In this lesson plan, students (grades 11-12) examine photographs of the Nubian environment and the Nubian people. Students critically examine artifacts of ancient Nubia and write a two page essay outlining the Nubian environment, describing the Nubia people, and explaining how they adapted physically, materially, politically, and intellectually to their environment. The lesson plan contains a unit topic; states an objective; notes materials needed for the lesson; offers drills; suggests motivation techniques; and cites the relevant Maryland Social Studies Standard (geography). It provides a detailed five day classroom implementation plan; addresses assessment activities; gives a summary/closing; suggests homework assignments; and offers an enrichment field trip. A question sheet and an archaeology questionnaire are attached. (BT)
Lesson Plan: Ancient Nubia Inquiry Lesson.

Joseph T. Stanik
Lesson Plan: Ancient Nubia Inquiry Lesson

Unit Topic: The Ancient Civilizations of the Middle East and Africa

Objective: After studying photographs of the Nubian environment and the Nubian people and critically examining artifacts of ancient Nubia, the student will write a two page essay describing the Nubian environment, describing the Nubian people, and explaining how the ancient Nubians adapted physically, materially, politically, and intellectually to their environment.

Materials (listed in the order used in the lesson):

- Rand McNally & Co., Africa wall map
- Expedition magazine, 1993, vol. 35, no. 2, published by the University of Pennsylvania. (Henceforth referred to as Expedition.)
- Video "The Black Kingdoms of the Nile" from Wonders of the African World, presented by Professor Henry Louis Gates (PBS Video)
- Teacher-prepared worksheet "Wonders of the African World: The Black Kingdoms of the Nile" (copy attached)
- Overhead projector
- Miscellaneous teacher-acquired or -prepared artifacts, photos, and transparencies
- Teacher-prepared worksheet "Archaeology Questionnaire: Putting Questions to Artifacts" (copy attached)
- World History: Continuity & Change. Core Resources. 1997. Austin, TX: Holt, Rinehart, and Winston. (Henceforth referred to as WH-CR.)

Drills:
- Each student will be given the name of an African country on a slip of paper and will be directed to study a map and find the country's capital and its relative location.
- Subsequent drills will recap/review material from the previous class session.

Motivation:
- Inform the students that the Ancient Nubians had a very well developed belief system. They developed their own system of worship centered on the lion god Apedemak, who eventually became chief god. The instructor will show the students a picture of...
Apedemak (From Expedition). Many centuries later, the Nubians became devout Muslims.

- Students view the video "The Black Kingdoms of the Nile" from the PBS Video series Wonders of the African World presented by Prof. Henry Louis Gates and complete the accompanying worksheet "Wonders of the African World: The Black Kingdoms of the Nile."

Maryland Social Studies Standard contained in the lesson: Geography--3.1.1--The student will analyze the influence of physical geographic factors to include location, climate, and resources as they relate to settlement patterns.

Lesson Development:

Day #1: Description of the Nubian Physical Environment.

- **Lesson Vocabulary:** archaeologist, archivist, artifact, hypothesis, and inference.
- The teacher models the process of describing the physical features of a particular location, using a color transparency photo of the coast of Oregon (From NGS). The teacher points out that a description should include information about landforms, presence of water, vegetation, climate, signs of human habitation, land use, etc.
- Working individually, the students practice the process of describing the physical features of a location by examining color transparency photos of the Canadian plains and the Dakhla Oasis in Egypt (From NGS).
- Working in pairs, the students examine actual photos of the Nubian environment. Each pair of students examines a different photo. *(Note: The photos are from books listed in the bibliography.)* The students describe the environment in their own words, recording their findings on a sheet of paper and reporting their findings to the class. *(The description must be written in paragraph format. It will be counted as class work.)*
- The teacher facilitates a class discussion of the Nubian physical environment, asking: What generalizations can be made about the environment? What are the dominant features? Any water present? Any signs of human habitation? What uses are being made of the land? The teacher records the findings on the board. *(The students should mention desert, a river, palms, scrub vegetation, some habitation, etc.)*

Day #2: Description of the Nubian People.

- The teacher models the process of describing the characteristics of people. The teacher points out that a description should include information about height, build, shape of face, shape of eyes, shape of nose, etc.
- The students practice describing a person, using a classmate as a model or a photograph of a person.
- Working in pairs, the students examine photos of (1) artifacts depicting the ancient Nubians and (2) present-day Nubians of the Nile Valley of southern Egypt and northern Sudan. Each pair examines two different pictures: one of ancient Nubians, one of modern...
Nubians. (Note: The photos are from books listed in the bibliography.)

- The students describe the physical characteristics of the ancient and modern Nubians in their own words, recording their findings on a sheet of paper and reporting their findings to the class. (The description must be written in paragraph format. It will be counted as class work.)
- The teacher records the finding on the chalkboard. (Students should note little difference between ancient and modern Nubians, dark skin, tall stature, long arms and legs, and narrow noses.) With the help of the teacher, the students develop common description of the Nubian people.
- Working in pairs, the students answer the following questions and report their answers to the class: How did the Nubians adapt physically to their environment? Why do you think so? (The answer must be written in paragraph format on a sheet of paper. It will be counted as class work.)
- In a class discussion that follows, the teacher explains that most of the features that we lump together as “race” are in fact distinct adaptations to aspects of the environment. Over the 4 million years that humankind has been adapting to different environments on earth, anthropologists believe that dark skin is an adaptation to excess ultraviolet light, which can burn light skin and cause cancer. In contrast, light skin is an adaptation to a relative lack of ultraviolet radiation, which can produce vitamin D deficiency and rickets. Narrow noses may help to moisten and filter air in dry or dusty environments. Long arms and legs function to radiate excess heat in warm environments; short arms and legs conserve heat. In contrast, barrel chests, large hearts and oxygen-rich blood enable natives to live and reproduce in the high mountains.

Day #3: Development of Hypotheses Explaining the Material Adaptation of the Nubians to their Environment.

- The teacher states that the purpose of the day’s lesson is to develop answers to the following questions and test those answers: How Did the Ancient Nubians adapt materially to their environment? In other words, what types of agricultural techniques, clothing, and shelter were successfully used in this environment? Why do you think so?
- The teacher announces that the students will be answering the questions as though they were archaeologists.
- The teacher leads a discussion of what archaeologists do: How do archaeologists study the past? How does their work differ from that of historians? What is an artifact? What are some examples of artifacts? What types of tools do archaeologists use?
- The teacher divides the students into groups of at least three and allows them to decide who will perform the roles of chief archaeologist, archivist, and recorder. (Additional students in each group will serve as assistant archaeologists.) The teacher distributes the worksheet--“Archaeology Questionnaire: Putting Questions to Artifacts.”
- Making observations and inferences (items 1-5 on worksheet):
  - Using the work sheet, the teacher models how to make observations and make
inferences using a Nubian artifact or a photo of an artifact: What do you see? What do you think it is it made of? How do you think it is it used? Who do you think uses it? When? Where? Why? What inferences can you make about the lifestyle and values that this culture might have developed as it lived in and adapted to this environment? (The teacher informs the students that an inference is something that is concluded or deduced from the evidence.) Under the supervision of the teacher, the students practice making inferences.

- The archivist from each group is called up and given two or three artifacts or photographs of artifacts. (Each group will receive a combination of artifacts and photographs of artifacts.) (Note: The photos are from books listed in the bibliography.)
- Each group examines and discusses each artifact or photo, while the recorder takes notes on the worksheet. A worksheet will be completed for each artifact or photo.
- Each group reports its findings to the class.

The teacher informs the students that a hypothesis is an explanation or theory that accounts for a set of facts and can be tested by further investigation. (See p. xxi of WH-Text.) The teacher models how to construct a hypothesis. The teacher asks: “What hypotheses can you construct which explain how the ancient Nubians adapted materially to their environment?”

- Each group will construct at least one hypothesis for each of its artifacts or photos. (See task #6 on the worksheet.)
- Each group reports its hypotheses. The teacher records the hypotheses on the chalkboard.
- The teacher facilitates a class discussion of their hypotheses. There may be several competing hypotheses that can be confirmed or refuted later.

The teacher provides additional information on the Nubian artifacts to each group, allowing them to test their hypotheses. (Note: The information is obtained from books listed in the bibliography.) Each group records the result of the test on the worksheet and reports whether its hypotheses were confirmed or disconfirmed. (See task #7 on the worksheet.) The teacher ensures that each group addresses the following questions: What were the artifacts actually used for? What have you learned about the Nubians from the new information? (The archaeology worksheets will be counted as class work.)

Day #4: Development of Hypotheses Explaining the Political Adaptation of the Ancient Nubians to their Environment.

- The teacher states that the purpose of the day’s lesson is to develop answers to the following questions and test those answers: How did the Ancient Nubians adapt politically to their environment? In other words, what type of political system (government) did the ancient Nubians use successfully in this environment? Why do you think so?
- Like the previous day’s lesson, the teacher announces that the students will be answering the questions as though they were archaeologists.
The students form into the same groups they were in the previous day. The teacher gives each group an "Archaeology Questionnaire" and directs them to complete items 1-5 on the questionnaire--observations and inferences.

The archivist from each group is called up and given one photo of a Nubian artifact. (Note: The photos are from books listed in the bibliography.)

- Each group discusses each photo while the recorder takes notes on the worksheet.
- After completing items 1-5 on the worksheet, each group reports its observations and inferences to the class.

The teacher now directs the groups to construct hypotheses, which explain how the ancient Nubians adapted politically to their environment?

- Each group constructs at least one hypothesis for its particular photo. The students use the information they have gathered thus far and the new photographic data provided by the teacher. (See task #6 on the worksheet.)
- Each group reports its hypotheses. The teacher records the hypotheses on the chalkboard.
- The teacher facilitates a class discussion of their hypotheses. There may be several competing hypotheses that can be confirmed or refuted later.

The teacher provides additional information on the Nubian artifacts to each group, allowing them to test their hypotheses. Each group records the result of its test on the worksheet and reports whether its hypotheses were confirmed or disconfirmed. (See task #7 on the worksheet.) The teacher ensures that each group addresses the following questions: What were the artifacts actually used for? What have you learned about the Nubians from the new information? (The archaeology worksheets will be counted as class work.)

Day #5: Development of Hypotheses Explaining the Intellectual Adaptation of the Ancient Nubians to their Environment.

- The teacher states that the purpose of the day’s lesson is to develop answers to the following questions and test those answers: How did the Ancient Nubians adapt intellectually to their environment? In other words, what types of ideas and beliefs were most successful in this environment? Why do you think so?
- Like the two previous days’ lessons, the teacher announces that the students will be answering the questions as though they were archaeologists.
- The students form into the same groups they were in the previous two days. The teacher gives each group an “Archaeology Questionnaire” and directs them to complete items 1-5 on the questionnaire--observations and inferences.
- The archivist from each group is called up and given one photo of a Nubian artifact. (Note: The photos are from books listed in the bibliography.)
- Each group discusses each photo while the recorder takes notes on the worksheet.
- After completing items 1-5 on the worksheet, each group reports its observations and inferences to the class.
- The teacher now directs the groups to construct hypotheses, which explain how the
ancient Nubians adapted politically to their environment?

- Each group constructs at least one hypothesis for its particular photo. The students use the information they have gathered thus far and the new photographic data provided by the teacher. (See task #6 on the worksheet.)
- Each group reports its hypotheses. The teacher records the hypotheses on the chalkboard.
- The teacher facilitates a class discussion of their hypotheses. There may be several competing hypotheses that can be confirmed or refuted later.

The teacher provides additional information on the Nubian artifacts to each group, allowing them to test their hypotheses. Each group records the result of the test on its worksheet and reports whether its hypotheses were confirmed or disconfirmed. (See task #7 on the worksheet.) The teacher ensures that each group addresses the following questions: What were the artifacts actually used for? What have you learned about the Nubians from the new information? (The archaeology worksheet will be counted as class work.)

Assessment:
- The students will write an essay in which they describe the Nubian physical environment, describe the physical characteristics of the Nubian people, and explain how the ancient Nubians adapted physically, materially, politically, and intellectually to their environment. The students must describe at least three artifacts in their explanation. The students will be encouraged to illustrate their essay. Extra credit will be awarded, if they do so. The essay must be at least two pages in length.
- Grading criteria:
  - Quality of written class work: 25%
  - Quality of oral class work: 20%
  - Quality of group work: 15%
  - Essay: 40%

Summary/Closing:
- At the end of each class period, the teacher will lead a class discussion of the inquiry and hypothesis development that took place during that session.
- At the end of the lesson, the teacher will facilitate a class discussion, which reviews the Nubian environment, physical characteristics of the Nubians, and the ways in which they adapted materially, politically, and spiritually to their environment.

Homework (suggested assignments):
- Chapter 1 Activity Sheet--“Using a Time line: Ancient African Civilizations” (from TRM).
- Chapter 7, Reading 2: “The Fall of Meroe” (from WH-CR).
- Chapter 7, Reading 1: “Oral History and Folktales” (from WH-CR).
Enrichment: Field Trip: The students will tour the National Museum of African Art in Washington, D.C. The students will take a tour of the collection, and, afterwards, each student will locate an artifact that interests him or her personally. The student will make notes of the artifact, writing down as much descriptive information as possible and making a sketch of it, if possible. Upon return to school, each student will perform one of the following tasks: (1) produce a detailed, colored illustration of the artifact, (2) write an historical essay about the artifact, (2) write a poem (even a rap poem) about the artifact, (4) write a fictional story about the artifact, (5) develop their own project or performance with the teacher's approval.

Bibliography:


1. Why has Egypt become a place of pilgrimage for African Americans?
2. Where is Prof. Gates heading on the night train from Cairo?
3. What effect did the Aswan Dam have on Nubia?
4. Why have modern Nubians strived to learn more about their history and culture?
5. Why doesn't the older Nubian woman speak openly about the dam?
6. What Egyptian-like buildings did the Nubians build in the Sudanese desert?
7. Why is so little known about the Kingdom of Meroe?
8. At what function is Prof. Gates the guest of honor?
9. Why does the groom cut the river with his sword?
10. Who is Piankhi?
11. How did many White historians react when they found out that the Nubians were Black?
12. How does Prof. Gates feel after his sand treatment?
13. In what way is history repeating itself for the Nubians in Sudan?
14. At first, what does the head of the school say about the dam?
15. What does he ultimately say about the dam?
16. What discoveries are emerging at Kerma?
17. Why is the Swiss archaeologist so passionate about his work at Kerma?
Archaeology Questionnaire: Putting Questions to Artifacts

Objective: Given artifacts or photographs of artifacts related to a particular culture, groups of students will make inferences and construct hypotheses which explain how that culture adapted materially, socially, and intellectually to its environment.

Instructions: Each group of “archaeologists” will examine various artifacts or photographs of artifacts. Use one questionnaire for each artifact.

1. Describe what you see.

2. What do you think it is made of?

3. How do you think it is used?


5. What inferences (generalizations or conclusions) can you make about the lifestyle and values that this culture might have developed as it lived in and adapted to this environment?

6. What hypotheses (theories) can you construct which explain how this culture adapted materially, politically, or intellectually to its environment?

7. How were your hypotheses confirmed or disconfirmed by the additional information provided by your teacher?
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