

Is the Fertile Crescent Still Fertile? By Anne Culhane

Voice Over:

The Middle East--and within it the Fertile Crescent. Cradle of Civilization.

“Fertile Crescent” is a metaphor – meaning it curves like a quarter-moon shape from the Persian Gulf, through Iraq, Syria and spreads through the Nile Valley of Egypt.

This region gave rise to Middle Eastern civilizations more than 8,000 years ago.

Plant and animal domestication, irrigation and new tools launched an agricultural revolution. Roaming hunter-gathers were transformed into a socially complex, permanent society.

But today, is there still a fertile Fertile Crescent?

Has it been affected by global warming?

But first: let’s talk about weather, climate and climate change.

The terms are important.

Atmosphere refers to the envelope of gases that surrounds the earth.

Weather means the conditions of the atmosphere in a particular region – heat, dryness, wind, sunshine. For instance, rain, sleet, snow day!

Climate is the weather of a particular area over a longer period of time.

For example, Boston is cold and snowy in the winter. Honolulu is warm and humid.

Climate change is a substantial change in the Earth’s climate that lasts for an extended period of time.

Global Warming: is climate change that causes an increase in the average temperature in the atmosphere.

Scientists have discovered that humans are causing at least part of this warming—probably a major part.

Let us look at this famous chart of temperatures of 1000 to present. Look at it and see why it is called the hockey stick chart.

Data was taken from all sorts of records – diaries, church records, agricultural records, etc. And later, scientific readings right up to the present. The records show that the Earth, our home, is getting warmer.

What about the climate in the Fertile Crescent, home to Mesopotamia, with conditions that led to the beginnings of human civilization?

What made this area fertile?

Each winter, the winds around the Mediterranean Sea shift and blow onshore. The water collects and fills the rivers and streams.

Seasonal rains fall on a land that produces grains such as wheat and barley: this is Rain-Fed Agriculture.

These conditions launched the world’s first empire: Akkad.

Founded some 4,300 years ago between the Tigris and Euphrates – Mesopotamia.

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Its vast influence extended into Syria and Iran.
They were wealthy. They were violent.
Sargon I was the king. As was his grandson, Naram Sin.
Then, about a century after it was founded, the empire collapsed.
Scholars believed it was because of politics.

However, Yale archeologist Dr. Harvey Weiss had another propos. He was excavating in northern Syria- Tel Lelian- an ancient settlement- with his team.

He found intriguing evidence when digging deeper to reach the settlement.

Lifeless soil and no evidence of farming or man.

Weiss concluded that this highly developed civilization collapsed abruptly because of a long, devastating 300-year drought.

The area became a desert.

A text, Curse of Akkad from that time

*For the first time since cities were built and founded,
The great agricultural tracts produced no grain,
The inundated tracts produced no fish,
The irrigated orchards produced neither syrup nor wine,
and The gathered clouds did not rain.*

Was this poetry or a short history of the area?
Or is it a prediction?

Fast forward: It is winter of 2005-2006,
Area winds shift but it does not rain.
For Syria, it is the start of a five-year long drought that plagued its agriculturally rich lands in the north—the most devastating drought in Syria’s modern history.

The latest drought was the driest period on record and the winter of 2007-2008 the driest winter.

But this only tells part of the story.

In fact, historical records indicate that the frequency of drought in Syria is increasing. (Three of the four most severe droughts have occurred within the last 25 years.)

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It is also getting hotter.

Since 1900, the average temperature in the region has **warmed by 2°F**. Hotter temperatures dry out the soil.

Climate changed thousands of years ago because of weather patterns. Scientific data shows us the recent change is man made.

Using this data: Is the Fertile Crescent still fertile?

And what does it mean to the population of the area, the world and us?