>, because effectively we are in the order of the millimeter per year. That is to say of a <u>few centimeters per</u> <u>decade</u> and if you multiply again by a significant factor we arrive at 100m in 30,000 years.

Martial: Well I have 10cm in 30 years. 10 cm in 30 years is not nothing if it makes 100m in 30,000 years.?

Daniel: But we are <u>talking about the past 30,000 years</u>. The sea has <u>already risen by 120 m</u> because the glacial cover that occupied the entire pole up to half of France, therefore half of the globe, has melted and <u>it is this water that is now found in the oceans</u>. To tell the truth, there <u>is no longer a sufficient ice reserve to raise the waters to such a level</u>. Imagine that almost half of the northern hemisphere up to the latitude of 45° degrees was ice. There is not as much anymore. The only reservoir of ice that exists that is perennial, because it is sitting on the bedrock, is Antarctica.

So I started calculating with my students when I saw the anxiety in their general assemblies about the margins. I told them: if you want, we can do a calculation and we calculated together the time it would take, under completely unrealistic assumptions, to focus all the solar radiation reaching Earth on the Little Antarctic. We already found that it would take 15 years if we focused all the radiation on the Antarctic. In truth, we don't have 300W reaching the Antarctic. We have a climate forcing that at the most is 2 or 3 Watts. So we have to multiply by 100. Then we're no longer at 15 years, we're at 1,500 years. Next, when we take the surface area of the Earth in relation to the surface area of the Antarctic, we arrive at 15,000 years. So in 15,000 years, if the phenomena continue on their course, perhaps the Antarctic could melt. But in 15,000 years there will be no more oil, there will be no more coal, there may even be no more humans. We don't know. It's ridiculous to take a trend and extrapolate it in a straight line to draw alarming conclusions. Obviously alarming because you have to create a buzz.

Martial: in your approach. I could listen to you, unfortunately time is limited, on many other subjects that I have read and I really invite all of you to discover this because it is an approach that I find interesting, because in fact you are not a climate skeptic. You are, one could say, a climate realist. You are above all an environmentalist. Indeed, there are entire pages devoted, surprisingly, to stop nuclear power. I thought I found the sticker of René Dumont (1904-2001) again (René Dumont was a French engineer in agronomy, a sociologist, and an environmental politician.).

Daniel: Yes, that's a vast subject. What you need to know is that it's such a subject only in France. We still hear a lot, even if it calmed down a bit: nuclear or candles, the return to candles. Even someone who is very present on the airwaves like Jean-Marc Janković, very nice guy, works one way. This guy claims that renewable energies are the thickness of the line in the usage curves, which is true in France.

I don't know if he's aware that

- German solar energy represents more electrical power than all of French nuclear power.

So we just have to stop saying that renewables don't work.

-In England there are 30 GW of wind power and

-In Spain, they will reach 50% renewable and 80% in 2030.

Martial: For example, you are for wind power

Daniel: we are not going to explain to the English that we must stop wind power. They have 30 GW of wind power that feeds them day by day because you see your young people worried about global warming.

Martial: I am worried about the wind turbines that are in front of my countryside, my beach in La Baule (France).

Daniel :Yes, I know that the wind turbines are facing a little backlash, but believe me <u>the future of wind power is at sea</u>. That is where most of the

wind power installed, for example in Denmark, comes from. You should know that Denmark is reaching <u>zero hydrocarbons and zero nuclear</u> <u>power</u>. So we could still ask ourselves in France how it is that elsewhere they manage to get this done and that we are still giving the alternative between the candle and nuclear power.

I did write a long paragraph on nuclear power.

Martial: , it doesn't help to save the climate?

Daniel: ah no, certainly not. If I talk about manipulation in the book, it is because our president of France, in office, claims that he is going to save France, the planet, the climate and perhaps the galaxy with 6 new EPR nuclear power plants. Which is a bit ridiculous when we look at the extent of the problems and the place that electrical energy takes in the landscape of the biosphere.

Martial: You also say that there are today new techniques beyond nuclear power that will allow us to approach the post-nuclear era.

Daniel: Yes, indeed, but the 'Iter project - the thermonuclear Tokamak project', that's another kind of smokescreen. I talk about it at some length.

Indeed, there are other projects that they are doing in Belgium and Switzerland, which are working on *thorium*, which is abundantly available everywhere.

We (France) have put ourselves in a corner with uranium. We were ejected from Mali, as you know. We fell back on Mongolia. We have an uranium contract with Mongolia with sites that already contaminated the population that lives around these sites.

So we believe here, well if we listen to the official speech, that nuclear power is clean, its sovereign and it's cheap. These are three big lies. It's the publisher who imagined Pinocchio's nose on my book, it's not me. But that is to say that in the nuclear field we are navigating in full lie. It is a bit distressing.

Martial: how do environmentalists take your approach? They hear René Dumont who was their master and in fact they do not want to hear that at all?

Daniel: I think that there are many environmentalists, who are of course a bit like climate ayatollahs. There are reasonable environmentalists, there are plenty. I suppose there are plenty although I have not met that many activists. The problem with activists in politics is that they often believe they hold an absolute truth. It is a bit difficult.

But I am sure that there are many environmentalists for whom the problems of biodiversity and the destruction of the oceans, the destruction of forests, the destruction of living spaces are a greater priority than emitting a little more or a little less CO2. I am sure that there are many reasonable environmentalists.

Martial: there you have it, an environmental scientist with a very particular discourse, very well-founded and with something that reassures us in these holidays, soon Christmas, that the end of the world is not for 2050. Do we agree?

Daniel: Absolutely.

Martial: so the journal 'Scientifique Nature' was wrong.

Daniel: the journal '*Scientifique Nature*' has major conflict of interest problems. It is at the center of a kind of ethical turmoil for its way of selecting articles. I can't go into more detail.

It is true that our scientific community must question itself about some of its practices and when we say science, we mean also "the Institution of Science". There would be things to say. I will perhaps devote a book to it one day. **Martial**: and you will be welcome. We have until 2050, so we have time to see each other again. Thank you professor.

End.

<u>Articles on Thorium</u> – thorium reactors have been studied since 1940, it was a radioactive element that did not allow a nuclear bomb to be made. Hence the choice of the heads of state and generals at the time to choose uranium.

The molten salt thorium nuclear reactor offers theoretically the best of all worlds. That of power and abundance of nuclear electricity without having a military dimension, offering greater security, without consuming water to cool and without having to manage afterwards large quantities of radioactive waste from the fission of uranium or plutonium atoms. Thorium is abundant. And to be used in a reactor, it does not require a long enrichment process.

The Chinese authorities have just authorized the commissioning in June 2023 of a prototype of an experimental molten salt thorium nuclear reactor in the Gobi Desert, to be ready for production in 2030. This type of reactor is part of the category of so-called breeder reactors which are safer, capable of producing more fuel than they consume and which release little waste compared to conventional fission reactors.

www.transitionsenergies.com

https://www.youtube.com/watch?v=t4EJQPWjFj8

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