



Google Earth Presentation: The Historical Geography of West Africa

Resource Designed by Elsa Wiehe, Ed.D. October 2020.

Essential Question: How did people use their geographies for the development and success of complex societies in West Africa?

Objective: The goal of this resource is to provide an experiential understanding of the geographical and environmental features of West Africa as a support for understanding the ways ancient and medieval societies have thrived in this area for thousands of years. The Google Earth presentation models the kinds of questions that can be asked about the geography of West Africa while building curiosity and generating inquiry.

Ways to use this resource: Teachers can use this resource as a teacher-driven, interactive presentation, or as a series of student independent inquiries which could culminate in student mini-research presentations or projects.

The presentation can be viewed [here](#).

#	Slide Title	Focus/Essential Question	Context, Key Information, Students Activities
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1	Static slides Welcome!	How did people use their geographies for the development and success of complex societies?	<p><i>Why is it important to link geography to societies and cultures?</i></p> <p><u>For teachers:</u> When we teach about historical events, there is an over-emphasis on chronology without strong enough consideration given to space. But what we want our students to be able to understand is the interactions of place, time, and culture, so that we are able to answer not only “where things happen?” but “why there?”</p> <p><u>Note:</u> teachers are encouraged not to use the word “exploration” but instead use the word “visit” because exploration is a term that has had very consequential meaning in the past because of European exploration and exploitation of the continent.</p>
2	West Africa Climatic Regions	By viewing the changing colors on this map, can you delineate three main climate zones of current West Africa?	<p><i>What are the three main geo-climatic zones?</i></p> <p>Identify three geoclimatic zones: Sahara desert, the Savanna as the green area pictured here and the Sahel, which is the grey belt in between.</p> <p><u>For teachers:</u> Encourage viewers to look at how the climate was very important in determining why and how great kingdoms emerged. Examine the changing colors on the map. Ask: can you delineate three main climate zones of current West Africa?</p> <p><u>Note:</u> Even though this is a modern map, it can still be used to draw understandings about climate patterns.</p>
3.	The Sahara	In which ways is the Sahara diverse?	<p>1) <i>How big is the Sahara? Students can use the measuring tool to measure its area.</i></p> <p>2) <i>What are its features?</i></p> <p><u>For teachers:</u> Encourage students to research what the Saharan landscape consists of and use the navigation tool to visit different places in the Sahara to make a list of the wide diversity of its features, beyond sand dunes. Emphasizing the diversity of landscapes in the Sahara serves to debunk that the Sahara is just an empty desert full of sand dunes; many students will have this image as a preconceived assumption. Following are several examples of diverse landscapes.</p>
4	Sahara: The Oasis of Tafialt in Algeria		<p>Example 1</p> <p><u>For teachers:</u> Students learn that there is water in the Sahara in this one and many other points. Point out the date, acacia and salt cedar trees.</p>
5	Atlas Mountains in Morocco		<p>Example 2</p> <p><u>For teachers:</u> 70% of the Sahara consists of rocky plains covered with stones and gravel. The Atlas mountains of course stretch from Morocco through Algeria; there are also Saharan mountains in Chad (Conrad, p. 7).</p>
6	Mount Amchad, in the Atlas mountains		

7	Sahara: Clues to the history of the Sahara	Was the Sahara uninhabitable? What clues do we have about its history?	<p><i>Student Activities:</i></p> <p>1) Take the trek to Tassili N'Ajjer UNESCO World Heritage site to find out about the Sahara's past.</p> <p>2) Watch Rock Art in the Green Sahara to find out more.</p> <p><u>For teachers:</u> Tassili N'Ajjer is a UNESCO World Heritage site in Southern Algeria which shows a much wetter past in areas that have now become too dry to live. These astounding rock paintings date back to 5500 BCE. More than 15,000 drawings and engravings document climate change from a wetter period to desert, animal migrations and the evolution of human life. The rock paintings also show chariots that are evidence of connections to the Mediterranean world (e.g. with the Garamantes of Libya). It's during this wetter time that the Arabian horses are likely to have been introduced to the region.</p>
8	Sahara: Salt Mines of Taoudenni	Why is there Salt in the Sahara?	<p><i>Based on what you know about the history of the Sahara, why is there salt in the Sahara? How can there be wells in the Sahara?</i></p> <p>How was salt mined and transported?</p> <ol style="list-style-type: none"> 1) Click through this slide show of salt caravans (NPR) 2) Watch this short video about salt mining in Taoudenni (Sahelien) 3) Watch the camel caravans leaving Taoudenni toward Timbuktu <p><u>For teachers:</u> the image is of the salt mining town of Taoudenni in Northern Mali, which is still an active mining area, close to the historic Taghaza salt mines.</p> <p><u>Ask students:</u> Based on what you know about the history of the wetter Sahara, why is there salt in the Sahara? Explain that this really inhospitable Sahara desert was actually the main source of rock salt. As the Sahara got drier, the salt deposited on the surface through a desiccation process which you also find in old lake beds. Salt can be found on the surface of the Sahara but also it is extracted from shallow mines where the salt is naturally formed into slabs, which is what you see on the picture. This salt was higher-quality than the other sources of salt from the sea or certain plants.</p>
9	Sahara: Village of Arouane (Mali) in the Sahara	What is the source of water for villages like this? What role could the village of Arouane have played for travelers and traders who crossed the Sahara?	<p><i>Where can water be found?</i></p> <p>The name of the village of Araouane is a Tamaschek word meaning "cattle drinking trough." What is the source of water for villages like this? Why did this village become a key link for travelers and traders who crossed the Sahara?</p> <p>Watch the images in this short video (viewers can choose automatic translate from Italian): Arouane, the Village of Sands to find out more.</p> <p>Read more: "Arawan is the only permanently occupied village on the 700-km <i>azalai</i> caravan route (left) to the salt mines of Taoudenni in the far northwest of Mali. Today, depending on the time of year, a couple of hundred live in Arawan, including an imam who tends to the shrine or mosque of the holy man or saint, Cheikh Sidi Ahmed ag Ada</p>

			(or Agadda; 1570-1640). It was he who refounded the settlement in the 17th century and is venerated as the ancestor of all the <i>ahl Arawan</i> ('ahl' being to Arabic as 'kel' is in Tamachek: 'people of...'). The ruins of Dar Taleb (or Alphahou), just to the north of the village, have been dated back to the third century AD, making the site much older than Timbuktu. The basis of any settlement is a reliable water source and Arawan once had scores of wells to enable the speedy watering of the passing caravans. You can only assume that nearly 500 years ago there was more pasture to sustain a livelihood than there is today. As it is, this flat expanse of northern Mali seems to be typified by enigmatic patches of grassy tussocks scattered across <u>entirely barren sand sheets</u> and the very occasional escarpment." (Sahara Overland)
10	The Sahel	How did the Sahel enable empires and societies to thrive? From the pictures, how would you describe the Sahel? Is there vegetation there? What else? Use the navigation tool to visit different places in the Sahel to find out more about the wide diversity of its features.	Read more: The Sahel is a climactic transition zone between the Sahara to the North and the savannah and more forested areas to the South. It stretches as a belt across the continent from the Atlantic ocean in the West through to Sudan in the East. The Sahel is an example of semi-dry ecology, receiving rain four months out of the year, allowing for vegetation like shrubs, baobabs, and acacia which sustain ruminants (sheep, cattle, goats, camels) and crops like millet and sorghum to grow. Low levels of rainfall are important because they limit the presence of the tse-tse fly which causes sleeping sickness in humans and is fatal to ruminants. https://www.britannica.com/place/Sahel
11	The Sahel Up Close	What can you see?	For teachers: Students will observe "dots" in the Sahel. Get closer and find out what role they play in sustaining societies in this area.
12	Sahel: Niger River Path	How does the Niger River support thriving societies? Get closer to its features to find out. Can you find the Inland Delta?	For teachers: A key geographical feature of this area is the Niger River which in large part is in the Sahel, although not only. Encourage students to examine its unusual path. The Niger river was a crucial support to thriving societies in the area. The Niger is the third longest river in Africa. Encourage students to look at its amazing northern path. It starts in the Futa Jalon mountain range in Guinea, then, when it passes Timbuktu through hundreds of miles, the river turns gradually back to the east, until it is flowing southeastward past Gao. The northern part of the river, known as the <i>Niger bend</i> , is an important area because it is the major river and source of water in that part of the northern Sahel and southern Sahara, making it an enabling focal point of trade for the medieval kingdoms. Some pictures here of the pinasse boats on the river around the Timbuktu-Gao area.

			<p>Read more about the Niger river: “The Niger is the third longest river in Africa, after the Nile and the Congo. Its headwaters rise less than 200 miles from the Atlantic Ocean and flow northeast from the Futa Jalon mountain range that spans the border of modern Sierra Leone and Guinea. The Mande people of the Mali Empire called this river the Joliba, and the people of Songhay called it the Issa Ber. The Niger eventually empties into the Atlantic Ocean on the coast of Nigeria, about 2,585 miles from its mountain sources.</p> <p>After descending from the highlands of Guinea, the Niger River is joined by many smaller rivers. It is about 1,000 yards wide by the time it slowly flows over the rocky riverbed at Bamako, the capital of today’s Re- public of Mali. Large riverboats cannot navigate on the Niger until the river is about 37 miles past Bamako, near the town of Koulikoro. Even there, riverboat traffic is only possible during the months when the river is swollen by heavy rainfall in the highlands of Sierra Leone and Guinea.</p> <p>When the Niger gets beyond the city of Segou in Mali, it joins the Bani River and flows into a flat plain where the river slopes down only about 3.5 inches per mile. Once into the flat plain, the Niger branches into many dif- ferent channels, creating a vast network of waterways. In a good year, heavy rains (up to 80 inches) begin falling in the Futa Jalon mountains of Sierra Leone and Guinea in March and April. By July the swollen waters begin to reach the Inland Delta, causing the river to overflow its channels. This cre- ates a massive, shallow lake up to 150 miles wide and 300 miles long.</p> <p>Beyond the major cities of Segou and Jenne in Mali, the Niger River reaches the great trading port of Mopti, where it turns north. Then, through hundreds of miles, the river turns gradually back to the east as it passes Timbuktu, until it is flowing southeastward past Gao. This great turn in the river, which continues to where it flows into modern-day Nigeria, is called the Niger Bend. The Niger Bend area of the Middle Niger, which in- cludes the vast Inland Delta, was the heartland of the Songhay Empire. It was such a desirable region that neighboring peoples would periodically try to take control of the area, and this kept the armies of Songhay busy main- taining their control” (Conrad, p.9)</p> <p>“Products from the savanna areas included slaves, livestock, iron tools, weapons and utensils, animal hides, leather goods such as sandals, cushions and bags, lo- cally woven and dyed cloth, clay pottery, woven grass products such as baskets and sleeping mats, medicinal herbs, kola nuts, and foodstuffs such as dried fish, rice, various grains, condiments, spices, honey, and fruit. From farther south, nearer the forest, came gold and kola nuts.” (Conrad, p.24)</p> <p>“It is no coincidence that the Niger’s headwaters, which lie in the highlands of the Fouta Djallon, in modern Guinea, provided access to abundant gold deposits, including those at Bure and Bambuk. The river also supported the rise of urbanism, from the fourth century, particularly along the length of its fertile inner delta. (Caravans of Gold, Fragments in Time Exhibition Catalogue, p. 28)</p>
13	The Sahel: Niger River Inland Delta	What do you notice about the Inland Delta? Does it remind you of any other major African river?	<p>Get closer to the Delta to find out how it enabled crops and livestock to thrive. In what other ways could the river have been useful? What towns do you note along or close to its banks?</p> <p><u>For teachers:</u> Bring your students closer to the spectacular Niger river inland delta, the largest wetland in West Africa, which is a really crucial zone for sustaining life and urbanism: a flat plain where the river slows down because the slope is very slight; 3 inches of height difference per mile, just an 8 meter drop over its entire length.</p>

			<p>During rainy/high water season, it becomes a floodplain region and the waters eventually recede. Does not get as much silt as the Nile, but still floods yearly. Your students might connect with this knowledge of flooding and fertile lands from their knowledge of the Nile. Encourage students to look at the braids of water, wetlands, channels, islands, lakes, that enabled so much aquatic life, crops (rice) and livestock to thrive, with fertile soil, making this a highly desirable zone, and subsequent competition to control it.</p> <p>Read more: “Below the Sahel during the period after 5000 B.C.E., the great flood-plain of the Middle Niger River became a refuge for populations leaving the desert. Gradually, through the centuries, the Inland Delta changed from a vast swamp into the kind of floodplain that exists there now. It is known as the Inland Delta to distinguish it from the other great delta in southern Nigeria, where the Niger River flows into the Atlantic Ocean. The seasonal pattern in recent centuries has been that after the high water the Inland Delta floodwaters recede, leaving behind a network of small creeks and waterways, and in the northern regions a great many lakes. The Niger River and all the streams and lakes of the Inland Delta support abundant aquatic life, including hippopotami, manatees, and many species of fish. As with the Nile River in Egypt, the annual flood deposits a rich layer of silt that turns the region into an extremely productive agricultural zone. Through the centuries, increasing numbers of farming peoples competed for space in this rich environment to cultivate their food crops, and herders vied for the choicest pasture lands for their cattle” (Conrad, p. 7-8).</p>
14	Niger River Delta Crops		Inland Delta 2 – Crops in fertile land
15	What does the name Sahel mean?		<p>Sahel means “beach” or “shore” in Arabic. If the Sahel is a symbolic "shore," what would be its ocean? What would be the ships?</p> <p><u>For teachers:</u> A common metaphor used to describe the Transsaharan trade is that the camels were the ships of the desert (the ocean), enabling crossings from shore (the Sahel) to Shore (the Mediterranean). A useful follow-up project is to ask students to research the biology of the camel to find out why it is the most functional animal to cross the desert.</p>
16	Senegal River		<p>Senegal River: The other important river in the area is the Senegal river which has lots of tributaries and is close to the gold fields of Bambuk in Senegal. The river starts in Mali, moves northward through Mauritania, then through Senegal.</p> <p>Arab geographers (e.g. Al Bakri and others) provided some of the earliest descriptions of the Senegal River. They believed the upper Senegal River and the Niger river were connected to each other, and formed a single river flowing from east to west, which they called the "Western Nile". In fact, the headwaters of the Senegal River are quite near those of the Niger River in Mali and Guinea. In some early writings, it was believed to be connected to the Nile river. The Senegal river was nicknamed “River of Gold” for its proximity to the gold fields.</p>

17	Cities in the Sahel: Timbuktu		<p>The presentation then focuses on two important cities in the Sahel. The first is the city of Timbuktu. It appears like it is in the middle of the desert, but this zone is still considered the Sahel.</p> <p><u>For teachers:</u> Ask students: How does Timbuktu get its water supply? Where does it grow its food? Zoom in to these areas to find out.</p>
18	Cities in the Sahel: Gao		<p>The second city on the Niger River is Gao, in present Mali.</p> <p>Read more: "Gao, the capital of the seventh administrative and economic region of Mali, is one of the oldest and most important trading centers in West Africa. It is located at the confluence of the Niger River and the Tilemsi valley, below the Hoggar Mountains and across the massive rocky plateau known as the Adrar des Iforas. Information concerning the origins of Gao is based largely on Songhai oral traditions and the seventeenth- and eighteenth-century chronicles known as the Tārīkh al-fattāsh and the Tārīkh alsūdān." (Caravans of Gold, p. 139)</p>
19	Savanna	What characterizes the Savanna? How would its features support thriving societies?	<p>The third and final eco-climatic region in the presentation is the more humid Savanna in the belt to the south of the Sahel, characterized by higher rainfall and thus more forested tending toward the tropical coastal forests of the south.</p> <p><u>For teachers:</u> This is where the Niger's headwaters begin in the highlands of the Futa Jallo which you can see here. And these headwaters provided access to gold deposits, including those at Bure in Guinea. Gold fields were also present in the Savanna's Akan region further East (modern day Ghana area). The forests were the only place where the kola nut grew, which became increasingly desirable as an extension of the Gold trade. For Mande traders, the south was actually the "land of kola" (Caravans of Gold).</p>
20	Savanna: Ancient Metallurgy Sites of Burkina Faso	Why was iron production located in the Savanna and not the Sahel?	<p>Read more:</p> <p>"The five components of the property bear witness to the ancient nature and importance of iron production, and its impact on pre-colonial societies in the Sahelian zone of Burkina Faso. Dated to the 8th century BCE, Douroula bears the most ancient testimony to the development of iron production currently identified in Burkina Faso, and illustrates this first and relatively early phase of the development of iron production in Africa. Tiwêga, Yamané, Kindibo and Békuy all have remarkably well conserved iron ore smelting furnaces. They are also the very rare sites in Burkina Faso to have furnaces in elevation. They are massive production sites that, through their scale, illustrate the intensification of iron production during the second millennium AD, at a time when Western African societies were becoming increasingly complex."</p> <p>Read more about this the UNESCO World Heritage Site.</p> <p>For teachers: Iron production intensified in this part of Africa in the 2nd century BCE to 1000 CE. The answer to the question "why was iron production located in the Sahel" has to do with the material needed for its production: wood. Find our more about the long tradition of metallurgy in West Africa by viewing the Smithsonian's Art of African Blacksmiths exhibit.</p>

			https://www.thoughtco.com/african-iron-age-169432
21	Cities in the Savanna: Niani, Guinea	Given what you know from this geography, how did this allow people to develop cities?	
22	Gold is found near the Niger River (Kouroussa, Guinea)		Why is gold found there? How do you think people used gold? How did gold shape the development of kingdoms in this region?
23	Why there?		End with a discussion of the core question: "why there?" What about these geographies allowed people to thrive and how did people use their geographies to thrive?

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