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Enigma Man a Stone Age Mystery

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Around 50,000 years ago,
in a prehistoric forest of East Asia,
the first humans arrived from
Africa to live and to hunt.

Just a few thousand individuals
would become the ancestors
of all the people of East Asia,
Australia and the Americas.

This vast land was thought to be empty
when they took their first
steps here but now it appears
they were not alone.

This remote cave in Southwest China
is the final resting place
of strange unknown humans.

Their remains had laid
undisturbed for millennia
until a chance encounter
brought them to light.

Now, we are faced with a
shocking possibility.

We may have unearthed a
new species of human.

In a way, it's the sort of
thing you wouldn't ask for.

What we faced here was a discovery
that challenged everything we understood
about human evolution.

These ancient bones may change forever
our understanding of where we came from
and what makes us human.

On a quiet mountain road in the
Chinese province of Yunnan,
two men from very different
worlds are on a journey
back in time.

Ji Xueping, a Chinese paleontologist
is traveling with Australian
paleoanthropologist,
Darren Curnoe.

They're on their way south
to one of the most important
archaeological sites in Asia.

I've wanted to work in Asia my whole career. I was at Asia these days where it's an amazing opportunity. It's close to Australia that would help us understand the origins of indigenous Australians but also Asia in many ways seem to me to be like a blank canvas particularly with the question of the origins of modern humans. Asia today has more than half the world's living population but yet we know so little about their origins and their relationship to people in other parts of the world. In 1989, mine workers accidentally unearthed ancient looking human remains at this site in Southern Yunnan. They lay alongside bones of red deer that once roamed this region. Locals soon dubbed the site Maludong, the Red Deer Cave. The mine's closed and the mysterious bones were moved to a nearby museum. There, they lay buried in the volts, unstudied for almost 20 years. Then in 2007, Ji invited Darren to help investigate these fossils. They were unlike any he had ever seen. They were charred and strange and included part of a skull with holes drilled into both sides. This is the most complete skull from Maludong and it's also the one that has the most events from modification, alteration by humans. The entire base of the skull has been cut off, chipped away using stone

tools and then they've used another tool to smooth the edges and to actually polish it. To understand what this skull cut means, they called in an expert in ancient human habits. Cultural anthropologist Paul Tacon. Making of skull cups is a very modern form of behavior and the Neanderthals didn't make skull containers, all the other known examples past and present were made from the skulls of modern humans. Sometimes, these were made for use in ceremonies. They sometimes were made from the skulls of enemies. It was a way of insulting your enemy by drinking from their skull. Besides purposely shaping the edge of the skull to make it into a nice container, two holes were purposely drilled on either side but not exactly in the center. They're drilled close to the front of the skull where most of the weight is. So, the person who fashioned this was very ingenious. They figured out that since there was more weight here, put the holes closer to it, it will sit nicely in the air without spilling. For Paul, this was the handy work of a sophisticated modern human, but for Darren and Ji, the anatomy of the bones told a different story. When we started to look at the remains in detail, it actually became very unsettling because they're just so unusual.

In many ways they just look so primitive.
The shape of the eyebrow
bone is really unusual,
very prominent and the brain
case itself is really low
and very rounded.
These look like they should be one or two
or maybe even 300,000 years old.
The enigmatic features of the Red Deer Cave
fossils post puzzling
questions about human origins
in this part of the world.
To date much of the focus
on human evolution
has been a long way from Maludong,
across the world in Africa
considered to be the birth place
of our direct ancestors and
the cradle of all humanity.
So the first few million
years of our evolution
were in Africa with this ape
like two footed creatures
and they gave rise to Homo erectus.
Homo erectus is the first
human like creature
to leave Africa.
It settled Europe and East
Asia and survived in Asia
until about half a million years ago.
And we up here in the
record, the fossil record
about 200,000 years ago
modern humans or Homo sapiens
and the subset of us left
Africa about 80,000 years ago,
settled the rest of the planet
and gave rise to all living people.
The out of Africa story remains
the predominant theory for the
origin of all human species.
Well, it's overwhelmingly
an African European story.
I think it's fair to say

that there's been a bias
in our work for almost 100
years where most of the work
has been done in Africa and
Europe or most of the evidence
has come from those places.
As our ancestors colonize the globe,
they entered unknown territories.
In Europe, they encountered
the Neanderthals,
our closest ancient human cousins.
But most anthropologists
believe that by the time
modern humans arrived in Asia,
all previous human species
there had died out.
Then in 2004 on the island
of Flores in Indonesia,
scientists discovered fossils
of an ancient creature.
No more than a meter tall
and with a tiny brain.
Homo floresiensis revolutionized
the long pound theories
of human evolution.
It came to be known as the hobbit.
When the hobbit was found, many of us
just couldn't believe
what was being proposed.
It was something that look
like human like creatures
of three million years ago
surviving until 17,000 years ago
in Indonesia are on a highland
with sophisticated culture.
It didn't make any sense.
The hobbit really threw
things up in the air
because that was the first of its kind
being something really completely
outlandish being found.
Professor Bert Roberts was part
of the original team that
discovered the hobbit.

In the recent past, that was in the last few tens of thousands of years, we thought it was much simpler situation. There's us Homo sapiens, there's Neanderthals in Western Asia or in Europe and the rest of the world was pretty much empty of other human species and suddenly out of nowhere we got a brand new type of human who's still surviving until very, very recently and yet such an ancient design. You think wow, if we can find this brand new species just below the ground today, how many are we missing out there? Maybe we'll be misidentifying things in the past. Maybe we just haven't been looking in the right places. There are vast expanses of unexplored territory across Asia. Scientists have barely scratched the surface of what lies beneath. In 2008, Darren and Ji made their first journey back to the Red Deer Cave. We didn't really know how the site was. When we started working here, there were suggestions that it could had been towards the end of the Ice Age that there was a very little chance that it could have been considered be older and that was an exciting prospect, exciting opportunity. When you start digging a site like this, you're aware of the fact that you're actually the first

people to be exposing
things from the ground.
You're the first people to see these things
since the people who actually used the cave
tens of thousands of years ago.
And it gives you a real
connection to your ancestors
to the way that we lived
for millions of years
in our evolution.
And there's always the
excitement if you don't know
what's gonna be revealed by the next stroke
of the trail of the brush there.
And what was revealed
were layers and layers of ash.
This ash is as fine as you would say
if the fire was built only last week.
It's really quite incredible.
The preservation is just extraordinary
and you can see pieces of charcoal
and these are in fact
is actually burnt clay.
So it's soil that was on top of the fire.
It was so hot that it's baked it.
And when we look at the house
we actually find animal bones
and animal teeth.
And so they've actually come
in and they have cooked
particularly deer bones and then
they butch them on the side.
So these amazingly thick layers
of ash represent huge fires
that were being built up
in the cave over a period
about a thousand years.
It's probably the deepest
ash sequence or half
that's been found in China,
possibly one of the largest in the world.
The Red Deer Cave was
just beginning to reveal
fascinating glimpses in the

Stone Age life in China
and that it all went wrong.
My heart sunk when we found
what we thought was a bit of pottery.
Pottery is one of the most enduring
of manmade materials but it
is a very recent innovation.
I was hoping to find a site
that was tens of thousand years old.
Maybe a site that might tell
us about the earliest people
in the area but instead I
thought we'd found a site
that was only a few thousand years old.
We were feeling disappointed actually.
We thought maybe the site was just another
early farming site that maybe
in fact it wasn't going to be
the site that might give
us some real insights
of our understanding of human evolution.
But the mystery of the Red Deer Cave
was far from over.
Back at the museum, sacks
of fossils collected
from the original excavation
were pulled out of the coffins.
Until now they had been long forgotten.
We really had no idea just how many bones
there were, how rich the site was.
There were bags and bags of these fossils
that had been removed,
that were just waiting to be studied.
When Darren and Ji examined the bones,
they were shocked.
I've never seen a set of human remains
like this ever before.
Every bone that we looked at had
been modified in some ways.
Some had been cut.
Some had been burned and
others painted in ochre.
They've got these massive fires in the cave
and sometimes they throw on complete limbs,

entire body parts and other
times it was part body,
sometimes even just the bones themselves.
When you find evidence for
the burning of human bones,
you always think that there
are two possibilities.
One of those could be cremation
in some sort of ceremony
associated with burial or death.
The other of course is the
very real possibility
that human remains were actually caught.
Could cannibalism be at the heart
of the Red Deer Cave mystery?
Within the cave's walls
are whispering echoes
of a macabre event and clues
that don't make scientific sense.
The human remains from Red Deer Cave
had become a Stone Age
mystery and this mystery
was about to get a lot more complicated.
In 1996 while moving artifact
from a provincial museum
to its institute, Ji
noticed a curious block
of rock on a shelf.
The rock had been discovered
by a lone geologist
at a place called Longlin, 300 kilometers
northeast of Red Deer Cave.
It had sat on the shelf
unnoticed for three decades.
Ji said he had something to show me,
a surprise, a little present.
Ji was holding a rock that
had a skull inside it.
I looked at it and thought what is this,
this look like something
that could be hundreds
of thousands of years old.
Why is he showing me this?
What does he wanna do with this?

And that moment actually changed the course of our research together. They had just unlocked the door into China's mysterious collections when Ji discovered yet another forgotten fossil from the Longlin site. It was a big surprise because I didn't know that there was a jaw but also they've been put together in such a way that that actually made an artificial chin, a fake chin look like a modern human. And Ji and I studied it really carefully and we actually found that the bones fitted together naturally in quite a different way and we had a very different looking jaw. It would take two years of painstaking reconstruction but finally the skull was liberated from the rock. It was the weirdest looking thing I've ever seen. Darren is convinced it belongs with the jaw. What did I see? Something I've made up. I was confused, I was elated, I was perplexed. It had this really bizarre mix of features, unexpected mix. There were hints of modern human features. There were these really ancient looking features. In my own mind I didn't know what I was gonna do with this. This confusing mix of features bears a striking resemblance to those found in the fossils from Maludong. So we thought that the best way to approach this given that we thought they were quite similar

was to have them in the same population,
have them as belonging to the same group.
Now, Darren and Ji are confronted
with someone or perhaps something
they really did not expect to meet.
They had come face to face
with the Red Deer Cave people.
This primitive looking creature once ran
to the prehistoric forests of Yunnan.
The question is, just how long ago?
That face, I mean that's not
a modern human face, that
level of projection like that
is what you see in Africa
maybe two million years ago,
one and a half million years ago.
That's not...
To make sense of these archaic
looking fossils, the
team needed to find out
how old they were.
Luckily within the cavity of the skull
embedded in the rock, they discovered
tiny pieces of charcoal.
These, together with charcoal
remnants of the ancient fires
at the Red Deer Cave was
sent for radiocarbon dating.
I was sent the dating results
and I didn't believe the numbers.
I got on the phone, I rung
my colleague and I said,
"Are you sure these are right?"
The Maludong fossils were just 14 1/2
thousand years old and the Longlin skull
was even younger, only 11
1/2 thousand years old.
I couldn't believe it.
I was absolutely flabbergasted.
In fact, I jumped out of my chair
and I was jumping around
the room like a kid.
This means that the Red Deer Cave people
were alive at the same

time and in the same place
as modern human hunter gatherers.
There Red Deer Cave people are unlike any
modern human we've seen before
whether 150 or 150,000 years old.
This means they're either
very unusual modern humans
or perhaps belong to a different group,
different species but they're not us.
The suggestion of a new human species
is arguably the boldest statement
an evolutionary scientist can make.
In March 2012, the team take a daring step
to publish this possibility.
Distinctly odd fossil evidence found...
The so called Red Deer Cave people
had flat faces with bore noses.
Even though a computing picture it does...
It wouldn't be the first discovery
that's led to debate
over whether a scientist
has found a new species.
I'm a little skeptic about the last one.
But they're reluctant to
call it a new species
just yet and some other
experts have their doubts.
In a way, it's the sort of thing
you wouldn't ask for because
it's so challenging,
so confronting.
The fact that they were just
so weird and so young for me
was exciting but I knew
I faced a big challenge
to convince my colleagues the significance
of what we'd found.
In the world of paleoanthropology,
the same fossils inspire radically
different interpretations
among scientists depending
on which school of thought
they belong to.
It's been called a science

of exquisitely informed speculation.
Nobody looks at a fossil
with a completely open mind.
I suppose to some extent
also we see what we think.
So, you come to a fossil
and you have an idea
about the way you think in evolution worked
and the first thing you do
is try and fit that fossil
into your world view.
I think that's human nature.
This is a science which struggles
with possibly the biggest questions of all.
Who are we and what makes a modern human?
For the past 30 years, our understanding
of what sets us apart
from other human species
has perhaps been most influenced
by paleoanthropologist Chris Stringer.
If we look just at the morphology, for me
everyone alive today share certain
features in the skeleton.
So we have a high and rounded skull.
When we look at the Longlin skull
and we look at the forehead,
we can see that it does have
some modern human like features.
So, it has a forehead that arcs
backwards, curves backwards.
We have a small face tucked
under the brain case.
And the face is actually quite
short like a modern human.
We have a chin on the lower jaw.
We have a lightly built skeleton.
So these sorts of features
are shared around the planet
and for me they diagnose
what a modern human is anatomically.
So there are a couple of
modern human features
but then there are all these features
that are really very ancient.

If we have a look at the lower jaw,
this really important feature
that we see in modern humans
have a triangular chin is actually missing.
We can't see it and the teeth are massive.
On top of that, it also has some unusual,
some unique features that are found only
in the Red Deer Cave people.
So it has quite a prominent brow
and the cheeks are incredibly flat
and they flare out to
the sides of the faces,
they curve around the skull.
And when we put them together and we see
that it has this massive jaw
that the two jaws together
sit well forward to the face
and that's really unusual.
Certainly for modern human
it's a very ancient feature.
These bones aren't modern
and they're not meant to
be around at that time
but yet they are.
14 1/2 thousand years ago, Southwest China
was released from the grip of the Ice Age
and filled with lush forested
basins teeming with life.
This was the world of the
Red Deer Cave people.
This was a land of the oldest
and most isolated mountain peaks,
the deepest valleys and the
biggest rivers of all of Asia.
It was a landscape that
had an indelible impact
on its people.
Could this hotspot of human diversity
have given rise to isolated
groups that looks so different?
What's actually led to the unusual features
on the Red Deer Cave people
we simply don't know yet
but one possibility is that

it was the development
of a population that was isolated
that had particular environment conditions,
maybe a particular kind of diet required,
stronger jaw muscles
which modified the face.
That's a possibility.
There could be environmental
features which change
the shape of the skull and on the body.
Could the Red Deer Cave people
simply be modern humans who have moved back
into more primitive looking beings
because of something in the water?
In evolution we call that a reversal.
Time precedent in human evolution.
There are no other examples
that I can think of,
of any human group that was isolated
for tens of thousands of years and then
suddenly it's anatomy
emerged after that time
to look like ancestors
of hundreds of thousands
of years ago.
In my understanding in my
experience it runs counter
to our understanding of seven million years
of human evolution.
The problem for me is that
if they're modern human
and they lack so many features,
so many characteristics of modern human.
So if we say okay, maybe they're early,
very early modern human,
very primitive modern human.
If that's the case then why aren't they
100,000 years old?
As Darren and Ji pondered the puzzle
of the Red Deer Cave people,
other scientists offer
their own explanations.
Chris Stringer and other
people who suggested

it could be hybrid.
I think the Red Deer Cave finds
are extremely important.
I don't think they represent
a distinct species from us
but they really do document the variation
in modern human populations
in the last 50,000 years.
Chris Stringer is the architect
of the out of Africa
theory and firmly believed
that modern humans replaced
all other ancient species
as they migrated across the world.
My view was we had a recent African origin
and that could be virtually
100% of the story.
But what we've learned
in the last few years is
that there was indeed some interbreeding
with the Neanderthals, with people over in
the far east called the Denisovans
who we've only really learned about
in the last couple of years from their DNA.
In 2010 in another remote cave
nestled within the Altay
mountains of Southern Siberia,
ancient DNA was found,
preserved within a finger bone
and a single tooth.
From these tiny fragments,
scientists decoded
the entire genome of a new group
they called the Denisovans.
Not only we have this
new species Denisovans
in Southern Siberia but the
Denisovan DNA turns up in people
in Melanesia, Papua New
Guinea and areas like that
and appears on Australians.
The fact you've got
Denisovan DNA persisting
in modern day people means there

must have been interaction
between that kind of ancient
human and Homo sapiens
to get it in to our genome
at some point in time.
So the reason why you can have archaic
human surviving in other places too.
Since we know there was interbreeding
with ancient humans, perhaps
some of these features
are reflecting into breeding in the past.
Maybe in China, the same thing
could have been happening
with the Red Deer Cave people.
In terms of modeling, have
interbreeding happen,
I mean obviously we don't actually know
and it could range all the
way from peaceful encounters
where they traded with each
other and exchange mates.
That's one possibility.
The other extreme is a group
will run after the mates
and they will raid another
area and steal some women.
These encounters have left their mark
within us today, hidden in our genes.
There are suggestions that certainly
in the immune systems,
modern humans have picked up
some of the bits of DNA
from these archaic people.
So imagine modern humans evolving in Africa
coming into new environments
with new diseases,
new pathogens and so on.
By interbreeding with the locals,
they could get a quick fix
in picking up some of the
immunity which those populations
would have evolved over
hundreds of thousands of years.
Could the Red Deer Cave people

be hybrid offspring of modern
and ancient human parents?
Hybrids are really complicated question.
To diagnose a hybrid, you
need probably to have DNA
from Maludong and Longlin fossil
but also you need DNA from
both of the parent specie.
So, if we assume one is
us, one is modern human.
Who's the other species?
I'm not convinced that
interbreeding has been
unequivocally established.
It's an interesting idea
and I think there are some
compelling, maybe persuasive evidence
but it's far from open and shut.
To try to untangle the genetic origins
of the Red Deer Cave people,
Darren and Ji send samples
of the burned bones for DNA testing.
Ancient DNA science unlocked the genome
of the Denisovans from
their remains preserved
in an icy corner of Siberia
but the Red Deer Cave fossils
are a different challenge all together.
Fossil DNA is not easy to work with
because the bones have been
buried for many, many years.
So especially for this sample, they're very
nice, hot and readily humid
area so those conditions
are not good for ancient DNA storage.
Professor Su Bing is one of China's
leading geneticists.
A decade ago, he led the
team that mapped the DNA
of over 10,000 living East Asians
in search of their origins.
From this data, what we saw
is a very simple conclusion.
We all came from Africa, we

all have African ancestors.
But not all scientists accept
this genetic evidence.
There are those that promote what is known
as multiregional theory.
They believe that instead of
old members of our species
coming out of Africa, some modern humans
evolved out of Asia.
To explore this theory,
Darren and Ji traveled
to nearby Guangxi province.
Here amongst this spectacular
limestone landscape
lies Zhirendong, the mysterious
cave of the Homo sapiens.
In 2007, Professor Jin
Chang-Zhu and his team
unearthed two archaic human teeth here.
A year later, they discovered something
even more remarkable.
The primitive jawbone was
found to have some striking
and unexpected features.
A protruding chin is a
defining modern human feature.
When they dated the fossils,
they found they were over
100,000 years old but
the conventional theory
holds that the earliest modern
humans arrived from Africa
around 50,000 years ago.
This would mean that
modern humans were here
50,000 years before they
were supposed to be.
This is the heart of the
biggest controversy
in the science of human evolution.
The idea that modern day
Chinese are descended
from a separate evolutionary
line to the rest of the world.

In China, they believe that the Chinese Homo erectus fossils are their direct ancestors and they can see in their interpretation a continuative evolution in terms of morphology and behavior from a million years ago through to present Chinese populations.

I gave a talk there in the 1990s on the Out of Africa theory and it didn't go down very well as you can imagine and I was told that they knew they were evolved from Peking man.

It was almost like an act of faith.

I think they've demonstrated that modern humans got to East Asia much earlier than the genetic evidence would suggest. I think that's very important.

Ji believes that the Zhirendong fossils are proof that modern humans in this part of the world evolved here in East Asia.

Whichever theory prevails, Darren sees the find as an important clue as to the identity of the Red Deer Cave people.

What's impressed me about the Zhirendong jaw is that it does seem to have a human like chin.

You don't see a human like chin in the Red Deer Cave people jaws.

The Red Deer Cave people don't look very modern in comparison.

I think if Zhirendong do represent an early modern population then the Red Deer Cave people can't be.

But the hunt for fossil DNA that could

confirm this has been unsuccessful.
Unfortunately we haven't
got any positive result.
We didn't get any DNA.
There's very little biological material
left in the bones and teeth from Maludong.
This is because they've been burned
to such high temperatures.
What it means unfortunately is
that there's really no chance
of getting DNA from them.
Despite the lack of DNA,
Darren is convinced
that the bones speak for themselves.
He's driven to the only conclusion
that makes sense to him.
After five years of working
on this big puzzle,
this conundrum, losing sleep,
traveling to and from China
to check and recheck.
I placed these fossils into what we know,
what we understand about human evolution.
I just can't see that they're anything
other than a new species.
It's an idea bound to create shock waves
throughout the scientific world.
Science is very conservative.
So when people find new things
that don't fit into current
widely held models where they
come up with new theories,
they're challenged, they're ridiculed.
Sometimes their careers suffer.
As soon as you make some announcement
that's unexpected, there's
always gonna be detractors.
I mean, why would there be a new species
of human surviving in mainland China
until be on the last Ice Age.
Yes, it's risky.
Of course it's risky but in a way
if you're gonna be honest
and true to science

then you've got to be
prepared to stand up and say,
"This is how I see the evidence."
It's a challenge to conventional wisdom
but then that's how science progresses,
that's how we improve our
understanding of the world.
In this case our own origins.
Darren and Ji are preparing to show
the Red Deer Cave fossils to
a scientific heavy weight,
someone whose judgment could either confirm
or quash their own opinions.
Jeffrey Schwartz is one of the
few scientists in the world
to have studied virtually the
entire human fossil record.
Here professor.
- Wow.
Gosh, the actual things.
Can I touch?
You're welcome to.
That will be super.
So you think that surface
has been modified?
There's some cut marks.
Right, I see that one,
holes in either side of it.
But then you got to break
and then you have to change
in the plane of the bone and
that's what's diagnostic.
Here's an occipital fragment
and I can't find any muscle marking
on it. Nothing.
Nothing at all. Nothing.
Meet Longlin.
Oh, there it is.
Okay, so what's interesting
is the shape of the frontal
so different.
One thing that's very prominent
is that you have this
huge muscular tuberosity.

You would actually see some kind of more verticality. That's right, absolutely. This unusual shielding here in front. Yeah, oh I see what you're saying. There's only one specimen I know of where the cheek region flares out like that and it's one specimen from about 1.65, 1.7 million years old from East Africa. It's one of those unusual things in the human fossil record and it certainly isn't like any living human I studied, any human skull that I've studied and I've studied thousands of them over years. Certain features of the face here, you don't see in any living human. I would call it a different species but I know that sends off a lot of alarms and stuff but I think it's a different thing. We agree. This is really one of the top paleontological experiences in my life. Fantastic, good. Fixed our work. I felt as though this cloud of doubt that I'd had about my work, my ideas for the last five years to suddenly lifted and then I had actually for the first time some real independent support and verification of what we found. It was absolutely thrilling. The big shot, Jeffrey, Professor Jeffrey are coming after today's check. We don't want to move to another project, move to another set. I want to continue because it was daring, we should continue this research,

more productive in the future.
So the Red Deer Cave people
could be the youngest
non Homo sapiens that we
found anywhere in the world.
They're also in East Asia which is an area
that we thought was actually uninhabited
by the time modern humans settled the area.
We've always thought that modern humans,
Neanderthal share a common
ancestor 400,000 years ago.
One of the implications of
the Red Deer Cave people
was that maybe there was a
branching event later on
that in fact maybe a group
batted off the line
that was leading to Homo sapiens
two or 300,000 years ago
and that that group is something like
the Red Deer Cave people,
a group that's almost us but not quite us.
It's an astonishing concept
to imagine a coexistence
of two human groups
that are so similar but also so different.
What would their first
encounter have been like?
This wasn't simply a different tribe.
This was another creature all together.
What discovery means is that
when modern human left
Africa that it wasn't just
the Neanderthals that they encounter.
In fact they met up with the Denisovans,
they met up with the Red Deer Cave people.
It's not just a scenario
of superior modern humans
leaving Africa and taking over the world.
In fact, they had to fight for
it that it wasn't an easy
process and that they were
very complex interactions
along the way.

There's the possibility I guess
with the Red Deer Cave people.
We interacted with them.
What sorts of interactions were there
is the obvious immediate in
the landscape competition
maybe lead to break with them.
Maybe we inherited aspects of our behavior
and culture from them.
Could that interaction have
shaped our own evolution?
What's significant about
the Moludong specimens
is they really demonstrated the
existence at the same time
of different species with
our species Homo sapiens.
And then I think the ultimate question is
why did they disappear?
How did they disappear and why
were the only species still around?
There is one clue.
We know the Red Deer Cave
people was still surviving
at the dawn of the greatest revolution
in the history of human kind.
Beginning about 20,000 years ago,
modern humans began agriculture.
As agriculture developed, it was changing
the people who were engaging in it.
Their rituals, their
relationships to the land,
eventually to even their morphology
but also they began changing
the land through farming.
That may have severely
impacted on remaining groups
of Red Deer Cave people who
were true hunter gatherers.
The farming revolution led to a whole
sweet of new diseases being
experienced by people.
It was the beginnings of
the population explosion

that we think about over the last few thousand years. Worldwide there were maybe a handful of people, several million people living as hunter gatherers and in a fairly quick period of time that double treble to the point where we've now got seven billion people living across the planet. No other site in the world has a cave human remains that are dated to around the time that farming is beginning and it does raise the possibility that the invention of farming may have bumped off the Red Deer Cave people. If you look at recent human history what you see is as the settlements increase in number and density of human warfare to like increases. And in terms of nature, we're the only really bellicose or war engaging species and it may not be a pleasant thought to think that we're the cause of the extinction of these very recent species that were our relatives. Whether it was sheer bad luck or forces of a different kind, the Red Deer Cave people may have been the last of nature's experiments before modern humans were left as the lone surviving human species. As to the faith of those individuals found inside the cave, there are clues hidden in the charred remains. One of the key questions that we ask

when see burnt human bone
is was it cannibalism?
So we look closely to see
the nature of cut marks
and fracturing and burning.
If we look at this material,
we find that there aren't
many cut marks like you would
expect if the meat was cut off
and after cooking in the fire.
What also is really
unusual that we never see
with cannibalism is that
after the bones were burnt,
they were painted with ochre.
Now, if this had been simply used for food,
the bones would had been discarded
and we would see burning but not ochre.
But with many of the pieces
from Maludong, we see both.
So, I'm convinced that there
is a form of burial practice
happening rather than cannibalism.
This is probably a really special place
for the people who were occupying the cave
and coming here performing ceremonies,
putting large fires.
They were cremating
probably their relatives,
maybe people who are
important in their group.
And then later their bones were cut
and painted with red ochre,
so they had special value to them.
Until now, modern humans are thought
to be the only species
that have made skull cups
and painted the bones of their dead.
That's one of the fascinating aspects
of the archaeology of Maludong
is there are a number
of different forms of what we would call
modern human behavior that
appear to have been practiced

by another species.
These were intelligent compassionate people
who perform special rituals for their dead.
They mourned to their dead.
They might even have had a
concept of the afterlife.
These people, whatever species it was.
They were not that different to us
and that tells us we are not unique.
But there is an alternative explanation
for what happened inside the Red Deer Cave.
The fossils reveal yet another twist
in this unfolding mystery.
There is more than one
Hominid on this table.
More than one Hominid for sure.
What he actually said
was pretty remarkable.
He actually suggested that we may have
three different species in the fossils.
Us, modern humans and then two brand new
previously unknown archaic species.
This would be one of the
only sites that's known
in the world where you got
three distinct groups
using the same place.
The other conclusion that
can explain this mix
is that it was actually modern humans
engaging in the modern human behavior
with the remains of the
Red Deer Cave people.
Why were modern humans doing this?
What was the relationship
with Red Deer Cave people?
Was it a close one and were they honoring
the dead Red Deer Cave people
or were they driving them to extinction
and purposely killing them.
It is an incredible story no matter
which hypothesis we ultimately accept.
We may never fully understand
what actually happened inside this cave.

All we really know is that
the Red Deer Cave people
were once here and now they are gone.
For me one of the profound implications
of the Red Deer Cave people
is that here's a group of
humans that are us, they're almost us.
They share some characteristics with us.
It forces us to rethink the
space that we've created
for ourselves as humans the way
we've identified ourselves,
the way we think, we interact
with the world is narrowing.
So, it forces us to rethink the concept,
the very basic idea of what
it means to be a human.
It's important philosophically
because it challenges
the concepts that we apply to ourselves,
the way we define ourselves,
the way we think about our place in nature.
I think it alters that.

Hi.

Hello.

Darren, hi.

Hello, Darren.

Wow.

I'm Craig. How are you?

I'm very fine, absolutely stud.

You're real.

I know.

My Red Deer Cave person, you're real.

An amazing thing to see,
the bones feel like come to life,
flesh real in front of me.

There's this new evidence from
China of a distinct group,
probably a new species
living in the landscape,
sharing the landscape
with people just like us.

When you discover new
species, you decide the name

and one of the names that we've
talked about were proposed
with Chinese colleagues is Homo mituanas.
And mituan is actually Chinese
for enigma or great puzzle.
Mystery.
So we think of you as our enigma man.
Enigma man.
We are only just starting to piece together
this story of millions of
years of our evolution
from fragments of bones and stones.
Every culture has creation
or origin stories.
What's different here is
that we're weaving a story,
a narrative from scientific evidence.
Everybody cares about where they came from
and the place of humans
in the natural world,
where we fit in the Cosmos.
This is the ultimate story for us.
In the 21st century, our sense of ourselves
as a superior species still informs so much
about how we relate to the world around us.
It was simple when it was
just the Neanderthals
because we could demonize
them or make them out
to be primitive cavemen, dumb
and we were the smart ones,
we got out of Africa,
we conquered them but it's
not that simple anymore
because there are Denisovans,
there are the Red Deer Cave people.
There's the hobbit.
Suddenly, we're not this
incredibly smart group
that was destined to take over the world.
It's not like that.
The Red Deer Cave people may be
the closest members of
our diverse human family

to have walked amongst us.
For most of the 7 1/2 million years
that we've been evolving,
we've shared the landscape
with other human like creatures.
We competed with them for resources.
We occasionally had sex with them.
Today, that's not the case.
We find ourselves alone but
yet the Red Deer Cave people
show that just 11,000 years
ago we weren't alone.
Why is that the case?
This is the ultimate question for us.
Why are we alone today?
Perhaps the greatest
legacy of our long gone
ancient relatives is how they
remind us of our incredibly
good fortune to be here at all.