

Mesopotamia – the Cradle of Civilization

Several thousand years ago, between the rivers Euphrates and Tigris, the rich and fertile soil of Mesopotamia gave birth to civilization. Today, deeply buried oil and gas reservoirs provide Mesopotamia with energy resources that are seen by many to be the cause of geopolitical conflicts and simultaneously fuel and threaten our civilization.





Mesopotamia is a Greek word meaning 'between the rivers'. Mesopotamia is the alluvial plain lying between the rivers Tigris and Euphrates that both rise in Turkey and pass through Syria and Iraq. In southeastern Iraq they become one river – Shatt al Arab – that empties into the Persian (Arabian) Gulf. More commonly, the term Mesopotamia includes these river plains in totality as well as the surrounding lowland territories bounded by the Syrian Desert to the west, the Arabian Desert to the south and the Zagros Mountains to the east. Northern Mesopotamia is made up of hills and plains. The land is fertile due to seasonal rains and the rivers and streams flowing from the mountains. Early settlers farmed the land and used timber, metals and stone from the mountains nearby. Southern Mesopotamia is made up of marshy areas and wide, flat, barren plains. The rivers were used for transport, but were also the means by which the people of Mesopotamia could live and develop cities, as they provided water to drink and to irrigate the surrounding land. Once the land was irrigated, it could produce crops and other foods for the people to eat.

The barren desert stands in strong contrast to the green areas surrounding the river.



Photo: Halldan Carstens

The Euphrates is the largest, the longest, and by far the most important of the rivers of the Middle East. Along with the Tigris, it provided much of the water that supported the development of ancient Mesopotamian culture. The melting of the snows in the Armenian highlands in the month of May causes the annual inundation. The entire course is almost 2800 km and the watershed area is more than 750,000 km². The Euphrates is linked with the most important events in ancient history. The city of Ur, found at its mouth, was the birthplace of Abraham (an important person in Judaism, Christianity as well as in Islam), and on its banks stood the city of Babylon. The river Euphrates is, along with Tigris, two of the four rivers that flow from the Garden of Eden (the place where the first man and woman (Adam and Eve) lived after they were created by God) according to Genesis.

Halldan Carstens

The rich and fertile soil along the Euphrates is in sharp contrast to the dry and desolate sands of the Syrian Desert that covers a large part of Syria, Jordan, Iraq and Saudi Arabia. Long before the unbearable heat of summer, when temperatures may reach 55 °C, occasional spring rain showers give the ground a bleak, greenish colour proving that there is a little nourishment for a few sheep and camels. Bedouins roam the desert as they have done for thousands of years. Landrovers and huge trucks dominate the paved road on their way to and from oil fields on the east bank of the Euphrates River.

A Safe Place to Visit

While Iraq continues in a state of civil unrest, Syria can be considered an excellent alternate destination to provide tourists a glimpse of Mesopotamia. In fact, it should not be regarded as an alternate at all. Syria in itself is a very attractive destination in its own right, due to its friendly people, ease of travelling and precious archaeological sites that are not overwhelmed by flocks of busy tourists on their way to the next attraction.

In a matter of few days you can easily combine the hectic Al-Hamidyeh souq in the capital Damascus (that claims to be the oldest site of continuous settlement in the world), the spectacular ruins in Palmyra (where you are free to wander around the bulk of the remains at any time) and colourful shopping in small, picturesque villages along the banks of the Euphrates River. Travelling south on the east side of the river - towards the border to Iraq - you can also spot drilling rigs and production facilities belonging to Total and the Al Furat Petroleum Company.

Most importantly, you will find the Syrian people very friendly, from the shepherd guarding his herd of camels in the desert to the owner of the grocery store who invites you to a cup of tea after having purchased spices at bargain prices. For travellers used to protecting their belongings from pickpockets, it is also a relief to know that in Syrian, even in Damascus, petty crime is far less of a problem than in major European cities.

You just feel very safe and comfortable as a tourist in Syria. Having spent one week travelling around, it is my experience that the Syrians are all courteous and welcoming to foreign visitors. The country's



Near Mari, along the Euphrates.

Photo: Halldan Carstens



It is Friday, and the entire family including 3 generations has a picnic by the ruins. For geotourists it is interesting to learn that these buildings are built out of gypsum (calcium sulphate dihydrate, $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$).

Photo: Halldan Carstens



It is flat, and it is barren. It is hard to believe that it is possible for the camels to graze in the middle of what we would call a desert. For the Bedouins however, this is a steppe which is used for food in springtime.

Photo: Halldan Carstens

appeal as a destination is enforced by the fact that it played a pivotal role in the early history of both Christianity and Islam.

The Cradle of Civilization

Civilization developed in Mesopotamia simultaneously with Egypt in a region called the 'Fertile Crescent', a rich food-growing area in a part of the world where most of the land is too dry for farming. Mesopotamia was the alluvial plain lying between the Tigris and Euphrates rivers, composing parts of Iraq and Syria, and this is where we find some of the best farmland.

Writings from Mesopotamia are among the earliest known in the world, giving Mesopotamia a reputation of being the Cradle of Civilization. It is said that Mesopotamia was the place of the legendary Garden of Eden. On the spot where the Tigris meets the Euphrates, the holy tree of Adam emerged symbolizing the Tree of Life in the Garden of Eden.

The Paleolithic period in the Near East stretches back about 1.5 million years. In Syria the oldest evidence of human activity in the form of crude stone tools is 700,000 years old. Some 60,000 years ago the Neanderthal also learned to make fire using stone implements.

In the Paleolithic period, humans lived by hunting and gathering. This type of economy required a large degree of mobility, as the supply of food in any place was limited. The river plains were well suited for this because throughout millions of years, the rivers have laid down thick deposits of fertile silt.

At the end of the last ice age, 15,000 years ago, a development began which led to the living conditions we know today.

In the 10th millennium B.C., humans began to lay in stores of food and provisions – a development that led to decisive changes in the way of life, socially as well as economically. It enabled him to stay in one place and survive the winter. He became settled. In the course of the 9th to the 7th millennium B.C., food production techniques evolved; in this case including the cultivation of crops and domestication of goats and sheep.

Climate Change

The development of agriculture meant that a settled lifestyle became well established. At first, people settled in individual units which only slowly emerged to form villages. The production of food meant that



When visiting one of the archaeological sites northwest of Dayr as war, I spotted a drilling rig far into the desert. I decided to venture in that direction and reached the rig after a long, pleasant walk amidst sand and sheep. The rig was drilling for the Syrian Petroleum Company (SPC) and had reached a depth of 2452m. Taken by surprise by this strange tourist with some basic knowledge of drilling and geology, I was welcomed to have a tour of the site. Afterwards I was invited to tea with the drilling supervisor and the tool pusher in the supervisor's office, for them apparently a welcome break in the daily routine of drilling wells. The well site geologist was, regrettably, asleep after a long night describing rock fragments within the reservoir section. Although I was not impressed by the technical standard of the operations, their hospitality was unsurpassed.

humans began to interfere with the balance of nature. Land was cleared and cultivated, and the growing herds of domesticated animals overgrazed the naturally prolific grass plains. Human reshaping of the natural environment – still continuing to this day – had begun.

A society based on a pronounced degree of agriculture and livestock can be found for the first time in the 7th millennium B.C. Supplies of food and a settled way of life were guaranteed to such an extent that specialization in craftsmanship became possible. The use of particular raw materials such as obsidian (volcanic glass) and turquoise (now possibly the most valuable, non-transparent mineral in the jewellery trade) provides evidence of long distance trade at this early point in time.

The climate became so arid at the end of the 7th millennium B.C. (yes, they also had to struggle with climate change) that most settlements in the steppes were abandoned. People thus settled along the main rivers and the coastal regions further west (The Mediterranean). Sophisticated eating habits and methods of storage encouraged the introduction of ceramic pottery, and from then on, pottery – as we know from numerous museums – became the cultural index fossil.

Farmers and fishermen probably started to settle the Mesopotamian plain around 5,500 B.C. Over time, their small villages grew into large settlements. Agriculture and livestock farming formed the economic basis of society. Evidence has been found in irrigation farming.

At the end of the Early Bronze Age (ca. 3500-2000 B.C.), a development that can best be described as urbanization became established.

Good for Science

Syria remains one of the least-visited countries in the world. For geotourists and geoscientists wanting to explore the sprawling cities, high mountains, barren deserts, coastal plains, fertile riverbanks or the numerous archaeological sites, this is of course good news, as there is no problem getting around and find decent hotels at budget prices. Being an ordinary tourist can easily be combined with small geological excursions to extrusive basalt formations and outcrops of sedimentary rocks that are all well exposed. The old ruins are themselves geological targets as they are built out of a variety of rocks.



Photo: Halldan Carstens

In the middle of the Syrian Desert we find Palmyra, probably the most beautiful and magnificent of the Syrian historic sites. This Arab commercial metropolis used to be on the old Silk Road, a trade route linking the East Asian empires of Persia, India and China.



Photo: Halldan Carstens

The Omayyad Mosque is located in the heart of the Damascus at the end of Al-Hamidieh market. Built in 705 A.D. when Damascus was the capital of the Arab Islamic state.



Photo: Halldan Carstens

Oil is being piped through the desert, from the old civilization in Mesopotamia to the new "civilization" in Europe.