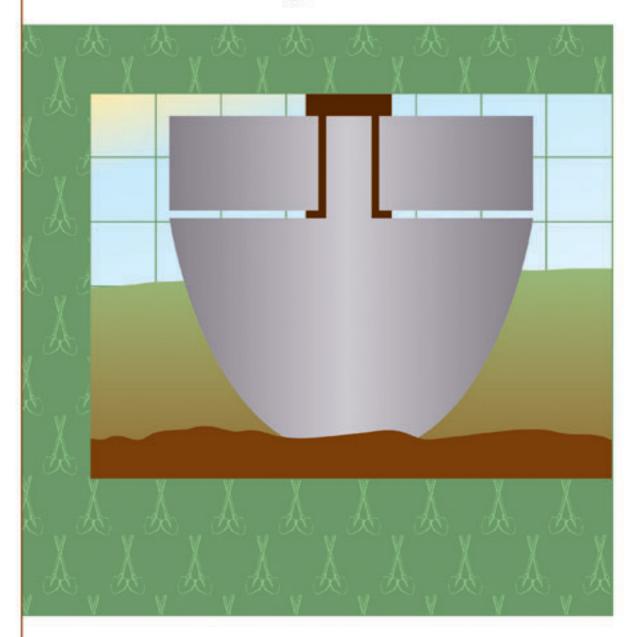


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DIG



A Simulation of the Archaeological Reconstruction of a Vanished Civilization





A simulation of the archaeological reconstruction of a vanished civilization

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The original simulation DIG written in 1969 has been extensively revised. In DIG your classroom will become an archaeological lab, filled with the heated discussions and questioning of interpretations that characterize the discipline of archaeology. Your students will not just read about archaeology; they will experience archaeology. They will participate in a dig, using the scientific techniques employed by professional archaeologists. Their observations and measurements will be on forms similar to those used by many universities and museums. In addition to experiencing the skills needed by archaeologists, your students will likely realize that archaeology is part of that much larger study of humans called anthropology. Specifically, students will experience the following:

Knowledge

- All people, past and present, have shaped their beliefs and behavior in the face of universal human needs and problems.
- The various elements of any culture are interrelated and cannot be understood without examining the culture as a whole.
- Physical creations (artifacts) of a people reflect many of their beliefs and values.
- The culture of any society is constantly being altered, and a change in one element will effect changes in other elements.
- Art reflects many of the ideas, moods, and beliefs of a culture.
- Individual effort and group success are closely interrelated.
- There are many ways of successfully meeting the needs of individuals and groups.
- Archaeologists (anthropologists) play an important role in our understanding of human history.

Attitudes

- Respect and admiration for the individual capable of creative thinking
- Realization of the importance of individual effort to a successful group activity
- Respect and admiration for creative and skillful craftsmanship
- Appreciation for the complexity and interdependence of the skills and knowledge of physical and social scientists

Skills

- Using the techniques of field archaeology and metric measurements
- Writing accurate descriptions and observations
- Working within a group and/or leading a group
- Preparing a report and making oral presentations to a group
- Using various craft techniques (e.g., drawing and painting)
- Preparing maps and restoring artifacts
- Preparing and filming a video presentation

In DIG competing teams create secret cultures. Artifacts are made that reflect these cultures. Each team buries its artifacts for the other team to excavate and reconstruct. A final confrontation reveals the accuracy of each team's reconstruction and analysis.

Phase I: Introduction to Cultures and Artifacts

Students are introduced to the concepts of culture and culture universals (those basic elements that all human societies share). They examine a representative sample of contemporary American artifacts. Going one step further, students next examine the culture of a student-created civilization. By the end of Phase I, students will understand the concept of culture and how specific artifacts can reflect a culture's various elements.

Phase II: Creation of Cultures and Artifacts

The class is divided into two teams which have the challenge of creating complete cultures independent of each other. The geographic setting, the historical time, and the major themes are decided before students are asked to create specific culture universals (government, religion, economics, etc.). The final activity of Phase II is the actual creation of artifacts that represent the culture, ranging from huge murals and secret tombs to perhaps videotapes of strange rituals.

Phase III: Big Dig—Real or Imagined

Each team's artifacts are broken and salted in the ground for excavation—time, weather, and school location permitting. (If not actually placed in the ground, the artifacts are exchanged between teams as if already excavated.) If an actual dig is feasible, excavation of the civilizations then proceeds according to strict archaeological practices, especially in regards to measuring, recording, and storing of the artifacts.

Phase IV: Reconstruction of Artifacts

Back in tile classroom lab, teams now reconstruct the recovered artifacts from the unknown civilization. A Museum Catalog is prepared from which an analysis of the culture of the mysterious civilization is constructed. The final activity in this phase is to complete MUSEUM CARDS for each artifact that explain the supposed function of each object excavated.

OVERVIEW - 2

Phase V: Final Confrontation

Both teams face each other for the final confrontation. Using their catalog and prepared written reports, team members present their analysis of the excavated civilization. Immediately following, the team that created the civilization presents the correct interpretation of the artifacts. This is followed by a heated discussion about the validity of various artifacts and interpretations. An open house museum display complete with BEFORE and AFTER MUSEUM CARDS is the final activity of this phase.

Phase VI: Debriefing and Evaluation

DIG ends with an oral or written debriefing and evaluation of what students learned while creating and analyzing their two imaginary cultures.

SETUP DIRECTIONS - 1

- 1. Grouping Ideally, DIG is best conducted with a class of 30-36 students. Divide the class into two teams that are balanced by ability and gender. Select each team's Crew Chief carefully. Later, students on each team will be assigned roles. This process is described in the Days 12-13 section of the Daily Directions. If more or less than 30-36 students are involved, DIG can still be used successfully. In lower grades, DIG might involve two separate classes and their teachers. In this case, some roles will be filled by two students rather than one. Obviously, the competition factor created by one class going against another adds much to the simulation's excitement.
- 2. Site An absolute necessity is the availability of two work and discussion areas. Since the two teams involved must work secretly, it is almost impossible to use only one space. Most teachers solve this problem by utilizing a resource center, library conference room, or empty classroom. The use of an aide or student teacher greatly facilitates this two space requirement. Of course, if two teachers and their classes are involved, the space problem is easily solved. It is even possible to pit a class in one school against a class in another school!

If you are doing the actual dig, you will need two areas of 20'x20' that are visually separated but not more than several hundred feet apart. Each team will need 2 meter x 2 meter pits plus an area for a secret tomb. This is not absolutely required, of course; you can conduct a "short dig" in which the artifacts are just exchanged between teams. This option is explained below the Unit Time Chart in this Teacher Guide. One solution to the site problem is to use the backyard of local parents. They love to get involved and gladly provide site security and extra assistance.

- 3. Open House Museum Day On Day 20 of the unit, students will create a museum to display their artifacts. This is a perfect opportunity to invite family, friends and school personnel to see students' creations. In advance, think about:
 - a. A museum site You will need a room with desks or tables to display artifacts. While a classroom will work, a multi-purpose room will more comfortably handle students, their displays, and your quests.
 - b. **News coverage** You may wish to invite the media. Local papers and television stations love to cover an event like DIG!
 - c. **Invitations** Consider who you would like to invite. On Day 12 or 13 students will design and make invitations.
 - d. **Refreshments** Enlist the help of student/parent volunteers to donate refreshments for your guests.

SETUP DIRECTIONS - 2

- 4. Materials Although it is almost impossible to list all the materials that might be needed in DIG, there are some basic items that will be needed for the regular time plan:
 - Manila folders—one box
 - Overhead projector

If a plaster mural is to be made:

- Plywood sheets 4'x8'x1/2"—two
- Wood strips 1"x1"x8"—48 linear feet needed
- Butcher paper—one roll
- Masking tape—several rolls
- Plaster of paris—two to four bags
- Water base paints—two sets
- Cardboard—several sheets

If you're doing "The Big Dig" (much can be supplied by students):

- Smooth wood sticks 1"x1"x8"—four
- Plain boards 1"x4"x8"—five
- Hardware cloth 8"x36"—several sheets
- wooden stakes 1"x1"x12"-20
- Twine—two skeins
- Clip boards—two
- Cardboard or wooden boxes—eight
- Paper bags—eight
- Shovels—eight
- Trowels—eight
- Small brushes—eight
- Ice picks-four
- Small line levels—four
- Lead weights (fishing sinkers)—four
- Metric measuring tapes—four
- Grease pencils—four
- Buckets—four
- Camera (35 mm for slides)—one
- Camera (instant)—one
- Video camera and TV set (Optional)—one

Many other materials will be used, depending upon your student's ability and creativity.

SETUP DIRECTIONS - 3

- 5. **Duplication** Using MASTERS shown below to prepare handouts in the quantities indicated in *italics*. The materials are listed in the order they will be needed.
 - TEAM AND INDIVIDUAL POINT CHART—class set
 - CULTURE UNIVERSAL SHEETS—class set
 - AS #1: BACKGROUND & THEMES—class set + one per team
 - AS #2: CULTURE UNIVERSAL (First Ideas)—class set
 - AS #3: CULTURE UNIVERSAL (Final Ideas)—class set
 - AS #4: ARTIFACT BLUEPRINT SHEET—two per student
 - AS #5 and #8: BEFORE/AFTER MUSEUM CARDS— 50 of each per team (copy on cardstock or glue on manila folder material)
 - TEAM GUIDE FOR THE BIG DIG—class set
 - ARTIFACT RECORD SLIPS—35 per team (copy on cardstock or glue on manila folder material)
 - ARCHAEOLOGICAL FEATURE RECORD*—10 per team
 - ARCHAEOLOGICAL SITE SURVEY SHEET*—one per team
 - ARCHAEOLOGICAL STRATIGRAPHY RECORD SHEET two per team
 - PHOTO RECORD SHEET—two per team
 - AS #6: MUSEUM ARTIFACT RECONSTRUCTION FORM— 50 per team
 - AS #7: CULTURE UNIVERSAL ANALYSIS SHEET—class set
 - THE SPECIBIAN ALPHABET—two per team (for language and art experts)

Note: *You should consider making transparencies of these forms to use with an overhead projector, if available.

- 6. Grading The grading system you use should reflect your own teaching style and philosophy. When evaluating students in DIG, you will often find yourself in the uncomfortable position of having to judge creativity. Here are some options:
 - Your subjective evaluation of students' individual efforts and contributions as team members as reflected by letter grades given for various assignments
 - b. An evaluation of students' individual efforts based on an accumulation of what are called, in DIG, Creativity Artifact Points (CAPs). You'll find a CAPs form in this Teacher Guide. Here are three suggestions for weighing points:
 - Final CAPs total (a combination of individual effort and group effort)
 - 33% to 50% on final team CAPs total; 50% to 70% on individual effort (This tends to minimize complaints about unfairness you'll receive if you choose option above.)
 - 100% on individual effort

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OPTIONAL ACTIVITIES - 1

DIG can easily be expanded to provide additional activities that fall within the area of anthropology and world history. Here are some suggestions:

- Waste Basket Project Bring in a waste basket of trash and ask the class which universals of our culture are represented. Of course, you can also ask the students to bring trash in, but be prepared for some embarrassing items! Use the CULTURE UNI-VERSALS SHEET found in the Student Guide (pp. 8-9). Explain that throughout history, archaeologists have had to analyze civilizations' trash.
- 2. Mural Project If your class is studying specific cultures such as the Mayans, Incas, Aztecs, Egyptians, etc., a classroom mural on butcher-paper can greatly reinforce the concept of culture universals. In addition, it will aid in pointing out the similarities and differences in the cultures being examined. Follow steps such as the following:
 - **Step 1**: Divide the class into groups whose task is to research specific cultures.
 - **Step 2**: Individuals in the group will research specific culture universals (food, clothing, shelter, religion, etc.) of their team's assigned culture.
 - Step 3: Research findings are next depicted on the mural. Arrange the spaces on the mural so that the similarities and differences can easily be compared. Here is an example of how you might do this. (Only the first two vertical columns, GOVERNMENT and FOOD, are found in the example below. Other columns should be created for CLOTHING, SHELTER, RELIGION, RECREATION, etc.)

	GOVERNMENT	FOOD
MAYAN		
AZTEC		
INCA		

Depending on the level and ability of the class, depict the universals pictorially as well as with brief written explanations.

OPTIONAL ACTIVITIES - 2

- 3. Written and/or Oral Report on a Specific Culture Universal Assign a research report on a universal that is of exceptional interest. Examples:
 - a. Eskimo art
 - b. Hopi religion
 - c. Iroquois government
 - d. Southern California Indian utilization of the environment for food
 - e. Cheyenne shelter
 - f. Inca communications
 - g. Maya shelter

If possible, ask students to show artifact examples that give clues to these universals, either a photo from a book or a drawing of their own.

- 4. "Lost" Languages Students may wish to research the language of an ancient civilization, showing how it was deciphered.
- 5. **Famous Digs** A report on a famous dig or find is always exciting for both the researcher and the class. King Tutankhamen's Tomb and the Gold of Troy are good examples. In fact, the items from King Tut's tomb are exceptional examples of how artifacts can give clues to the universals of a culture.
- 6. **Interviews** Contact your local college or university and arrange for a student to interview an expert in your local archaeology.
- 7. **Museum Visit** A visit to a local museum can be an invaluable experience before, during, or after DIG. A worksheet that requires students to carefully note how the artifacts on display are analyzed (function and role in universals) can transform a superficial stroll into a very rewarding experience. Stress the similarities between DIG's BEFORE and AFTER MUSEUM CARDS and the cards found with artifacts in the museum.
- 8. **Visit to a Dig** An excavation is usually going on near every college or university that has a course in field archaeology. Obviously, this makes a wonderfully rewarding field trip for students participating in DIG.
- 9. Story/Diary of a Day in the Life of a Person in a Culture The study of past civilizations lends itself to many opportunities for creative writing. Have the students pretend they are persons in the culture and ask them to write about a typical day in either story or diary form. In fact, a brief diary entry can be translated and left as an artifact from a created culture in DIG.

PROBLEM AREAS AND SUGGESTIONS

For Elementary Classes

- 1. Concept of culture "theme" may be too abstract. If this is going to be a problem for your class, disregard it.
- 2. **Terminology too complicated.** If terms such as culture universal prove too troublesome, substitute culture part, etc.
- 3. **Artifact blueprints too difficult.** Showing two views of artifacts may be too difficult for some classes. If this is so, simply allow students to draw the artifact as best they can.
- 4. **Kids with nothing to do!** To keep everyone busy during the BIG DIG, consider having everyone be a recorder, etc. In fact, rotating jobs gives everyone a chance to experience the various skills required during the BIG DIG.
- 5. **BIG DIG too complicated.** Teachers have had success just using a sandbox for the pits! Even though lacking in scientific accuracy, unearthing items in the sand does give the students the thrill of finding mysterious artifacts.
- 6. **Homework too difficult.** At the elementary level, students may need class time to work on homework assignments so that their questions can be answered. Organization and written work will of course take longer at this level.

This sample chart is for the regular unit. Alter it as desired. If for any reason the actual burial and excavation of the artifacts is not feasible, simply eliminate the activities for Days 11-15.

UNIT TIME CHART

B/AY I	, simply eliminate the acti	DAY S	BAY 4	Day 5
5///	V: 12	5/1	U/A	5/i.
PHASE I		PHASE II		
Introduction to	Introduction to	Creation of	Creation of	Creation of
Culture and	Culture Universals	Culture and	Culture and	Universals
Artifacts		Artifacts	Artifacts	
Read Introduction		Decide on Culture,		
		Time, Setting, and Themes		
	D ==			5 40
ĐAV 6	B 43 7	DAV 8	DAVE	DAV 10
Final Decision	Creation of	Construction of	Construction of	Construction of
on Universals	Artifact Blueprints	Artifacts	Artifacts	Artifacts
DAY 11	BAV 12	DAV 18	BAY 14	DAV 15
Phase III				

Big Dig— Real or Imagined	Preparation for the Big Dig	Preparation for the Big Dig	The Big Dig	The Big Dig
	J.g J.g	1.10 Dig Dig		
Burial of Artifacts				
Ð AV 16	BAV 17	DAY 18	BAY 19	BAV 28
Phase IV		PHASE V		PHASE VI
Reconstruction	Reconstruction	Final	Final	Debriefing and
of Artifacts	of Artifacts	Confrontation	Confrontation	Evaluation
				Open House

Phase I. Introduction to Culture and Artifacts

Day 1

- Hand out Student Guides and have students immediately turn to pages 6-7. Have them read the directions and write down their guesses about how earthlings use each artifact. (You may want students to write their answers on their own paper.)
- 2. Ask for student interpretations. Stress how completely different ideas can still be valid interpretations. Make certain students understand what function means in relationship to an artifact.
- 3. Have everyone read pages 2-5 in the Student Guide in order to get a feeling for what is going to happen during the simulation.
- 4. Hand out the TEAM AND INDIVIDUAL POINT CHART. Explain to students how they will be graded during this unit.
- 5. **Homework** Have students complete the Culture Universal assignment on pages 8-9 of the Student Guide. (Distribute copies of these CULTURE UNIVERSALS pages if you do not wish students to write in the Student Guides.)

Day 2

- 1. Ask students for examples of how our Culture Universals can be determined by the artifacts shown in the Student Guide (pp 6-7).
- 2. Stress how elements (universals) of a culture tend to be interrelated.
- 3. Tell students to turn to page 10 of the Student Guide and follow the directions.
- 4. Discuss the Specibian culture, being certain the class has seen how the various universals have reflected the civilization's themes. Be certain the mural has been understood, especially the central symbol.
- Distribute AS #1 (ASSIGNMENT SHEET #1). Go over the model on page 14 of the Student Guide. Prepare students for tomorrow, when they will be split into two groups that will create the secret civilizations.
- 6. **Homework** Students will complete AS #1.

Phase II. Creation of Culture and Artifacts

Day 3

- Read your team assignments to the class. Explain how you have balanced the teams by sex and ability, keeping in mind that both sides will need leaders, artists, crafts people, etc. Point out the honor involved in your choosing the two Crew Chiefs, persons who are organized, who are able to grasp what is expected, and who are leaders.
- 2. Divide the teams, sending them to the separate locations decided upon earlier. Explain to both Crew Chiefs that they are to have each person in their team present their ideas for their civilization's background and themes (AS #1). Give each Crew Chief a clean AS#1 sheet. Once everyone in the group has presented his or her ideas, the group should create its secret society and record necessary information on a single AS#1 sheet. The process of coming to consensus will likely continue into Day 4.
- 3. If possible, go back and forth between groups. A common problem at this point is an initial lack of imagination. Since students find it difficult to create a value system different from one they know or desire, stress that what they create need not be a reflection of their own ethics or idea of Utopia.
- 4. If ideas come hard, you may have to "prime the pump" by introducing some science fiction, etc. But once students begin using their imaginations and new and exciting ideas begin exploding through the team, your problem becomes one of guiding and directing this creativity toward the specific goals of the culture.
- 5. It is imperative that ideas not be ridiculed or stifled at this point! The loudest students may be the least creative! It is difficult for students to accept new ideas at first, as you well know. If "unusual" and creative ideas are smothered at this point, one of the great values of DIG will be lost.
- 6. Determining the geographic setting may present problems. Stress the limitations which physical environment can place upon a society, even though the students will quickly invent a technology that will overcome such a "minor" roadblock.
- 7. Mention that unusual mutations are welcome as long as the basic concepts of human culture as represented by the CULTURE UNIVERSALS outline are maintained.

- 8. Students will need examples of how themes can permeate and give direction to the elements of a culture. Go back to the example of a student-created culture in the Student Guide. You might use the theme of Ahimsa (nonviolence) and show how it is reflected in the religion, government, and even the food habits of India. Although the concept that a culture has a major dominating theme has lost some support since first expressed in Ruth Benedict's classic Patterns of Culture, it has been found to be of great use in DIG. The concept of a dominating theme gives each team a common point of reference; it challenges all team members to coordinate all the team's artifacts; it gives the team its unique character and tone; and it becomes one of the most cherished and carefully guarded secrets.
- 9. In an abstract way, the theme should provide the teams with their names. For example, the Gerberite culture was the name of a student-created civilization whose major theme was "Youth rules." By adding "ite" to the name of a baby food maker, students emphasized a child-centered society. Review how the student-created example, Specibians, applies. Since both teams will look for clues in the names, a further challenge is provided.
- 10. Make sure that you stress that students must embrace secrecy. Of course, keeping the culture secret from the other team is a challenge that students love. The closer the friendship, the more highly kept the secret. If reasonable care is taken, there will be no problems. Explain that malicious attempts to discover the other culture will result in harsh penalties.
- 11. Be on guard for innovative attempts at spying. In the years DIG has been used, everything from a stethoscope against a wall to a handmade periscope have been used by the more imaginative members of opposing teams. The real dangers are the accidental loose mouth of a team member at the wrong time or a key paper carelessly left on a desk. If this happens, initiate some type of diverting action such as purposely leaving other false information in conspicuous places. In working with both teams, it is you who must be especially careful!
- 12. Collect today's work, AS #1, take home, and evaluate.
- 13. Homework Unless you have an unusual class, a second day will be needed to decide on the culture's setting and themes. Ask students to reflect on their discussions today and to come prepared with new ideas or elaborations on presented ideas so they can quickly finish tomorrow.

Day 4

- 1. Continue moving between teams, pressuring Crew Chiefs to come to some conclusions at least 15 minutes before the end of the hour.
- 2. Tell the Crew Chief that it is now time for the ten Culture Universals to be divided among the group members. The most obvious method of doing this is to ask team members to "sign up" for their preference. Obviously, a person with proven art experience should be in charge of creating the Arts and Esthetic Values Universal. A major challenge is the **Communications** Universal; this person has the challenging job of creating a new language. The student responsible for Attitude Toward the Unknown will also be asked to design and prepare a "secret" tomb with an elaborate curse (a "trap" or puzzle that will damage important artifacts if not correctly excavated and disarmed!).
- 3. Explain to the groups that when it's the time to excavate and analyze the other civilization, universals experts will be in charge of analyzing the other team's similar universal (e.g., the language expert will analyze the other team's language universal).
- 4. The Crew Chief, depending on how many students you have, should be assigned the Background of Culture and the Themes Universals.
- 5. Distribute AS #2. Go over the model on page 15 in the Student Guide. Stress that students are not to concern themselves with artifacts at this time.
- 6. Homework Complete AS #2.

Day 5

1. Tell the Crew Chief to have all persons present their ideas for universals, following the order found on the CULTURE UNIVER-SALS sheet (pages 8-9) of the Student Guide. The entire group should discuss the merits of each idea, always looking for possible conflicts with the culture's setting and themes.

- 2. Tell students to expect many conflicts! It is imperative that they realize that many changes will be made in their initial ideas. Once they accept criticism of their ideas as being normal and desired, creativity will not be stifled. Do not let them become "locked in" to their initial ideas. As soon as they feel free to criticize and change, a fantastic brainstorming flurry of ideas usually takes place. Be prepared to "prime the pump" and tie in different universals. This is an exciting time in DIG!
- 3. Collect AS #2 about 10 minutes before the end of the class. Distribute AS #3 and go over the model on page 16 of the Student Guide. In most cases, students will have many new ideas for their universal. Stress that their ideas will now have to be the ones they live with for the rest of the simulation.
- 4. Homework AS #3.

Day 6

- Have the Crew Chief lead the presentation of universal ideas as done yesterday. Unless you can spare more time or the ideas are not acceptable, these ideas on AS #3 will be the final description of the team culture.
- 2. Collect AS #3 and file the papers in a folder for each team. Guard them with your life!
- 3. Distribute AS #4. Have students study the model on page 17 in the Student Guide and discuss the example artifact fully. Stress that artifacts should be able to be hand held.
- 4. Note well: Students have a tendency to create artifacts that are nothing more than plaques with a message telling the universal. Demand instead that the artifact be imaginative and preferably symbolic of the universal. In the student-created culture given as an example in the Student Guide, the Family and Kin Universal contains the idea that mates are chosen according to physical strength. Therefore, instead of a square plaque that says just that, a more creative and symbolic approach was to have an artifact consisting of overlapping rings containing a small bicep and a large bicep. (The word Forever was in the Specibians language, of course.)
- 5. You will have to decide the limitations on materials. If craft and work areas are limited, more simulated materials will be needed.

Day 7

Direct the Crew Chief to have each team member present his/her ARTIFACT BLUEPRINT (AS #4) for group approval. You may have to take over this task, as there are sure to be many questions and concerns. Keep the following comments in mind.

- 1. **Size** Do not let the "hand held" suggestion stifle a fantastic idea that doesn't fit. Explain that the artifact can be a small part of a much larger object. In other words, a cornerstone might give a valid clue to the shape and structure of a very large building.
- 2. **Materials** What materials are used for construction depends upon what the school can provide or what the students can gather.
 - Clay and plaster of paris can provide material for many artifacts, simulating any material desired.
 - Clay objects require skillful workmanship and are therefore desirable, although since they may be broken when placed in the ground, they should be fired in a kiln. This, of course, may be impossible for you. If you can fire clay items, watch the time element: clay must be well blocked (air bubbles removed) and well dried before being fired. Having a kiln full of bits and pieces of exploded clay artifacts the day before you plan your burial can make life exciting!
 - Plaster of paris can be poured into cardboard forms, old milk cartons, shoe box lids, etc., and easily worked almost within minutes. Since it can be messy if the work is done in class, have students dress accordingly.
 - A pile of junk can provide a multitude of materials for creative persons. The materials used should be limited only by the imagination and resources of your students and your facilities.
- 3. Creating and constructing a mural A plaster of paris mural (usually the responsibility of the art expert) can be an extremely important artifact for the teams. It provides a vehicle for tying together the entire culture, depicting things that may prove difficult to show through the individual artifact. Such things as a culture's history and themes can be easily shown on a mural. One central symbol of the culture can be a unifying motif that might be the mural's major focus. Classes using DIG have found that a 4' x 8' plaster of paris mural of about half-inch thickness is an awe-inspiring creation.

- a. If you plan to have murals, use a plywood backing frame of at least half-inch thickness or more, since plaster is heavy. One-half-inch strips can provide the borders. Do not forget to line the frame with masking tape and butcher paper to prevent leaks of liquid plaster! Use paints that will not peel off the plaster when it is broken—yes, broken—for burial. It is quite exciting for a team to put back together a jig-saw puzzle of 100 pieces.
- b. If you decide to include a mural for one team, better make it a required artifact for the other also. This way, one team's pieces can be put back together in the other team's plywood form.
- c. You may wish to have some or all of the universals depicted on the mural along with symbolic messages. Be on guard for questionable graffiti that the more creative students may place on the mural. However, a few choice comments concerning the personal life of the opposing Crew Chief can add a little spice to the final confrontation!
- d. If plaster is out of the question for a mural, consider using butcher paper or cardboard. Obviously, the paper will be cut up rather than broken. The pieces can be exchanged, with the same jig-saw puzzle task of reconstruction.
- e. If you do decide to have murals, focus students' attention on the mural example found on pages 12-13 of the Student Guide.
- 4. Creating a language and its "Rosetta Stone" Each team must create a language and number system. Certain students thrive on this type of difficult challenge.
 - a. You must decide how complex to allow the language in light of the limited time for creating and deciphering. Be certain that the other team can have a reasonable expectation of figuring it out in the time available.
 - b. How far the students are allowed to stray from one created symbol for each English symbol will depend upon the level of the class. When the language has been created, a Rosetta Stone artifact must be designed which is the only clue the teams have for deciphering the language. It is best to place the same message in both English and the created language of the artifact. More complex ideas are possible, but hardly feasible in the time allowed.
 - c. Once the language has been created, the students creating artifacts with messages must obtain written translations into their culture's language from their team's language experts. Note that there is space for this on AS #4.

- 5. Creating a central symbol artifact If time permits, an artifact depicting only the central symbol can be constructed. It is usually placed in an ominous position on top of the site of the buried civilization. Since it is the first artifact seen by the excavating team, it provides all kinds of speculation about the unknown culture!
- 6. Creating the secret tomb An exciting part of creating the culture is planning and preparing a "secret" tomb which contains special artifacts, usually those associated with the Attitude Toward the Unknown Universal.
 - a. The tomb should be a pit of not more than two or three feet in diameter and depth that is cleverly designed to cause damage to the enclosed artifacts if great care is not taken in its excavation. The idea is to simulate the extensive precautions taken by the Egyptians to prevent grave robbing.
 - b. In DIG the usual procedure is to design intricate balance mechanisms which cause large rocks or fluid to fall on fragile artifacts when the tomb covering is removed carelessly. (You may have to restrain the more imaginative students who wish to have large rocks fall on the opposing team members instead.)
 - c. Ideally, a mechanically minded student or two will delight in this activity, although students assigned to the **Attitude Toward the Unknown** Universal usually take on this task.
- 7. **Creating a videotape** Depending on the time limitations and class abilities, creating a film of one or two of the culture's "strange" ceremonies can be very rewarding. Skills ranging from writing screen plays to video camera use can be taught.
 - a. The challenge is to create a scene that gives symbolic clues rather than obvious literal descriptions.
 - b. The tape or film "artifact" can be placed in a container that will protect it from careless excavation, or it may be simply exchanged.
 - c. One idea is to tell the other team to do some research on the "history" of the excavated culture in the library. With the help of the librarian, create a complete catalog card for the "film" and file it with some written clues. A written record of "earlier" excavations or ethnographic studies of the mysterious culture can also be "planted" in the library. Again, the danger here is giving away too much information. But careful supervision on your part can prevent this.

- 8. **Final approval of ARTIFACT BLUEPRINTS** Be certain that the Crew Chief and you initial your approval of the ARTIFACT BLUE-PRINT (AS #4). Changes will likely have to be made in artifacts, materials, and messages. This will be a trying day. Do not be surprised at the difficulty students encounter in trying to sketch views of their artifacts. (For some, it is hopeless!)
- 9. **Homework** Ask the students to gather all the materials they will need to construct their artifacts. Remind them to bring everything to class tomorrow. Initial work can begin at home, of course.

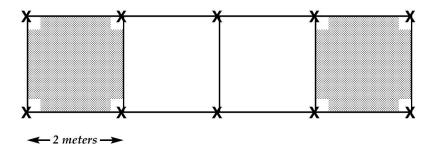
Days 8 - 10

- Constructing artifacts Move between teams, assisting students as they construct their artifacts. If you are using plaster, be certain to pour into the molds as soon as possible so that time will be available for the plaster to dry and be worked.
- 2. Tell the students that the BEFORE MUSEUM CARD (AS #5) must be completed when an artifact is finished. Go over with the groups the model that is on page 18 in the Student Guide. Stress that this card will be on public display with their artifact during the open house at the simulation's end. File these cards along with their respective ARTIFACT BLUEPRINTS.
- 3. Homework Planning the "salting" of the artifacts Have the Crew Chef or a selected committee plan how the artifacts are to be placed in the two pits.
 - a. The burial of the culture's artifacts should be carefully planned. If the culture depicts more than one historical phase, this will have to be shown by the way the artifacts are placed in the ground. The older phase should be placed lower than the more recent period, just as old 78 RPM records and crank telephones would be found beneath transistor batteries and magnetic tapes in any assemblage of artifacts found from our culture. This is not to say that teams cannot set up unique situations such as rodent disturbances of "logical" stratigraphy!
 - b. Many clues to the vanished civilization should be obvious to the excavating team if they are careful and accurate in their excavating. There are many possibilities for using imagination here. A layer of scorched sand was used by one team to show an atomic attack, for example. It was also correctly analyzed by the excavating team!

PHASE III. BIG DIG-REAL OR MAGINED

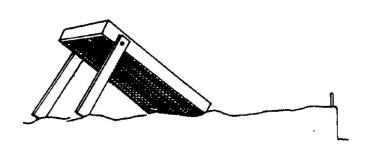
DAY 11

- 1. Preparation of excavation pits Since time and space are limited, it is impractical for each student to excavate his/her own artifact pit. Assuming a class size of 35, each team might excavate two pits. This would allow 8-9 students to work on a pit, as outlined on the TEAM GUIDE FOR THE BIG DIG sheets.
 - a. The pits should be about two meters square and one meter deep. The two pits to be excavated by one team should be no closer than four meters in order to reduce confusion.
 - b. The two pits to be excavated by the opposing team should be within shouting distance although preferably not visible. You do not want undue mingling of opposing teams, yet at the same time you will be moving from one group to another during the Big Dig.
 - c. Stress that each Crew Chief is in charge of the excavation of both his/her team's pits.
- 2. **Digging the pits** When it comes to actually digging the pits you have many options.
 - a. You may do it yourself before the start of the unit.
 - b. If you are on good terms with the custodial staff, they may provide assistance.
 - c. Better yet, obtain student volunteers or make it part of the classwork for the unit. After all, students always love a field trip!
 - d. Backdirt should be located near the pits in order to facilitate the burial of artifacts.
- 3. Staking and stringing the pits It is necessary to stake and string the pits. Wooden stakes 1" x 1" x 12" should be placed at each corner of a pit in order to form two meter squares. Since the stakes must be several centimeters from the edges of the pits, the actual areas excavated will be under two meters square, as shown.



- 4. Numbering the pits Excavation units (pits) are numbered according to their grid location. This location is determined in reference to the datum point which is always at the southeast corner of the pit. Establish a grid system for numbering dig sites (See Topographic Map Sample under Days 12-13 on page 30).
 - Site refers to the total area being excavated by one team.
 - Excavation Units refer to the two pits each team excavates at its site.
 - Grid system the basic requirement is to have a starting point
 that is permanent and easy to locate. In the Topographic Map
 example, the starting point is a flagpole. Such a starting point
 is called the datum point for the site. Note that if all the grid
 lines were drawn on the map, the squares to be excavated
 would be units D3 and D6. These designations would then be
 written on the southeast corner stakes of the respective pits.
- 5. **Tools needed for the dig** Students should be able to provide the majority of needed tools for their dig as described on TEAM GUIDE FOR THE BIG DIG. The exceptions are the measuring sticks and the screens.
 - Measuring sticks
 - Obtain four 1" x 1" smooth sticks at a hardware or lumber store. Have the sticks cut to two-meter lengths.
 - Using waterproof felt pens, mark off centimeters and meters on each.
 - Attach about a one-meter length of braided fishing line to the end with a small nail. To the other end of the line tie a three or four ounce pyramid-shaped fishing sinker.
 - When the small level that will be provided by the students is taped to the stick, you will have a measuring stick!





- Screens: All soil excavated from the pits should run through a 1/8" to 1/4" screen to insure that no small artifacts are lost.
 - Any type of wood frame with hardware cloth screen can be used.
 - The screen should measure at least 1 x 1.5 meters.
 - You will need four, one for each pit.

A type that has been used successfully in the past is shown. You can usually find students who love to construct such items.

- 6. **Burial of the artifacts** Collect the finished artifacts, place them in boxes and transport them to the burial site.
 - a. Place the items in the pits according to the plans drawn up by the Crew Chiefs.
 - b. Most of the artifacts should be carefully broken to make reconstruction challenging.
 - c. Have the students refrain from overkill when breaking artifacts.
 - d. If you are burying large plaster murals, take special care in the breaking. Too many pieces in a pit can ruin a careful dig. You might place only selected pieces in the pits, putting the other broken sections in boxes as if they have already been excavated. Dirty them up, of course, and perhaps even throw away some pieces. Mural pieces can then be exchanged with the "excavated" parts of the other team's mural at the end of the dig, and thus save much time and effort. (If paper murals were constructed, do not place them in a pit.)
 - e. The **Attitude Toward the Unknown** experts should be finished with their tombs at this point. If possible, these should be in the general area of the pits, but should be protected from accidental discovery until the time of the tomb excavations. Work on the tombs will no doubt require some out-of-class time, but usually students involved gladly volunteer their time and energy.

A word about pit security: Post some kind of guard if there is a chance the salted pits will be vandalized before the excavation.

Days 12-13

- Invitations to Open House Museum Day Have students make invitations for family, friends and school administrators inviting them to the open house on Day 20. Encourage students to incorporate art motifs from their civilization in the design of their invitations.
- 2. Getting students ready for the Big Dig A major goal of DIG is placing students in the positions of having to do the work of an archaeologist. An archaeologist digs to learn as much as possible about the culture of the poorly-documented past. Explain to students that archaeology is much more than collecting arrowheads and mummies; it is a precise method for recovering the past, a method that they are about to experience and come to understand.

- 3. Generally speaking, students should realize that archaeology has a method that is as precise as that found in any of the natural or physical sciences.
 - Observation Level This is the actual field work and data collecting. Unhappily, most students feel that this is all there is to archaeology.
 - Descriptive Level This is the laboratory work. The data must be classified in terms of function, material, placement in time, placement in space, or any other category deemed useful. Most students are only familiar with placement in time (dating).
 - Interpretive Level This is the mental work! What does all of the above tell us about the people whose remains we excavated? What was their culture like? Why did it develop the way it did? Why did it disappear?
- 4. If little else is gained by your students, at least make them experience the precise record keeping and measuring that is the hall-mark of a scientific dig. Since forms included in DIG are similar to those used by many universities and museums, students will realize that they are doing the same work as professional archaeologists.
- 5. Distribute copies of TEAM GUIDE FOR THE BIG DIG to each student. Note that there are nine jobs for each pit (18 per team). If your class is less than 36, combine jobs as follows:
 - Photographer's job also done by a Recorder
 - Eliminate one of the Recorders
 - Screener Job also done by Washer-Bagger
 - Crew Chief becomes a Digger, etc., as student ability dictates
- 6. Distribute the ARCHAEOLOGICAL STRATIGRAPHY RECORD SHEET and the PHOTO RECORD SHEET. Using the overhead projector, explain the Big Dig procedure jobs and use of forms. Be certain students follow along using the sample forms in their Student Guides. Leave time for the Crew Chief to assign jobs at the end of the period.
- 7. **Homework** Tell students to study the sample forms carefully. Remind the Crew Chiefs to check and double check the equipment that will be required for their teams.

ARCHAEOLOGICAL STRATIGRARHY RECORD SHEET (Sample)

- 1. Site: <u>Specibian</u> 2. Pit: <u>/26</u> 3. Wall shown: <u>West</u>
- 4. Description of stratified layers (see sketch below):
 - A. Sand (Specilian artifacts)
 - B. Sand, gravel (few Specibian artifacts)
 - C. Ash larger
 - D. Mixture ash, sand—pre-war artifacts
 - E. Sterile soil
- 5. Associated features and artifacts: <u>Feature # 1 found at bottom of larger a</u>
- 6. Soil samples collected: Yes
- 7. Photo Record No.: Roll 2 #4 8. Recorded by: Pam Wagner
- 9. Sketch:

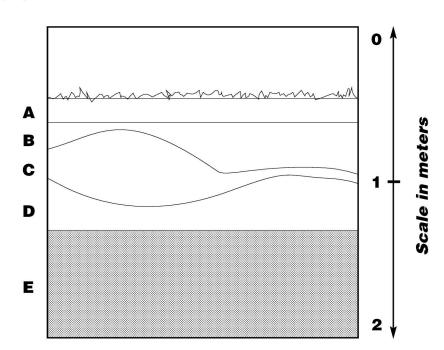


PHOTO RECORD SHEET (Sample)

Site: <u>Specibian</u> Pit: <u>D6</u> Date: <u>/0/8</u> Photographer: <u>Wolly Williams</u>

Dell #	F #	Cubicat Autifort Field #	Common Dimention
Roll #	Exposure #	Subject Artifact Field #	Compass Direction
/	/	Surface	n
/	2	#110	n
/	3	#111	n
1	4	Edge of Pit	\mathcal{E}
/	5	#112	n
/	6	#113	ε
/	7	#114	W
/	8	#115	n
/	9	#116	n
/	10	#117	n
/	//	#118	L
/	12	West Wall	w

- 8. Two forms that are to be completed before the Big Dig are:
 - A. ARCHAEOLOGICAL SITE SURVEY SHEET Although this form is explained in detail below, alter or eliminate it to fit your class level and needs.
 - It is to be completed by the Crew Chiefs of the opposing teams and then exchanged.
 - It gives the teams some major clues concerning the cultures being excavated that otherwise would be impossible or very difficult to depict.
 - The only items on the sheet to be completed by the team doing the excavation are Nos. 5, 16, 17, 18, 20, and 23.
 - All other information is to be provided by the team being excavated.

Following is a detailed explanation of the 23 items on the ARCHAEOLOGICAL SITE SURVEY SHEET (*Sample*) (See next page.)

- 1) Site refers to the designation of the area being excavated. There are many systems in use, one of the more common being shown on the sample Topographical Map, (4-SDi-5F). The 4 shows that the site is in California, which is the fourth state alphabetically, exclusive of Alaska and Hawaii, which are 49 and 50. SDi shows that the site is in San Diego County. 5F indicates that it is the ninth site recorded for the county with the F being the term for "fake." After all, who knows where these forms might end up! The site number is created by the team, and the above is just an example of how it can be done. As seen on the Topo Map examples, sites are also given more colloquial terms, such as the name of the culture being excavated.
- 2) **Map** refers to the United States Government Geological Survey Map that contains the site.
- 3) **County** is self-explanatory.
- 4) **Location** refers to the area of the map containing the site. Example: Southeast 1/4 of Map.
- 5) **Elevation** site elevation is usually obtained from a Topo Map.
- 6) **Owner** refers to the person who owns the land being excavated. It is extremely important that students realize that archaeologists just don't go out and start digging someplace. Permission is always obtained before work begins.
- 7) Address of the owner of the dig site.
- 8) What is his attitude? Permission granted as recorded in letter on file at museum.

ARCHAEOLOGICAL SITE SURVEY SHEET (Sample)

Directions: The excavating team fills out #5, 16, 17, 18, 20 and 23 (the items typed in BOLD). The team being excavated fills out the other items.

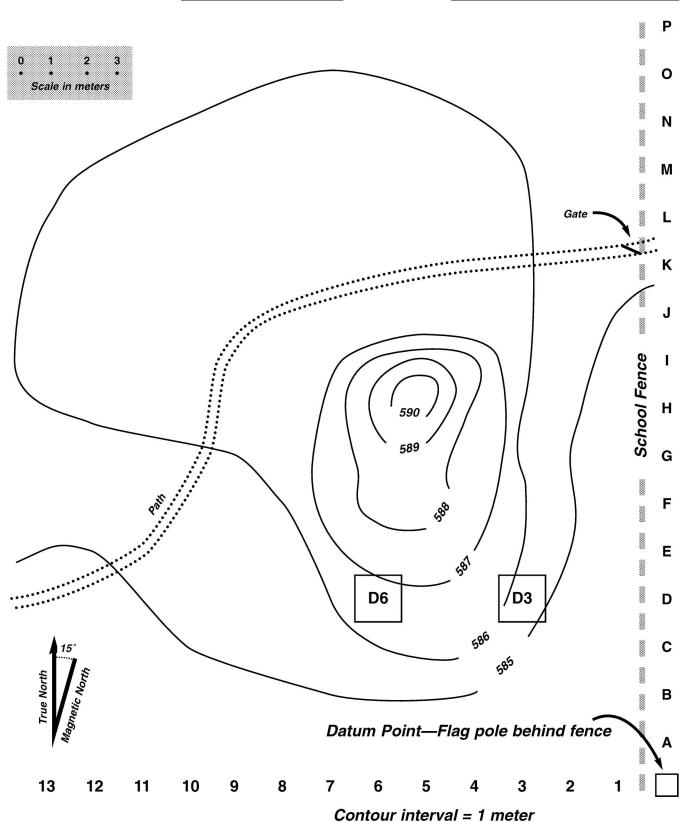
1.	Site: <u>Specibian</u> 2. Map: <u>El Capitan Quadrangle</u> 3. County: <u>San Diego</u>
	Location: <u>Two miles northwest of ruins of ancient Lakeside</u> , California,
	North America, Earth
5.	Elevation of site: 500 meters
6.	Owner: Mars International 7. Address: Vtyrius Center, Mars
8.	Attitude toward excavation: <u>Written permission</u>
9.	Description of site:
10.	Vegetation: <u>Brush, cactus</u> 11. Nearest water: <u>Spring at site</u>
12.	Soil of site: <u>Sand pack</u> 13. Surrounding soil type: <u>Sand</u>
14.	Previous excavation: <u>Jest trench dug</u> , a.D. 2570
15.	Cultivation and/or erosion: None 16. Visible burials: None (see note on #18)
17.	Visible artifacts: One large object on the surface pile of arranged rocks
	suggests tomb location
	Remarks: As is the custom of some of these people, large object and rocks
	may indicate burial tomb
19.	Published references: See SPECIBIAN test trench publication in local library
20.	Sketch or topo map: <u>Yes</u>
21.	Date: October 5, 2601 22. Photos: Yes
23.	Recorded by: Robin Jones

- 9) **Description of site** refers to a general description of the geography of the site. *Important:* This is where unusual settings are explained to the opposing team. For instance, if the created culture existed on top of a high plateau in Tibet, this is where such information is given. Check this carefully against the setting of the culture.
- 10) **Vegetation** refers to the flora of the site. If the culture being excavated exists in a tropical rain forest, this must be noted.
- 11) Nearest water How far for fresh water?
- 12) **Soil of site** If it is to be volcanic and can be shown in no other way, show here.
- 13) Same as Number 12
- 14) **Previous excavation** refers to any digs that may have taken place prior to now.
- 15) Cultivation and/or erosion is self-explanatory.
- 16) Visible burials This is to be completed by the team doing the excavating. If there appears to be no visible burials, write "None."
- 17) **Visible artifacts** refers to whether there are any objects made by man visible on the site before excavation. If artifacts can be seen, note such.
- 18) **Remarks** refers to anything unusual that is not covered by any other item. "It is snowing heavily."
- 19) **Published references** If any "publications" are to be left by the other team, they should be noted here.
- 20) **Sketch or topo map** refers to the map made of the site. If time permits, prepare a sketch or topographic map of the site. If the detail of the topographic map frightens you, a simple sketch will suffice for DIG.
- 21) **Date** refers to the time of excavation. Important If the opposing team wishes their culture excavated in the year 2001, they must indicate it here!
- 22) **Photos** refer to photographs taken of the site. Indicate their number on the ARCHAEOLOGICAL PHOTO RECORD SHEET which is discussed below.
- 23) **Recorded by** refers to the Crew Chief of the team doing the excavating.
 - **B. ARCHAEOLOGICAL SITE TOPOGRAPHIC MAP** This is an activity that you may eliminate or alter to fit your class needs.
 - It can be a valuable opportunity to teach map skills.
 - It can provide an opportunity for map instruction.
 - The sample on the next page is from the class that created the Specibian culture referred to throughout the Student Guide.

TOPOGRAPHIC MAP 4-SDi-5F (Sample)

Site: 4-SDi-5F Specibian Date of Dig: Oct. 8, 260/

Excavation Units (pits): <u>D6 and D3</u> Crew Chief: <u>D. Clod</u>



Days 14-15

- 1. The Big Dig Escort both teams to their sites. Have the Crew Chiefs exchange ARCHAEOLOGICAL SITE SURVEY SHEETS and Site Topographic Maps. Explain that teams are to fill in any information not already given on the forms. Crew Chiefs distribute proper forms to their team members and check for needed tools and supplies.
- 2. After some initial confusion, the teams should settle down to work. If you wish, students may rotate through the various team jobs. A major concern is keeping an orderly dig. Be careful to see that artifacts are not lost or misplaced. As detailed in the TEAM GUIDE FOR THE BIG DIG, layer bags and large artifacts should always be immediately put in wooden boxes which are placed in a safe place for this purpose. At the end of the excavation, all the pits should be backfilled and the site returned to its original condition.
- 3. The tombs should not be excavated until the pits have been finished. Have both teams watch as the Crew Chief and the religious expert try to excavate the cursed tombs, one at a time. The students will love this. Except for the tomb excavations, it is important that the teams not be allowed to spy or observe each other's dig.
- 4. As soon as you see that the pieces of the Rosetta Stone (not more than two hopefully!) have been excavated, place them in a special bag and turn them over to the communications experts. It is imperative that the language be cracked by the next day, if possible. In the past, students have greatly enjoyed planning a Language Party for the afternoon or evening. Meeting at a team member's house, they enthusiastically attack the translation of the Rosetta Stone. Such a party also gives team members a chance to exchange tentative ideas about the unknown culture they have just excavated. Theoretically, the students will have a good time minus you and also save much class time.
- 5. **Homework** Ask students to read pages 20 and 22 (models for AS #6 and AS #8) in the Student Guide. Tell your Crew Chiefs to write up a brief "field log" that describes the Big Dig. These are usually quite humorous and are to be reproduced in the team's artifact catalog.

Phase IV. Reconstruction of Artifacts

DAY 16

- Artifact reconstruction Meet with both teams and go over the Student Guide model for AS #6, the MUSEUM ARTIFACT RECONSTRUCTION FORM.
 - a. Emphasize the importance of neatness, since this form will be reproduced for a catalog of artifacts. (Be certain that you use the proper materials for your school's type of copier.)
 - b. Separate the teams and you or the Crew Chiefs distribute artifacts (and their respective ARTIFACT RECORD SLIPS) to the students for the job of reconstruction.
 - c. Artifacts that are in pieces should be glued back together. A stiff mixture of grout can be used to fill in the gaps for the missing fragments of items such as bowls.
 - d. Reconstruction of the murals proceeds by first spreading the many shards out on the plywood form mentioned on Day 7. When the proper location of pieces has been determined, gluing should proceed from the top toward the bottom, which allows for expansion due to the many fractures. The gaps left by missing pieces should then be filled in with grout.
 - e. Permanent museum numbers should be neatly placed on the reconstructed artifacts using a fine pen and India ink.
 - f. Be certain the Crew Chief keeps a careful inventory of numbered artifacts. The numbering sequence may begin with any four-digit figure.

Note that it is the museum number that also appears on the AFTER MUSEUM CARD. You must keep a careful file of each team's completed MUSEUM ARTIFACT RECONSTRUCTION FORMS and their respective artifacts and museum numbers.

- 2. When MUSEUM ARTIFACT RECONSTRUCTION FORMS have been completed for all artifacts, including the murals, prepare enough copies for both teams.
- 3. Have an artistic student on each team design a catalog cover listing all team members. Here is the order of items in the catalog:
 - Cover
 - ARCHAEOLOGICAL SITE SURVEY SHEET
 - Topographic map of the site
 - Field notes
 - ARTIFACT RECONSTRUCTION FORMS (listed numerically by museum numbers)

- 4. **Homework** It is extremely important that students examine the model for AS #7 on page 22 of their Student Guide.
 - a. Give each student a catalog of the other team's artifacts his/her team excavated. (Students will receive the catalog of their own artifacts as excavated by the other team during the final confrontation.)
 - b. Ask each student to go through the catalog and decide which artifacts reflect the Culture Universal for which he/she is responsible. Tell students to complete, in pencil, the interpretation sections below the artifacts they feel are relevant to their Culture Universal.
 - c. Distribute AS #7, the CULTURE UNIVERSAL ANALYSIS SHEET. Explain that this sheet is to be finished only after the catalog has been examined for artifact clues.

DAY 17

- Tell the Crew Chiefs to lead their teams in an analysis of the excavated culture, using the CULTURE UNIVERSALS sheet as a guide for an orderly examination.
- The Crew Chief should begin with a discussion as to the probable background and themes. Every idea should be open to discussion, challenge, corroboration, etc., as the students read from their CULTURE UNIVERSAL ANALYSIS SHEETS completed last night.
- 3. Proceed from Culture Universal to Culture Universal, having each expert back up his/her analysis with artifact substantiation from the catalog.
- 4. This is an extremely challenging and rewarding time in DIG. It is the creative and analytical situation that much of DIG has been leading up to. (If possible, tape record these sessions.)
- 5. As the analysis proceeds, have each student hand in a "final" interpretation for each artifact in his/her catalog.
- 6. Ask students to discuss and decide which artifact shows the most creativity and which shows the best craftsmanship. Prepare special awards to be given during the final confrontation and shown during the open house.

DAILY DIRECTIONS - 23

7. Homework

- a. Distribute the AFTER MUSEUM CARDS to the class. Tell them to examine the model for AS #8 on page 23 of the Student Guide.
- b. Assign all the artifacts by museum catalog number to the students, stressing that they are to use the catalog pages to complete the cards. Emphasize that these artifact museum cards will be placed with the artifacts for open house. If possible, students should prepare cards for the same artifacts they reconstructed.
- c. Remind the student experts to prepare their "speech," based on an updated AS #7 for the final confrontation which begins on Day 18.

DAY 18

- 1. Final Confrontation Days 18-19 will be exciting.
 - a. First collect the AFTER MUSEUM CARDS from both teams. File them for use during the setup of the open house.
 - Seat both teams facing one another. Distribute catalogs so that each student has a copy of his/her own and the opposing team's.
 - c. A coin flip decides which team first presents its analysis of the unknown civilization.
 - d. The Crew Chief should lead the presentation, giving the background and themes, and then introducing each team member expert in turn for their presentations.
 - e. Ask the speakers to indicate the catalog pages they are using to back up their conclusions.
 - f. Stress that we are looking for logic in interpretation of the artifacts, even if the conclusions may end up being far from correct. During this time, do not allow any interruptions by the other team, although snickers and laughter can be expected!
 - g. After the complete presentation, have the team that created the culture present the "real" civilization, following the same format. The speakers must point out which artifacts in the catalog supposedly give valid clues. Needless to say, there will be many hoots and hisses from the team that excavated the culture. At the end of this presentation, allow the "reconstructing" team time to cross-examine and challenge the validity of the artifacts.
 - h. Present the awards for the most creative and best made artifacts to the team that created the culture analyzed today.
- 2. **Homework for the teacher** Check to be certain that you have BEFORE and AFTER MUSEUM CARDS for all the artifacts.

DAILY DIRECTIONS - 24

DAY 19

1. **Final Confrontation, continued** Present the remaining culture by repeating the process used yesterday.

2. Homework

- a. Ask students to remind their parents about the Open House Museum on the next day.
- b. Remind those students providing refreshments to bring their donations for the Open House Museum Day.
- c. Depending on class ability and time available, tell the students to study for the final evaluation tomorrow by reviewing the questions on page 24 of the Student Guide. You may wish to have them write answers to some or all of these questions at home to bring to class tomorrow. This way, class time can be spent in group discussions, rather than writing.
- 3. **Homework for the teacher** Set up the Open House Museum Display.
 - Separate the groups' artifacts. Place the items on tables if possible, with a BEFORE and AFTER MUSEUM CARD with each artifact.
 - b. Carefully prop up the murals so they face each other and provide central motifs for the cultures.
 - c. Signs explaining the museum cards should be prepared.
 - d. Place catalogs in easily usable locations.
 - e. A very impressive display can be made of the various forms used throughout DIG.
 - f. Don't forget photos of the Big Dig, etc.

DAY 20

- 1. **Debriefing and final evaluation** Depending upon last night's assignment, have a debriefing and final evaluation based on page 24 of the Student Guide.
- Open house Your open house can take place either during or after school. The students love to take their parents and friends on a tour of the museum.
- 3. You will feel a great accomplishment at the conclusion of the unit. Neither you nor your students will ever forget your common experiences.

TEAM AND INDIVIDUAL POINT CHART

	ACTIVITIES
CAPs	
G reativity	
A rtifact	
Points	
Team Members' Names	Team Members' Scores
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
TEAM SCORES	

CULTURE UNIVERSALS - 1

Name	e of culture:
l.	Background of Culture
	A. Time
	B. Geographic setting
	C. Physical description of people
II.	Themes
	A. Values: What is important to the people?
	B. Ethics: What is considered right or wrong in the culture?
	C. Symbols: What visual images indicate the culture's themes (its values and ethics)?
III.	Economics
	A. Technology
	B. Division of labor
	C. Trade and money
	D. Transportation
IV.	Food, Clothing, Shelter
	A. Food (methods of production and domesticated animals)
	B. Clothing and adornment
	C. Shelter and dwellings

CULTURE UNIVERSALS - 2

V. Political Organization

- A. Government
- B. Law enforcement
- C. War and peace

VI. Family and Kin

- A. Marriage and type of family groupings
- B. Child training and rites of passage

VII. Attitude Toward the Unknown

- A. Religious beliefs
- B. Religious practices
- C. Death rituals

VIII. Communications

- A. Language
- B. Number systems

IX. Arts and Esthetic Values

- A. Art
- B. Music
- C. Dance, drama, literature

X. Recreation

- A. Games and sports
- B. Use of leisure time

CAPs

AS #1—BACKGROUND AND THEMES

Team:	Date due:
culture Value: ple cu sidera	tions: Using your imagination, determine the background and themes of a hypothetical e. Time may be past, present, or future. The setting may range from underwater to desert is may be ideas such as "Might makes right" "Human over machine." (See the examulture on pages 10-13.) You will present your thoughts to your entire team for their contains on the above date. CAPs (Creativity Artifact Points) will be awarded by the GAE d Arbiter of Behavior—your teacher).
l.	Background of Culture
	A. Time
	B. Geographic setting
	C. Physical description of people
II.	Themes
	A. Values: What is important to the people?
	B. Ethics: What is considered right or wrong in the culture?
	C. Symbols: What visual images indicate the culture's themes (its values and ethics)?

AS #2—CULTURE UNIVERSAL (First Ideas)

Name:
Team: Date due:
Directions: You are responsible for this Culture Universal in your team's culture:
Review the background and themes of your culture. Using your imagination, come up with a idea (or ideas) for the Universal you have been assigned. Watch out for obvious conflict (example: having heavy fur garments for your clothing universal when your team has decide upon a hot desert on the equator for the geographic setting).
Ideas for my assigned Culture Universal: Why my ideas fit the time, setting, and theme of our culture:
(Fill out this part of the sheet while in class.)
* * * * * * * * * * * * * * * * * * *

CAPs

AS #3—CULTURE UNIVERSAL (Final Ideas)

Name:	
Team:	Date due:
Directions:	You are responsible for this Culture Universal in your team's culture:
By now you gestions for	ou presented your initial ideas for your universal. r team members have reacted to your ideas and have no doubt made some sugchanges. Perhaps you have also developed some new ideas after hearing other ers' Universals. Now it is time for you to write a final description of your universal.
My final des	cription of my assigned universal:

The ways in which my ideas fit the time, setting, and themes of our team's culture:

CAPs

AS #4—ARTIFACT BLUEPRINT

Name:	
Team:	Date due:
Approved by: CC Directions: Carefully draw front and side views your drawings on scratch paper.	GAB s of your suggested artifact— after practicing
Cultural universal which this artifact represents:	·
Front view of artifact	Side view of artifact
← Scale →	← Scale →

- 1. Materials required for construction:
- 2. Written messages to appear on artifact (English):
- 3. Written messages translated into language of culture (to be done by language expert):
- 4. Materials the artifact is to simulate:
- 5. Detailed explanation of the artifact's function and why it is a valid indication of the culture universal:

CAPS

AS #5 and AS #8—BEFORE & AFTER MUSEUM CARDS

AS #5 BEFORE Museum Card	AS #5 BEFORE Museum Card
Culture:	Culture:
Date of culture:	Date of culture:
Universal represented:	Universal represented:
Function of artifact:	Function of artifact:
Translation of any messages:	Translation of any messages:
What does this artifact tell about the culture?	What does this artifact tell about the culture?
Creator of artifact:	Creator of artifact:
CAPs	CAPs
AS #8	AS #8
AFIZER Museum Card	AS #6 AFXER Museum Card
HFXER Museum Card	Museum Card
Museum Card Culture:	Museum Card Culture:
HFXER Museum Card	Museum Card
Museum Card Culture: Date of culture: Universal represented: Function of artifact:	Museum Card Culture: Date of culture: Universal represented: Function of artifact:
Museum Card Culture: Date of culture: Universal represented:	Museum Card Culture: Date of culture: Universal represented:
Museum Card Culture: Date of culture: Universal represented: Function of artifact:	Museum Card Culture: Date of culture: Universal represented: Function of artifact:
Museum Card Culture: Date of culture: Universal represented: Function of artifact: Translation of any messages: What does this artifact tell about the culture?	Museum Card Culture: Date of culture: Universal represented: Function of artifact: Translation of any messages: What does this artifact tell about the culture?

TEAM GUIDE FOR THE RIG DIG - 1

TEAM GOIDE FOR THE DIG DIG
CREW CHIEF: (1)
Materials
A. Clip board containing the following items:
1. These instructions!
2. ARCHAEOLOGICAL SITE SURVEY SHEET—one copy (provided by other team
3. Topographic map of site—one (provided by other team)
4. Lined paper for Team Log of the Big Dig—20 sheets
B. Several headache tablets—five or more?
Specific tasks
A. Complete ARCHAEOLOGICAL SITE SURVEY RECORD SHEET.
B. Check stake locations and numbering with Topo Map.
C. Check team tools.
D. Determine back dirt and screen locations.
E. Place boxes for Level Bags and miscellaneous team junk in a safe location. This is
where organization shows.
F. Keep Team Log up to date.
G. <i>Remember:</i> The final responsibility for the excavation lies with you! Smile!
a. Hemember: The line responsibility for the executation need with you. Offine.
DIGGERS: (1)
(2)
Materials `
A. Shovels, trowels, and small brushes—two of each
B. Ice-pick—one
Specific tasks
 A. Excavate at 10 centimeter levels unless natural stratigraphy noted.
B. When an artifact is found, do not continue digging until Recorders have finished.
YOU are to prepare the artifact for recording.
C. Remove soil several inches on all sides to be certain artifact is not part of a feature
MEASURERS: (1)
(2)
(2) Materials
A. Measuring stick (2 meters) and tape measure—one of each
B. Small level attached to measuring stick—one
C. Plumb and line attached to measuring stick—one

Specific tasks

- A. Know your excavation pit number and datum stake, which is the southeast corner stake.
- B. When an artifact has been prepared by the digger, use the measuring stick-levelplumb and call off measurements slowly and clearly for Recorder. Example: "Depth is 10 centimeters from DS (Datum Stake). Horizontal location is 30 centimeters north of DS and 18 centimeters east of DS."
- C. Have Recorder repeat this information to you from the ARTIFACT RECORD SLIP. If data checks, hand the artifact to the Recorder who hands artifact and the ARTIFACT RECORD SLIP to the Washer-Bagger.

TEAM CHINE EAD THE DIG DIG

	TEAM GOIDE FOR THE BIG DIG - 2
RECORDER: (1)	
Materials	
A. ARTIF	ACT RECORD SLIPS—40
	encils, grease pencils, and erasers—two of each
	e Record Sheets—10
Specific task	
	your excavation pit number and datum stake.
	first Field # from Crew Chief.
	ARTIFACT RECORD SLIP for each artifact as Measurers sound off. Repeat
	om sheet. If possible, sketch artifact on back of ARTIFACT RECORD SLIP.
	tain that you give the artifact a Field #, using the grease pencil. Nothing
	nent! Check to be certain Field # is also on ARTIFACT RECORD SLIP.
	rtifact and ARTIFACT RECORD SLIP to Washer-Bagger.
	ete ARCHAEOLOGICAL FEATURE RECORD SHEET for any features (See Student Guide, p. 20.)
notea.	(See Student Guide, p. 20.)
WASHER-RAGO	GER: (1)
Materials	
A. Paper	bags—20
•	en boxes and felt pens—two of each
	and brush—one
Specific tasl	(S
A. Know	your excavation pit number and datum stake.
B. Fill out	information on Level Bag before excavation of a specific level, using felt pen:
Site, E	xcavation pit, Date, Level, your name.
	Recorder hands artifact to you, wash it carefully in water— if it will not be dam-
	Place artifact and ARTIFACT RECORD SLIP in proper Level Bag. When Level
_	full or a new level is started, close top and place the bag neatly in wooden box.
Place	arge artifact in box, with an ARTIFACT RECORD SLIP in proper Level Bag.
000551150 (4)	
SCREENER: (1)	
Materials	qually provided) and a shovel
Specific tasl	sually provided) and a shovel
	tain that screen is in a safe place.
	excavated dirt through screen before digger goes on to a new level.
	rtifacts to Washer-Bagger who will make an ARTIFACT RECORD SLIP if
	sary and place in proper Level Bag. Watch where you wave that shovel!
110003	and place in proper boyer bag. Trater writer you wave that shover

PHOTOGRAPHER: (1)	

Materials

PHOTO RECORD SHEETS and cameras (35 mm for slides/instant for prints)—two of each Specific tasks

- A. Photograph specific artifacts and features as necessary. Use direction-scale stick.
- B. Record necessary information on PHOTO RECORD SHEET.
- C. Take general interest photos as Big Dig progresses.

ARTIFACT RECORD SLIPS

Description of artifact:	
Depth: cm from Datum Stake Horizontal Location: cm of DS cm of DS Remarks: Recorded by: Field #: (Sketch of artifact on back) Description of artifact: Site: pit #: Date: Depth: cm from Datum Stake Horizontal Location: cm of DS cm of DS Remarks: Recorded by: Field #: (Sketch of artifact on back)	o
Horizontal Location:	
	0
Recorded by:	_
Recorded by:	_
Comparison of artifact: Description of arti	
Description of artifact: Description of artifact:	
Description of artifact: Site: Pit #: Date: Depth: cm from Datum Stake Horizontal Location: cm of DS cm of DS Remarks: Recorded by: Field #: (Sketch of artifact on back)	
Description of artifact: Site: Pit #: Date: Depth: cm from Datum Stake Horizontal Location: cm of DS cm of DS Remarks: Recorded by: Field #: (Sketch of artifact on back)	
Site: Pit #: Date: Depth: cm from Datum Stake Horizontal Location: cm of DS cm of DS Remarks: Recorded by: Field #: (Sketch of artifact on back)	
Site: Pit #: Date: Depth: cm from Datum Stake Horizontal Location: cm of DS cm of DS Remarks: Recorded by: Field #: (Sketch of artifact on back)	
Depth: cm from Datum Stake Horizontal Location: cm of DS cm of DS Remarks: Recorded by: Field #: (Sketch of artifact on back) RRAIFREX RECORD SUP	
Horizontal Location: of DS of DS of DS	
Remarks: of DS Field #: (Sketch of artifact on back) RRAIFAGA RECORD SAIP	0
Recorded by: (Sketch of artifact on back) RECORD SAIP	_
Recorded by: (Sketch of artifact on back) RRAIFAGA RECORD SAIP	
(Sketch of artifact on back) ARXIFACX RECORD SUP	
ARXIFACX RECORD SUP	
Description of artifact:	
Description of artifact.	
	O
Site: Pit #: Date:	
Depth: cm from Datum Stake	0
Horizontal Location: cm of DS	_
cm of DS	
Remarks:	O
Recorded by: Field #: (Sketch of artifact on back)	

ARCHAEOLOGICAL FEATURE RECORD

1.	Feature #:	2.	Site:		3. P	it:		
4.	Depth from datum stake: _			is			cm.	
5.	Horizontal location:							
6.	Size of feature:							
7.	Description:							
8.	Associated artifacts:							
9.	Stratigraphy remarks:							
10.	Recorder			11. Date: ₋			12. Photo: _	
13.	Sketch:							

ARCHAEOLOGICAL SITE SURVEY

Directions: The excavating team fills out # 5, 16, 17, 18, 20 and 23— the items typed in **BOLD**. The team being excavated fills out the other items.

1.	Site:	2. Map:		3. County:
4.	Location:			
5.	Elevation of site:			
6.	Owner:		7. Address	:
8.	Attitude toward excavation	on:		
9.	Description of site:			
10.	Vegetation:		11. Neares	t water:
12.	Soil of site:		13. Surroui	nding soil type:
14.	Previous excavation:			
15.	Cultivation and/or erosion	າ:		
16.	Visible burials:			
	-			
18.	Remarks:			
19.	Published references:			
20.	Sketch or topo map:			
21.	Date:		22. Photos	:
23.	Recorded by:			

ARCHAEOLOGICAL STRATIGRAPHY RECORD

1.	Site:	2.	Pit:	3. Wall shown:
4.	Desc	cription of stratified laye	ers (see sketch below):	
	A			
	D			
5.	Asso	ociated features and ar	tifacts:	
	-			
6.				
7.	Phot	o Record #:	8. Recorded by:	
9.	Sket	ch:		

PHOTO RECORD

Site:	Dit·	Date:	Photographer:
Site.	FIL	Dale	rnologiapher.

Roll #	Exposure #	Subject (Artifact Field #)	Compass Direction

AS #6—MUSEUM ARTIFACT RECONSTRUCTION FORM

Name:				
Team:				
Field #:				
Site: Excav	ation pit:	Date	of Dig:	
Artifact material (real):				
Artifact material (simulated):				
Writing-symbols:				
Translation of writing				
Remarks				
Draw	ing of recons	tructed artifact		
View 1			View 2	
Museum #	:			
← Scale —	-	←	Scale	

Interpretation

- 1. What is the function of this artifact?
- 2. What does it tell about the culture?

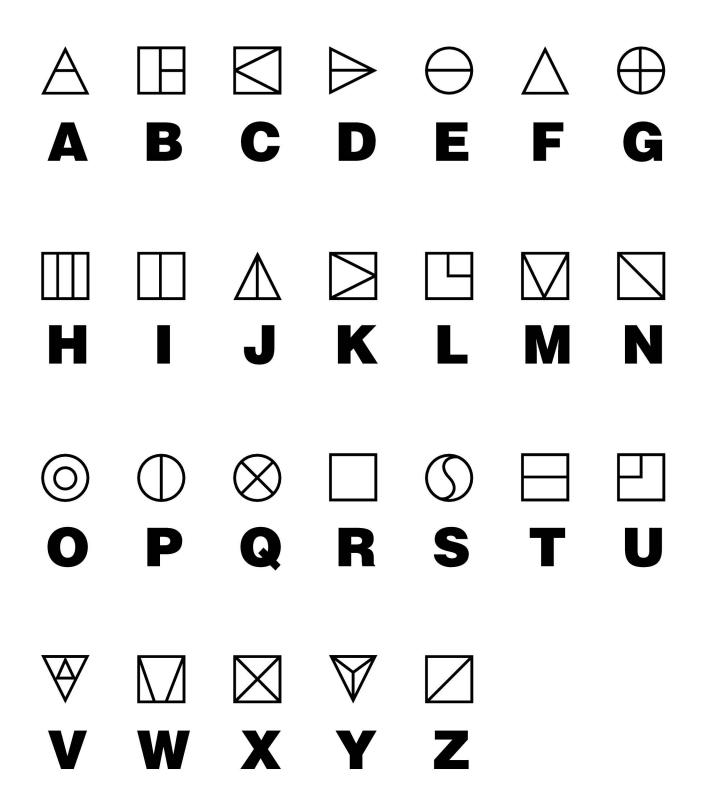
CAPs

AS #7—CULTURE UNIVERSAL ANALYSIS

Name:	
Team:	Date due:
The following paper is an archaeological analysis of t	theculture universal
of the	culture,
which was excavated on	-
After studying the evidence of the Big Dig, I feel that ture universal is as follows:	a description of the above named cul-
The specific artifacts recovered (and their museum nanalysis are:	umbers) which give clues to the above
Respectfully submitted by	CAPs CAPs

SPECIBIAN ALPHABET

Language Experts: Here is a sample alphabet created by the author's students. Notice how each symbol was created within either a *square*, *circle*, or *triangle*. Subtle translation hints can be found in many letters. Use your imagination to create such a clever alphabet.



NOTES

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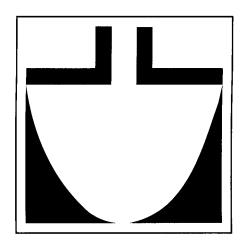
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Parent or Guardian:	(print)
Signature:	Date:
Address:	
Phone:	

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DIG

A simulation of the archaeological reconstruction of a vanished civilization

INTRODUCTION

Prepare to get your hands dirty! You and your fellow students are about to go on an archaeological excavation, or dig. Using the techniques of modern archaeology, you will unearth and bring back to your classroom strange and mysterious artifacts. There, you will reconstruct and analyze these artifacts. But this dig will be unusual. For the culture you excavate will result from your class members' imagination and knowledge about the nature of culture.

Two Teams = Two Cultures During the next few weeks your class will become two teams that will create cultures and artifacts— in complete secrecy from each other. *You* will create a geographic setting. *You* will decide on the time (past, present, future). *You* will determine the values and beliefs of the people. Each team will bury its artifacts for the other team to excavate and reconstruct. Then a final confrontation will reveal the accuracy of each team's reconstruction and analysis.

CAPs The challenge to your imagination and abilities is almost unlimited, for throughout Dig tasks will require individual creativity and effort. In fact, your creativity and effort will gain you CAPs— Creativity Artifact Points. Accumulating CAPs will help determine the grade you and your team members receive for this unit.

By the time you have finished participating in Dig, you will have lived with the intricacies of human culture. You will have gained first-hand knowledge of how people past and present have shaped their beliefs and behavior in the face of universal human problems and needs. You will have a new respect and admiration for individuals who think creatively, a thinking process we must maintain if we are to have a truly democratic and open society.



Six Phases Dig is divided into six phases. The following overview will give you a general idea of the basic assignments and roles you may have to perform. Examples of the assignment sheets (labeled and numbered as AS #1 through AS #8) and other required forms are found on pages 14-23 of this Student Guide.

INTRODUCTION TO CULTURE UNIVERSALS

First you will pretend you are a Martian archaeologist who is examining artifacts representing American people. You will ask what might be the functions of the nine items on pages 6-7. Assuming you can determine the use of these earthling objects, you will go one step further: you will work to figure out what they tell you about American actions and beliefs. In doing this, you will become familiar with the basic elements or universals of living that all human groups share (see Phase I: CULTURE UNIVERSALS on pages 8-9).

Next you will discover some artifacts that represent the way of life (what we call the culture) of a very strange group of people, the Specibians. (The Specibian culture was actually created by my students, persons like yourselves!) When you study pages 10-13, carefully examining the illustration of their huge wall mural and the descriptions of their Culture Universals, you will reach one realization: the many parts of any culture fit together into a definite pattern. You then may find yourself asking two questions: Could I have reconstructed the Specibian way of life from these artifact clues? and Could I ever be this creative in putting together an imaginary past, present, or future society? Phase II will give you the opportunity to answer your questions.



CREATION OF THE CULTURES AND THEIR ARTIFACTS

Having been introduced to culture universals, your class will now be divided into two teams, each of which will have a Crew Chief. This capable individual will lead his/her team for the rest of the unit. Phase II's first assignment will ask you to use your imagination to come up with ideas for the time, geographic setting, and themes for your group's civilization — AS #1 (AS #1 stands for assignment sheet #1. Your teacher will give you such assignment sheets. You will fill them out for your imaginary culture—just as my students did while they were creating their Specibian culture. See all the models starting on page 14.)

After your team agrees on time, setting, and themes, each of you will be given specific Culture Universals to create (AS #2 and AS #3). When team members approve your ideas for Universals, your next job will be to design artifacts that clearly represent your ideas (AS #4). Phase II ends once you have constructed the actual cultural artifacts and have made BEFORE MUSEUM CARDS (AS #5).

Brief role responsibilities for Phase II:

- Crew Chief This team leader will guide the group through many difficult decisions. In addition, the Crew Chief will be the major link between the team and the teacher. (In Dig the latter is known as the GAB—the Grand Arbiter of Behavior!)
- Universal Experts Everyone will be responsible for at least one culture universal. Here are the four most demanding universal tasks:
 - The language expert will create a written language for the culture; this language will appear on many artifacts.
 - The art expert will supervise the creation and construction of a large wall mural.
 - 3. The religion expert will devise a burial tomb, complete with secret traps to protect it from the other team's grave robbers!
 - 4. The cinema/video expert will be in charge of organizing and filming (maybe videotaping) one or more of the culture's strange rites or rituals, which the other team, of course, will have to analyze.

Phase III: THE BIG DIG— REAL OR IMAGINED

If time, weather, and your school's location permit, your team will now "salt" (place in the ground) your artifacts for the other team to excavate. The other team's members will do the same with their artifacts. After changing sites, the two teams will unearth one another's artifacts from the "unknown" civilizations, using archaeologists' tools and skills.

Models of the ARTIFACT RECORD SLIPS and ARCHAEOLOGICAL FEA-TURE RECORD SHEETS that you will fill out are found on pages 19-20.

Roles to be filled by team members during Phase III include the following:

- Crew Chief
- Diggers
- Measurers
- Recorders
- Screeners
- Washer-Baggers
- Photographer

Phase IV: RECONSTRUCTION OF THE EXCAVATED CULTURE

Back in the classroom your Crew Chief will assign you the cleaning and reconstructing of certain artifacts your team found during the Big Dig. You will also make ARTIFACT RECONSTRUCTION FORMS and AFTER MUSEUM CARDS for these artifacts. (AS #6 and AS #8 on pages 21 and 23 will help you with this task.) Each team member will then receive a Museum Catalog made from the ARTIFACT RECONSTRUCTION FORMS.

Your group, led by the Crew Chief, will now go through the catalog, artifact by artifact, attempting to agree on the function of each item. You will then write your guesses in the space provided at the bottom of each catalog sheet. Using your catalog of "analyzed" artifacts, you will individually attempt to find items that give clues to the same Culture Universal you created for your team. In other words, if you created the arts for your culture, you are now the "expert" who must figure out the arts of the strange culture you have just excavated. Using AS #7, you will present your expert analysis to your team (Page 22 of this Student Guide shows how an arts expert analyzed another team's artifacts.)

Phase V: THE FINAL CONFRONTATION

First, both teams give their analyzed artifacts to the teacher, who arranges them into a Museum Display—not to be seen until after the final confrontation. Next, both sides exchange catalogs and face each other for The Great Confrontation. A coin toss decides which team first presents its reconstruction and analysis of the mysterious culture.

With the Crew Chief introducing and guiding, all team members will explain their analyses of the Culture Universals in which they specialized; they will use AS #7 at a guide. Artifact evidence will be pointed out

in the catalog for all to see. When the team members have finished, the group that created the mysterious culture will explain what the artifacts really do represent. This process will then be repeated by the other team.

Both teams will then engage in a spirited discussion as to how well certain artifacts represented the culture universals. Each team will next award the other side two special awards: one for the most creative artifact, the other for the most skillfully constructed artifact. Finally, both teams will retire to the Museum Display, which the teacher has privately arranged. Here, in front of the whole world, BEFORE and AFTER MUSEUM CARDS placed with each artifact will clearly show how accurate you were as archaeologists.

Phase VI: DEBRIEFING AND FINAL EVALUATION

Dig ends with an oral or written debriefing and evaluation of what you have learned while creating and analyzing the two imaginary cultures. The questions you will cover are found on page 24 of this Student Guide.

Phase I: MYSTERIOUS ARTIFACTS UNEARTHED!

Directions: Pretend you are an archaeologist from Mars. Your scientific team has unearthed the nine artifacts (objects made by human beings) shown on these two pages. In the spaces provided, or on your own paper, write down your guess about how earthlings used each artifact.

	NINE ARTIFACTS	AHTIFACTS Uses
d cloth and cardboard		
2 ceramic	9	
3 wood		
4 gold		

5 steel		
6 brass		
7 silver	SECULIA CIANTES CONTROL CONTRO	
8 plastic, etc.		
9 steel		

Phase I: CULTURE UNIVERSALS

Directions: The culture of a civilization (its way of life) can be divided into categories. In DIG 2 we call these categories **UNIVERSALS**. Using the American artifacts and your analysis of their functions (pages 6-7), see how many **CULTURE UNIVERSALS** you can determine. Do this assignment orally or write down your answers either on these two pages or on your own paper.

assignment orally or write down your answers either on these two pages or on your own paper.			
I.	Вас	Name of culture: kground of Culture	
	Α.	Time	
	В.	Geographic setting	
	C.	Physical description of people	
H.	II. Themes		
	Α.	Values: What is important to the people?	
	В.	Ethics: What is considered right or wrong in the culture?	
	C.	Symbols: What visual images indicate the culture's themes (its values and ethics)?	
III Economics			
	Α.	Technology	
	В.	Division of labor	
	C.	Trade and money	
	D.	Transportation	
IV. Food, Clothing, Shelter			
	Α.	Food (methods of production and domesticated animals)	
	В.	Clothing and adornment	
	C.	Shelter and dwellings	

V. Political Organization

- A. Government
- B. Law enforcement
- ₋C. War and peace

VI. Family and Kin

- A. Marriage and type of family groupings
- B. Child training and rites of passage

VII. Attitude Toward the Unknown

- A. Religious beliefs
- B. Religious practices
- C. Death rituals

VIII. Communications

- A. Language
- B. Number systems

IX. Arts and Esthetic Values

- A. Art
- B. Music
- C. Dance, drama, literature

X. Recreation

- A. Games and sports
- B. Use of leisure time



Phase I: EXAMINING A STUDENT-CREATED CULTURE

Directions: Here are some examples of unusual UNIVERSALS. In fact, the beliefs of this civilization were created by students such as you. Note how the universals relate to the culture's themes and values. As you study the Specibian culture, also pay attention to their culture's artifact found on pages 12-13: this artifact is a large 4x8 foot wall mural!

Name of culture: Specibian

(Biceps spelled buckwards + 1 un)

I. Background of Culture

A. Time 300/ A.D.

- B. Geographic setting utcommiles outside of what used to be El Puso, Texas in North America. The lund is mountainous with a desert climate. Vegetation is desert bushes und cactus.
- C. Physical description of people Because of mutations and genetic engineering, the inhabitants appear to be 20th century Homo suprens except for Very small heads and very large arm and ley muscles.

II. Themes

- A. Values: What is important to the people? These people believe manisyood and muchines are bud. Machines and the intellectual activities that created muchines led to the creat War in 2001. As a reaction to this, mental activity is frowned upon.

 B. Ethics: What is considered right or wrong in the culture?
- Anything that leads to physical activity is good; anything that hints of intellectual activity is evil.
- C. Symbols: What visual images indicate the culture's themes (its values and ethics)? The central symbol of this culture is mun over machine. Note the small head and large ex stremities, which stand over a year, a symbol of muchines.

III Economics

- A. Technology Two types of technology are represented:

 1) the muchines and judgets of before the Great War; and 2) the simple devices which require physical exertion of the year 3001 A.D.
- B. Division of labor

 Because of the desire for physical exertion, both sexes engage in hard work.

 Children demand a chance to cut wood and dig ditches ut an early age.
- C. Trade and money

 Since this is the only group that s vivied the Great War, there are no other

 groups with which to trube. Money consists of extremely heavy stones;

 D. Transportation

 By but power only, with the added delight of attaching heavy weights to the

 ligs while young ofer a pleasant walk. Instead of using elevators, rupes are

 dimbed to breach the upper floors.

 IV. Food, Ciothing, Shelter

- A. Food (methods of production and domesticated animals) Foods requiring great umounts of work are in high demand. The only domesticated unimals are those shown in the least intelligence. Examples: the dodo bird and the donkey.
- B. Clothing and adornment Clothing consists of dodo bird and donkey skins that have weights attached. Little holes are cut in the skins for ventilation
- C. Shelter and dwellings These people live in the ruins of the muchine culture that was destroyed by the Great war's Neutron bombs.

V. Political Organization

- A. Government ... a dictatorship... The leader is chosen by a yearly physical contest -- something like arm wrestling.
- B. Law enforcement Conflicts between individuals are resolved by a contest of strength.
 When convicted of breaking a law, you are sent to jail, which is the library of the pre-war culture. The Juvorst punishment is being sentenced to read C. War and peace

Since no outside culture exists, war is unknown.

Vi. Family and Kin

- A. Marriage and type of family groupings You choose your mate according to physical strength, the only criteria of beauty.
- B. Child training and rites of passage Child training revolves around physical exercise. Rites of passage consist of reading books and engaging in intellectual activity the worst pain in the culture.

VII. Attitude Toward the Unknown

- A. Religious beliefs Religion revolves around hatred of machines and intellectual activity. Raw nature is worshipped. When you die, you go to the Big Rock Pile in the sky, where forever after you break rocks.
- B. Religious practices Once a week groups meet to smash machines with crude clubs.
- C. Death rituals Since to die from multiple hernias is the highest honor you can bestow upon your survivors, as many examples of your physical exertion as possible are placed in the tomb.

VIII. Communications

- Although the language has 26 letters, it has a small vocabulary. Grunts are used very freely.
- B. Number systems Crude lines are scratched in the soil.

IX. Arts and Esthetic Values

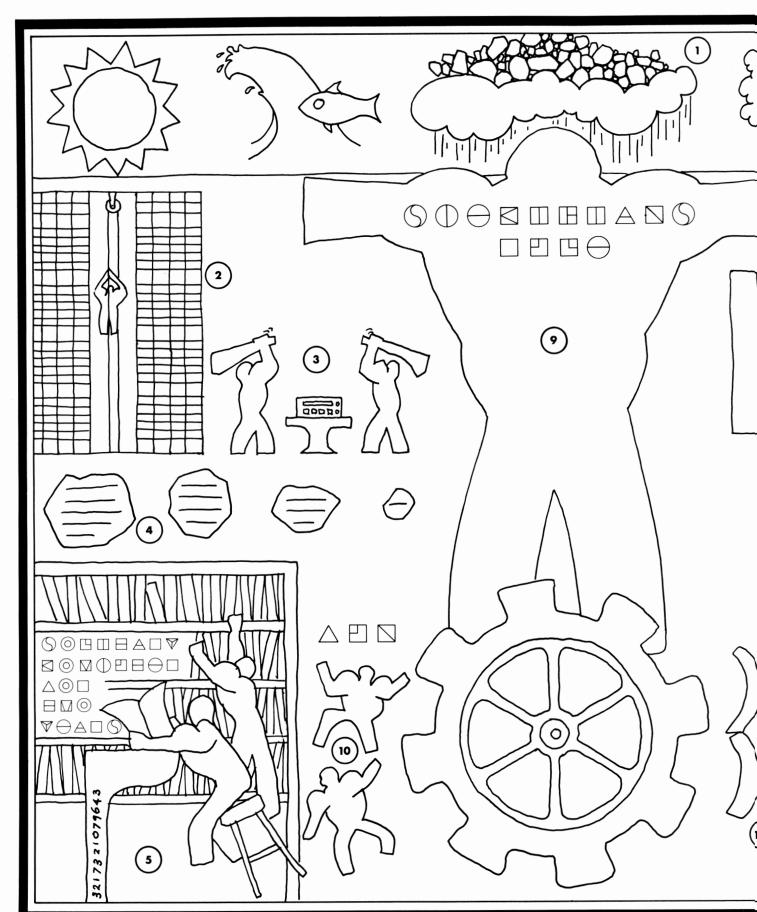
- Drawings of blisters and torn muscles are popular.
- B. Music Only instruments that require great exertion to play are used.
- C. Dance, drama, literature Jogging is the favorite dance. Plays and poems glorify muscles, physical development.

X. Recreation

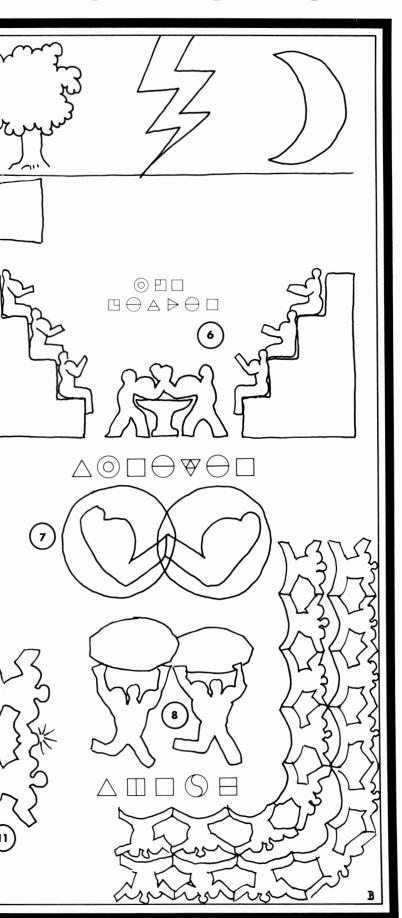
- A. Games and sports Physical strength is emphasized in the games.

 The rock carrying run is very big! A favorite game played by children is blister popping.
- B. Use of leisure time Persons strive to work harder than they work on their jobs.

WALL MURAL FROM THE MYST



ERIOUS SPECIBIANS

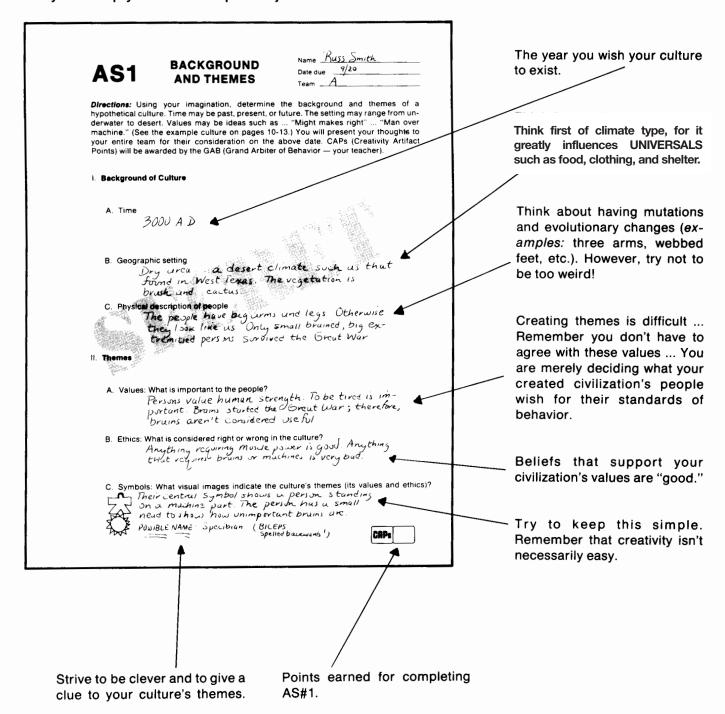


Note: The 10 comments below are coded to the 10 circled numbers in the mural on the left.

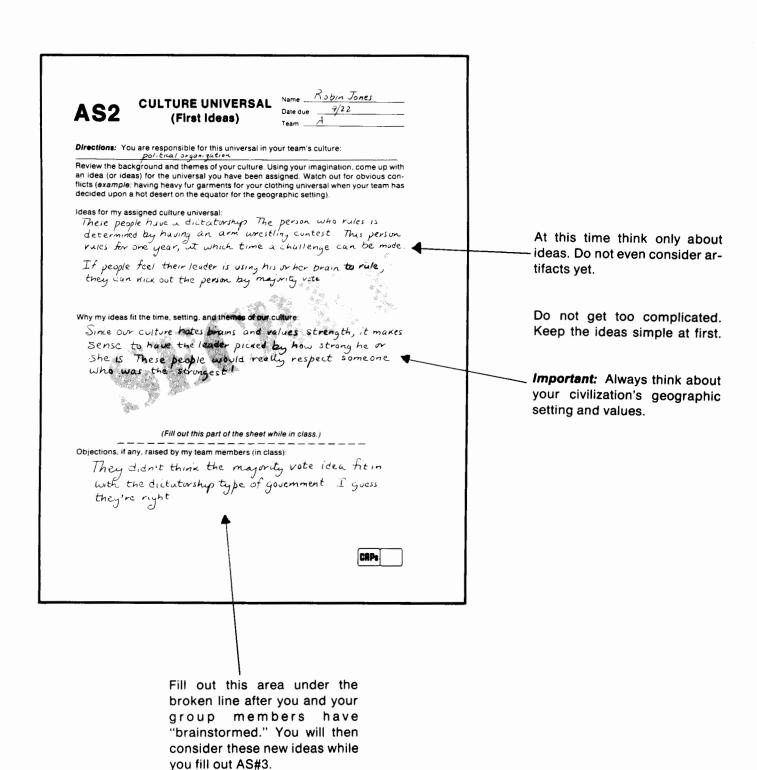
- 1 Heaven (the Big Rockpile in the Sky) and belief in raw nature.
- 2 Rope climbing in "old" buildings' elevator shafts.
- 3 Religious ceremony consisting of smashing machines with clubs. (Note clubs' abstract design.)
- 4 Rock money. (Larger rocks have more value.)
- 5 Prison scene. Convicts forced to read books and to work with number system of prewar culture. *Message says: "Solitary computer for two years."
- 6 Arm wrestling contest determines the culture's leader. Message says: "Our leader."
- 7 Marriage symbol. Large arms interlocked. Message says: "Forever."
- 8 Contest of running with large weights before stadium crowd. Message says: "First."
- 9 Symbol of man over machine. (Note the small head and big extremities ... plus the gear representing machines.)
- 10 Jogging dance. Message says: "Fun."

^{* =} Certain messages on the mural are written in the Specibian alphabet. It has 26 symbols representing the English alphabet's 26 letters (A to Z). Language experts: Ask your teacher for a copy of this alphabet. It will stimulate you while you create your culture's language.

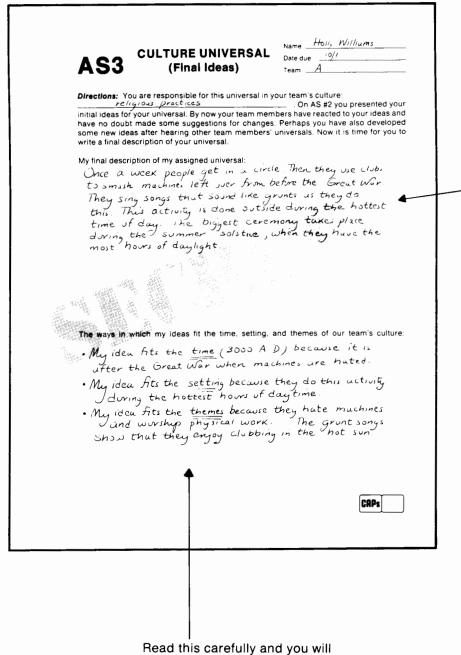
Directions: Your teacher will give you a copy of the Assignment Sheet to fill out. Study this model carefully before you do any writing. Also pay attention to the marginal comments below. They will help you do a competent job.



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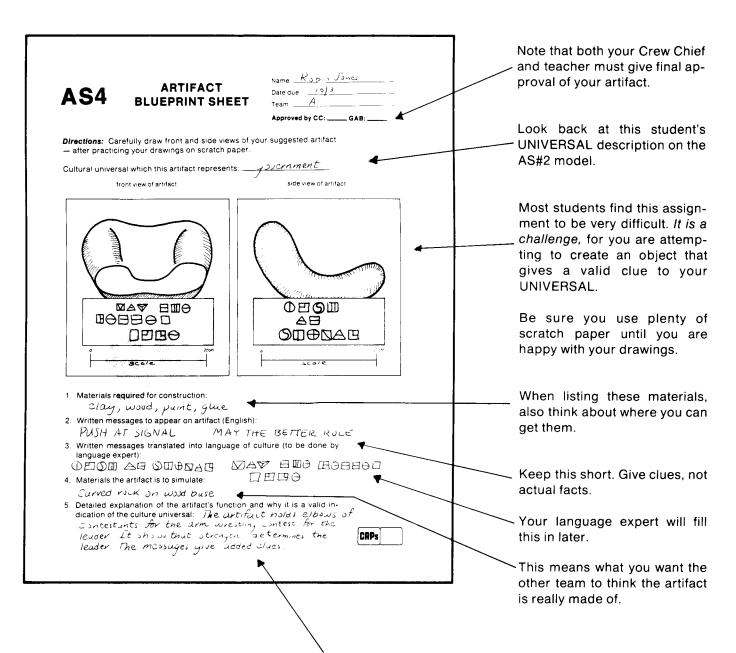
Directions: Your teacher will give you a copy of the Assignment Sheet to fill out. Study this model carefully before you do any writing. Also pay attention to the marginal comments below. They will help you do a competent job.



Note that this example has been written on a different UNIVERSAL by a different student. (Religion is being analyzed rather than government.)

AS#3 can contain ideas entirely different from those on AS#2. Don't be afraid to make a significant change if a brilliant idea strikes you. Many times creativity works this way!

Directions: Your teacher will give you a copy of the Assignment Sheet to fill out. Study this model carefully before you do any writing. Also pay attention to the marginal comments below. They will help you do a competent job.



If you can't think of an artifact:

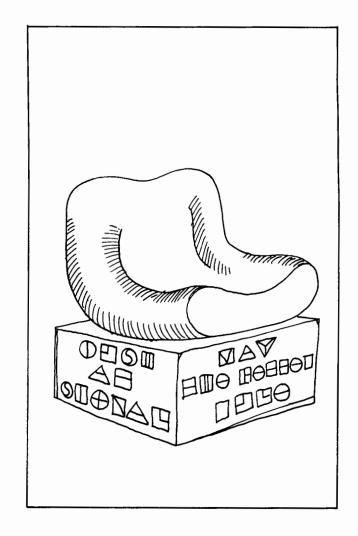
- Picture the actions that might take place between people when you think of your UNIVERSAL.
- Imagine any object that might be used in these actions.
- Think of parts of objects.
 For instance, a door knob might be a clue to shelters.

This explanation is extremely important. You must be able to show that this artifact gives honest clues concerning your UNIVERSAL. Your Crew Chief and teacher will not approve your artifact unless you have written a good explanation here.

Directions: Your teacher will give you a BEFORE MUSEUM CARD to fill out on the artifact you have created. Study this model carefully before you do any writing on drawing. Pay attention to the marginal comments below. They will help you do a competent job.

Front Back

AS5	BEFORE
	MUSEUM CARD
Culture _	Specibian
Date of cult	ture 3001 A.D.
Universal re	epresented
Function of	artifact <u>elbowholder for</u> Irestling contest for leader
Translation	of any messages Push ut
bett	er rule.
	this artifact tell about the culture? Ows thut the strongest
rules. Creator of a	artifact Robin Jones
	Caps



At the end of the unit this card will be placed by your artifact in the MUSEUM DISPLAY.

This card is the only thing that will explain what your artifact was intended to be.

All information on this card should be taken from your approved AS#4.

This sketch need only be clear enough that your teacher can easily identify the artifact.

MODEL FOR ARTIFACT RECORD SLIP

Directions: Your teacher will give you an ARTIFACT RECORD SLIP to fill out for each artifact that you discover. Study this model carefully before you do any writing. Also pay attention to the comments and drawings below which will help you do a competent job.

ARTIFACT RECORD SLIP
Description of artifact Clay with gray paint
Site Specibian Pit # D6 Date 10/8
Depth cm from Datum Stake
Horizontal Location $30 \text{ cm} N \text{ of DS} 5$
$\frac{-18 \text{ cm} - E \text{ of DS} - D6}{-100}$
Remarks tound near would object (#103)
Remarks Found near wood object (#103) Recorded by Jack Johnson Field # 108
(sketch of artifact on back)

Description of artifact — Do not record what you think the artifact's function is. Stick to describing the material.

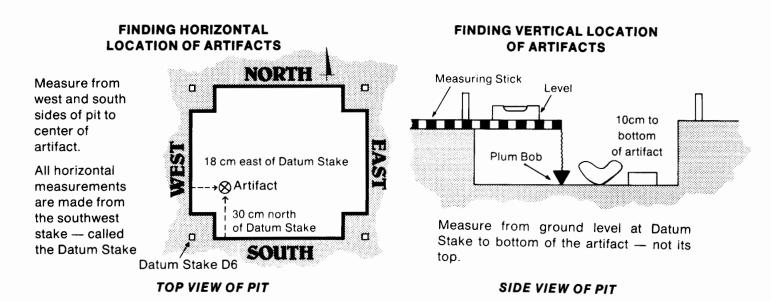
Site — The site name is the name of the other team's civilization, which you will be told.

Plt # ____ - The other team will also provide you with this number.

Date — This is the date of the dig.

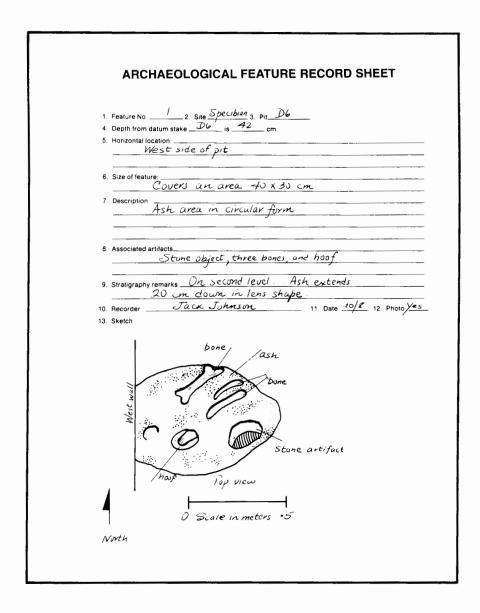
Depth — This is the vertical distance from the ground level to the bottom of the artifact — not its top. (See below.)

Horizontal Location — See diagram below for how to calculate this.



MODEL FOR ARCHEOLOGICAL FEATURE RECORD SHEET

Directions: If you are a Recorder on the Big Dig, your teacher will give you a FEATURE RECORD SHEET to fill out. Study this model carefully before you do any writing. Also pay attention to the marginal comments below. They will help you do a competent job.



Feature — A feature is something more complex than a single artifact. It is evidence of human activity that can't be easily collected from the pit. Examples: a cooking area, shelter remains such as foundation or holes made by posts, burial pits, or tombs.

Horizontal Location — Since a large area is involved, simply indicate the general area.

Description — Be careful that you do not make any guesses about the function. Instead stick to listing the materials.

Stratigraphy — Stratigraphy means layers, as in a cake. If you noticed any definite changes in the soil texture or color, make a note here.

Recorder — This is the person who is doing the recording.

Date — The date of the Blg Dig.

Sketch — Try to show the relation of the items to one another as you found them in the pit.

Photo — Indicate if a photograph was taken. One should have been!

Directions: Your teacher will give you a copy of the Assignment Sheet to fill out. Study this model carefully before you do any writing. Also pay attention to the marginal comments below. They will help you do a competent job.

AS6 MUSEUM ARTIF	NACT Name Mike Ward N FORM Date due 19/19 Team 8
Artifact material (real) C(ay, wood Artifact material (simulated) FOCK, Writing-symbols POSH AT	wood <u> </u>
Drawing of r	econstructed artifact View 2
Museum No. 321 Ф ≝ Ф Ш	MAY HIDO HOBBOD DLILC
INTERPRETATION 1. What is the function of this artifact?	
What does it tell about the culture?	

Museum # — Your Crew Chief will assign such numbers.

Interpretation — Wait to fill out this portion of the sheet until your entire team can work together. (Team members must first have completed their RECONSTRUCTION FORMS, reporduced them, and then placed them in the MUSEUM CATALOGS of the Big Dig.)

Field Number, Site, Excavation Pit, Date, Artifact material (real) — All this information is taken directly from the ARTIFACT RECORD SLIP.

Two field numbers are used here because the person reconstructing this artifact has assumed that two items found separately (#21 and #38) should be recognized as one artifact.

Artifact material (simulated)
— Your teacher will fill this out, informing you what the artifact "really" is made from — in this case, rock and wood.

Writing symbols — It is extremely important that you accurately write any symbols you find on the artifact. Indicate if certain marks are unclear or seem to be missing.

Translation of writing — Eventually your language expert will complete this — after cracking the civilization's language.

Remarks — Explain anything that might be important from the dig. In this case, the student archaeologist is guessing that the two artifacts found separately actually go together.

Directions: Your teacher will give you a copy of the Assignment Sheet to fill out. Study this model carefully before you do any writing. Also pay attention to the marginal comments below. They will help you do a competent job.

AS7 CULTURE UNIVERSAL ANALYSIS SHEET	Name Jack Johnson Date due 10/15 Team B
The following paper is an archaeological analysis of the esthetics of the Speciblan excavated of	arts and culture universal culture, which
vas excavated on	
They really appreciated nature Outside. They always had lo	irge audiences for
outside. They always had lo their performances.	irge audiences for
Outside. They always had lo their performances. The specific artifacts recovered (and their museum	inge audiences for
The specific artifacts recovered (and their museum above analysis are: The mural (#218) Shows petening to a stereo (upper le can see crowds watching dancing. Dancers are also readers. Nature symbols amural. Artifact #216 is e	inumbers) which give clues to the ople reading and listy. On the right you a play and a pair seen near the book are ut the top of the an instrument. Arti-
Outside. They always had lother performances. The specific artifacts recovered (and their museum above analysis are:	inumbers) which give clues to the ople reading and listy. On the right you a play and a pair seen near the book are ut the top of the an instrument. Arti-
The specific artifacts recovered (and their museum above analysis are: The mural (#218) Shows pe tening to a stereo (upper le can see crowds watching dancing. Dancers are also readers. Nature symbols of mural. Artifact #216 is fact #321 shows that they Their artistic skill was quite of	inumbers) which give clues to the ople reading and listy. On the right you a play and a pair seen near the book are ut the top of the an instrument. Arti-

You have been assigned the important task of making the final analysis of the other team's UNIVERSALS that are the same UNIVERSALS you were responsible for creating for your team's civilization.

Even though your conclusions may be far from the reality of the other team's culture, the important thing is that you are to clearly explain your logical analysis of the artifacts' functions. In other words, your logic can be correct even though your conclusions are wrong!

This paper will help you make your speech presentation to the other team during the confrontation. (Anyone who calls himself/herself a professional archaeologist is expected to write a final report. Good luck!)

MODEL FOR ASSIGNMENT 8

Directions: Your teacher will give you an AFTER MUSEUM CARD to fill out on the artifact you have found and analyzed. This small card, along with the artifact and the BEFORE MUSEUM CARD made by the other team, will be placed in the MUSEUM DISPLAY at the end of the unit. Therefore, realize how important it is to fill out this AFTER MUSEUM CARD: you and your team members will have to live with how close or how far you are from the actual function of the artifact.

Front AS8 AFTER **MUSEUM CARD** Specibian Culture 2500 A.D. Date of culture Universal represented recreation Function of artifact Small rocking chair that is a toy for a doll house Translation of any messages PUSH AT SIGNAL. MAY THE BETTER ROCK. What does this artifact tell about the culture? It shows they had rocking chairs for Interpreter of artifact Museum #

Back

DEST DAP

UNIVERSAL represented — Your team's guess as to what UNIVERSAL in the other team's culture this artifact represents.

Function — What your team thinks was the culture's use of the artifact.

Translation — Any messages you think you have translated.

What does ... ? — Self-explanatory.

Museum #____ — This is the final museum number that has been placed on the artifact. It should be the same number as on the ARTIFACT RECONSTRUCTION FORM (AS#6).

Sketch — This sketch need only be clear enough that your teacher can easily identify the artifact.

DEBRIEFING AND FINAL EVALUATION

Directions: Depending upon your teacher's instructions, discuss/write your reactions to the following questions:

- Are there any themes or values that can be found throughout our culture?
 If so, give examples of how they are reflected in various universals.
- 2. What artifacts of today would best reflect our culture for future archaeologists? Explain, mentioning how they might also be misinterpreted.
- Are there any aspects of our culture that could not be shown accurately by artifacts? Explain, giving examples.
- Use our culture to show how change in one element might affect changes in other elements.
- 5. Can digging up ancient cultures be of any use in solving today's problems?
- 6. Which level of archaeology was most difficult for you? Explain. Here are the various levels:
 - Observational (excavating)
 - Descriptive (reconstructing and cataloging)
 - Analytic (deciding what it all means)

- 7. After participating in Dig, has your attitude toward the so-called primitive artifacts found in museums changed in any way? Explain.
- 8. Some persons criticize teachers who use simulations. These critics say, "Simulations only play at reality. They simply are not real. Therefore they mislead students." Discuss moments in Dig which seemed "real" or "unreal." Then tell why you agree or disagree with the above critic's statement.
- Some persons praise simulations for helping students discover things about themselves. Using examples from your experiences in Dig, tell why you agree or disagree.
- Has participating in Dig made you a more creative person? Explain.
- 11. Summarize your evaluation of Dig by explaining why you believe participating in Dig would or would not be a worthwhile educational experience for the students taking this class next year.

