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ABSTRACT

An overview is provided of activities undertaken by Southwest Virginia Community College and the Russell County School System to provide a cost-effective delivery system for education/enrichment opportunities for gifted seniors in rural high schools that lack the "critical mass" to sustain individual on-site programs. The delivery system used an existing transportation system to bring gifted students from individual schools together once a week at area vocational schools to achieve a cost-effective class size. At the vocational school, students received a variety of diversified educational experiences from a succession of teachers who were handpicked on the basis of their experience and skill in the instruction of gifted students. The project report provides an overview of the activities, profiles of the participating instructors, and instructional modules designed and implemented by the faculty. The modules include, with some variation, information on suggested time frame, prerequisites, overview of the unit, objectives, unit outline, assignments, informational text, suggested activities, culminating activities, study guides, and suggested films. The modules cover: (1) "The Exciting World of Dramatics" (Dramatic Arts Module); (2) "Karst Geomorphology and Speleology" (Earth Sciences Module); (3) "Contemporary World Issues" (World Affairs Module); (4) "Megatrends and Society" (Social Sciences Module); and (5) "Computers: Tools of Tomorrow" (Technology Module). Future plans for the project are also discussed, and a sample certificate of participation is appended. (EJV)

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ACADEMICALLY CREATIVE EDUCATION

AN INTERIM REPORT

SUBMITTED TO

THE STATE COUNCIL FOR HIGHER EDUCATION IN VIRGINIA

AS PART OF

THE FUNDS FOR EXCELLENCE PROGRAM

BY

SOUTHWEST VIRGINIA COMMUNITY COLLEGE

JUNE 1, 1985

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PROJECT OVERVIEW

This project describes activities undertaken jointly by Southwest Virginia Community College, as principal contractor to the State Council for Higher Education in Virginia, and the Russell County School System, in an effort to provide a cost-effective delivery system for education/enrichment opportunities for gifted seniors in rural high schools that lack the "critical mass" to sustain in-situ programs at each individual school.

The underlying principle of this delivery system was that critical masses are compiled daily in area vocational schools by grouping "relatively small" numbers of students from each individual school, thereby achieving a cost-effective class size. Since a daily transportation system was already in place to convey students from high schools to area vocational schools, it was envisioned that a limited number of academically creative students could ride the bus to the vocational school once weekly without undue strain on the system. There they would receive a variety of diversified educational experiences from a succession of "hand picked" teachers, experienced and skilled in the instruction of gifted students.

Each faculty member/teacher was assigned an instructional module that was to be taught over a contiguous 5-6 week period. The nature and scope of the educational offerings were formulated by a nine-person committee comprising three teachers from the Russell County School System, three representatives from Southwest Virginia Community College and a senior-level student from each of the three high schools within the Russell County School System. The committee was co-chaired by Dr. Michael Bisher from SVCC and Dr. Nancy McMurray from the Russell County School system. Following identification of the desired subject areas the human resources were identified by the college representatives and the Russell County School System.

A cornerstone of the educational delivery system was the provision of time and adequate resources for careful planning of the instructional modules. A delicate balance had to be maintained, keeping the flexibility characteristic of programs for gifted students, while retaining an adequate structure that would show coherent and organized pedagogy.

The project was co-directed by Dr. Michael Bishara from Southwest Virginia Community College and Dr. Nancy McMurray of the Russell County School System. The importance of "selling the concept" to school and college faculty and administration could not be overemphasized. Due to unavoidable circumstances, one of the three high schools was unable to participate in the project. However, the number of students identified from the other two high schools was high enough to bring the total number of an acceptable level of 20 participants.

Since the offerings were to take place once a week over a half-day span, the meeting times were planned on an alternating basis, meeting during the morning hours for a 6-week period, and during the afternoon hours for the next 6-week period. In this way, only about ten percent of any particular, regularly-scheduled high school class was missed by any of the students over the academic year. Furthermore, since the class met only once weekly, make-up time was not an insurmountable obstacle.

It was conceptualized at the outset that academically creative students could be challenged by virtually any subject. As a result, initial planning called for a broad spectrum of offerings, spanning the natural sciences, the technologies, and the humanities. Feedback from the students, however, indicated that the six-week time span was only enough to tantalize them, after which a new subject was started. It was therefore recommended that future efforts allow for more exposure time to a fewer number of subjects.

The modules presented in this report were written by the faculty members during the summer of 1984. Typing services were provided by Southwest Virginia Community College. The modules have been designed and organized to provide a "turnkey" implementation approach. Teacher and/or faculty members at other institutions will be able to provide identical offerings with minimal complications and need for clarification.

While it was desired that a succession of specific instructional modules were to be made available for immediate implementation by other institutions desirous of starting such an effort, it should be pointed out that the format for design of such a delivery system permits educational organizations to tailor their offerings to the needs of their students and the strengths of their faculty and teachers.

The project is particularly indebted to Miss Nancy Pruitt, whose diligence and competence in typing the instructional modules resulted in a well-presented manuscript.

THE INSTRUCTORS

Mrs. Dolly Wallace

Mrs. Wallace received a B.A. in English from the Clinch Valley College and a Certificate in Drama. She she also conducted graduate studies at the University of Virginia and at Radford University.

She has been teaching for 15 years. She enjoys it and feels it is very rewarding.

Mr. Craig Ashbrook

Mr. Ashbrook earned an Associate degree from SVCC and Bachelor's, Masters and post graduate degrees from East Tennessee State University.

He has taught Mining and Earth Sciences for 7 1/2 years and he spent 2 years with the coal industry as a geologist.

Mr. Ashbrook's interest in this program was related to his teaching. He felt that this program was one of the better ones, and he really found it enjoyable.

Ms. Wendie Fuller

Ms. Fuller received a Bachelors degree from Dakota Wesleyan University with a major in history and music. She has also received a Masters degree from the University of Virginia.

Dr. Robert Tomlinson

Dr. Tomlinson holds Masters and Doctoral degrees in American History from Michigan State University. He also conducted graduate studies at the University of Richmond.

Dr. Tomlinson's subject dealt with Megatrends in American Society. It examined American society in the 18th and 19 centuries. In particular, it scrutinized the south in the pre-Civil War period and noted how some of the leaders tried to resist the Megatrends of their days.

M. Ameen Hashim

Mr. Hashim received a BSEE from the University of Engineering and Technology in Lahore, Pakistan. He received a Certificate in Electronics Servicing at SVCC and a Certificate in Air Conditioning and Refrigeration at VHCC.

In the past, Mr. Hashim worked as an EHV consultant as a junior Engineer in Lahore, Pakistan. He was a Technicorp Sales Engineer in Lahore, Pakistan, and he worked with Vance Heating and Cooling as a Service Engineer in Abingdon, Virginia.

Mr. Hashim's main interest in this program was his ability to introduce youngsters to high technology to let them have a glimpse of the future so that they may see how high technology is going to effect their everyday living. He was also very interested in introducing them to the careers related with this field.

THE PROJECT DIRECTORS

Dr. Michael Bishara

Dr. Bishara received a Baccalaureate degree in Aeronautical Engineering from Cairo University and Masters and Doctoral Degrees from the University of Virginia. His background includes several years of aerospace research and engineering, having worked on the Apollo 15 Lunar Rover and on Skylab. His research areas included the dynamics of low-density flow.

He joined the faculty at Southwest Virginia Community College in 1970 as Head of the Engineering Transfer Program. He was appointed Chairman of the Engineering Division in 1973. More recently, Dr. Bishara spent three years in industry as Director of the S&S Corporation Engineering Center. He returned to SVCC in 1983.

Dr. Bishara was past President of the Supporters of Educational Excellence, and has authored several papers and publications in journals and books. He is a Senior Member of the Institute of Electrical and Electronic Engineers, the Society of Automotive Engineers, Sigma Xi, Phi Delta Kappa and a number of other professional and honorary societies.

Dr. Nancy McMurray

Dr. McMurray received a Bachelor of Arts Degree in English with a minor in Social Sciences from Emory and Henry College. Her graduate studies, all conducted at Virginia Polytechnic Institute and State University, culminated in Masters and Doctoral degrees in Education, with research areas in Administration & Supervision; in addition she also holds a Certificate in Advanced Graduate Studies from VPI&SU. She is currently Supervisor for Secondary Education at the Russell County school system. Dr. McMurray has long been active in furthering programs for the gifted and talented through her professional affiliations and through her position as an officer of the Virginia Association for the Education of the Gifted. She is Chairman of the Southwest Virginia Supervisors Association and is a member of the Virginia Education Association and of Phi Delta Kappa.

She is active in community activities as Secretary of the Russell County Women's Club, as a Sunday School teacher and church pianist, and as a volunteer worker at local homes for the aged as well as the hospital.

JULIE ALTIZER

Daughter of Mr. and Mrs. Michael G. Altizer. Student at Lebanon High School. She has been in the Honor Society, Gifted and Talented, and the top ten people of her class. She also lettered in varsity tennis for four years.

She plans to attend Emory and Henry College this fall. Her major concentration will be in Elementary Education, and her minor concentration will be in Christian Education. She hopes to be a public school teacher and to be actively involved with church youth.

ANDREA S. BARRETT

Andrea "... feels fortunate to have been part of such a rewarding experience. This particular program has not only been a superb learning experience for me, it has also given me knowledge not obtainable in any other way. I've learned and been exposed to the broader aspects of our changing society, and have been given ideas in which I can use in contributing to this society. But, aside from the fact that this program has definitely made me a bit wiser to many things, I've acquired several new friends with primarily the same ideas and opinions as myself. Of course, this isn't saying all the students involved in the A. C. E. program for seniors are alike, for we definitely have differing opinions and beliefs about certain things." She feels that the class, as a whole, has been very pleased with this program and would definitely recommend having it again for upcoming seniors.

She plans to continue her education at the University of Richmond in speech Communications/Theatre Arts.

ELLA BARTON

The eldest daughter of Gary and Linda Barton, she attended Lebanon High School and lives in Cleveland. Besides participation in the ACE program, she is a member of the National Honor society, and the Spanish Club.

Honors received during high school include acceptance into the National Honor Society, Spanish III Award, Algebra II Award, 2nd place in the Algebra II contest at SVCC in her junior years of high school, being chosen for Who's Who, Honorable Mention during history day this year; ranks 4th in her senior class.

Ella has stated that "... the ACE program has benefited me because it has made me realize there is more to be "gifted" than I thought. I have been subjected to a diversity of things I knew nothing about before the ACE program."

After graduation she plans to attend Lees-McRae College in the fall. At this point she is planning to be a pharmacist.

MARCUS ALAN BLACKSTONE

Will be attending Va. Tech this Fall (1985), majoring in General Engineering. He then hopes to further himself by earning a Master's degree in Chemical Engineering.

The son of Mr. and Mrs. Blake Blackstone, he has been elected to the Gifted and Talented program, was a member of the Spanish Club for four years (1 year as an officer), a member of the band (serving as officer for two years), a member of the National Honor Society, elected to Who's Who among American High School Students.

ERIC CRAIG COUNTS

Apart from outdoor activities, Eric's main hobby is music, more specifically the guitar. Next year he plans to attend Virginia Tech and major in communications. He hopes to minor in music, because "... this is my first and foremost love." Other hobbies include drawing, skiing, and tennis.

JENNIFER S. HESS

Daughter of Mr. and Mrs. Chester Hess of Honaker. She will graduate as Valedictorian at Honaker High this spring. Plans to attend Emory and Henry College beginning in the fall of 1985. Later she plans to transfer to The University of Virginia for graduate work and to obtain a Ph.D. in Psychology. She expects to practice in the field of Clinical Psychology.

JANE HUBBARD

Daughter of Wayne and Louise Hubbard. Throughout high school, she has taken all "college bound" courses, including four years of math, four years of physical and life sciences, three years of French, four years of English, and three years of social studies. She received awards for the highest average in Algebra I & II and French I, II, & III.

A member of the National Honor Society, participated in the Gifted and Talented Program, Pep Club, French Club, and Hi-Y Club, in which she attended MGA for three years. She attended the Hugh O'Brien Youth Leadership Seminar in her sophomore year and attended Governor's School for the Gifted at Virginia Tech.

Participated in many sports while at Lebanon. She lettered in girls' basketball for four years and made SWD Honorable Mention for two years. In volleyball, she lettered for three years and made the All-SWD team this past season. She also lettered in track during her freshman and sophomore years and lettered this past season in tennis.

She has been accepted to the Engineering School at Virginia Tech and will major in Chemical Engineering. Salutatorian at LHS for the class of 1985

AMY JOHNSON

Amy feels that ". . . my participation in the ACE program has helped me tremendously as an upcoming college freshman. I have been exposed to a lot of different things that people not involved in the ACE class haven't experienced. This class is the highlight of my high school activities."

In school, she belonged to various clubs and organizations, including the Spanish Club, Hi-Y, SCA, class officer, Pep club, Chorus, Band, Gifted and Talented, and Peer Counselors. She has been involved in Model United Nations and History Day competitions for several years.

Active in Lebanon Baptist Church and in the youth ministry, a volunteer 4-H leader and has a club in Cleveland. She is also a member of the senior 4-H club in Lebanon, has taken piano lessons for eight years and now teaches piano at her home.

Amy remarks that ". . . growing up in a small town has given me a special sense of closeness to my family and neighbors. This is the main reason I have chosen to attend SVCC next year. I plan to major in either science or math. Geology and physical geography are especially interesting to me - but I can't put all of my interests together and come up with one particular field."

She maintains a 3.0 average at LHS and is 32nd out of the 140 in her class.

KAREN S. JOHNSON

A graduating senior at Lebanon High School, she has participated in extracurricular activities. As of the close of this year, she has been active in the Pep club, Chess club, French club, Foreign Language Festivals, Model U.N., band, track, Hi-Y, and is a 3 year member of the National Honor Society. Also, she attended the Student Model General Assembly in Richmond, has been active in the Gifted and Talented program for two years, and is ranked 11th out of 133 class members. Also, in her junior year in high school, she was elected to Who's Who among American High School Students.

After graduation, Karen plans are to enter a business college and graduate with a major in Fashion Merchandising. Her goal in life is to excel in the Fashion World and eventually become a buyer and seller of fashion merchandise. But ". . . the main thing in my life is to be happy where I am with what I'm doing."

KIPPY LAMBERT

The youngest son of Reverend and Mrs. Clyde Lambert. He has been involved with this group throughout his years in high school, and calls it "the most enjoyable group that has ever been." He hopes to enter a business related or computer programming field.

BRIAN KEILY LAWSON

Seventeen years of age and a senior at Honaker High School. When he graduates this summer, he plans to attend Southwest Virginia Community College, and to pursue General Studies for two years. After two years at SVCC, He plan to transfer to a four year college .

JAMES PECK

Moved to Virginia in 1976 after living in Chicago. He enjoys playing most outdoor sports. After high school, he plans to go into the Army as a step on the way to college.

LYNESSA SHEPPARD

Daughter of Mr. and Mrs. Needem Sheppard of Honaker, VA. She plans to attend Southwest Virginia Community College and later transfer to the University of Virginia. She would like to major in education and, someday, to teach English at the high schooor college level.

MARK STINSON

Son of Mr. and Mrs. Glen A. Stinson of Honaker. Senior at Honaker High School. Activities in high school have included: four years of football, two years of basketball, two years of track, three years in the Beta Club, and five years in the Gifted and Talented Program. In his sophomore year, he attended the State Beta Convention.

He will graduate from high school on June 6, 1985. After graduation, He will attend Southwest Virginia Community College for two years majoring in Engineering. After two years there, He plans to transfer to Virginia Tech where and seek a Masters Degree in Engineering .

VINCE WHITED

Enjoys music, travel, motorcycles, and working with computers. He plans to attend Virginia Tech in the fall and major in computer science. He also hopes to further his musical abilities while at Virginia Tech. He plans to work as a systems analyst after graduation.

DAVID WILSON

Son of Mrs. Helen Wilson. He is 17 years old.

In high school, he has taken an academic structured curriculum in hopes of a good college career. He has also participated in many clubs and organizations, including Beta and Science Clubs and has held office in these clubs and in his class. He has also been a representative to the Student Council Association.

He "... enjoyed the Gifted and Talented Program and considered it one of the highlights of my high school career." This fall, he plans to attend Virginia Tech, majoring in Engineering.

DRAMATIC ARTS MODULE

THE EXCITING WORLD OF DRAMATICS

prepared by
Dolly J. Wallace

SUGGESTED TIME FRAME: Six 3-hour classes

PREREQUISITE: Student must be identified as gifted.

OVERVIEW OF COURSE:

This unit will introduce students to the exciting world of dramatics. The student will be developing himself physically, mentally, and socially in a group activity demanding constant adjustment to other people. He will learn how to use his voice and body effectively. Thus, this unit will not only give the student acting and speaking experience but it will also encourage wide knowledge, critical judgment, and deeper enjoyment of plays and public speaking.

OBJECTIVES:

1. The students will **develop his\her inner resources**. Emphasis will be placed on activities which help the student to develop observation, concentration, and emotional responses, and to strengthen sense recall and imagination.
2. The student will **become familiar with stage directions, stage areas, body positions, and crosses**.
3. The student will **practice basic stage movements**.
4. The student will **improve voice qualities** through controlled breathing, pitch and volume variety, and clear articulation.
5. The student will **recognize the importance of oral reading** in everyday life as well as in the field of drama where an actor must be able to interpret and communicate the written page.
6. The student will **effectively interpret lines** so that they arouse audience belief, have spontaneity, and achieve the desired effect.
7. The student will **practice unit memorization** in which he learns the material scene by scene and coordinates the lines with the assigned movement.
8. The student will **analyze both the internal and external qualities** of characters he is asked to portray.
9. The student will **practice applying straight makeup and character makeup**.
10. The student will be made **aware of the importance of costume** in the theater.
11. The student will be given the criteria for evaluating a play or presentation and will **prepare critiques on various kinds of performances**.

COURSE OUTLINE

I. Inner Resources

- A. Body warmups
- B. Loosening up (group game of charades)
- C. Emphasizing believable action (1-3 min pantomime)
- D. Developing observation (1-3 min. pantomime)
- E. Developing concentration (5 min. group improvisation)
- F. Strengthening sense recall (5 min written description)
- G. Strengthening imagination (4-5 min. group improvisation)
- H. Developing emotional response (2-4 min recall and improvisation)

II. Movement

- A. Following stage directions
- B. Practicing basic movement
- C. Utilizing motivation
- D. Handling special movement problems

III. Oral Interpretation

- A. Voice warmups
- B. Improving voice
- C. Reading orally (3-5 min poetry reading)
- D. Interpreting the character's lines
- E. Memorizing

IV. Characterization

- A. Analyzing a character
- B. Creating a character in a play
- C. Skit

V. Makeup and Costuming

- A. Doing straight makeup
- B. Doing character makeup
- C. Dressing in character

VI. Dramatic and Humorous Monologues

- A. Presentation by each student (5 min.)
- B. Critique (after watching video of performances)

SUGGESTED ACTIVITIES:

1. Charades is a game in which titles of either a book, movie, play or song are pantomimed. Depending on your class size, divide into two, four, or six teams of about six people each. Appoint an umpire for each two teams to (a) see that the rules are enforced and (b) record the time consumed by each team performance of its charades. Each member of the team writes a title and submits it to a leader on the opposing team. The leader on Team A draws a title submitted by Team B and pantomimes it for the members of his team. The umpire times him and each member of the team as each pantomimes one of the titles submitted by the opposing team. He tallies the time sheets and announces the winning team who took the least amount of time to guess its charades.
2. Divide into groups of three or four and act out well known folk tales such as "Little Red Riding Hood", "The Three Bears", "Rumpelstiltskin", or "The Three Little Pigs". Make up your own dialogue and action as you follow the story outline.
3. The student should think of an action he wants to pantomime. The following are suggestions:
 - a. Building a campfire
 - b. Shining shoes
 - c. Rowing a canoe
 - d. Boxing with a friend
 - e. Fishing
 - f. Milking a cow
 - g. Changing a flat tire
 - h. Setting a table
 - i. Baking something
 - j. Building something
 - k. Golfing
 - l. Your choice

Make your selection. Outline each step in the action that you intend to present. Give attention to details. Rehearse until you have complete believability in your scene. Present your pantomime.

4. In a one minute scene make believable your efforts to escape from a place where you are trapped--perhaps a pit, a cave, a car trunk, and elevator. Visualize the size, shape, and position of where you are trapped. Then use you whole body in trying to escape. Strain, grunt, claw, climb, dig. Make yourself and your audience believe your endeavors. Continue your efforts until your teacher calls "Cut."
5. Choose an age group--childhood, teenage, middle age, old age--and note basic movements of that group. Your observations should include movement of the body, head, legs, and arms. Discover a rhythmic beat that you would associate with that age. In class, enact the age group you studied, first silently, and then again with a musical background on record that suggests the rhythm you noted.
6. Do the mirror exercise. Divide into pairs of A and B. Face each other, looking directly into your partner's eyes, Partner A initiates slow movement of arms, hands, and body, as though her were under water, using space around him. B is the mirror and must reflect exactly all of A's activities and facial expressions. At a command from your teacher, reverse your roles, with A being the mirror. Communicate with the eyes. Strive to work together, trying not to trick your partner with quick movements. Later, add voice sound.
7. Have the class divide into circles of about 15 people each. One person says one word; the second person repeats that work and then adds a different word that he associates with the first. Proceed adding words around the circle. Actors forgetting the work must drop out.
8. Divide into groups of four or five, with each group choosing a simple item to "eat." In turn, each group goes to the stage and proceeds to "taste," "smell," and "eat" the imaginary food. Work on recalling the real food as you eat it.
9. Your instructor will assign you an article such as a carrot, a French poodle, a wet dishcloth, a watermelon, a thick bill fold, a fried egg, or an ostrich feather. Observing or recalling these articles, you are to abstract the predominant features of the article and improvise, in a situation, a character having those qualities. For example, a watermelon may suggest a short fat man with a smoot head, chubby cheeks, and a waddle to his walk. Place such a character in a situation and improvise dialogue and action.
10. Recall from your past and experience where you quickly changed from one emotion to its opposite: joy to sorrow, fear to happiness, sympathy to anger. Improvise a scene around that change of emotion.

11. As a class, attend a play given either by a community group, a professional road company, or a nearby university drama department. In class, discuss the acting: Did the acting seem spontaneous or have the illusion of the first time? Did the characters' feelings seem genuine? Could you tell what the characters were thinking? Could you tell the characters' purposes for moving and talking as they did? Could you easily hear the dialogue? Did you understand the character relationships? Did you believe in the characters throughout the play? Why or why not?
12. Go to the stage area and make several crosses, ending with varied body position. The class will identify each stage area you are in and the body position you are assuming.
13. Determine basic movement that you can use to communicate the following characters: an ignorant person; a nervous "high-strung" individual"; a vigorous, healthy athlete; and exceptionally fat person; a weak, sickly person; a timid, self-conscious individual; etc. Pay particular attention to your weight placement and foot base, to the degree of tension in your movements, and to the selected mannerisms of that type person. Reproduce the behavior of these people so that the class won't have any doubt as to whom you are portraying
14. Create two unrelated lines of dialogue for Character A and Character B. Have the class justify these lines by supplying the thought pattern of Character B, so that his lines will relate to what Character A has said:
Example:
A: There are roses growing in our back yard
B. Oh, to be in Paris right now.
(Justify B's speech so that it relates to A's line)
15. Choose a four line nursery rhyme such as "Mary Had a Little Lamb," or "Twinkle, Little Star." Using controlled diaphragmatic breathing, practice saying the complete four lines from memory until you say them slowly, two times on one exhalation. Control the output of air so it is depleted as the second jungle ends.
16. Select a tongue twister and practice saying it from memory until you can repeat it clearly three times with moderate speed.
17. With your teacher's guidance, choose a poetry selection. Analyze the selection. Prepare a one-minute introduction of your selection. Rehearse aloud at least ten times your introduction and poem. Then read your poem aloud with the intent of communicating the ideas as well as the emotions.

18. Plan a Shakespearean program. Select short scenes from Shakespeare's plays for analysis and reading presentation.
19. In groups, build a scene around a historical event such as Lewis and Clark's first meeting with Sacajawea, Madam Curie's discovery of radium, Alexander Graham Bell's first successful use of the telephone, etc. Be sure your story has dramatic value, a clearly defined plot, and a climax.
20. Select a picture from a magazine or from a reproduction of a famous painting that shows an interesting looking person. Analyze that person in the light of what you see in the picture. In class, show the picture and report what feelings, thoughts, and behavior make this character distinctive.
21. Write a biography of the character you are portraying in a scene. Include as many facets of the character as possible, such as his family background, his schooling, how he spends his leisure time, his favorite food, his most memorable experience, his greatest disappointment, events at home that please him, home happenings that displease him, etc. Base your writing on your character study from the play.
22. Begin a "makeup morgue" by collecting magazine pictures of various faces. Paste the clippings in a loose leaf notebook and classify them according to age--youth, maturity, old age; characters--fictional, historical, stylized; special noses, scars; hair styles; beards and mustaches. Refer to this "morgue" when you need to get ideas for makeup.
23. Divide into pairs and do straight makeup on each other.
24. Demonstrate on a classmate the application of a beard, a mustache, or nose putty.
25. Dress small dolls in various period costumes.
26. View a play, movie, or television show and write a critique of it. Read your evaluation to the class.

For additional activities, see:

Tanner, Fran Averett. Basic Drama Projects. Caldwell, Idaho: Clark Publishing Co., 1977.

Spolin, Viola. Improvisation for the Theatre: A Handbook of Teaching and Directing Techniques. Evanston, Illinois: Northwestern University Press, 1963.

CULMINATING ACTIVITIES:

1. The students will prepare and present a skit to an audience.
2. The student will prepare for memorized presentation a 5 minute monologue. He will unit memorize his lines while adding necessary characterized movement. His presentation to the class will be video taped for evaluation.

SUGGESTED FILMS AND FILMSTRIPS:

1. *Improvised Drama*. 2 parts. 30 minutes each. Sound. How to use improvisations to develop ideas into emotion and drama. Educational Media Service, Brigham Young University, 289 HRCB, Provo, Utah 84602. Film.
2. *Stage Positions and Body Control* (2 parts) Olesen Company, 1535 Ivar Avenue, Hollywood, California 90028. Filmstrip.
3. *Dialogue*. 30 minutes. Sound. Analyzes dialogue and discusses ways of giving it the best expression. Shows scenes from Othello, School for Scandal, Julius Caesar, and Cyrano. Audio-Visual Instruction, University of Nebraska, Lincoln, Nebraska 68508. Film.
4. *Elementary Stage Makeup* (Straight, Character, False Hair and Nose Putty). 4 parts. Color. Olesen, 1535 Ivar Avenue, Hollywood, California 90023. Filmstrip.
5. *Stage Makeup*. Color. Paramount, 32 West 20th Street, New York, New York 10011. Filmstrip.

EARTH SCIENCES MODULE

KARST GEOMORPHOLOGY AND SPELEOLOGY

prepared by

Craig M. Ashbrook

SUGGESTED TIME FRAME: 20 hours to be completed in five 3 hour sessions and one 5 hour field activity at the end of the program.

PREREQUISITE: Student must be identified as gifted and must possess a basic knowledge of the Earth Sciences.

COURSE OVERVIEW:

The unit will provide a study into the origin, hydrology, and geomorphology of karst landforms characteristic of selected drainage basins within the Clinch River watershed. Physical and social controls acting upon karst processes will be highlighted.

Speleology, the study of caves, will provide basic knowledge of caves and will be a field learning experience designed to tie together karst geomorphology processes. Man's impact on cave biology and ecology will also be considered. Field activities will be physically strenuous and students should be prepared for such activity.

Objectives: Upon completion of this unit the student should be able to:

1. describe karst terrains,
2. read and draw topographic maps,
3. locate any karst forms on those maps,
4. identify, compare & contrast basic karst landforms;
 - a. microsolutional forms,
 - b. macrosolutional forms,
5. give basic descriptions of subsurface geology by properly identifying karst landforms.
6. offer theories on the origin of caves and karst landforms,
7. recognize stages of development typical of karst topography,
8. describe groundwater movement in carbonate rock regions,
9. list advantages to cave and karst studies,
10. identify cave owner rights and cave protection laws,
11. identify cave formations including, but not limited to,;
 - a. dripstones,
 - b. flowstones,
 - c. dome rooms,
 - d. cave pearls,
 - e. breakdown,
 - f. solution tubes, &
 - g. chimneys.

12. map caves with compass and tape,
13. perform cave photography,
14. cave responsibility,
15. recognize caves as ecosystems, and
16. interrelate the environment's physical systems with karst form development.

ACTIVITIES:

1. Read and construct contour maps from known elevation points.
2. Examine karst development in Florida, Puerto Rico, and Kentucky using maps and aerial photographs in conjunction with lab exercises.
3. Examine karst development in Southwest Virginia and problems associated with such development.
4. Construct drainage basin maps of local study sites using the Hansonville, Carbo, and Lebanon quadrangle (1:24,000 scale) maps.
5. Use compass and tape to construct a map of a hypothetical cave during lab exercise.
6. Group discussion dealing with man's impact on karst areas;
 - a. landfills
 - b. mining
 - c. housing development
 - d. highways
 - e. farming
 - f. cave gating
 - g. caving in general
7. Dye tracing of sinking stream systems.
8. Field trip to Bristol Caverns.
9. Field trip to Bundy's Blind Valley complex for identification of both microsolutional and macrosolutional karst landforms.
10. Field trip to Sinkhole Valley for macrosolutional landform identification and caving.
11. Caving questionnaire.
12. Construct Karst Topography model.
13. Map Bundy's # 1 cave.
14. Map Daugherty's Cave.**
15. Caving to Gray's Cave & collapse sinkhole (to crawl only).
16. Locate selected carbonate rock regions of southwest Virginia and identify as to the stage of development.
17. Slide presentation on caves and karst landforms.
18. Discussion dealing with cave safety and cave rescue (to be completed by selected National Speleological Society guest speakers).
19. Cave equipment demonstration and discussion.
20. Lab exercise on the karst topography of Mammoth Cave, Kentucky.
21. Lecture on basic terms dealing with carbonate rock geology and associated landform development.

22. Completion of questions, terms, and study guide handouts (students will complete all questions, study guides, and term definitions either at home or elsewhere). All lab exercises will be completed during class time.
23. Discussion of cave biology with follow-up field identification at local caves.

****Culminating Activity-**The Daugherty's Cave mapping exercise will also include cave biology, cave ecology, karst hydrology, karst geomorphology, and related carbonate rock phenomena. This activity will exemplify for the student the interrelationship of the aforementioned phenomena and will serve as a model that supports the concept of continual development within regions subject to karstification.

OUTLINE

October 1, 1984

1. Introductions & review of class syllabus.
2. Introduction to earth science and karst geology.
3. Mapping: a. Exercise # 7 pp. 59-68.
b. isolation of individual drainage basins on topographic maps.
4. Study Guide # 1 (due 10-8-84).

October 8

1. Review mapping
2. Identifying karst landforms (both micro & macro), Exercise #11 pp.90-95 (Activity #2)
3. Use drainage basin maps form 10-1-84, part 3(b) to identify stages of development for karst forms.
4. Study Guide #2 (due 10-15-84)

October 15

1. Cave laws of Virginia.
2. Cave owner rights.
3. Introduction to Speleology:
 - a. cave origin
 - b. cave formations
 - c. cave photography
 - d. cave safety
 - e. cave biology
 - f. cave surveying and mapping, (1) Activity #5
 - g. complete orally a caving questionnaire. (compiled by the National Speleological Society)
4. Assignment of groups for performing field exercises.

October 22

1. Guest speaker on cave safety and slide show or
2. trip to Bristol Caverns.

October 29

1. Field trip to Bundy's blind Valley complex for completion of Activity #13 and field identification of karst landform as defined in study guide #1.
2. Utilization of map as compiled on 10-8-84, (#3) to locate identified landform.

November 3, Saturday

1. Caving trip to Daugherty's Cave, (Activity # 14-see note at bottom of page 4 (Culminating Activity).
2. Bring notebooks, pencil, compass, & tape.

STUDY GUIDE #1

1. Define the following terms:

carbonate rock
cenote
cone karst
contour lines
crinkling
deckenkarren
dip
doline
dolomite
drainage basin
exurgence spring
karren
limestone
myotis solalis
myotis stansi
polje
resurgence spring
rillenkarren
sinking stream
solution valley
swallet
strike
troglobite
troglophile
trogloxene
uvala

2. Why can there be no true sanitary landfills?
3. What solution(s) can you offer as to proper waste disposal in karst areas?
4. How might proper maps and aerial photos aid in locating a proper waste disposal site?
5. Should there be a set of laws for karst areas protection? If yes, list a few ideas that might help in determining such laws. If no, why?
6. Discuss groundwater systems briefly. Include such terms as vadose, phreatic, capillary water, infiltration, recharge, catchment, permeability, porosity, and transmissivity. You may use diagrammatic sketches.
7. Discuss the terms antecedent, consequent, and subsequent as relating to stream development.
8. How might a model of a typical karst area help scientists to learn about carbonate rock regions.
9. How might computers be utilized in the study of karst geology and speleology?
10. Compare a typical karst area with that of noncarbonate rock regions.

STUDY GUIDE #2

1. How do caves originate? How does this compare and contrast to other karst features development?
2. Chemically speaking how do cave formations occur?
3. How might dipping bedrock effect karst development?
4. Why is the cave environment a delicately balanced ecosystem?
5. How does noise effect the cave environment?
6. Why do the majority of caves in Southwest Virginia trend from southwest to northeast?
7. Draw models of the hydrologic cycle, and rock cycle, linking them together at some common point so as to show their interrelationship.
How are caves related to the atmosphere? igneous rocks? precipitation? infiltration? runoff?

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Organizations

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AERIAL PHOTOGRAPHS AND TOPOGRAPHIC MAPS

The study of geologic processes and their effect upon the earth's surface is a significant part of physical geology. Running water, ice, wind, ground water, vulcanism, and earth movements have continually acted upon the earth throughout geologic time and have produced an infinite variety of surface features. From a careful study of local and regional landforms it is possible to determine what processes are actively modifying an area at present and what processes were important in the past. The basic tools for such a study are topographic maps and aerial photographs. These are scale models of a portion of the earth's surface, showing details of the size, shape, and spatial relationships of landforms. In a sense, they give to physical geology what the microscope gives to biology--a new perspective.

This exercise explains how to view aerial photographs and read topographic maps and indicated how they can be used to study and interpret geologic processes and the landforms created by those processes.

AERIAL PHOTOGRAPHS

Aerial photographs are extremely useful in the study and interpretation of geologic problems because they provide an accurate model of the earth's surface. Moreover, most vertical aerial photos are taken in stereo, so that by using a simple lens stereoscope you can see the image in three-dimensional relief. Aerial photographs permit remarkably detailed study of the earth's surface, such as vegetation types, intricacies of drainage patterns, rock outcrops, and the tone and texture of the land surface. Topographic maps, on the other hand, express only the morphology of the earth's surface, by means of contour lines. The most serious limitation of aerial photographs is distortion of both scale and location, because a photo is a conical projection and there are no quantitative data on elevations.

The primary purpose of using aerial photos in this manual is to illustrate geologic processes and the resulting landforms and to give you an opportunity to analyze and describe various geologic phenomena.

STEREOSCOPIC VIEWING

Aerial photos are usually taken in sequence along a flight line so that there is about 60 percent overlap in the flight direction and 30 percent overlap of flight strips. Every point on the surface photographed is shown on at least two different photos. When two adjacent photos along the flight line are viewed through a stereoscope in such a way that each eye sees only one of the two photos, the brain combines the images to produce the effect of a three-dimensional view of the surface. Thus, hills and valleys appear to stand out in bold relief. Many of the vertical aerial photographs in this manual are printed so as to permit stereoscopic viewing with a standard lens-type stereoscope. By following the steps outlined on page 197, you can become proficient in stereo viewing.

INTERPRETING AERIAL PHOTOGRAPHS

Interpreting aerial photos is a skill acquired only by considerable experience, but you can understand many aspects of photo interpretation if you understand some basic characteristics of land features as they appear on aerial photos. Some geologic features seen on aerial photos are illustrated in Figure 114. Their appearance can be summarized as follows:

1. Water-Tones are dark gray or black except where sunlight is directly reflected. Likewise, water in soil and rock renders a darker tone.
2. Vegetation-Produces many different patterns. Forests are dark gray, grasslands are lighter tones, and cultivated fields are usually

- 3. **Bedrock**-Different rock types are expressed by characteristic tones, textures, drainage patterns, features, and the selective growth of vegetation.

Photo
Farmland

Photo
Lakes and woodlands

Photo
Meandering stream and flood plain

Photo
Sand dunes

Photo
Woodland and grassland

Photo
Seacoast - cliff, beach, stacks

Photo
Cinder cone and lava flow

Photo
Exposed rock, joint system

Photo
Drainage patterns on eroded inclined strata

Figure 114, Examples of features visible on aerial photographs.

CONTOUR LINES

Topographic maps are indispensable aids to many geologic studies. They show the configuration of the earth's surface by contour lines and permit one to measure horizontal distances and vertical elevations. A contour line is a line connecting points of equal elevation. Natural expressions of contour lines are illustrated by elevated shorelines, cultivated terraces, and patterns developed from contour plowing.

The idea of contours may become clearer to you if you think of an island in a lake and the patterns made on it when the water level recedes. The shoreline represents the same elevation all around the island and is thus a contour line (Figure 115). Suppose that the water level of the lake drops 2 feet and that the position of the former shoreline is marked by a gravel beach. Now there are two contour lines, the lake level and the old stranded beach, each accurately depicting increments of 2 feet, additional contours would be formed. A map of the beach is in essence a contour map (Figure 115D) and graphically represents the shape of the island and its elevation.

The relationship between a contour map and the features it expresses is illustrated in Figure 116. The conical hills are represented by a series of roughly circular contour lines. As the elevation increases to the crest of the hills, the circles become smaller. A careful study of this diagram reveals the following characteristics of contour lines:

1. Contour lines do not cross or divide.
2. Closely spaced contour lines represent steep slopes; contours spaced far apart represent gentle slopes.
3. Contour lines trend up valleys, cross streams, and return down the valleys on the opposite side, thus forming a V that points upstream.

On standard topographic maps, index contours (generally every fifth contour line) are labeled with their elevation and printed darker for easy identification. Lighter contours are not labeled, but their elevations can easily be determined. Count up or down from the nearest index contour and multiply by the contour interval. The contour interval is indicated at the base of the map. The most frequent interval used on 7 1/2-minute and 15-minute quadrangles is 20 feet, although 5, 10, 40, 50, 100, and 200 feet are used if needed to express the topography being mapped.

Photographs A, B, C, D,
Figure 115. Diagram illustrating the concept of contour lines.

Photograph

Figure 116. Diagram of the relationship between topographic features and contour lines.

DETERMINING ELEVATIONS

Elevation refers to height (in feet or meters) above sea level and is essentially synonymous with altitude. Specific elevations are shown on topographic maps in various ways and are usually located at centers of towns, on hilltops, and at the bottoms of depressions. Elevations between contour lines can be approximated by interpolation. For example, a point midway between the contour 1240 feet and 1260 feet would most likely be 1250 feet, and a point located just below the 1260-foot contour line would probably be close to 1258 feet or 1259 feet. Such approximations are based on the assumption that the slopes have a constant gradient and the elevation is proportional to the horizontal distance. This, of course, is not always true, but a careful study of slope trends permits one to accurately estimate elevations between contours.

Relief is the difference in elevation between high and low points. You can easily determine the local relief of an area by subtracting the lowest elevation from the highest elevation.

Height and depth are measurements made relative to some local feature. For example, a monument might be 55 feet high relative to the ground and have an elevation (at its top) of 1555 feet because the ground it is on is 1000 feet above sea level.

Photographs A, B

Figure 117. Constructing a contour map from established versions.

CONSTRUCTING A CONTOUR MAP

Contour lines on topographic maps are constructed from stereo aerial photographs by using high-precision plotting instruments which can read elevations, under ideal conditions, to the nearest foot. Prior to the use of aerial photographs, topographic maps were constructed by establishing points of elevation and sketching in contour lines in the field.

PROBLEM

1. Construct a contour map of the landforms shown in Figure 117A by plotting the contours on the planimetric map (Figure 117B). First analyze the surface in detail. Study the variations in slopes, stream valleys, cliffs, hilltops, etc. It may be advantageous to sketch lightly a number of contour lines in perspective directly on the diagram (117A). In sketching contours on the map, it is generally best to start near the edge at the lowest elevations and work up the major streams. Pay particular attention to the established elevation points and be sure all contour lines are in harmony with them. To find the approximate position of a contour line between two control points, study the slope shown on the diagram and estimate its map position. Note that the landforms in Figure 117A include (1) rounded hills, (2) sea cliffs, (3) a flood plain, (4) a plateau, (5) a river valley, and (6) a coastal plain. These features should all be expressed on the contour map.

● Photograph

Figure 118. Constructing a contour map from stereo aerial photographs.

CONSTRUCTING A CONTOUR MAP FROM AERIAL PHOTOGRAPHS

Aerial photographs provide the most accurate basis for constructing a contour map because one can see the surface in three dimensions directly from above.

PROBLEMS

1. Study the area shown in stereo in Figure 118. The water level provides a horizontal reference. Note the elevations established by a survey.
2. Trace contour lines across the entire area shown stereoscopically. Use a soft colored pencil because you may need to make a number of erasures before you are satisfied with your results. Use a contour interval of 200 feet. It is generally best to start with the lower elevations and work up major streams. Label every fifth contour.
- 3. How could you increase the amount of topographic detail?

Photograph

Figure 119. Aerial photo of Menan Buttes area, Idaho.

COMPARISON OF AERIAL PHOTOGRAPHS AND TOPOGRAPHIC MAPS

The Menan Buttes area offers an excellent opportunity to study the way simple topographic forms are expressed by contour lines. By carefully examining the photograph (Figure 119) with a stereoscope and comparing the image with the topographic map (Figure 120), you can soon develop the ability to visualize topographic forms in three dimensions just by looking at a contour map. The following problems will help you compare the map and the photograph.

PROBLEMS

1. Study the volcano of Menan Buttes. The slopes of the crater differ significantly from one side to the other. How are steep slopes expressed by contour lines?
2. How are the more gentle slopes at the base of the volcano expressed by contour lines?

Photograph

Figure 120. Topographic map of Menan Buttes area, Idaho.

3. How are the rugged slopes in the northwest part of the crater expressed by contour lines?
4. How is the closed depression of the crater expressed by contour lines?
5. Study the flood plain area to the south of the butte. How is a relatively flat surface expressed by contour lines?
6. Sketch the form lines of the topographic surface that is in stereoscopic view and compare your results with those shown on the topographic map.
7. What are the advantages of an air photo? What are the advantages of a topographic map?

Photograph

Figure 121. Constructing a topographic profile.

THE TOPOGRAPHIC PROFILE

Topographic maps present a view of the landscape as seen from directly above, an excellent perspective from which to examine regional relationships. This view, however, is unnatural, for we are accustomed to seeing hills and valleys from a horizontal perspective. In detailed studies of landforms it may be desirable to construct a profile, or cross section, through certain critical areas so that various features can be analyzed from a more natural viewpoint. A profile can be constructed quickly and accurately along any straight line on a map, according to the following procedure:

1. Lay a strip of paper along the line where the profile is to be constructed (Figure 121A).
2. Mark on the paper the exact place where each contour, stream, and hilltop crosses the profile line.
3. Label each mark with the elevation of the contour it represents. If contour lines are closely spaced, it is sufficient to label only the index contours.
4. Prepare a vertical scale on profile or graph paper by labeling horizontal lines to correspond to the elevation of each index contour line.
5. Place the paper with the labeled marks at the bottom of the profile paper and project each contour onto the horizontal line of the same elevations (Figure 121B).
6. Connect all the points with a smooth line.

Obviously, the appearance of the profile will vary depending on the spacing of the horizontal lines on the profile paper. If the vertical scale is the same as the horizontal scale, the profile, except on very small-scale maps or in areas of extremely rugged topography, will be nearly flat. Therefore, the vertical scale is usually exaggerated to show local relief.

To determine the gradient of a stream, measure a representative section of the stream and divide that distance (in miles) into the vertical difference (in feet) between the starting point and the end point. The result is the change in elevation expressed in feet per mile (ft/mile).

GEOLOGIC WORK OF GROUND WATER

Objective

To recognize the various stages in the development of karst topography and to understand how landscapes are formed by solution activity.

Main Concept

Solution activity of ground water is an important agent of erosion in regions underlain by soluble rocks, such as limestone, gypsum, and rock salt. Erosion by ground water develops a distinctive landscape called karst topography, characterized by sinkholes, solution valleys, and disappearing streams.

Supporting Ideas

Karst topography evolves through a series of stages until the soluble rock is completely removed.

Discussion

Karst topography typically develops in humid areas where horizontal or gently dipping limestone beds are exposed at the surface. Sinks and solution valleys constitute the dominant landforms, and much of the drainage is under ground. As a result, the region as a whole lacks a well-integrated drainage system. Tributaries are few and generally very short. Many minor streams suddenly appear as springs in blind valleys, flow for a short distance, and then disappear into sinkholes. Only major streams flow in a definite, open valley. Although solution activity and karst topography may predominate in certain localities, erosion by ground water is not a universal process as is erosion by running water.

An idealized sequence of stages in the evolution of karst topography is shown in the diagrams in figure 134. In the early stage of development, solution activity develops a system of underground caverns that enlarge until eventually their roofs collapse, producing sinkholes. As the sinks increase in number and size, some of them merge to form solution valleys.

When solution valleys become numerous and interconnect, the area is considered to have reached the middle stage of development. A considerable part of the original surface is destroyed and maximum local relief is attained.

Continued solution activity ultimately erodes the area down to the base of the limestone unit and only scattered rounded hills and knolls remain. The area is then considered to be in the late stage of development because further erosion by solution activity can occur only if more limestone units exist in the subsurface.

Photograph

Early Stage

1. The surface is nearly flat, with a few small, scattered sinkhole depressions. Subterranean caverns are numerous.
2. Throughout the early stage of karst development sinks become more abundant and increase in size.

Photograph

Middle Stage

1. Individual sinks enlarge and merge, forming solution valleys with irregularly branching outlines.
2. Much of the original surface is destroyed. There are many springs and disappearing streams.
3. Maximum relief, although not great, is achieved. Differences in elevation between the rim and the floor of the sink rarely exceed 200 to 300 feet.

Photograph

Late Stage

1. Solution activity has reduced the area to the base of the limestone unit.
2. Hills formed as erosional remnants are few, widely scattered, and generally reduced to low, conical knolls.

Figure 134. Block diagrams showing the evolution of karst topography.

Photograph

Figure 135. Central Florida.

EARLY STAGE OF KARST DEVELOPMENT

The bedrock in this area consists of horizontal layers of limestone. Local relief is only a few tens of feet.

Problems

1. With a colored pencil trace the drainage pattern shown in Figure 135. Is this pattern typical or a typical of karst topography?
2. Note the light tone surrounding some of the sinks. Considering the relationship of the water table to surface topography, how would you explain these tonal differences?
3. Explain why the series of sinks occurs in a straight line north of the road.
4. List the evidence indicating that this area is in the early stage of karst development.

Figure 136. Manati, Puerto Rico.

MIDDLE STAGE OF KARST DEVELOPMENT

The bedrock in Manati, Puerto Rico, is nearly horizontal and consists of pure, dense limestone. Sinkholes in this region are as much as 150 feet deep and hills are up to 300 feet high.

Problems

1. Study the area shown in Figure 136 and compare it with the topography of the early and middle stages of stream erosion. List evidence indicating that this topography was not produced by stream erosion.
2. Explain the origin of the circular and elongate hills in this region. What features indicate the stage of erosional development?
3. Why are there only a few sinkholes in this area? Where do they occur?

KARST TOPOGRAPHY

Figure 137 (p. 95). Mammoth Cave, Kentucky

The pockmarked surface of the Mammoth Cave area of Kentucky is a classic example of karst topography. Many of the sinks are aligned along joint systems, forming linear depressions. Some of the sinks south of Park City are more than 60 feet deep. North of Park City the number of sinks per unit area diminishes, but here there is a vast underground network of caverns. The northwest corner of the map is underlain by mammoth cave.

Problems

1. Study the map carefully and outline the large solution valleys.
2. Locate several disappearing streams and trace out the course of each. do these streams show characteristics of a typical river system? What features of karst drainage patterns are unique?
3. Compare this area with the sequence of diagrams in figure 134. Is it in the early, middle, or late stage of development? What specific features indicate the stage of development of this area?
4. What geologic hazards are most likely to be encountered in this area?
5. What particular problem of waste disposal and pollution does a karst area present to a city or industrial development?
6. Note the differences in topography in the northern, middle, and southern parts of the map, and consider the discussion of page 90. Does it appear that the stages in evolution of the landforms vary? How would you explain the differences in topographic development?

Aerial Photograph

KARST TOPOGRAPHY

Figure 139 (p. 97). Interlachen, Florida

The elevation of the lakes in this region provides much important information about the ground-water conditions. The surface of each lake is essentially the surface of the water table. Thus the lakes are control points for the elevation of the water table, and it is possible to construct a generalized contour map showing the configuration of the water table. For example, in Figure 138 the elevation of Dark Lake is between 120 and 130 feet, the elevation of Glass Lake is between 140 and 150 feet, and the elevation of Clear Lake is between 100 and 110 feet. For convenience, assume that the levels of these lakes are 125, 145, and 105 feet, respectively. The water table can be contoured by application of the same principles used in contouring the surface of land. The 140- and 130-foot contour lines would be located between Dark Lake and Glass Lake, and the 120- and 110-foot contour lines would be located between Clear Lake and Dark Lake. It is obvious that the water table slopes to the east.

Problems

1. Determine the elevation of most of the large lakes in this area and construct a contour map of the surface of the water table.
2. Many farms, small industries, and urban centers dump all their untreated liquid wastes into the subsurface. What happens to it?
3. What geologic hazards (floods, landslides, subsidence, earthquakes, erosion, etc.) are most significant in construction work in this area?

Photograph

Figure 138. Diagram showing how to contour a water table.

Aerial Photograph

WORLD AFFAIRS MODULE

CONTEMPORARY WORLD ISSUES

prepared by
Wrenda Fuller

SUGGESTED TIME FRAME: Six 3-hour classes

PREREQUISITE: Student must be identified as gifted.

OVERVIEW OF COURSE:

The students in this class of international problems will spend six sessions studying and analyzing five selected areas of world concern. The areas of study include the Mideast situation problem, U.S. Soviet relations, world hunger, the international banking crisis, and international terrorism. In examining these areas, the approach will not be to come up with solutions but to determine why the solutions have not been found and analyze alternatives to the present situation. The following overall goals will guide the organization of every class:

KNOWLEDGE GOALS

1. To analyze U.S. foreign policy in the selected problem areas.
2. To examine the major trends, individuals, events and obstacles influencing the selected problem areas.
3. To compare responses to world problems made by Western bloc nations, Eastern bloc nations, and developing nations.
4. To bring depth of understanding to the possible role of an individual in influencing change in our world society.
5. To examine the inter-relationship of economic, social and political forces.

SKILL GOALS

1. To provide an opportunity to develop analytical and debate skills.
2. To provide learning experiences that will promote creativity and encourage the risk-taking of adventurous thinking.

BEHAVIOR GOAL

1. To promote confidence in individual thought and worth.

MIDDLE EAST--SESSION #1

OVERVIEW

The student will examine the issues surrounding the Mideast conflict and attempt to determine the approaches which could be used in solving the Palestinian refugee problem. In examining the strategies, the students will also be asked to analyze possible barriers.

GOALS

1. To summarize and analyze the issue of the Mideast conflict.

OBJECTIVES

- a. To summarize the history of conflict.
 - b. To investigate the influence of religion on events.
 - c. To analyze the extent of the Palestinian refugee problem.
 - d. To analyze the role of the superpowers, vs. Arab nations, vs. Israel in the region.
2. To discuss various types of strategies for resolving conflict and relate to the Middle East.

OBJECTIVES

- a. To rate the following general types of strategies for resolving conflict:
 - _____ Fight to win: fight to the finish
 - _____ Use delaying tactics: hold conference after conference until the other side gives in
 - _____ Bring in a third party, and agree to accept his/her/their ruling
 - _____ Bring pressure on other side by building up a circle of ruling
 - _____ Decide to give up some goals, in order to reach a settlement
- b. To identify which method of conflict resolution has been attempted in the Middle East.

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U.S.-SOVIET RELATIONS--SESSION 02 AND 03

OVERVIEW

The discussion of U. S. Soviet relations will cover 2 sessions. (Each session will last two hours 15 minutes.) The first session will focus on background information on the Soviet Union and its attitudes to the United States. A guest lecturer will be invited to cover the background material. The second part of this unit will be a simulation game using historical and current figures in the East-West controversy concerning nuclear weapons. The purpose of the game will be to negotiate the elimination of space weapons, in other words, Reagan's "star wars" concept.

GOALS

1. To describe life in the Soviet Union.

OBJECTIVES

- a. To examine the ideological legacy of Marxism-Leninism.
 - b. To describe the structure and practice of government.
 - c. To compare citizenship in the Soviet Union with the experience of Americans.
 - d. to comment on religion and values in a communist society.
2. To describe trends in Soviet (official) attitudes toward the United States.
 - a. To describe the traditional "inevitable war" doctrine.
 - b. To describe Khrushchev's revisionism approach: "peaceful coexistence."
 - c. To describe the Brezhnev-Kosygin approach to detente.
 - d. To describe the current crisis: The apparent failure of detente.
 3. To analyze prospects for the future.
 - a. To analyze why arms talks are important and/or possible.
 - b. To analyze the idealism and realism in American foreign policy.
 - c. To describe factors influencing attitudes of Soviet and U.S. youth.
 4. To discuss whether it is possible to humanize the Soviet-American rivalry.
 5. To simulate a negotiating session between the Soviets and Western bloc countries on armaments.
 - a. To do background research on Reagan's proposed "star wars" concept.

- b. To debate and negotiate the elimination of the development of space weapons.

Activities

1. The first session dealing with background material on the Soviet Union will be entirely by lecture and discussion.
2. The simulation game will be organized as follows: Each school in the previous week will have been assigned the individuals or groups they will represent in the arms negotiation session. There will be 2 - 3 students doing research on an individual or group in order to split the work load. Each group must select their own spokesperson and decide how the research will be carried out. Each group must propose an agenda to follow and the parameters of the topics to be discussed. The compromise agenda and purpose(s) of the session will be worked out in the first fifteen minutes of the session.

The assignments will include the following: Nikita Khrushchev, Alexi Gromyko, Aleksandr Solzhenitsyn, Margaret Thatcher, Green Party (West German Political Party), American Catholic Bishops' Conference, Ronald Reagan, Walter F. Mondale.

SUPER POWERS AND THE WORLD ORDER 01

Background: 1917 to 1945

From the beginning, the Bolshevik revolution presented problems of relationship with the non-communist states of Europe and America. Lenin and the Bolsheviks often appeared as "usurpers" rather than legitimate rulers and their rapid exit from the war in 1918 underscored other basic differences. The Bolsheviks quickly published the secret treaties enacted during the conflict and after the war they repudiated the debts of the tsarist government, claiming that they were a new and different leadership not obligated to the other states.

Furthermore, the Marxist-Leninist blueprint of history called for communist revolutions in other countries, and to that end, the Comintern (Communist International) was organized in 1919 in Russia, France, and elsewhere just after the war. In fact, in Italy, fear of communism was the principal catalyst in giving rise to the fascist in Hungary under Bela Kun in 1919 was quite influential in the Paris peace negotiations and directly affected the map of Europe. In Germany, too, Rosa Luxemburg and Karl Leubknecht (of the Spartacists) attempted a communist coup in 1919, although it too failed. There were a few other instances of such apparent communist spreading into Europe, though basically Russian Bolshevism was too weak at that time to be a serious threat. During the Civil War (1918-1921), Allies intervened.

1. Lenin led the Russian revolution and its government until his death in 1924 by a series of strokes. Lenin believed in world revolution, but he placed his emphasis on Russia. In fact, even in Russia, it appeared that communism was coming to power prematurely. In 1921, after naval revolts and economic chaos were rampant, Lenin enacted the NEP (New Economic Policy) which marked a return to free enterprise in most retail trade and small businesses. NEP also made concessions to the peasants and was intended as a temporary "step backward in order to take two forward" at a later date. Lenin's premature death in 1924 opened an intense debate over whether to continue the quasi-socialist/capitalist policy or to attempt a "permanent" (i.e. complete) socialist revolution. The "right deviationists" (like Nicholas Bukharin) favored keeping NEP and a "snail's pace" to socialism while Leon Trotsky, a deep-rooted ideologist, favored ending NEP and supporting world revolution. Joseph (Josef) Stalin took the middle road of "socialism in one country" and by 1928 has prevailed over his opponents and driven Trotsky out (killed in 1940 in Mexico).

Stalin implemented Five-Year-Plans in 1928 and following and made Russia a powerful industrial state. He borrowed from capitalist technology (including American) in doing this and made the CPSU.

- II For several years following World War I, Russia has no allies in Europe, and like Germany, was a pariah. But the Russian Commissars of Foreign Affairs pursued a policy of seeking normalization of relations with the non-communist states while the Comintern (which the Russians insisted was not a Russian but an international body) continued to promote revolutions.

In 1922, when George Chicherin was foreign commissar (following a brief tenure by Trotsky who shifted to heading the Red Army) Russia and Germany signed the Treaty of Rapallo, during the Genoa Conference, thus ending their isolation. Two years later, in 1924, several states recognized the new USSR, including Britain, France, Italy, Austria, Sweden, Norway, Denmark, Greece, Mexico, and China. In 1925, Japan established normal relations with the Soviet Union.

A notable exception was the United States, which did not recognize the Soviet government until 1933 when Franklin D. Roosevelt was President. Still there were important economic and other contacts between the two countries before 1933.

By 1933, the Nazi Party had risen to power in Germany under Adolf Hitler. A fanatically anti-communist National Socialist, Hitler had used the German communists in his rise, but turned on them after he became Chancellor in January 1933. The rise of Hitler added to American interest in normalizing relations with Soviet Union.

In fact, during the thirties, when Maxim Litvinov was foreign minister (until replaced by Viacheslav Molotov in 1939) the Soviet Union became a member of the League of Nations (replacing Germany, which withdrew in late 1933) and talked of collective security against Germany in Europe. Many European states, though, remained suspicious of the Russians, especially after the beginning of the Great Purge in the middle thirties.

- III As Appeasement abounded in the late 1930's Stalin and Hitler moved toward an alliance, as strange as that was. The Munich Conference (to which the Russians were not invited) in Sept. 1938 particularly alienated the Russians. In the summer of 1939, after the Munich Pacts had been violated and Czechoslovakia dismembered, Russia and Germany signed a 10-year Nonaggression Pact on August 23, 1939. A week later, on September 1, Hitler's armies and Luftwaffe invaded

Poland from the West, and soon the Russians invaded from the East. By the end of the month, Poland was partitioned.

- IV The German-Soviet friendship did not last. By 1941, Hitler launched Operation Barbarossa against the Soviet Union as massive German armies poured into Russia. They ultimately failed and by the end of 1943, the Russian Red Army was beginning a counter-thrust that would not only expel the Germans but also place Russia in a position of power in eastern Europe.

Meanwhile, Allied forces broke through Rommel's lines in North Africa at El Alamein as the German force bogged down and failed at Stalingrad.

The first high-level Allied summits began at Casablanca in early 1943 in Africa. Here they decided on "unconditional surrender" for the Germans.

At this time, the U.S. and the Soviet Union were engaged as military allies against the Germans, Italians, and their satellites. U.S. Lend-Lease aid went to Russia on the basis of the program passed in March 1941. Presumably, too, the Russians at least agreed in principle with the Atlantic Charter of August 1941 between Britain and the U.S.

- V But serious differences were apparent, especially after the Katyn Forest incident of 1943 when thousands of bodies of Polish officers were found in a mass grave there.

Stalin also had a different view of strategy, favoring a second front in the West to relieve pressure on Russian forces. The western Allies concentrated on Italy in 1943, and the second front did not become a reality until D-Day (June 6, 1943).

Late war summits showed some unity but continuing differences.

At Yalta, the Russians made significant gains, especially in the Far East where the Japanese had taken over certain Russian areas in 1905. Russia also was not opposed in regard to her presence in eastern Europe, although the Declaration on Liberated Europe demanded democratization after the war. Russia agreed to enter the war against Japan within three months of the end of the German war. That proved to be less important than anticipated since the U.S. developed an atomic bomb by the summer of 1945 (used on Hiroshima and Nagasaki in August).

Beginnings of the Cold War

War time tensions between the Soviet Union and the western democracies were serious but not insurmountable. The common goal of defeating Nazi Germany held them together through 1945. But by war's end, the greatly augmented power of Russia in eastern Europe and the Kurile and Sakhalin areas of the Far East, along with the growing fear in the West of expansionist communism, virtually destroyed the alliance.

- I The basic terms of post-war settlement were worked out in the conferences at Teheran, Yalta and Potsdam (Berlin) before the war ended. Thus the Paris Peace Conference (July-October 1946) dealt not with Germany but with Italy and the smaller German allies. The Council of Foreign Ministers (U.S., Russia, Britain and aspects of the post-war arrangements.

The Russian Maisky Plan called for \$20 billion in reparations from Germany, about half for Russia. This was accepted by the western allies in principle but precise terms were left to be worked out.

- II Relations between the Soviet Union and the U.S. (and her allies) deteriorated after the war, especially as Russian power was consolidated in much of eastern Europe.

Roosevelt's death in April 1945 brought Harry S. Truman to the Presidency (he was elected on his own in 1948 and served until January 1953 when he was succeeded by Dwight Eisenhower from 1953 to 1961).

American Secretaries of State in this period were:

James F. Byrnes (1945-1947)
George C. Marshall (1947-1949) Marshall Plan
Dean Acheson (1949-1952)
John Foster Dulles (1953-1959)

- A. In 1946, Churchill - recently defeated by Clement Attlee's Labour Party, spoke at Westminster College in Fulton, Missouri about an "iron curtain" that was descending on eastern Europe.

That year and the next brought sharper definitions of the respective positions of the U.S. & USSR. The latter claimed "encirclement" by the capitalist states (led by the U.S.) and American leaders decried the increasing suppression of eastern Europe.

The fact that the U.S. alone had the atomic bomb added to Russian concerns. Truman felt that the atomic bomb was "too dangerous to be let loose in a lawless world" and worked in late 1945 and beyond to control it. It was agreed in Washington in November 1945 that an Atomic Energy Commission would be set up for this purpose. The AEC would operate under the structure of the United Nations (which replaced the defunct League of Nations after the war). The secrets of atomic energy would be shared, said a statement by the Americans and British, "as soon as the effective, enforceable safeguards against its use for destructive purposes" could be found.

The Atomic Energy Commission held its first meeting in June 1946. Bernard Baruch, the American delegate, told the AEC that the U.S. would destroy all of its atomic bombs and share atomic secrets as soon as safeguards could be implemented. The BARUCH PLAN called for international control of atomic weapons under the UN and protected from veto power. The Soviet Union wanted control within the Security Council of the UN (and thus vulnerable to the veto). In February 1947, Andrei Gromyko, speaking in English, insisted on the veto in regard to atomic energy. He called the American (Baruch) plan one-sided. No general agreement was reached on atomic weapons, and by 1949, the Soviet Union had her own.

B. Meanwhile, the two sides in emergent "cold war" organized more fully. A dualism settled again on Europe.

In March 1947, the Truman Doctrine of containment was put into place as Britain withdrew from the civil war in Greece (see Levering pp. 29-30).

The Soviet Union organized the COMINFORM (Communist Information Bureau) which replaced the Comintern that had been ended in 1943 as a concession to the West. This also linked to the Cold War.

In June 1947, the MARSHALL PLAN was announced by Secretary of State, George C. Marshall at Harvard. This aid program was designed to help Europe help herself, but it was also linked to the Cold War.

By 1948, the division of Germany into zones (Yalta and Potsdam) was becoming part of the Cold War. Britain, France, and the U.S. held the western sectors (which became Bizonia and then Trizonia), and the soviets held the eastern part (including the city of Berlin, which was occupied in zones).

The BERLIN BLOCKADE (pp. 34-36) of 1948-1949 proved to be the prelude to permanent division of Germany into the German Federal Republic (capital in Bonn) and the German Democratic Republic (communist East Germany) by 1949.

In 1949, the western states created NATO and the Soviets organized an economic system known as CMEA or COMECON (Council for Mutual Economic Assistance). Czechoslovakia by then under communists (February 1948 coup).

III The 1950's confirmed that the Cold War was a reality that would endure as a fact of contemporary experience. The communist takeover of China in the late forties and the Korean War of 1950 to 1953 further aggravated the situation. In the U.S. there was a period of extreme concern for communism led by Senator Joseph McCarthy (Wisconsin Senator from 1947-1957). Many innocent people were accused of being or sympathizing with communists. The Congress repudiated the McCarthyism approach but the fears and doubts lingered.

In Russia, Stalin resumed the Five-Year-Plans after the war and blamed the war on the West. He took back some of his domestic concessions of the war years and seemed to be purging again when he died in 1953. At the same time, eastern Europe (with the notable exception of Tito's Yugoslavia) became a bloc of Soviet satellites.

The Soviet Union had its own atomic and hydrogen weapons but still lagged militarily and technologically behind the U.S.

- A. Stalin's death in March 1953 led to another power struggle. Nikita S. Khrushchev was the eventual winner, but not until 1958 and then only tenuously. Malenkov and then Bulganin led the government apparatus as Khrushchev led the CPSU until after 1957 when he combined both positions. There was a "thaw" in relations with the West for a while, and some domestic liberalization. The Korean War ended in 1953 and The Geneva Conference of 1954 brought some stabilization in the Far West (see Rosser pp. 282ff. and Levering pp. 52-55).

At home, the U.S. had continuing concerns for communism (discuss Levering pp. 55-63)

- B. Khrushchev preached "peaceful coexistence" with the capitalist states and mended fences with Tito. He also agreed to the long-delayed Austrian State Treaty in 1955 (the war ended ten years later there). See Rosser pp. 289ff. on Geneva Conference (1955).

But with the arming of Germany in 1954-1955, Russia created the WARSAW TREATY ORGANIZATION.

- C. In 1956, the USSR moved against revolts in Poland (with little success) and Hungary (militarily crushed). This sobered those who had taken Khrushchev at face value. Khrushchev disagreed with Malenkov on nuclear weapons (see Rosser p. 286) and opted The Soviet Union developed ICBM's and even orbited the earth with Sputnik I (Oct. 1957).
- D. Meanwhile the Suez Crisis of 1956 brought the Cold War into the Middle East (Rosser pp. 296-297).

THE KHRUSHCHEV ERA AND BEYOND

Nikita S. Khrushchev dominated politics from 1957 until his ouster in October 1964. He was succeeded by Leonid Brezhnev and Alexei Kosygin, whose rule lasted until the early 1980's. Khrushchev, both at home and abroad, was a mixture of toughness and conciliation. He preached "peaceful coexistence" but also put missiles in Cuba. He "de-Stalinized" Russia and eastern Europe but at the same time crushed brutally a revolt in Hungary. Khrushchev was flamboyant and sometimes contradictory.

Khrushchev restored the lost power of the Communist Party of the Soviet Union and sought to bring about communism in Russia during his time. His peaceful coexistence policy was not an end of the Soviet rivalry with non-communist states, but a modification of the form of the struggle: non-military competition. He was no less determined than Lenin or Stalin to see communism victorious in the world.

- I. Khrushchev sought to win friends in the developing nations. In 1955, Prime Minister Nehru of India visited the USSR (June) and was well received. Khrushchev and Bulganin (who, recall, succeeded Malenkov after his "resignation") visited several Third World countries in late 1955: Burma, India, Afghanistan, promising aid and support for complete national independence (see Rosser, p. 292).

Meanwhile, there was further consolidation of regional pacts in the Middle East and Asia that worried the Russians, The Baghdad Pact (February 1955) bound Turkey and Iraq, and later Britain, Pakistan, and Iran in a mutual consultative agreement on matters of defense in the Middle East. Already, in September 1954, the Manila Pact had created the South East Asia Treaty Organization or SEATO, bringing together the United States, Britain, France, Australia, New Zealand, the Philippines, Thailand, and Pakistan. This, too, was a consultative pact, but it clearly linked to the policy of containing the spread of communism. The states involved pledged that in case "the integrity or the sovereignty or political independence of any party in the treaty area . . . is threatened in any other way than by armed attack . . ." they would consult. In case of military attack they would join in mutual defense insofar as their constitutional structures permitted.

John Foster Dulles was committed strongly to opposing communism. But in 1956, the U.S. did not act militarily in Hungary. So the policy of "liberation" remained basically one of theory, not

- II. The Suez Crisis of 1956 witnessed the interesting spectacle of the U.S. and the Soviet Union joining in protesting against France and Britain for their attacks on the Canal region. President Nasser nationalized the Suez Canal in July 1956 after the projected American financing of the Aswan High Dam project fell through. Nasser, who had come to power in Egypt with the 1952 revolt that toppled King Farouk, was incensed. Dulles was also disturbed at apparent Egyptian friendship with the USSR.

In any case, the seizure of the Suez by Nasser caused a deep rift among the western states. Britain and France sent fighter bombers to attack the Canal area, and both Moscow and Washington protested. Complicating the situation in that incredible year was the almost simultaneous occurrences of the Hungarian revolt, the Suez Crisis, and the U. S. presidential election. The UN was in chaos and helpless to do anything meaningful. Israel invaded Egypt.

The primacy of Britain and France in the Middle East that had characterized the period since World War I, now ended. The U.S. and the Soviet Union now became the most important outside forces in that region. Israel was forced to give up her gains.

Colonial empires were coming to an end, and Khrushchev saw the potential for Soviet influence, but he recognized the reality of neutralism as events developed (see Rosser, pp. 294-297). For a while (until Sadat), Russia had much influence in Egypt. Soviet money now helped to complete the Aswan High Dam.

- III Events in Poland and Hungary strained the new Khrushchev policies severely. Thanks to the influence of the Catholic Church and Cardinal Stefan Wladyslaw Gomulka (comparatively a liberal in communist circles and thus opposed to rigid Soviet models) was able to come to power.

In Hungary, though, it was a different story. There, Imre Nagy was defeated and Janos Kadar came to power. Ironically, Poland became more conservative and Hungary more liberal over the following decade. But in 1956, it appeared that conservative communism had triumphed in Hungary as Soviet tanks were brought in.

By 1957, however, Khrushchev had acquired full power in Russia, although not really securely. By 1958 he was the head of the CPSU, the cabinet, and most of the other centers of authority.

IV The next important episode in Soviet-American relations came in 1958-1959 when Khrushchev demanded a permanent German settlement or he would make a firm separate one with East Germany and thus forever seal the fate of Germany as a divided state. He gave the western states six months to bargain (but he later backed down). This Berlin crisis was actually the prelude to worsening conditions in Germany that would lead by 1961 to the Berlin Wall.

Khrushchev visited the U.S. in 1959 and was still talking of compromise and disarmament. But he was also interested in the new Fidel Castro regime in Cuba and soon moved to establish ties there.

V. The period from 1959 to 1962 was one of mixed realities. On the surface at least, relations were improving in 1960, but by a downing of a high-flying photo-reconnaissance U-2 piloted by a young man from Wise County Virginia ended the period of relaxation. It spoiled plans for another Geneva summit between Ike and Khrushchev in the spring of 1960. One thing that bothered Khrushchev about the U-2 incident was that the West had discovered that the Soviet Union did not have as many ICBM's as was believed.

A. In January 1961, John F. Kennedy became President of the U.S. Cut down by an assassin in 1963 in Dallas, Kennedy had a short tenure in office. But it was a dramatic one. Kennedy believed in strong U.S. defenses and was determined to carry on the tradition of toughness. The Bay of Pigs fiasco complicated the Cuban- America -Russian relationship, but did not deter Kennedy in his basic posture.

In June 1961, Kennedy and Khrushchev met in Vienna. Both men were frank and acquired a certain respect for each other. But Kennedy went through with plans to deploy 800 solid-fuel Minuteman ICBM's. He also asked for \$3 1/2 billion to upgrade non-nuclear defenses.

In August 1961, the Berlin Wall sealed off the eastern sectors from the West.

B. Meanwhile, relations between communist China and the USSR worsened beyond repair. Albania defected to the communist Chinese orbit. Both sides made assaults. Russia seemed to be losing her central grip on world communism. Khrushchev was experiencing political problems at home.

C. Khrushchev gambled on putting offensive nuclear weapons in Cuba and precipitated the closest brush with nuclear war ever. In 1962, the Cuban Missile Crisis made the whole world hold its breath. The Cuban crisis also contributed to the downfall of Khrushchev in 1964 since it was an embarrassing setback for Soviet expansionism in the western hemisphere.

VI. Soviet-American relations improved for a while after 1962. A nuclear test ban treaty was signed and a "hot line" installed between the White House and the Kremlin.

When Brezhnev and Kosygin succeeded Khrushchev in October 1964, they took a low profile. Meanwhile Lyndon Johnson became U.S. President and tried to "build bridges to eastern Europe." A stunning setback came in August 1968 when Soviet forces invaded Czechoslovakia where Alexander Dubcek was trying to liberalize.

THE ERA OF DENTENTE, EARLY PHASE: 1969-1972

The late sixties and early seventies witnessed conflicting, if not paradoxical tendencies in world affairs. The United States became more deeply involved in Vietnam and what would prove to be America's longest war and certainly its most divisive since the Civil War. Lyndon Johnson saw his Great Society dreams collapse as the war in Asia worsened. He decided that he would "neither seek nor accept" the Democratic Party's nomination for another term as President.

Richard Nixon now sought and won the U.S. Presidency, defeating Johnson's Vice-President, Hubert Humphrey. Nixon was inaugurated in January 1969 and re-elected in 1972 over George McGovern, a strong component of U.S. involvement in the war. Nixon, too, offered promise of U.S. withdrawal. While only a year or so earlier, a comparative few voices were raised in protest against the Vietnam War (including that of black leader Martin Luther King, Jr., who was assassinated just a few months before Nixon's election), now most Americans opposed the war. It was in the political interest of any major officer seeker to be committed to getting out, although there were still feelings that the U.S. should do so with as much honor as possible.

Nixon, though, actually found the war worsening early in his first term. He expanded it into Cambodia in 1970 (triggering deaths of several students, black and white, at Kent State and Jackson State during protest demonstrations). While the Soviet Union was opposed largely aloof from the direct relations among the superpower states, which now presumably included communist China. (see Levering's frank but helpful treatment, pp 116-123).

1. Soviet-American relations were strained by the Vietnam War and by the Russian invasion of Alexander Dubcek's liberalizing Czechoslovakia in August 1968. Not since 1956 had the USSR used overt military force to hold down a revolt in eastern Europe, but the Czechoslovak crisis revealed that Brezhnev and Kosygin (like Khrushchev before them) would use force to maintain their empire there. The Brezhnev Doctrine, which was used to justify the invasion, explained it in terms of the notion of "limited sovereignty" within the "socialist commonwealth."

After Dubcek, Gustav Husak took over and brought the Czechs and Slovaks back into line with Soviet domination.

- II It is reflective of the times and the approach of Nixon and his principal foreign policy man, Henry Kissinger, that the invasion of Czechoslovakia (as is also true of the Vietnam pursuing nuclear arms limitation talks).

Recall that Soviet diplomats had cried after the Cuban crisis, "You Americans will never be able to do this to us again." They meant that they would catch up with the U.S. in nuclear weapons and delivery systems and create Parity (rough equality) in nuclear capability. That Soviet build-up since 1962 has been one of the most important factors in world history during the past two decades. A counter part to this was the emergence of the idea of MAD (mutual assured destruction) which would serve to balance the two forces by making nuclear war impossible to win. Robert McNamara (among several) said "... nuclear weapons serve no military purpose whatsoever. They are totally use- less - except to deter one's opponent from their use" (New York Times, February 2, 1963).

Useful or not, nuclear weapons were the key to the balance of forces after 1962. As the Soviet Union caught up with, and in raw numbers outstripped, the U.S., it became imperative to put some brakes on the new race. Only after Russia had achieved parity, did she seriously talk of negotiating on further deployment. Neither side spoke very seriously about reducing weapons until the 1980's.

- III The SALT (strategic arms limitation talks) negotiations began in 1969, but did not become effective until 1971. Meanwhile, Nixon and Kissinger were moving to use the China-Soviet split to some advantage and forge a "structure of Peace" based on tough bargaining, balance of forces, and mutual interests (see Levering's incisive analysis, pp. 129-132.)
- A. The U.S. moved toward rapprochement with both communist China and the Soviet Union, by then open enemies. Kissinger did preliminary work (visiting China in July 1971 to talk with Chou En-Lai) and Nixon and his wife Pat and party journeyed to China in February 1972. Only a few month before the Moscow summit of May 1972.

B. There had been some partial steps in the middle and late sixties toward U.S.-Soviet improvement of relations. Kosygin met with President Johnson at Glassboro, New Jersey (refusing to go to the White House or Camp David) in June 1967, but little had come of it. In July 1968 a Non-Proliferation Treaty was signed, but it had questionable value. Nuclear weapons continued to proliferate. Even France became a nuclear power of sorts, and China had the H-Bomb.

IV. The Soviet- American negotiations involved trade, space cooperation, cultural exchange and other non-military aspects. But the central issue was nuclear weapons. The Soviet Union actually had more missiles than the U.S. but we were counting on the superiority of technology, including MIRV's (multiple independently targetable re-entry vehicles) which could deliver several warheads on one ICBM.

The NUTS (Nuclear Utilization Target Selection) concept was just emerging and beginning to compete with MAD strategy. Strategists were beginning to consider more than numbers. Those who were so disturbed that the USSR came from SALT with certain "advantages" ignored say the supporters, the ultimate test in a possible nuclear war: can you survive a strike and then deliver a decisive blow to the enemy (second strike capability)?

But this is the way it looked after the agreements of May 1972:

United States

USSR

1054 ICBMs (1982: 1,052)
710 SLBMs (submarine launched
(mirved at 3,8,10)

1,547 ICBMs (1982: 1,398)
950 SLBMs

ABM (anti-ballistic missiles) limited to two sites with no more than 100 interceptors.

No new systems to be deployed except those under construction or to replace obsolescent ones.

450 long-range bombers
(1982: 347)
41 nuclear subs with
656 launchers
(1982: 32 subs with
520 launchers)

156 long-range bombers
(1982: 156)
44 nuclear subs with
577 launchers
(1982: 71 subs with
950 launchers)

Combined, the two countries estimated in 1972 to have 5,210 warheads (U.S.) and 2,124 (USSR). By 1982 the figures were 9,000 (U.S.) and 7,000 (USSR). These are weapons in deliverable condition on bombers, subs, and missiles. The actual total in stockpiles and on launchers is 50,000 for both sides (14 tons of TNT for every person on the earth).

Intermediate-range missiles (IRBMs) have greatly increased in recent years, especially Soviet missiles.

The Decline of Detente and the Beginnings of the Current Crisis 1972-1980

From the beginning of the SALT I period, there were problems related to enforcing the terms of the agreements, and the Soviet Union continued to oppose on-sight inspections. Congress approved the SALT I Interim Agreement of 1972 with the provision put forth by Senator Henry M. (Scoop) Jackson urging the President to seek terms in SALT II that would "not limit the United States to levels of intercontinental strategic forces inferior to the limits provided for the Soviet Union." Both Congress and the Presidents, from Nixon to Ford and Carter, became uneasy about the continuing Soviet build-up that appeared undeterred by the SALT negotiations.

- I. After Nixon's resignation in 1974, Gerald Ford (1974-1977) met with Brezhnev at Vladivostok in late 1974. The Vladivostok Accord called for an equal aggregate of 2,400 strategic nuclear delivery vehicles, including bombers, ICBM launchers and SLMB launchers. Furthermore, it was agreed that each side could have 1,320 Mirved launchers. They could not agree, however, whether the Soviet Backfire Bomber was intercontinental and thus covered by the agreements. Nor was there any agreement about the U.S. cruise missiles (which were far ahead of Russian versions).
- II. Jimmy Carter defeated Gerald Ford in 1976 and served as President from 1977 to early 1981 when he was succeeded by Ronald Reagan. Carter developed the policy of Moralpolitics (linking principles of civil and human rights to foreign relations). Carter, a neo-populist Democrat with moderate views, aspired to use the force of moral principles to restrain the Soviet leadership. He often referred to the Helsinki Accords of 1975 which legalized the post-WW II boundaries in central and eastern Europe but also required the 35 nations which signed the agreements to respect human and civil rights. The 1974 expulsion of dissident Russian writer, Alexander Solzhenitsyn, was widely publicized, as well as mistreatment of Russian Jews and intellectuals like physicist Andrei Sakharov and the Medvedev brothers who were judged to be "insane" for their dissident criticism.

- III. As it turned out, Carter's approach alienated the Russians, who often spoke of his "arrogant preaching" and indications that he ignored American civil rights issues while scathing the Soviet Union. Furthermore, the State Department took the softer line while security adviser Zbigniew Brzezinski assumed a tougher approach. The Russian leaders were confused: Vance or Brzezinski?

Meanwhile, Russian-backed Cuban ventures in Africa and Central America indicated a certain Neo-imperial thrust in Russian policy and heightened worries in the Middle East where Carter managed to let the Israeli's and Egyptians (under Sadat) to come to terms.

When the Soviet Union invaded Afghanistan on Christmas and just beyond in 1979, Carter decided to restrict economic relations with the Russians and to boycott the 1980 Moscow Olympics. A new impasse was reached in the 1980 Moscow Olympics. A new impasse was reached in the tuncated detente process.

On top of this, Khomeini's followers seized the American embassy in Teheran, Iran in late 1979.

- IV In its basic posture, the Brezhnev leadership departed from some of Khrushchev's models, but did not openly repudiate the idea that communism could be reached without war with the capitalist states. Still, Brezhnev presided over the biggest arms build-up in human history. No one knew exactly how to take this, but increasingly western countries assumed a more negative stance. Margaret Thatcher's election in 1979 in Britain shifted that country more solidly in favor of deterrent power. Similar changes in West Germany (where the Willy Brandt era gave way to that of Helmut Schmidt and the U.S. (Carter and Reagan) gave rise to a sharper sense of confrontation. In West Germany, the SPD/FDP (Social Democrat/Free Democrat) coalition was replaced by a CDU (Christian Democratic Union) / CSU (Christian Social Union) grouping in 1980. Less than two years later, the CDU came to power under its center-right banner with Helmut Kohl. The government favored stronger defenses (including new U.S. missiles) even though many German citizens worried about their consequences and protested against them.

- V. In 1979, NATO decided to deploy in late 1983 and beyond some 572 Pershing II and sophisticated cruise missiles in Europe. This decision was directly related to the de-stabilizing SS-20 series deployed by the Soviet Union. Some contend to this further de-stabilized the balance. Meanwhile, the U.S. continued to debate on the MX system.

The Third World in Soviet-American

The "Third World" is actually a biased term. It does not find easy acceptance in those nations so described. The thrust of it is that the superpower status of the U.S. and Soviet Union defines the basic context of world relations. The "Third World" refers to those nations that are basically apart from the two global camps of the super powers. "Developing nations" is another term applied to parts.

Indeed, a very dramatic trend of post-World War II developments has been the liberation (either by their own efforts or the departure of the colonial powers) of about one billion people from varying degrees of colonial dependence. The liberation of the Belgian Congo in 1960 is sometimes taken as the watershed in this development, but Ghana and other states had already by then won independence in Africa.

- I. Soviet theory has always been opposed to colonial imperialism, and "capitalist imperialist states" is a familiar slogan in Soviet propaganda. By now, most if not all, of the democratic capitalist states have repudiated colonial imperialism as immoral and/or unviable. The high visibility in United Nations General Assembly activities of former colonial countries reflects the tremendous increase in their involvements in recent decades.

The Soviet Union, especially since Khrushchev, has had keen interest in these countries of Asia, Africa, and Latin America. Lenin had revised classical Marxist theory on colonies and Rubinstein argues that the basic Leninist interpretation has persisted in recent years, albeit with some modifications (see carefully, Rubinstein, pp 214-218). Recall the Khrushchev-Bulganin visits to Asia in the middle fifties.

- II. The strategic importance of the Third World has been recognized by both the U.S. and the Soviet Union. American military bases have been established near the Soviet Union where possible and practical, and Russian efforts have been made to counter this with as much military and political presence as possible. Israel has remained a strong American ally, while the USSR has had some notable periodic successes in Egypt, India, and Iran.

But another dimension is important. Both sides, especially the Soviet Union, have seen in these countries possible friendly outposts for trade, ideological and political partnerships, and balancing factors in their world rivalries (including the Russian rivalry with communist China.)

- A. Treaties, military equipment sales, trade, and investment have been the principal expressions of the superpower presence in the Third World. Since 1955, for example, the USSR has made military agreements with developing countries in the amount of about \$75 billion. In 1980, such sales reached their all-time high (\$14 billion) and have declined somewhat since. Russian leaders have refused to make arms sales to Iran and Iraq during their contemporary war. On the other hand, Jordan and Nicaragua were added to the Soviet list. Sizable American aid also goes to these countries, especially Israel.

Eastern European states and Cuba are often the contact points for Soviet military aid, including technicians and advisors.

- B. In the Mediterranean region of Africa and the Middle East, Soviet advisors have been especially visible in large numbers in Algeria, Angola, Ethiopia, Libya, and Syria.

Neither Soviet nor American presence is entirely military. Both countries have promoted economic modernization (see on the Russian-built steel plant in India, Rubinstein, p. 221). India signed a friendship with Moscow in 1955 and maintained perennial support for India over the following decades. The ruling period of Mrs. Indira Gandhi (1966-1977) witnessed further Soviet-Indian aid agreements, despite some straining of relations by the invasion of Czechoslovakia and other crises. (This Mrs. Gandhi was not the wife of the famous nonviolent reformer, but the daughter of Jawaharlal Nehru, who led the country in its early years of independence.) Western aid dramatically increased in the late 1960's.

- C. Neither the Soviet Union nor the U.S. has been entirely convincing in the Third World states. These countries have basic suspicions of former colonial powers, and in some regions like the Middle East, intense religious feelings motivate resistance (recall the Iranian crisis of 1979-1981 and the unexpectedly rugged resistance to Russian forces in Afghanistan).

III. Briefly, certain salient patterns can be seen in Third World countries in relation to our main topic in this course.

- A. In southeastern Asia, neither side did well. Ho Chi Minh (1890-1969) led N. Vietnam during most of the long war. He was a socialist (helped found the French Socialist Party) and once a Comintern leader. But he had lived in London and the U.S. and was in Paris during the peace conference after World War I. He was basically a nationalist leader who might have been won as a western friend. But the French (and later American) presence in South Vietnam was bitterly opposed by Ho Chi Minh, and he died still fighting the division of the country. By 1975, the American effort ended there, and the communist North Vietnamese regime took over Saigon and all of the southern area.

The Soviet Union (after the communist victory) moved in with much aid to the country, and Le Duon joined hands with Moscow. Still, despite a 1978 twenty-year friendship pact, the Soviet Union did find in south Vietnam another Cuba. For one thing, China was a nearby force, and Moscow had to tread carefully. (see Rubinstein, pp. 225-226)

- B. In the Middle East, the Russian leadership had some complicated problems. In 1948, the Soviet Union supported Israeli statehood, and in 1956 stood with the U.S. in opposing the invasions of Egypt. But the long-range trend was toward U.S. -Soviet rivalry. Communist theory was ill-equipped to deal with the PLO (Palestine Liberation Organization, founded in 1964 and led by Yasir Arafat) and other nationalist and religious groupings. The U.S. has consistently supported Israel.

Elsewhere in the Middle East, the Soviet Union and the U.S. have had strategic interests. The Russians have always eyed Iran (formerly Persia) and Afghanistan with much concern, including before 1917.

The U.S. had strong ties to Iran, especially through its oil companies, and for many years (until Khomeini in 1979) was able to keep this linkage. When Muhammad Reza Shah Pahlavi was overthrown in the late seventies, a fanatical Shi'ite regime was established and American subjects subjected to persecution and incarceration. Russia could not make any headway, however, as Iran and Iraq went to war (still fighting in 1984). (For a very interesting story, see Katherine Koob's *Guest of the Revolution on the Iranian crisis*). Russia's gains in Iran were important, but, again, offset by continuing regional problems

C. Rubinstein provides a helpful overview of recent Soviet policy in the Middle East (pp. 240ff.)

1. First, the soviet partnership with Egypt which was established after the 1956 Suez Crisis during President Nasser's tenure (he died in Sept. 1970). Nasser established ties with Russia but was independent in thinking. He created the UAR (United Arab Republic) with Syria. Although this lasted only three years, it indicated Nasser's desire to be an Arab leader more than a Russian client. (see Rubinstein, pp. 241-244)

Brezhnev and Kosygin attempted to continue the Egyptian clientage relationship with Sadat after 1970, but Sadat's disappointment with Soviet arms deliveries and undue attempts to dominate Egyptian policies caused him to expel the Russians in July 1972 (see p. 244).

Nonetheless, the Soviet Union always supported the anti-Israeli position, including in the Yom Kippur War of October 1973. But Sadat rejected the 1971 friendship pact he made with Moscow and increasingly took a pro-western and conciliatory policy (toward Israel). Eventually, during the Jimmy Carter years, Sadat and Begin signed important agreements on occupied Sinai Territory (p. 246).

2. In recent years, the USSR has turned to Syria and the PLO for partnership in the Middle East, while putting severe pressure on Afghanistan and certain other regions.
How did the Egyptian-Israeli treaty bring benefits to the Soviet Union? Problems?

Why did President Hafez Assad want Soviet help? Was he a docile client of Moscow?

3. Moscow has also been interested in the Arabian Peninsula, especially Yemen, Iraq, and Saudi Arabia. A 1958 coup in Iraq opened the door to further penetration since the new Iraqi government took an anti-western stance. The USSR has had considerable interest in stabilizing Iranian-Iraqi relations and did fairly well until the crisis of the early eighties. how does religion complicate the Soviet Union position in the Iran-Iraq relationship? (p. 250)

LESS DEVELOPED COUNTRIES -SESSION 04

Overview

The students will identify differences between a developing country and an industrialized country. The relationship between population growth, g.n.p., percapita income, and literacy levels will be discussed. A focus on hunger as one product of being a third world nation will be made. Two simulations on problems of economically surviving will be conducted.

GOALS

1. To define developing vs. industrialized nation.

Activities

- A. Chart reading comparing per capita income and gross national product of the countries of the world, literacy level, and rate of population change (15 minutes)
 - B. The per capita incomes of the ten least developed countries of the world will be averaged, and students will be asked to develop a monthly budget based on that income. If able to do so, students will then be asked if they could survive in the United States on that monthly budget. The class will then discuss differences in standard of living. Hopefully, they will realize the difference between "have and have not" nations. The class will then discuss in what ways the per capita income can be raised, and again the difficulty. To help in the discussion, a background on the economic base for the ten least developed nations will be provided as well as population information. (50 minutes)
2. To portray the effects of economic underdevelopment.
 - a. Film on hunger (25 minutes)
 3. To analyze possible approaches to dealing with crisis world hunger situations.
 - a. Students will role play a situation in which they personally know for sure that several thousand people will starve within the month if they don't get food. Helping agencies will include the Red Cross, World Council of Churches, and the U.N. Each role description shows heavy demands on the resources of each helping agency. What can be done to help these people? What long term solutions can be used, and what are the barriers?

4. To form a bridge into Session #5, which will concentrate on the international banking crisis and how the less developed countries are big actors in the crisis.

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INTERNATIONAL BANKING CRISIS--SESSION 05

Overview

The student will examine the current international banking crisis and how the less developed countries (LDCs) are big actors in the crisis as well as high interest rates. Possible long term and short term solutions will be analyzed.

Goals

1. To examine the "genesis" of the debt crisis.

Objectives

- a. To analyze the politics of the oil/petro dollar.
- b. To relate the rise in inflation to the rise in the cost of oil and then interest rates.
- c. To discuss the decision of Bretton Woods, 1972.
2. To describe the current economic situation.
 - a. To describe and analyze the relationship of depressed trade and declining prices and how both are affected by high interest rates.
 - b. To describe the dependence of LCDs on exports and inability to attract foreign private capital.
 - c. To analyze political problems in LDCs because/if austerity measures are imposed.
 - d. To analyze effect of protectionist attitudes in area of trade.
3. To characterize U.S. strategy for dealing with the banking problem.
4. To describe role of commercial banks.
5. To brainstorm outlook for next decade and what needs to be done.

Activities

1. Guest speaker from bank on banker's perspective on problem (30-45 minutes)

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"Bankers and the Debt Crisis: An International Melodrama?" Washington, D.C.: United States Department of State, August 25, 1983.

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TERRORISM--SESSION 06

Terrorism has become a frequent, if not accepted, form of political behavior at the national and international levels in the past decade. As a special problem of political violence it has come under considerable scrutiny by scholars and policy makers alike. While there are disagreements about a precise legal definition of political terrorism and about its causes, there is reasonable agreement on a number of points concerning political terrorism. These include: (1) that there is a clear distinction between terrorism employed by national governments and that waged by groups who view a national government or governments as their target; and that (2) the increase in terrorism in recent years is directly related to changing political and technological conditions across the globe. In this unit on terrorism, the student will attempt to define terrorism, identify major characteristics of terrorist groups, and develop a strategy to combat a terrorist group.

Goals

1. To introduce students to the groups which practice political terrorism and to the causes and patterns of this form of political violence.

Objectives

1. To define and distinguish the two major forms of terrorism.
2. To generate a case study of a terrorist group employing a number of attributes.
2. To introduce students to the negotiation process in a terrorist-hostage situation.
 1. To make decisions about tactics and policies for dealing with hostage situation.
 2. To develop rationale for these decisions.

ACTIVITIES

1. **Lecture/discussion on nature and types of terrorism. Hand out sheet listing all the known terrorist organizations in existence today.**
2. **Fill out analysis worksheet on selected terrorist organization (See attached.) Research on the selected group will have been done previous to the class.**
3. **Simulation game on a terrorist-hostage situation. The following scenario taken from a November 9, 1981, issue of TIME Magazine will be used.**

It began as a Brink's job gorier than most, botched, but otherwise routine. A band of six men and two women set the trap. A stalled car blocked the path of the armored vehicle. Two other cars approached and stopped apparently to offer help. The guards did not surrender automatically. Nor had the robbers expected a police patrol car. By the time the shooting was over, two of the would-be robbers, a Brink's guard and two New York policemen were dead.

The robbery was not routine, however. The suspects were spectators from America's almost forgotten radical past. They were members of the Weather Underground, soldiers of the Black Liberation Army, onetime Black Panthers. Their goal was not just robbery but terror.

In an attempt to escape the police dragnet, four of the would-be robbers fled to Laganardia Airport. There they boarded a Boeing 737 bound for Montreal. As the plane taxied to the end of the runway, the fugitives brandished automatic weapons and forced their way into the cockpit. They gained control of the plane and the fifty-two passengers and crew members on board with no casualties.

Once the authorities were informed of the hijacking, and the FBI and New York police arrived at the scene, the terrorists made their demands known. They were clear-cut, with little room for compromise. They demanded safe passage to Libya, where they would get a friendly reception. They also demanded five million dollars, money which would finance future terrorist activities. Finally, they demanded the release of the two comrades who had been captured in the robbery and of six other radical leaders being held in American prisons.

Students will be assigned to the roles of hostage, terrorist or FBI negotiators. Each role will have a role description which the others will not see. (See attached.) The room will be arranged to simulate the skyjacking situation as closely as possible. Terrorist will not be in visual contact with the FBI negotiators, and talking will be through in walkie-talkies. Seven minutes before the end of the period, each student will fill out the questionnaire "How to Deal with Terrorism." Results will be provided at the next class session. (See attached).

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ORGANIZATIONS PRACTICING TERRORISM

Some organizations are listed twice so that you can find them by either initials or name. Most of the names have been translated into English. Therefore initials and names sometimes appear mismatched. For example, the FAR in Guatemala is the Fuerzas Armadas Rebeldes in the Spanish native to the country, but translates into Rebel Armed Forces in English. We have listed the full name only in the interest of simplicity and brevity in compiling the list. A few names, such as the Ordine Nero (Black Order) in Italy, we list only in the native language, because that seems to be the most common reference to them. Also, in the interest of the name, its country or regional area of operations. More detailed information on all of these groups required more space than we can give it here. No single publication was found that does contain details on them all. The collection of materials cited in the bibliography above covers most of them. And, although it is by no means oriented toward a treatment of terrorism, the McGraw-Hill Political Handbook of the World carries information on a number of them, within its description of the political situation in each country.

Afro-American Liberation Army-U.S	Catalan Liberation Front-Spain
ALF (Arab Liberation Front)-Israel	Coalition of Nat'l Liberation
ALN (Nat'l Liberation Action)-Brazil	Brigades-Hati
Americans for Justice-U.S.	COREMO (Revolutionary
Angry Brigade-United Kingdom	Committee of Mozambique).
ANYO (Arab Nationalist Youth	Croations-Yugoslavia and West-
Organization)-Libya	ern Europe
Arab Communist Organization-Syria	Cuban Movement C-4-U.S. anti-
Argentine Anti-Communist Allianc e	anti-Castro
Argentine Nationalist Organization	Dominican People's Movement
Movement (MANO)	Dominican Republic
Armed Forces of National Liberation-	Dominican Revolutionary Party-
Venezuela	Dominican Republic
Armed Liberation Forces-Argentina	Eagles of the Palestinian Revo-
Baader-Meinhof Gang-W. Germany	lutionary Movement
Bandera Roja-Venezuela	ELF (Eritrean Liberation Front-
Black December-Pakistan/U.K.	Ethiopia and Mediterranean
Black Guerrilla Family-U.S. prisons	Area
Black Liberation Army-U.S.	ELN (Nat'l Liberation Army)-
Black September-Mideast	Bolivia
BSO (Black September Organization	ELN (Nat'l Liberation Army)-
same as above)	Columbia
ERP (People's Revolutionary	Eritrean Liberation Front-
Army)-Argentina	Ethiopia

ETA (Freedom for Basque Homeland)
-Spain

Escuadroo Da Morte (Death Homeland)
-Brazil

FAL (Armed Liberation Forces)
-Argentina

Falange Party-Lebanon

FALN (Armed Forces of National
Liberation)-Puerto Rico

FAP (Peronist Armed Forces)
-Argentina

FAR (Revolutionary Armed Forces of
Columbia)

Fatah-Mideast

FLQ (Liberation Front of Quebec)

FRAP(People's Revolutionary
Armed Forces)-Mexico

Free South Moluccan Youth-
Netherlands

Front for the Liberation of
Brittany-France

FSLN (Sandinista National
Liberation Front)-Nicaragua

Group for the Defense of Europe-
France

Irish Republican Army ("Official"
and "Provisional" wings)-
Ireland/U.K.

Islamic Liberation Organization
-Egypt

JDL (Jewish Defense League)-
U.S./Europe

Kachin Independence Army-Burma

Revolutionary Guard

Lebanese Socialist Revolutionary
Movement

Liberation Front of Mozambique

Liberation Front of Quebec

Malayan National Liberation Army-
West Malaysia

MANO (Argentine Nationalist
Organization Movement)

Manson Family-U.S.

Meinhof-Puig Antich Group-
France/West Germany

Mexican People's Liberation
Army

MIR (Movement of the Revolu-
tionary Left)-Bolliva

MIR (same as above)-Chile

MIR (same as above)-Venezuela

Montoneros-Argentina

Movement of the Revolutionary
Left-Bolliva

Movement of -Chile

Movement of -Venezuela

Movement of National Libera-
tion (Tupamoos)-Uruguay

MR-8 (Revolutionary Movement
of October 8)-Brazil

National Liberation Action-
Brazil

National Liberation Army-
Brazil

National Liberation Army-
Columbia

National Liberation Movement-
Iran

National youth for the Libera-
tion of Palestine-Libya

New People's Army-Phillippines

New Wold Liberation Front-U.S.

New Year's Gang-U.S.

Ordine Nero-Italy

Organization of Revolutionary
Socialist Action-Lebanon

Organization of Victims of Oc-
cupied Terrorists/Sons of...
Mideast

PDFLP (Popular Democratic
Front for the Liberation of
Lebanese Palestine)

People's Revolutionary Armed
Forces (FRAP)-Mexico

People's Liberation Army-
Columbia

People's Liberation Front-
Turkey

People's Liberation Front-
Sri Lanka

People's Revolutionary Army
 (ERP)-Argentina
 Peronist Armed Forces (FAP)
 Argentina
 PFLP (Popular Front for the
 Liberation of Palestine
 PFLP-GC (popular Front for the
 Liberation of Palestine-
 General Command)
 PLA (Palestine Liberation Army)
 PLC (Palestine Liberation
 Organization
 Popular Revolutionary Vanguard
 (VRP)-Brazil
 Poor People's Party-Mexico
 PRP (People's Revolutionary
 Party)-Tanzania
 Punishment (Palestine Factions)
 Raul Zendeic International
 Brigade (after name of founder
 of Tupamaros)-France
 Rebel Armed Forces (FAR)-
 Guatemala
 Red Flag 74-United Kingdom
 Red Guerrilla Family-U.S.
 Revolutionary Organization of
 the Tudeh Party-Iran
 Revolutionary Youth Movement-
 Turkey

Sandinista National Liberation
 Front (FSLN)-Nicaragua
 Shan Insurgents-Burma
 Slakhel-Iran
 Symbionese Liberation Army-
 U.S.
 TPLA (Turkish People's Libera-
 tion Army)
 Tupamaros (Movement of
 National Liberation)-Uruguay
 12 of January Movement-
 Dominican Republic
 23rd of September Communist
 League-Mexico
 United Popular Liberation Army
 of America-Mexico
 United Red Army (URA)-Japan
 Union of the People-Mexico
 VPR (Popular Revolutionary
 Vanguard)-Brazil
 Weatherman-U.S.
 White Flags-Burma
 Wrath of God-Israel
 Zapata Urban Front-Mexico

ANALYSIS OF TERRORIST GROUP WORKSHEET

GROUP ATTRIBUTES

Terrorist Group: _____

1. Size of Terrorist Group

Estimates of number of members _____

Geographical range of group _____

2. Leadership of Terrorist Group

Who _____

Background _____

Involved with any other group _____

3. Membership Composition of Terrorist Group

Foreign national involvement _____

Socio-economic class of rank and file _____

Involvement of Women _____

Educational level of rank and file _____

Racial composition _____

4. Organizational Structure of Terrorist Group

Briefly describe how group is organized _____

5. Targets of Terrorist Group

Primary power target _____

Immediate target (hostage) _____

Wider audience target _____

6. Immediate Goals of Terrorist Group

Create a bargaining situation _____

Publicize activities _____

Provoke government repression _____

Punish a guilty party _____

HOW TO DEAL WITH TERRORISM

The following statements make assertions about the kinds of policies which should be taken in response to terrorism. Read them. Think about them. Then circle the phrase below each which most closely represents your feelings about the statement.

1. The safety of hostages should always be the primary concern when negotiating with terrorists.

strongly agree agree disagree strongly disagree

2. Governments should not hesitate to be flexible in responding to demands of terrorists.

strongly agree agree disagree strongly disagree

3. The Israeli approach at Entebbe (that is, a quick strike against the terrorists by special army units) ought to be the model for our nation in dealing with terrorists who take hostages.

strongly agree agree disagree strongly disagree

4. Terrorists will cease taking hostages if more governments adopt "no ransom" policies.

strongly agree agree disagree strongly disagree

5. Political asylum should not be granted to terrorists.

strongly agree agree disagree strongly disagree

6. Control over the media must be exercised by the government in reporting terrorist activities.

strongly agree agree disagree strongly disagree

7. If personal freedom must be sacrificed in order to deal with terrorism, then that is the price we must pay.

strongly agree agree disagree strongly disagree

8. Prolonging a terrorist/hostage situation through negotiation is the best strategy for assuring a peaceful resolution of the dispute.

strongly agree agree disagree strongly disagree

9. The number of deaths caused by acts of terrorism is not sufficiently large to warrant tighter controls on the lives of individuals in our society.

strongly agree

agree

disagree

strongly disagree

SOCIAL SCIENCES MODULE

MEGATRENDS AND SOCIETY

prepared by
Robert H. Tomlinson, Ph.D

SUGGESTED TIME FRAME: Six 3-hour classes

PREREQUISITE: Student must be identified as gifted.

COURSE OVERVIEW:

Over a period of six weeks, students will study the ten trends identified by John Naisbitt in his book "Megatrends". After becoming familiar with his views, students will read national and state newspapers to test Naisbitt's contention and to see if changes have occurred or are likely to occur. One method of testing the whole concept of trends and the need of societies and institutions to adjust to them will involve examining the 1850s through newspapers and other primary sources as well as secondary sources. Students will see the Civil War as a failure of society and its institutions to recognize "megatrends" and accommodate the changes that produced stress and crises for America.

Currently many people are concerned about public education and whether or not educational institutions are adequately preparing students for the changing world. Students will review the controversial report "A Nation at Risk" and relate it to the megatrends. Both Naisbitt and the authors of "A Nation at Risk" present interpretations and points of view which challenge other schools of thought including the determinist views, so students will during the last week of the term examine and compare different philosophies and schools of thought. Overall students will work with the concept that ideas are real and powerful and require the attention of public officials as well as the public.

Through an examination of John Naisbitt's thesis in "Megatrends", students will test the trends to see if newspapers confirm Naisbitt's ideas. In addition, students will review trends in the nineteenth century and examine consequences to a society that ignores trends. Finally students will review different views or interpretations of history.

MEGATRENDS IN AMERICA: PAST AND PRESENT

GOALS:

1. Examine the ten megatrends

OBJECTIVES:

1. Through examination of newspapers, check to see if all trends continue.
 2. Determine impact of trends on economic institutions.
 3. By reading articles and discussing trends with leaders in finance, students will determine how and if the state and local communities have been affected by megatrends.
 4. Examine the book "A Nation at Risk" and relate to educational institutions and their efforts to adjust to changes in society.
 5. Examine most recent elections to identify trends and consequences of those trends on the political system.
-
2. Through an examination of newspapers and other primary material, students will study trends in the 1850s and study how and why the society resisted trends and students will note the consequences.

OBJECTIVES: (one week)

1. In one week students will review newspapers to identify trends of the 1850s.
 2. Note trends and then note how sections of the country refused to accept the trends.
 3. Review political, social, and economic consequences of opposing the trends.
-
3. Analyze "A Nation at Risk" and "Megatrends."

OBJECTIVES:

1. See if weaknesses and problems identified in Nation at Risk relate to changes noted in the megatrends.
 2. Note opportunities awaiting school systems that can adjust to megatrends rather than confront them.
 3. Discuss possible teaching alternatives and new techniques that will be available in the near future.
-
4. Examine different theses and philosophies used to explain how and why events follow a certain course in history.

OBJECTIVES: (one week)

1. Examine various explanations such as cyclical, dialectic process, or straight line interpretations.
2. Note conflict of views with Naisbitt's idea of trends.

ACTIVITIES:

1. Work with newspapers on microfilm and other primary sources on microfiche.
2. Discuss trends with leaders of finance, education, and politics.
3. Review current literature to identify "new" trends.
4. Predict consequences of trends on society.

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- Brown, Lester R.*, et al. State of the World. New York: W. W. Norton & Company, 1984.
- Burnham, Walter Dean* The American Party System. New York: Oxford University Press, 1975.
- Butterfield, Herbert* The Origins of History. New York: Basic Books, Inc., Publishers, 1981.
- Hayes, Samuel P.* The Response to Industrialism, 1885-1914. Chicago: The University of Chicago Press, 1957.
- Leuchtenburg, William E.* A Troubled Feast. Rev. ed. Boston: Little, Brown, and Company, 1979.
- Moesser, John V.*, ed. A Virginia Profile: 1960-2000. New Jersey: Commonwealth Books, 1981.
- Nichols, Roy Franklin* The Disruption of American Democracy. New York: The Free Press, 1948.
- Tuchman, Barbara W.* The March of Folly. New York: Alfred A. Knopf, 1984.

MEGATRENDS: PRESENT

OVERVIEW:

Through an examination of John Naisbitt's Megatrends, students will test the trends to see if current newspapers support his thesis. Students will test and analyze all ten of the megatrends.

GOALS:

1. Identify the ten megatrends.

OBJECTIVES:

1. By using several major presses, students will look for evidence of the trends. Students will be familiar with a national paper and state press.
2. After confirming or rejecting the trends, students will determine the impact of the trends on economic and social institutions (both national and state).
2. Note differences in Naisbitt's megatrends and what the students can identify and confirm.

OBJECTIVES:

1. Observe that trends may shift and are not built into concrete.
2. Train students to read critically and use "content analysis."
3. Relate trends to Virginia's institutions (government, financial, and social).

OBJECTIVES:

1. Familiarize students with current status of Virginia's institutions and evaluate how the state compares with the "trend setters."
2. Use local leaders in finance, education, etc. to help students determine the current condition of Virginia and Southwest Virginia.
3. Project what Virginia may do or need to do to take advantage of the megatrends.
4. Examine the elections of 1984 to identify political trends to see if megatrends are affecting voter behavior.

OBJECTIVES:

1. Note different voter preferences in sections of the country.
2. Study how the major parties adjusted to the trends.
3. Evaluate Walter Dean Burnham's thesis concerning shifts in voters that might produce a minority president (one who receives fewer than fifty percent of the vote) by 1988.

5. Evaluate the impact of megatrends on the state of the world.

OBJECTIVES:

1. Determine whether or not megatrends will assist or make difficult the world's need to achieve sustainability.
2. Evaluate efforts of society to reduce dependence on oil.
3. Consider alternatives in reshaping economic policies.

ACTIVITIES:

1. Review newspapers (national and state).
2. Discuss trends with leaders in finance, education, and government.
3. Review current literature to identify "new" trends.
4. Use equipment for reading microfilm and microfiche.

MEGATRENDS: PAST

OVERVIEW:

The gain an awareness of trends in an earlier period (1850s), students will read newspapers on microfilm and note trends and note how the nation and sections of the country adjusted to them.

GOALS:

1. Identify megatrends of 1850s.

OBJECTIVES:

1. Note major economic and social trends that affected institutions of the 1850s.
 2. Identify people and organizations that seem to encourage or use the megatrends.
- 2. Evaluate the reaction of American institutions to stress and strain of megatrends and their success and failure at adjusting.**

OBJECTIVES:

1. Note distress and confusion in political institutions.
2. Note changes in the American financial institutions.
3. Evaluate leadership in America during 1850s.
4. Evaluate conflicting goals of different interest groups.

ACTIVITIES:

1. Read newspapers on microfilm and other primary sources on microfiche.
2. Review literature on interpreting the 1850s.
3. relate failures to adjust to the outbreak of the Civil War.

MEGATRENDS AND PUBLIC EDUCATION

OVERVIEW:

Students will familiarize themselves with The Nation at Risk and determine if public education is ignoring megatrends or is having difficulty adjusting or obtaining the resources necessary to adjust to the trends.

GOALS:

1. Become familiar with the beginning of public education and its original purposes.

OBJECTIVES:

1. Note the differences in the society of the nineteenth century with present day.
2. Note how the nineteenth century school systems had to adjust to an urban and industrial society in the late nineteenth century.
3. recognize opportunities that the trends offer educational system.
4. Note possible changes in teaching methods.

2. Identify major needs of the public schools.

OBJECTIVES:

1. Analyze the problems identified and relate to megatrends.
2. Propose solutions: economic and philosophical.

3. Examine the difficulties that people, institutions, and nations have in adjusting to rapid social change.

OBJECTIVES:

1. Note the institutions in societies that desire to maintain the status quo.
2. Note the political instability that results from rapid change

ACTIVITIES:

1. Review "A Nation at Risk."
2. Compare views of educators of the nineteenth century with those expressed in "A Nation at Risk."
3. Discuss Virginia's educational needs with school leaders.

MEGATRENDS OF TODAY AND DIFFERENT SCHOOLS OF INTERPRETATION

OVERVIEW:

Examine different theses and philosophies used to explain how and why events follow course in history.

GOALS:

1. **Note the determinists views of history and analyze the assumptions and differences among the interpretations.**

OBJECTIVES:

1. Note the cyclical interpretations.
 2. Note the theory of progress.
 3. Note the use by Hegel and Marx of the dialectic process.
 4. Note belief of divine intervention in history.
2. **Examine the conflict of Naisbitt's thesis of megatrends with determinist theories.**

OBJECTIVES:

1. Check for assumption in both Naisbitt's views and in theories of determinism.
2. Note the importance of the grass roots in Naisbitt's work and the insignificance of individual's decisions of a determinist view.

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Books:

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Droper, Theodore, Present History, (1984).
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Mooser, John V. (ed.), A Virginia Profile: 1960-2000, (1981).
Naisbitt, John, Megatrends, (1982).
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Newspapers:

- New York Times
Richmond Whig and Public Advertiser
Washington Post

Magazines:

- The Futurist

TECHNOLOGY MODULE

COMPUTERS - TOOLS OF TOMORROW

prepared by
Muhammed A. Hashim

SUGGESTED TIME FRAME: Six 3-hour classes One class meeting a week.

PREREQUISITE: Students must be identified as gifted and have some basic knowledge of using a mini/micro computer

COURSE OVERVIEW:

This unit will introduce the student to the varied and exciting use of the personal computer in both the world of technology and the world of arts. The students, working their way through assignments will learn how the computer can be used as an office management system, a word/text processor. They will discover the computer as a drafting tool for graphics, blue prints and even artistic drawing. This unit will provide experience for the students to use the computer for speech and music synthesis. The students will also learn the use of computers for document or data reproduction and for control of external processes through experimentation of controlling a robot with a personal computer

Although the same concepts can be applied with a variety of personal computers, this unit has specifically been designed for the Apple Macintosh Personal Computer.

Owing to the time allocated to this module the content and assignment for each unit has been kept simple and without too much depth. If time permits, the contents and assignments can be expanded accordingly for more in-depth coverage of each unit. Also, with the passage of time, as more software becomes available, these units can be modified or other units can be added

WEEK 1

GOAL: Learn to use the Macintosh

OBJECTIVES:

1. The student will become familiar with the switches, keyboard and mouse control of the Macintosh.
2. The student will learn the use of controls for saving and retrieving files to and from the disk.
3. The student will become aware of the various features of this Macintosh for data/file retrieval, updating and storage.

4. The student will learn the use of pull down windows.
5. The student will learn the various editing features of the Macintosh.

ACTIVITIES

The students will divide into groups and then get hands on experience with an Apple Macintosh computer. With the help of the instructor the student will learn to use and apply the various features of the Macintosh.

SOFTWARE REQUIRED:

- (i) Guided tour of Macintosh
- (ii) Guided tour of Macwrite/Macpaint

WEEK 2

GOAL: Prepare a resume and job application using the Macwrite (Macintosh Word Processor).

OBJECTIVES:

1. The student will acquire job seeking skills by hearing how to prepare a personal resume.
2. The student will become familiar with the process of applying for a job.
3. The student will learn to use the word/text processor to prepare documents.
4. The student will learn the editing features of the word processor.
5. The student will learn how to format the text using the various features of the text processor.

ACTIVITIES:

The student will prepare a letter of application and an accompanying resume for a job he dreams to have about 10 years from now. The student will assume he has had the necessary education and experience (making it up on his projections and aspirations) towards having this position.

SOFTWARE REQUIRED:

- (i) MacWrite

WEEK 3

- GOAL:**
1. Prepare a floor plan of a house using the Macpaint (Macintosh Drafting package).
 2. Prepare a free hand artistic sketch.

OBJECTIVES:

1. The student will learn the fundamentals of technical drafting.
2. The student will acquire the skills for reading and drawing a blueprint for the floor plan of a house.
3. The student will learn the use of computer as a drafting tool.
4. The student will become familiar with the process of converting mental images into visual drawings.
5. The student will learn the use of computer as a sketching/drafting tool.

ACTIVITIES: USING MACPAINT

1. The students will draw a floor plan (limited to one floor) of either the house he lives in or the house he would like to live in.
2. *The student will design and draw a free hand artistic sketch.
* If time permits

WEEK 4

GOAL: Compose simple melodies using the computer music synthesizer.

OBJECTIVES

1. The student will learn how to use the Macintosh music synthesizer.
2. The student will acquire the fundamentals of reading & composing music.
3. The student will learn to use the graphical representation of music
4. The student will learn how to create sound effects using the music synthesizer.

ACTIVITIES

Using the music synthesizer the students will compose a small musical score.

SOFTWARE REQUIRED:

- (i) Music Works.

WEEK 5

- GOAL:**
1. Use the computer as a speech synthesizer.
 2. Reproduce documents using the computers' image processor.

OBJECTIVES

1. The students will learn how the computer works as a speech synthesizer.
2. The students will acquire basic knowledge of phonetics.
3. The student will see how the computer can scan documents and create an image of it.
4. From this the student will go on to learn how scan and stored documents can be changed or modified by use of Macpoint.

ACTIVITIES:

1. Using the speech synthesizer the student will program the computer to deliver a monologue.
2. The student will recreate a photograph/ pictorial using the computer's scanner.

SOFTWARE REQUIRED:

- (i) Smoothtalker
- (ii) Thunderscan.

WEEK 6

GOAL: Control a RHINO-XR Robot to do repetitive pick and place movements.

OBJECTIVES

1. The student will learn the basics of Robotics.
2. The student will learn how to program Robot movements using the Basic language.
3. The student will program the computer to do a variety of repetitive movements.
4. The student will acquire an understanding of "Basic" programming language.

ACTIVITIES

Using the Macintosh Computer the student will program the RHINO Robot to do various repetitive movements.

LETTER OF APPLICATION

Everything that has been said about creating good tone in letters and memos applies doubly to the letter of application. Perhaps in no other letter you will ever write will good tone be so important. Every sentence, every paragraph of the letter of applications contributes to your personal portrait which emerges from the letter itself. Even one carelessly worded sentence or paragraph can suggest to the reader that you are patronizing, incompetent, overconfident, anxious, pessimistic, lazy, or indifferent. Therefore, as you prepare the letter of application to accompany the resume, do so with scrupulous care, keeping in mind that the total impression your letter and resume make on the prospective employer will determine whether or not you receive an interview.

The letter of application is not just a "cover letter" -- it works with the resume. While the resume records essential facts about your background, the application letter develops particular items that will be of interest to your reader, giving these items life and meaning. Therefore, in planning your letter of application, consider what particular parts of your education and experience (selected from your resume) will be of greatest interest to the prospective employer. Then organize your letter to display these points as positively as possible.

OPENING PARAGRAPH

For the letter of application to be off to a good start, its good tone should be established immediately, in the first sentence. The opening sentence should be forceful enough to catch the reader's attention and encourage further reading. Always avoid opening sentences such as these:

This is in reply to your ad for a civil technologist in the April 18 *Houston Post*. [flat-trite]

Replying to your ad for a civil technologist, I am writing this letter to submit my qualifications. [more trite phrasing]

I just happened to be reading the Sunday *Dallas Morning News* and noticed your ad for a bookkeeper. [job search not planned; writer not seriously looking for a job]

I will be receiving a B.S. in mechanical technology in May and am wondering if your company will be interested in hiring anyone in my field. [no knowledge of company; job search is a "fishing" expedition]

To develop a good opening paragraph, you can always use one of the following forms:

Summary Beginning (emphasizing qualifications for the job): Four years' experience as a receptionist-bookkeeper and three years of courses in business administration and accounting at Texas A&M University make me confident that I am qualified to fill the position you have open for a part-time receptionist-bookkeeper. I learned of the opening from you ad in *Eagle*, Friday, October 8.

Name Beginning: Dr. John Adams, Professor of Recreation and Parks at Colorado State University, told me that you have a naturalist position open. May I familiarize you with my qualifications?

Question Opening: (good for unsolicited letters): Do you have any summer job openings for student workers majoring in agriculture? Dr. Curtis Howard, Associate Dean, College of Agriculture, suggested that I contact you to see if you planned to add students to your staff during the coming summer.

The "original" opening can also be used, but be sure that in trying to sound original you do not sound bizarre:

Poor Original Openings: "We're ready when you are!" your firm's advertising slogan is most attractive. No doubt an indication of one of the most successful airlines' effective use of the media. I am also ready when you are to make my career with Delta. Either an aircraft/pilot support position or one with airline management would utilize me to the fullest. Are you ready for me?

Good Original Opening: I am a biomedical science student at Howard College, with the qualifications to become a lab technician and general assistant in your company's research division.

Sometimes you can combine elements of these four types of openings to create an opening that is both original and effective:

At a recent meeting of the IEEE Communications Chapter, I learned from Mr. Joe Smith of Western Electric that you are planning to hire two telemetry systems engineers. I have the qualifications for that position, based on my education and experience in communication systems.

MIDDLE PARAGRAPHS

The middle paragraphs of the application letter—either two or three—should discuss particular aspects of experience and/or education that will interest the prospective employer. The order of presentation here should follow the order of the resume; if you list experience first in the resume, then you should discuss experience first in the letter. In discussing either education or experience (or both), shape the particular ideas to show how your background meets the company's needs. In the following sample experience paragraph, the student, who is applying for an assistantship in a biochemistry department, describes laboratory techniques she can perform.

Working for the USDA Veterinary Toxicology and Entomology Research Laboratory has given me three years of valuable laboratory experience. My work involves insect biological oxidative systems. I routinely prepare and analyze insect and rat microsomes. For example, I determined the extinction coefficient of microsomal P-450 in houseflies. Through this work I have learned invaluable techniques involving UV Spectroscopy and differential centrifugation. I raise the houseflies which are used in the experiments. My work has also included applying insecticides and insect growth regulators to houseflies and stable flies. To determine the effectiveness of the compounds, I kept careful records of enclosure rates. Purifying compounds by thin-layer chromatography is another part of my duties. This involves making the tlc plates, streaking the compound, and extracting the purified band.

Other suitable topics for the middle paragraphs of the application letter might be social or community activities in which you have excelled. However, you should include these only if these activities would interest your reader and help form a positive judgment about you. In short, the middle paragraphs are not to be a chronological recital of your past, but a highlighting of specific points selected from your resume and presented with your reader in mind. In the following example paragraph, an honor student applying for an accounting position in an oil company shows how his academic activities provide a meaningful experience that would be valuable to an employer:

I believe that my scholastic activities and honors reflect my willingness to participate and to work diligently. I am an active member of the Accounting Society and Beta Alpha Psi, an honor society for accounting majors. In these organizations, I have worked to serve both students and the community through such activities as career awareness conferences, tutoring, and tax information booths. This spring, for the second year, I will receive the Thomas S. Gathright Award, an academic achievement award presented each year to the top sophomore, junior, and senior from each college at Texas A&M.

When building these middle paragraphs, remember to choose and shape information that will be informative and interesting to your reader. Instead of sending the same application for every job, custom-design your message for each prospective employer to insure its being reader centered.

CONCLUDING PARAGRAPH

The concluding paragraph of the application letter should request an interview. Write the paragraph as forcefully as possible to try to elicit a response from the reader.

Example 1: May I come in and talk with you or another member of your firm? I believe I can assure you of my value. I will be available to begin summer employment after May 14.

Example 2: I will be in Houston from December 14-18 and would be happy to come in for a personal interview at your convenience. If another date is more convenient for you, I can be reached at the temporary address shown on the resume until December 31.

Example 3: Because of my engineering education and practical experience dealing with machines and people, I believe I am able to meet your requirements. Will you allow me to have an interview at your convenience? I can be contacted at the address given in my resume.

In contrast, avoid endings that do not encourage a specific response from the reader or sound as if you are not eager or confident about arranging an interview.

Example 1: I am looking forward to hearing from you. Thank you for your time.

Example 2: I was wondering if I could possibly get an interview with you people in one of the aforementioned departments.

RESUME

The resume is usually divided into at least four major sections: (1) heading, (2) education, (3) experience, and (4) personal data. Other divisions, such as references, may be included, depending on the prospective employer's preferences. Remember: every resume is different. As in the application letter, design your resume to display the details of your qualifications as clearly and effectively as possible.

While "tone" does not actually apply to the resume, the format and wording of your resume can give the reader an unfavorable impression about you or discourage the reader from wanting to read the resume. Effective formatting—appealing use of type, spacing, and arrangement of content—can encourage the reader. The resume should be visually appealing. Content should be easy to see, easy to read, easy to follow. However, you may develop your resume, avoid a cluttered, disorganized appearance and omit extraneous, trivial information.

HEADING

Your resume should begin with an appropriate title. Do not use RESUME as a title. Word the heading appropriately for the kind of job for which you are applying. Include your address and phone number so that the prospective employer can find it immediately:

EXECUTIVE SECRETARY CREDENTIALS OF MARY ANN SMITH

1410 Suncrest Hollow
Houston, Texas 77036
713-555-6272

WINSTON H. CARROLL, C. P. A. MANAGERIAL ACCOUNTING CREDENTIALS

for
IBM CORPORATION
2224 Belmont Drive Houston, Texas 713-555-2123

EDUCATION/EXPERIENCE

The next section of your resume should document either your education or your experience, depending on which you are emphasizing in your job search. In either case, list the data chronologically, beginning with the most recent experience or educational background.

For education, give inclusive dates, name of institutions attended, degree or kind of study taken at each. Consider using the following format if you are relying heavily on your education to appeal to the prospective employer. Under education you may want to list honors received and your grade point ratio (only if good). However, if you have earned enough honors, you may wish to save these for a special section that would include other distinguished achievements.

CONSTRUCTION MANAGEMENT QUALIFICATIONS

STEPHEN JAY WILLIAMSON

918 Old Lake Road, Houston, TX 77057
468-1998

EDUCATION

Bachelor of Science in Technology with a major in Civil Technology
(Building and Construction) from the University of Houston, May 1979.

Houston Baptist University, majored in Business Administration,
1974-1976.

Construction Courses:

Building Materials and Methods
Plans and Specifications
Surveying
Water Technology
transportation Technology
Construction Management
Statics
Strengths of Materials

Mechanics of Structure
Structural Steel Construction
Soil Mechanics
Fundamentals of Concrete
Reinforced Concrete
Technical Drawing
Architectural Drawing
Structural Drawing

Related Courses

calculus	(6 hrs.)	statistics	(4 hrs.)
business law	(3 hrs.)	speech	(3 hrs.)
economics	(12 hrs.)	electronics	(3 hrs.)
management	(12 hrs.)	computer science	(3 hrs.)

Special Educational Courses

Certification in Structural Steel and Concrete Detailing, 360 hours. Texas
A&M University Engineering Extension Service. 1973.
Steam Engineering, 30 class hrs., Rice University NROTC, 1975.
OSHA certification in Construction and Fire Safety, 30 class hrs.,
University of Houston, 1977.

Jack F. Davis
1601 Holleman Apt. 6-7
College Station, Texas 77840

MANAGEMENT PROFILE

713/846-2671

PERSONAL

Age: Date of Birth: March 4, 1954

Family: Married

Education: Bachelor of Science, Horticulture, Texas A&M University,
19___, Cum Laude
Emphasis was placed on Ornamental Horticulture, Plant
Pathology, and Business.

OBJECTIVE

To obtain a challenging position dealing with nursery
production or management.

EXPERIENCE

June 1975 to August 1975 MONROVIA NURSERY COMPANY, Azusa, California
Participated in Monrovia Nursery's Summer Training Program. During the ten-week program gained valuable knowledge and work experience in all phases of nursery production and management.

May 1974 to August 1974 GREEN THUMB CORPORATION, Apopka, Florida
Organized and directed the planting and care of four acres of Uphilodendron oxycardium stock plant area. Acquired firsthand experience in managing labor.

December 1973 to January 1974 GREENTHUMB TROPICAL PLANT RENTALS, Houston, Texas
Consultant on care and maintenance of foliage plants. Instructed maintenance crews on correct watering, fertilization, and pest control practices.

June 1973 to August 1973 GREEN THUMB CORPORATION, Apopka, Florida
Assisted in all phases of greenhouse production of several species of tropical foliage plants.

December 1970 to June 1972 GARDENLAND, INC., Houston Texas
Experience in direct sales and operations in retail nursery business.

ACTIVITIES

Texas A&M University Horticulture Society
President, 1974-75
Vice President, 1974
American Society for Horticultural Science
Treasurer, Souther Region ACB, 1975-76
Texas A&M University Agriculture Council, 1975
Alpha Zeta National Agricultural Honor Fraternity
Laboratory assistant, Nursery Production course, Texas
A&M University, 1976

**SCHOLARSHIPS
AND AWARDS**

Burpee Award in Horticulture, 1975
Texas Association of Nurserymen--Gardenland
Scholarship, 1975

REFERENCES

Furnished in Request.

When describing your experience, begin with your current or most recent job and list other pertinent jobs in reverse chronological order. Work experience is very important, so make a working list of every job you have had. Then select the jobs you will list, choosing the ones that the prospective employer will be most interested in. You should be able to relate valuable experience associated with these jobs in the experience section of your application letter.

In listing a job, give the beginning and ending dates, name of the company, location of the company, and your job title. Then, using phrases beginning with action verb (organized, directed, implemented, led, planned, developed, supervised, coached, etc.), list your duties. Remember that you want to appear as positive and assertive as possible. Avoid using sentences to keep the description as brief and readable as possible. Examine the following entry.

1972 to Eagle Management and Trust Company, Houston, Texas
1973 Acted as an executive secretary for this investment
company. Drafted and checked all company
correspondence, made travel arrangements, calculated
expense accounts, ordered company supplies,
maintained personal accounts for company officers,
updated weekly stock reports, and served as editor of
the company brochure.

PERSONAL DATA

For your brief section on personal data, choose those items that distinguish you as an individual. Professional affiliations, social organization, civic activities, language expertise, avocational accomplishments, special skills, and military records are good items for the personal section. Giving your place of birth (if outside the United States) can be an asset if the company might be considering you for a foreign assignment. Avoid giving race, religion (unless these might specifically interest a reader), hair and eye color. While most employers still except age and marital status to be included in personal information, you are not obligated to furnish this information if you believe these fact would discriminate against you. Do not give height and weight if you are grossly overweight. In short, consider the positive and negative implications of every item you might include under personal information. Choose those items that will help your application, but do include some personal data, as employers usually expect to see some.

REFERENCES

If you have a substantial and impressive section on experience, you are less likely to need to list other references. Because previous employers may be requested to furnish information regarding your time with them, you do not repeat their names in the reference section. Whether to include references on your resume depends upon the preference of the company and the nature of the specific job. Generally, do not include references on your resume. State, instead, "References furnished on request." A good kind of reference is a person of integrity and some accomplishment who knows you well enough to answer questions about your character and personality. As a matter of courtesy, be ready to submit such persons' names (three to five) only after asking and receiving their consent to be used as a reference.

FORMAT SUGGESTIONS

Length. Many resume consultants stress that a resume should be only one page. However, to be on the safe side, develop two resumes--one that is two to three pages and one that is one page, drawn from the material listed on the longer resume. If the resume is your only chance to sell your qualifications, you are probably better off sending a full-length resume, one that you believe gives a complete view of your potential. However, experiment with developing a one-page resume. With careful formatting and by using elite type, you can include a great deal of information on one page.

RESUME AND LETTER OF APPLICATION

1. For the application letter, use semiblock. Generally, the application letter should be kept to one page. (See the following letters for format examples)
2. For both resume and application letter, use 20-1b. (heavyweight) nonerasable bond paper. Consider buying a higher quality 24-1b. bond paper in an attractive color--light gray, off-white, beige, or celery. Avoid colors like pink or blue. Check with a stationer who can show you brands and samples.
3. Both the letter and resume should be typed error-free. Corrections are permissible if they are invisible, but absolutely no misspelled words, punctuation errors, or usage errors should be present. Even one such error suggests that you are either careless or unable to handle your language.
4. Type the resume and letter using a carbon ribbon, as cloth ribbons make uneven, fuzzy characters.
5. Experiment with various formats, typing styles, and spacing. Use adequate spacing to insure an uncluttered page. Experiment with headings that use both all caps and mixed case. A resume that is all mixed case with no underlining or variation in spacing is unattractive, boring, and discouraging to the reader. Therefore, plan the layout so that your resume is visually accessible and appealing.

6. Use elite type if you have a great deal of information to include in the resume.
7. When preparing to mail the resume and letter, mail the in a 9" x 12" envelope. Do not fold and mail then in a standard-sized business envelope. Be sure that the label on the envelope is properly and neatly addressed and correctly spelled. Do not include with you letter and resume transcripts, letters of recommendation, or work samples. Send these only when requested.

CONCLUSION

College students who have little work experience frequently complain. "I don't have anything to put on a resume." Yes, you do! Note the following resume written by a college freshman applying for a summer job. The student does an excellent job of displaying his high school background, which is all he has. No matter how limited your background, you can develop a resume and letter to display your background and abilities to their best advantage.

378 Penland Hall
Baylor University
Waco, Texas 76703
February 20, 1985

Mr. Bill Alley, College Recruiter
Personnel Department
Brown & Root, Inc.
P. O. Box 3
Houston, Texas 77001

Dear Mr. Alley:

I am a student at Baylor University in the electronic engineering program. During the summer, I would like to work for your company as an electronic engineering apprentice to earn my tuition. Mr. Robert Varnadoe, a civil engineer for your company, tells me that you hire college students for summer employment.

The enclosed resume sheet shows special areas of study which have contributed to my qualifications. I have excelled in the field of mathematics, obtaining a perfect score of 36 in math on the ACT exam. While in high school I was in Mu Alpha Theta, an honorary math society, and on the math team which participated in tournaments around the state. Having completed a study in computer math in high school and a computer science course during the first semester of college has given me a good background in basic and Fortran IV computer language.

The applications of mathematics in electronic engineering would be an exciting field of work, and I would certainly try to fulfill any position you offered me.

I will be in Houston during the week of March 10-15. Would it be possible to have an interview with you during that week? If so, you may contact me at the address on my resume.

Sincerely,

Clifford B. Martin

Enclosure

CLIFFORD B. MARTIN

Statement of Employment Assets for Summer Work in Electronic Engineering Available : May 12, 1980

School Address

378 Penland Hall
Baylor University
Waco, Texas 76703
(817 555-2135)

Permanent Address

19614 Shinwood Dr.
Humble, Texas, 77338
(713) 555-2776

EDUCATION

Currently a freshman in the Honors Program at Baylor University, working toward a B. S. degree, majoring in Engineering Science.

Graduated: Jefferson Davis High School, Montgomery, AL, in June 1979
Class Rank: 18 in class of 711 GPA: 3.94 on a 4.0 scale
ACT Score: 31 overall : 36 in math SAT Score: 1260

Outstanding Academic Honors and Awards

National Honor Society National Math Honor Society
National Spanish Honor Society Mr. Alpha Theta (Honorary Math Society)
Recipient of Walter W. Ross Memorial Scholarship awarded by Beta Sigma Phi

Courses of Value

High School

Computer Math
Analysis and Trigonometry
Physics

College

Calculus
Computer Science
Chemistry

Skills

Typing- 60 WPM
Computer - Basic and Fortran IV

EXPERIENCE

Fall & Winter
1978- 1979

Wuv's Hamburgers, Montgomery, AL
Worked part-time during senior year
Cooked hamburgers and cleaned restaurant

Summer
1978

Wiggin's Lawn Service, Montgomery, AL
Mowed lawns and edged grass at apartments and business complexes for professional lawn service

Summer
1977

Glenn's Furniture Repair and Refinishing, Montgomery, AL
Repaired, sanded, stained, and refinished furniture
Picked up and delivered furniture

PERSONAL DATA

Birth: September 2, 1960
Birthplace: Ennis, Texas
Marital Status: Single

Health: Excellent
Height: 6'1"
Weight: 165 lbs.

ACTIVITIES AND INTERESTS

Boy Scouts of America during junior high school
Dixie Youth Baseball - 7 years: elected to all-star team every year
High School baseball, basketball, and track teams
Church Royal Ambassador's basketball team - won Alabama state championship in 1978;
won second place in 1979; received outstanding player trophy in 1979
Intramural basketball - Baylor University

REFERENCES WILL BE FURNISHED UPON REQUEST.

2016 South Fisher Court
Pasadena, Texas 77502
November 30, 1979

Mr. Paul Raymer
DialAmerica Marketing, Inc.
6001 Gulf Freeway
Houston, Texas 77087

Dear Mr. Raymer:

Your advertisements in the University of Houston Cougar newspaper for part-time marketing positions captured my attention. I am very interested in working part-time for your marketing firm while completing my college education.

I am presently a senior attending the University of Houston and expect to graduate in May 1980 with a B. B. A. in Marketing. I have already completed 18 hours of marketing courses at the University of Houston, including courses in Marketing Research and Marketing Administration. The knowledge obtained in these courses would not only qualify me for your positions, but also should minimize your costs in training me.

My previous work experience has consisted of various secretarial and retail positions in which my job duties included selling, supervising, training, and general office work. In all of these jobs, I proved myself worthy of promotions to more difficult positions while simultaneously working part-time and attending school.

A summary of my qualifications is given in the attached resume, and I will be glad to meet with you for an interview at your convenience. Please feel free to contact me by letter or at the phone number included in the attached resume.

Sincerely,

Donna Quinn

Enclosure

DONNA FAYE QUINN

MARKET RESEARCH CREDENTIALS

2016 South Fisher Court

Pasadena, Texas 77502

713: 555-2745

Qualifications for obtaining market research position with successful marketing firm while completing B.B.A. in Marketing

Educational Background

University of Houston, B.B.A. in Marketing expected May 1980. Grade point average since entering in August 1976 is 3.0 out of 4.0.

San Jacinto College, completed 60 hours of general business core requirements between 1976 and 1978, with grade point average 3.4 out of 4.0.

Marketing Courses

Elements of Marketing Administration
Contemporary Issues in Business & Society
Marketing Research
Advertising Management
Retailing Management
Industrial Marketing

Working Experience

Senior Secretary, Dean's Office, Cullen College of Engineering at University of Houston.

Conducted general secretarial duties for deans plus handling and processing graduate school admission applications and undergraduate scholarship applications. August 1979-present.

Secretary, Adkins Personnel Service, Inc. and Certified Personnel Services, Pasadena, Texas

Handled general secretarial duties for firms such as Continental Emco, Exxon Chemical Co., USA and the University of Houston. June 1979-August 1979.

Salesclerk, Foley's, Pasadena. Sold merchandise for all areas of store on extra-on-call basis. January 1979-August 1979.

Trainer, Foley's, Pasadena. Taught training classes on all basic store policies and NCR terminal operations to new Christmas hires. October 1978-December 1979.

Night Supervisor, Foley's, Pasadena. Supervised all night staff and functions including scheduling, employee reviews, inventory maintenance, floor merchandising, and displays. April 1978-October 1978.

Salesclerk, Foley's, Pasadena. Sold merchandise and maintained floor displays for departments, including: costume jewelry, handbags, watches, and fine jewelry. October 1975-April 1978.

Honors and Activities

Dean's List
American Marketing Association,
Secretary

Personal

Date of Birth: 8/12/58
Height: 5'4"
Weight: 110 lbs.
Health: Excellent
Enjoy music, sewing, reading,
and camping

REFERENCES WILL BE
SENT UPON REQUEST

5614 Darnell
Houston, Texas 77096
November 28, 1979

Mr. Jack Kelly
Director of Corporate Personnel Services
Tenneco, Inc.
P. O. Box 2511
Houston, Texas 77001

Dear Mr. Kelly:

Mr. Ken Clevenger, president of Allied Bank, told me about the position as administrative assistant to the senior vice president of Tenneco, Inc. I am excited about the opportunity to apply for this job.

My working experience and education, as well as my social and family responsibilities, have prepared me well for the job of administrative assistant to Mr. Carpenter. For the last five years I have worked as one of the secretaries to the senior rabbi of Temple Emanu El. This position demands discretion, tact in dealing with people, and the ability to keep information confidential. Office skills must meet a very high standard. I've had the opportunity to train on and operate many types of equipment, including the new IBM Memory 100 Typewriter. This facet of my experience has given me an appreciation of how to get things done efficiently in an office.

As the wife of someone who is involved in civic activities. I have been placed in many situations that have broadened my expertise in dealing with people. While my husband served as District Governor for Lions International, I worked with him to encourage members to participate fully in this charitable organization. During a two-year period, I met several thousand people, spoke before many groups, and developed opportunities for involvement by the members wives. During my husband's three-year tenure as board president and managing director of The Houston Pops Orchestra, I served in the capacity of administrative assistant to him. This work involved planning and executing all phases of the orchestra's performances, including public relations, advertising and promotions, ticket sales, fiscal management, and physical set up of the rehearsals and concerts. Since The Pops is a nonprofit group, an important part of the work was developing new sources of individual and corporate funding. During this time, applications were made to and grants received from many large companies and foundations here in Houston. The number of individual contributors quadrupled. The orchestra's tremendous growth in that period was very gratifying to me.

Working with Mr. Carpenter would be a challenging opportunity. Please let me know when it will be convenient for you to interview me. You can contact me at the address or phone number on my resume, or at 555-1201. I am looking forward to meeting you.

Sincerely yours,

Marianne Greenfield

Enclosure

5614 Darnell

MARIANNE GREENFIELD

Houston, Texas 77096

713-555 1155

To fill position as
administrative assistant to executive officer

EDUCATION

University of Houston. College of Business Administration and College of
Technology. Dean's List.
GPA: job-related courses - 3.8
overall - 3.7.

JOB-RELATED COURSES

Personnel Technology	Industrial Communications
Operational Use of Financial Data	Distribution Technology
Fiscal Operations	Business Law
Accounting Theory	General Office Procedures
Public Speaking	Basic Computer Organization
Fundamental Business Math I	Microeconomics
Fundamental Business Math II	Macroeconomics
Introduction to Psychology	Introduction to Sociology
Typing	Shorthand

**JOB
EXPERIENCE**

TEMPLE EMANU EL. Part-time secretary to senior rabbi.
1975-present.

Typed dictation, composed letters, screened calls, prepared and sent routine mailings to members. Dealt, by phone and in person, with people who were in stressful situations. Coordinated activities with other offices in congregation. Took care of all office procedures.

LYMAN I. OWEN, C. P. A. Secretary. 1960-1964
Handled all office procedures. Typed all tax returns and financial data for clients.

JOHN JAMAIL APARTMENTS: Apartment manager. 1962-1964.
Operated 36-unit apartment project. Collected rent, leased apartments, took care of complaints, directed maintenance.

SCHLUMBERGER WELL SERVICES. Secretary. 1959-1960.
Performed all secretarial duties and procedures in Electrical Engineering Department.

MCEVOY OILFIELD EQUIPMENT COMPANY. Secretary, receptionist.
1958-1959.
Carried out office procedures and duties. Operated switchboard as relief operator and receptionist.

**VOLUNTEER
EXPERIENCE**

Temple Emanu El - Chairman, membership Survey Committee;
member, Dues Committee, Membership Committee, Ritual and
Music Committee, PTA Board.
Houston Pops Orchestra - Administrative assistant.
Temple Emanu El Sisterhood - Vice president, financial secretary,
board member.

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PERSONAL

Health - excellent Married - 3 children Height - 5'5" Weight - 115
References furnished upon request.

13718 Apple Tree
Houston, Texas 77079
February 20, 1980

Mr. C. Leroy Johnson
Corporate Services Division
Texaco, Inc.
1111 Rusk
Houston, Texas 77079

Dear Mr. Johnson:

Mr. Robert Howell, General Manager PPD, has told me of the job opportunities for graduates with the Bachelor of Science degree in the executive secretarial field. May I familiarize you with my qualifications for an executive secretarial job?

I am presently a full-time student at the University of Houston, majoring in their Executive Secretarial program. I have enjoyed my studies and have made a better than average record; my current GPA is a 3.49 on a 4.0 scale.

My degree from the University of Houston will provide me with a base from which I can develop my secretarial career. As an executive secretary, my skills in dictation, transcription, and typewriting are higher than the average person. I am also skilled in editing and proofreading. My education has provided me with the knowledge in preparation of statistical reports, legal documents, manuscripts, and other business forms that a large firm such as Texaco could utilize. My ability to operate the IBM electronic typewriter, dictaphone, electronic calculator, and various duplicating equipment will help me in planning and organizing an efficient office in the support of top management.

My skills are sharp and high-standard, and I am eager to use them. I would be glad to demonstrate them to you if you would give me an opportunity for a personal interview. Please telephone me any week day after 2:00 p.m. at 555-6189 to set an appointment at your convenience.

Sincerely,

Carol A. Seamans

Enclosure: Resume

SECRETARIAL QUALIFICATIONS OF MISS CAROL ANN SEAMANS

13718 Apple Tree
Houston, Texas 77079
465-6189

EDUCATION

Bachelor of Science in Technology with major in Executive Secretarial from the University of Houston, May 1981.

UNIVERSITY COURSES OF SPECIAL VALUE

Basic Computer Organization	Office Services
Distribution Technology	Office Systems
Business Records I and II	Business Law
Administrative Management	Business and Technical Writing
Records Management	Communications Production
Statistics	

AWARDS AND ACTIVITIES IN COLLEGE

Dictation 100 wpm	Electronic Calculator
Typewriting 70-wpm	Standard Rocket spirit duplicator
Transcription 30 wpm	A. B. Dick and Gestetner stencil duplicators
IBM electronic typewriter	Offset machine
Dictaphone	

AWARDS AND ACTIVITIES IN COLLEGE

Golden Key Honor Society (College of Technology).
Chi Omega Fraternity-Assistant Rush Chairman, House Chairman, and Assistant Secretary
Honors List of the dean (College of Business Technology) - Fall 1977, Summer 1978, Fall 1978, Spring 1979.

EXPERIENCE

November 1978-October 1979-Joske's of Houston, worked in credit department taking payments, opening charge accounts, and balancing out the store's cash registers. Used the electronic calculator.
January 1977-May 1977-Windmill Dinner Theatre, Houston. Receptionist; answered phones, took reservations and payments, and prepared the seating arrangements.

REFERENCES

Will be provided upon request.

4639 Lochshin Drive
Houston, TX 77084
March 26, 1979

Mr. F. T. Welch, Sales Manger
Napko Corporation
P. O. Box 14509
Houston, TX 77021

Dear Mr. Welch:

While involved in an important phone conversation with a customer does it annoy you to see the other button on the phone blink, blink, blink? The successful salesman knows a customer kept waiting too long will probably hang up. This problem can be prevented by an experienced secretary who can either help the caller or can secure enough information to put her employer "on top" of the situation before the call is returned. With ten years of experience, I believe I am well qualified for the position of sales secretary.

Presently I work part-time for two manufacturers; representatives who are involved in the sale of products related to the engineering industry. Along with all secretarial and accounting duties. I quote customers and accept purchase orders by telephone. For six years I worked for Norton Company, Chemical Process Products Division. Norton Company supplies tower packing and internals to the petrochemical industries and maintains a packing inventory in a local commercial warehouse. My major responsibilities were the shipment of materials in and out to the warehouse, maintenance of all paperwork related to the inventory, and preparation of a monthly report reflecting the warehouse activity. Consequently, I worked directly with customer and purchasing agents. I also know how to trace or expedite a purchase order. My work habits are very well organized and I am an accurate and fast typist.

I am currently working on a degree in Business Technology at the University of Houston. The courses offered in this field are directly related to business and industry. My skills have greatly improved through my application of techniques I am learning. One course, of particular interest, which I will be taking this summer is Distribution Technology. This subject deals with the flow of goods and services from the producer to the consumer. If accepted for the position of sales secretary, I will continue my education at night.

With my experience and college course I am confident that I am the secretary you are seeking. I would like to meet you and discuss my qualifications in more detail. Please contact me at the address or telephone number shown on my resume. If you wish to telephone I can be reached after 3:00 p.m. on weekdays.

Sincerely yours,

Barbara Shimattis

Enclosure: Resume

BARBARA SHIMATTIS
4639 Lochshin Drive
Houston, TX 77084
713/463-0162

QUALIFICATIONS FOR SALES SECRETARY

Significant Working Responsibilities

Sales Secretary - (June 1976-present). Kelly Campbell, Inc., Houston, TX 77024.
Part-time-15 hours a week. Handle all secretarial and accounting duties. Accept purchase orders. Quote prices. Expedite orders. Direct phone calls.

Engineering Secretary - (November 1974-June 1975). Hydrocarbon Construction Company, Houston, TX 77046. Worked directly for the head of the engineering department. Prepared all correspondence. Organized and typed engineering manuals. Supervised organization of conferences with clients.

Sales Secretary - (February 1969-November 1974). Norton Company, Chemical Process Products Division, Houston, TX 770942. Prepared orders and quotations. Shipped inventory from stocking warehouse. Organized and maintained all paperwork relating to warehouse. Prepared monthly sales report. Acquired heavy dictaphone experience. Prepared travel arrangements. Trained new secretaries.

Valuable Skills

Type-70 wpm Dictaphone Experience Ten Key adder Bookkeeping

Education and Training

University of Houston - (September 1978-present). Degree in Business Technology expected December 1980.

Business Courses of Value

Introduction to Business	Grade A	Applied Business Math (taking now)
Business Communications	Grade A	Technical Writing (taking now)
basic Technical Math	Grade A	Business Law (taking now)

Southwest Texas State College - (January 1965-February 1967). San Marcos, TX.
Acquired 69 hours in elementary education.

Draughon's Business College - (Fall 1964), San Antonio, TX receptionists Degree.

New Braunfels High School - New Braunfels, TX. graduate upper 10% class-May 1964.

Personal Picture

Birthdate: January 16, 1947
Height: 5'6"
Weight: 125 pounds
Health: Excellent

Hobbies: Gourmet cooking
Plants
Bowling
Macrame

FUTURE PLANS

The Russell County School System is currently in the process of selecting the participants for next year's group. At the same time, a parallel-track program has been designed, human resources identified, and work initiated on preparation of next year's instructional modules.

On May 20, 1985, a banquet was held for the project participants and their parents. Certificates of participation were awarded to the students (a sample certificate is included as Appendix I.) The keynote address was delivered by Mr. Thomas Lee Shortt, Supervisor for Education of the Gifted in Pittsylvania County. Mr. Shortt had earlier conducted an independent assessment of the project. An evaluation questionnaire was administered to the students. Mr. Shortt's report has not yet been received, but will be forwarded to SCHEV immediately following its receipt.

As was previously mentioned, the first group of participants indicated a strong desire to go into more depth for each subject area. Furthermore, definite preferences were expressed by the participants, approximately 50 percent indicating a desire to concentrate on computer-based technologies, and the balance indicating a strong interest in the humanities.

Accordingly, plans for the 1985-86 school year call for a "parallel track" system with one group of students studying two 18-week modules in the Technological Sciences, and another group of students studying two 18-week modules within the Humanities area.

The students within the Technical Sciences track will study and apply microcomputers to a variety of conventional and unconventional uses during the first half. This will be followed in the second half by a module on Computer-based Design and Drafting. Their overall experiences will also include a study of Robotics, their application and the concept of man-machine and machine-machine interfacing.

Students in the Humanities track will study Appalachian culture during the first half of the academic year. In addition to guest speakers and field trips, students will read and report on a number of books and periodicals on Appalachian studies.

A total of four instructional modules will be prepared and will be submitted as a final report 90 days after completion of the project.

It is our opinion that this concept for centralized accumulation of a critical mass of participants has been demonstrated as highly successful. It should be noted that the Governor's Summer Magnet School, formulated and organized in a similar manner after this concept had been publicized, follows the pattern established in this "Funds for Excellence" project. While it is not necessarily true that the Magnet School designers patterned their effort after this particular project, the observation of distinct similarities is unquestionable. This attests to the soundness of the concept and to its viability for future application in other rural areas within the Commonwealth.



**The Russell County School System
&
Southwest Virginia Community College
hereby award this Certificate to**

**in recognition of successful participation
in the**

**Academically
Creative
Education
project**

**and in anticipation of continuing scholarship
and contributions to
Excellence in Education**

**Superintendent
Russell County Schools**

**President
SVCC**

**Supervisor
Secondary Education**

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**Chairman
Engineering Division**