How

Series

Reach for a Picture

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Can You Reach for a Picture Right Now?

Do you have at least 100 flat pictures somewhere in your classroom which you can use at a moment's notice to clarify concepts, to correct false impressions, to develop skills, to stimulate interest in some aspects of the social studies, or to evaluate learning?

Every social studies teacher should have such a collection. Each of us should be able to "reach for a picture" on the spur of the moment in order to foster learning. This applies to teachers of the social studies in secondary schools as well as to teachers in elementary schools. Somehow we have developed the myth that pictures are solely or largely for young children. What a false idea! Actually, all of us can learn from pictures—and at any age.

Because of our increasing concern for audio-visual literacy today, many of us are using tape recorders, single concept films, and television. That is certainly commendable. But in our desire to be up-to-date and to use the latest devices, we are apt to forget an old favorite of teachersthe flat picture. This is still a superior resource for learning; and, with the marked increase of good pictures, this approach can be used even more readily and effectively today than in the past.

Pictures and Current Emphases in the Social Studies

Do pictures qualify for use in the new social studies? Let's examine some of the more recent emphases and the potentialities of pictures.

Discovery Learning? What better way is there to stimulate inquiry or discovery learning than to show a class or a group of students a scene in a desert and then to encourage them to figure out how people could possibly live in such an environment? Or what better way to stimulate inquiry with older students than to give them a stack of pictures and have them discover where and/or when those pictures were taken?

Hundreds of examples could be given of the use of pictures in encouraging inquiry or discovery learning.

Individualization or independent study? A young pupil is working on a report on Transportation in the United States. Why not urge that pupil to find all the pictures in current magazines which illustrate that theme and then to share them with his classmates?

An older student is working on the problem of crime in our society today. Why not encourage her to find all the pictorial materials she can collect to illustrate various aspects of that topic?

Yes, pictures have tremendous possibilities in individ-

ualization and in independent study.

Concept Development? In recent times, more and more attention has been accorded to the development of concepts in social studies teaching. You are trying to evoke in young pupils such concepts as deserts, lakes, mountains, or valleys. Couldn't flat pictures help you to make such concepts vivid?

Or you are working with older students on the concept of poverty or economic development. Wouldn't a few flat

pictures foster better learning?

Certainly pictures can help immeasurably in concept de-

velopment.

Affective Learning? After a few years of concentration on cognitive learning, we are beginning now to gain a better balance by coupling that learning with attention to the affective domain. Here pictures can help.

If you want children to gain respect for the Japanese love of nature, do you have flat, colored pictures of Japanese flower arrangements or of Japanese gardens to assist you? Or, if you are developing feelings about the destruction caused by war, wouldn't your task be made easier by some vivid shots of aerial bombings and the effects of napalm?

Often pictures can help students to learn at the "gut level."

Ethnic Studies? There is much emphasis now in the social studies on developing pride on the part of minorities in their pasts, and of fostering understanding on the part of members of the majority in the achievements of ethnic groups and minorities. If you are working with Chicanos or teaching about the contributions of Spanish-speaking people to our common cultural heritage, wouldn't flat pictures of the ruins of the ancient civilizations of the Mayans and Aztecs and colored pictures of the modern murals of Rivera, Orozco, and Siqueiros help you? Pictures depicting Spanish-style housing and/or buildings of today's Southwest also can teach about the multicultural make-up of this country.

If you are attempting to develop identity on the part of blacks in their African heritage, wouldn't pictures of the Ife and Benin bronzes of West Africa be of great value? Of course, pictures of today's Black American art also reveal much about the black experience.

Few, if any, methods can equal the use of pictures in

promoting ethnic and minority studies.

Evaluation? In the newer social studies, evaluation or assessment is playing an even more central role than in the past. We are trying to draw upon a wider range of methods than heretofore in order to evaluate a broader spec-

trum of learnings. Aren't pictures a useful means for such assessment?

Suppose you are testing time concepts with boys and girls. Couldn't you provide a few pictures and have children arrange them in sequential order?

With older students, you may want to test their understanding of geographical concepts. Wouldn't aerial pictures of a community or of a metropolitan area help you in determining what the students have learned?

There are scores of ways in which pictures can be used profitably in evaluation in the social studies.

Some Other Uses of Pictures

The foregoing are merely a few of the ways in which pictures fit well into the social studies, but they do not represent all of the possibilities of pictures. Below are a few more uses, with an example or two for each category. It might prove valuable to use these categories as a checklist for your teaching, asking yourself whether you are using each of them as much and as effectively as you should. You might even make a list of the categories you want to use in the next few weeks in your teaching.

To Arouse Interest in a Topic. Suppose you are ready to launch a study of ecology or the environment, at almost any age level. What would provide more and better motivation than a display of pictures around the room, a good filmstrip or film, or a series of posters on this subject—or

all of them?

Or you are ready to study the movement for independence in India. Could you use a single picture of Mahatma Gandhi, preferably in an opaque projector, letting the class become acquainted with this frail man who dressed simply in his loin cloth? Then you could raise the question as to how this one human being could have challenged the mighty British Empire and have helped win freedom for millions of people in the Indian subcontinent.

In fact, there are very few topics which your students will study which cannot be introduced effectively with pic-

tures.

To Provide Substitute or Vicarious Experiences. Pictures are really magic carpets which can take people anywhere in the world today and into many places in the past.

The members of your class cannot travel to Brasilia, Chandigarh, or Tapiola while they are studying planned communities around the world; but they can "visit" these

futuristic communities via flat pictures.

Your students will be unable to fly to parts of East Africa as they are studying that part of a dynamic continent; but they can gain a new and up-to-date impression of such modern cities as Nairobi, Dar-Es-Salaam, and Salisbury by the use of pictures.

They can even see our tiny spaceship earth through the memory bank of the cameras taken by the astronauts into space. Have you provided them with this thrilling experi-

ence? Should you?

To Recall Earlier Experiences and To Reinforce Learning. Seldom, if ever, do students capture an idea or concept the first time they encounter it. Even if they understand it fairly well, it needs reinforcement. Pictures can often help in recalling and in reinforcing learning.

For example, pupils may have read about the linseywoolsey clothes worn by people in the colonial period in our country's history. This knowledge is stored away in the computers in their minds. Weeks later they can be tested—with pictures of clothes from that period—to see whether they really understand the process of making such clothes.

In a similar way, older students can learn about the local unit of government in India, known as the *panchayat*. Later, in their study of India, or in a study of the government in another country, pictures can be used to test their recall of the concept of the *panchayat*.

To Correct Erroneous Impressions and Stereotypes. The minds of all of us are cluttered with false or erroneous impressions and stereotypes. Often they linger there for a long time, even a lifetime. But pictures can help to remove

them.

The writer remembers vividly a visit to a class in an elementary school which was studying India. A pupil commented on the fact that all Indians were thin and half-starved. Instead of correcting him verbally, the teacher wondered aloud if that were so. She reached for a stack of pictures in her desk and distributed them to the pupils, asking them to examine them in the light of the statement the boy had made. Within a short time the members of the class came to a different conclusion. And the learning was internalized because THEY had reached the conclusion themselves, rather than being told by the teacher that India consists of a variety of individuals.

To Enrich and Encourage Reading. All of us encounter slow readers and reluctant readers in our classes, or we have students who do not like to read social studies materials. Two such students come to the writer's mind.

One was a girl who wanted to be a clothes designer. To her, social studies seemed irrelevant until she was encouraged to do a set of drawings (a form of pictures) on the clothes worn at different periods in our country's history. She did this series of illustrations over a period of several months, using reading materials as well as pictorial materials to gain the necessary background for her project.

The other was a boy who wanted to become a photographer. His interest in the social studies increased noticeably when he was encouraged to take pictures of buildings in downtown Philadelphia which showed the influence of architecture in different parts of the world on local buildings, such as the replica of the Parthenon at Girard College and the campanile of an Italian church on Broad Street.

In such ways pictures can enrich, enhance, and encour-

age reading in the social studies.

To Clarify Values. At various times and in several schools, the writer has shown flat pictures of the life of Christ as painted by a Chinese artist, showing Christ as a Chinese; and a Kodachrome slide of The Last Supper as painted by a Tanzanian for a church in Kenya, with this event taking place in a Kikuyu hut and with all the disciples pictured as Kikuyus.

What better illustrations to evoke discussions about religious attitudes and cultural values? Almost any value can be challenged, re-examined, or formulated anew with the use of provocative pictorial materials. Have you tried this?

Should you?

To Develop Skills. Another aspect of social studies which can be greatly enhanced by the use of pictures is the development of skills.

the development of skills.

For young children, "grouping" is a beginning skill. Pictures can help tremendously. For example, boys and girls can find and group all the pictures which illustrate jobs or those that show different kinds of food or land or work.

Developing a sense of time is one of the most difficult skills with which social studies teachers deal. Pictures can help. For example, photos of the activities of a family can be sequenced by children. With older pupils, the steps in changing cacao into chocolate can be sequenced, with pictures obtained from chocolate companies. With even older students, drawings or pictures, or both, can be used to illustrate time lines of local, state, and/or national history.

The development of a vocabulary is another social studies skill which needs more attention than we usually give it. This, too, can be done with pictures or drawings. In studies of communities, countries, or cultures around the world, illustrated word lists can help pupils to grasp more quickly and firmly the meaning of words like mosque and monastery, sari and kente cloth, and pagoda and yurt.

Comparisons and contrasts are central in the social studies, too. Often we use maps to show such ideas. Undoubtedly we should use pictures and drawings more

than we do.

For example, a class of younger pupils might well collect pictures and/or make drawings which illustrate life in the United States before and after the Industrial Revolution. A class of older students might well compare and contrast, with pictorial materials, life in the U.S.S.R. or the People's Republic of China before and after their revolutions.

No better way can be found to teach observation than to involve pupils at any age level in picture reading. Without guidance, they are likely merely to *look at* pictures. Under proper guidance, they can be encouraged to *study* pic-

tures.

For instance, the writer has used one large picture of a Masai lad tending cattle in the countryside of Kenya as the basis for picture study by first- and second-grade children, by older elementary pupils and secondary school students, and by undergraduate and graduate students. Such a stimulating photograph can be used as the basis for a half hour to an hour discussion, depending upon the age of the group. Too often we flip through a stack of pictures without really stopping to examine them thoroughly.

To Promote a Good Self-image. With pictures, you may ask? Yes. The writer came across this idea first as a consultant in the Vicksburg, Mississippi schools, where educators had a federal grant to use pictures with primary grade children. Using their inexpensive cameras, the boys and girls took pictures of themselves and of their families and revelled in the experience itself and in showing and explaining their photos to relatives, friends, and classmates.

Is this an idea you or some of your colleagues could use? Why not try it? You may be amazed at the results.

To Stimulate the Quiet Student. Research and experience indicate that all of us want to communicate with other people if we have not withdrawn like turtles into our shells. Such withdrawal is much more frequent in schools than elsewhere because of the bitter experiences of many pupils and their lack of success in verbal communication in the classroom. Pictures can help to stimulate participation on the part of such students.

I recall vividly a student teacher who brought a collection of pictures of the people in the Soviet Union to a class of lethargic high school girls in a vocational school—pictures clipped from the magazine *Soviet Union*. Each girl was given a picture to examine, and soon the room was buzzing with comments. The student teacher encouraged the exchange of comments and even the exchange of pic-

tures for a while. Then he asked who had an interesting photograph. Many hands were raised, and several students shared their pictures with the class. Finally, a photograph of a blonde in a bikini on a beach evoked questions as to whether that girl could be a Russian.

At the end of the period several of the pictures were placed on the ledge of the chalkboard as a Gallery of Modern Russians, and a short reading assignment was given on

"The People of the U.S.S.R. Today."

Similar examples could be cited at every grade level, for provocative pictures can help many individuals to talk who are normally quiet in the classroom.

To Sharpen Interest in Current Events and Contemporary Problems. Many teachers fail to excite interest in current events and contemporary problems because they are really competing with television programs—and there is not much competition for the tube in the performance of such teachers.

Pictures are not the complete answer to arousing interest, but they can help to make contemporary affairs vivid, real, and relevant. They can even help to make sense out of what pupils see on TV—and often do not understand.

To Provide Background for Role Playing. Many teachers of the social studies, from the primary grades through graduate study, have had success in using role playing as a device to stimulate discussion, to raise problems, to develop empathy, and to encourage value clarification. There are several ways of providing situations for such role playing. The use of large pictures is one of the best, especially with younger boys and girls.

The names of several companies which have produced such background pictures, and the titles of their sets, are listed in the latter part of this publication. But teachers and students can also collect and/or produce situational pictures or drawings themselves. This is a worthwhile project

for some teachers and for some pupils.

To Share Experiences with Students in Affiliated Schools. One of the most promising practices in intercultural and in international education is the informal affiliation of schools in different parts of the United States or between schools here and in other nations.

Often language has been a drawback in international affiliations, but those of us who have worked for years on this method of promoting international understanding have learned that one of the most fruitful methods of communication is through the exchange of pictures and picture albums. The selection of pictures of a school or community or nation is a valuable exercise for those sending the photos, while the study of such pictures is an excellent learning device for those who receive them.

To Heighten the Value of Committee or Group Reports. Pictures can also be used effectively to help a committee or group report its findings to its classmates. Often the pictures can be taken by members of the committee which is reporting. This, too, is a valuable activity for many pu-

pils, the verbal as well as the non-verbal.

Yes, the camera is a marvellous teaching and learning tool, and a powerful ally for social studies teachers. It is a visual pen. It is a mirror with a memory.

Some Sources of Free Pictures

Probably you have already been asking, "Where do I get good pictures for all these purposes?" Actually, there are scores of sources, such as the following:

A Treasure Hunt in the Community. Many students love to scrounge. So why not turn them loose in your community on a treasure hunt for old magazines? Possibly, you will also want to enlist the help of the P.T.A. in this project.

Then students (and sometimes parents) can cut hundreds of pictures from the magazines and paste them on cardboard for later use in classrooms. Usually the captions should go on the back so that the pictures can be used in discovery learning without the descriptive material being available at first glance.

Old Textbooks and Trade Books. Sometimes old textbooks and trade books can be used as sources for maps, charts and graphs, and pictures—especially on historic themes. They can be mounted, too, and arranged by categories or topics.

Government Agencies. Many government agencies give away pictorial materials. This is true of local governments, state governments, and some parts of the federal government, especially the Department of Agriculture.

Travel Bureaus. Much of the material from travel agencies stresses the glamorous or exotic. However, some of their pictorial materials can be useful, especially on cities here and abroad, historic places, and statues. Old calendars from airplane companies often yield valuable pictures, too.

Embassies and Information Services. Several of the embassies and information services of different nations will provide schools with a limited number of pictures and brochures with illustrations, although many governments cannot afford to distribute such valuable materials free of charge.

Local and State Libraries and Curriculum Centers. Some libraries have their own collections of pictures, often mounted. So do some curriculum centers. Usually they will lend small collections of such materials to schools or teachers. So it is worth a phone call or a visit to these places to ascertain what they have.

Pictures Taken by Students, Teachers, and Parents. With the phenomenal growth of photography as a hobby in recent years, there are probably scores of people in your community who have taken pictures on trips in various parts of the United States and/or in other parts of the world. Sometimes they are willing to show their pictures in schools. Sometimes they are willing to have copies made of a limited number of photographs. Sometimes they will lend their collections to school libraries or teachers.

The Exchange of Pictures. Schools might also explore the possibility of exchanging duplicate pictures, especially Kodachromes, in much the same way that stamp collectors or coin collectors "trade" their duplicates.

Postcards. Some people also save postcards of the places they visit. These are often valuable visual materials. Occasionally, parents or other adults in the community will donate their collections to a school library or lend them to a school.

Current Events Papers and Newspapers. Over a period of two or three years, almost every one of the current events papers has articles on the major countries of the world. The papers for junior and senior high school students contain many maps, cartoons, and pictures of current problems in the United States, as well as of other nations. Suitable material from such magazines should be saved for the class and/or school picture file.

Current newspapers also have some illustrative materials which can be used in social studies classes. Of course, the Sunday magazine sections are a particularly good source for such illustrations.

Lists of Free Posters and Pictures. One of the best places to look for sources of pictures is in the booklet Free and Inexpensive Learning Materials, published each year by the Division of Surveys and Field Services of the George Peabody College for Teachers (Nashville, Tennessee 37203) and sold by it. Many helpful leads can also be found in the three small, inexpensive booklets produced by Bruce Miller. Those booklets are titled Sources of Free Pictures, Sources of Free Travel Posters and Geographic Aids, and So You Want to Start a Picture File. All may be purchased from the Bruce Miller Publications (Box 369, Riverside, California 92502).

Some Other Sources of Pictures

No one, however, should rely solely on the free sources of pictures just cited. Pictures are so important that they merit some expenditure of funds. Here are some of the

places where such pictures can be purchased.

Magazines. The Unesco Courier is a remarkable publication, issued now in 15 languages. It should be in every school library and in every social studies department office. It is strikingly illustrated, with some issues in full color. Most issues are on a single theme; and many of the themes are related to the social studies, such as recent issues on Copernicus: A New Vision of the Universe and The General Public Judges Modern Art. Subscriptions can be entered by writing to the Unesco Publications Center, Box 433, New York, NY 10016.

Most readers of this leaflet are familiar with the National Geographic and its colorful pictures. However, many teachers are unaware of its publication for children, National Geographic World, the successor to its National Geographic School Bulletin. Its topics are carefully chosen to elicit the interest of boys and girls and are magnificently illustrated in full color. The address for these two publications is the National Geographic Society, Box 2806, Washington, DC 20013.

A similar publication to the National Geographic is The Geographical Magazine, published in England. In it are many maps, many black and white pictures, and some colored illustrations. It may be ordered from its headquarters

at 128 Long Acre, London WC 2E 9 QH. Also useful is Mankind Magazine, with a variety of pic-

tures in it, some in black and white and some in color. To order, write to Mankind Magazine, 1255 Portland Place, Boulder, CO 80302.

Some schools may want to subscribe to such popular picture magazines abroad as Epoca (Italy), Der Spiegel or Stern (Germany), Cromos (Colombia), Paris Match, Drum (Africa), China Pictorial, The Soviet Union, or the London Times Weekly Review.

For teachers of United States history, the six issues of American Heritage each year are invaluable for illustrations. It can be ordered from the American Heritage Publishing Company, 551 Fifth Avenue, New York, NY 10017. Also helpful are the illustrations in American History Illustrated, which is available from the National Historical Society, 206 Hanover Street, Gettysburg, PA 17325.

Books. There are some books, too, which are valuable to teachers and students for their pictures. They ought to be available in the school library or in classrooms; and as Professor Jean Grambs points out in her volume on Intergroup Education: Methods and Materials (Prentice-Hall), "It would be the height of educational luxury if several copies . . . were available so that teachers could cut them up and mount the pictures."

On the world scene there is Edward Steichen's The Family of Man (Maco Magazine Corporation), now available in a paperback edition; Margaret Mead and Ken Heyman's Family (Macmillan) and their very recent volume, World Enough: Rethinking the Future (Little, Brown); and the two books by Hanns Reich on Children and Their Mothers and Children and Their Fathers (both from Hill and Wang).

On the United States, there are many pictorial accounts. One which is fairly expensive but contains outstanding black and white photos is Charles E. Rotkin's The U.S.A.: An Aerial Close-Up (Crown). Less expensive volumes include three paperbacks: This America by Lyndon Johnson (Random House-Ridge Press); Ansel Adams and Nancy Newhall's This Is the American Earth (Sierra Club-Ballantine); and the Department of Agriculture's America the Beautiful (U.S. Government Printing Office). Other valuable volumes include Rachel Carson's The Sense of Wonder (Harper and Row); William O. Douglas' The Beautiful Land (Scribner's); Ken Heyman's Willie (The Ridge Press-Random House), about a small boy in a New York City slum; and the Life World Library volume on The United

Study Prints. In the last few years there has been a tremendous increase in the number of study prints on the market. Many of them are intended for use in elementary schools, but there are an increasing number for use in secondary schools. Some can be used at several levels, particularly those on communities or cities and on nations

Here are the names of some of the companies and the study prints they sell. It is not an exhaustive list, even though it contains materials from 18 publishers.

Creative Educational Society, Inc., 515 North Front Street, Mankato, MN 56001. Sets of pictures of Children of America, Children of the World, and several sets on Oceanography, the History of the Earth, Our Natural Environment, Weather, etc. Elementary level.

The John Day Company, 666 Fifth Avenue, New York, NY 10019. Nine large black and white portfolios in an Urban Education series and eight similar portfolios in the Rural Education series on such topics as A Family Is . . . , A Community Is . . . , and some albums on cities —Washington, New York, etc.

Documentary Photo Aids, Box 2620, Sarasota, FL 33578. Thirty-five portfolios, with 16 to 50 pictures in each volume, on a wide range of topics on the United States, including Indians, Immigration, Drugs, and the Negro Experience. Four sets are on cartoons.

Doubleday and Company, 501 Franklin Avenue, Garden City, NY 11531. Large color study prints on Iran, Pakistan, and Turkey; and black and white study prints on

eight other nations.

Fideler, 31 Ottawa, N.W., Grand Rapids, MI 49502. A very wide assortment of "Picture Banks" on various regions of the United States, on many different nations, on several periods in world history, and on several world cultures, plus primary grade sets on Our City, Our Farm, and Christmas in Many Lands. Many sets are in color.

Ginn and Company, 191 Spring Street, Lexington, MA 02173. A set of 42 very large problem-centered study prints for inquiry learning with kindergarten and primary grade children on family, school, and community situations in the United States. Many multiethnic situations are included.

Harper and Row, 10 East 53rd Street, New York, NY 10021. 90 large photographs in black and white and in color on personal-social themes, for primary grade pupils.

Holt, Rinehart and Winston, 383 Madison Avenue, New York, NY 10017. A set of 20 photos on "Words and Actions" for the preschool and primary grades, and five sets of pictures on "People in Action" for the same levels.

InterCulture Associates, Box 277, Thompson, CT 06277. A set of 31 large prints on the U.N. Development Program. Also a set of 24 black and white study prints on a village in Liberia. Some study prints on India.

Johnson Publishing Company, 820 South Michigan Avenue, Chicago, IL 60605. Sets of 10–12 black and white photos each on Children at School and Play, Famous Contemporary Negroes, and Youth Profile at School (featuring black youth).

Lincoln Filene Center, Tufts University, Medford, MA 02155. Twenty black and white photos, each 20 inches by 13 inches, in their Intergroup Relations Photographic Collection, for elementary school children.

McGraw-Hill, 1221 Avenue of the Americas, New York, NY 10020. Twelve sets of colored pictures on contemporary issues, such as the food crisis, the urban crisis, conservation, drugs, etc., with teachers' manuals and tests for duplication on each topic. Also six sets of study prints on the regional geography of the United States.

Rand McNally and Company, Box 7600, Chicago, IL 60680. Sets of 20 photos each (half in color) on the interactions of human beings, of human beings and their environments, of human beings and their resources, and of human beings and their past. Primary grades.

Scholastic Magazines, 902 Sylvan Avenue, Englewood Cliffs, NJ 07632. Sets of pictures on The Urban Environment and The Rural Environment, with 26 pictures in each set.

Selective Educational Equipment, 3 Bridge Street, Newton, MA 02195. Several study prints featuring families in the United States and in other parts of the world. For elementary school children.

Silver Burdett Company, Morristown, NJ 07960. Sets of large, colored pictures on families in France, Brazil, Japan, Kenya, and the United States. Primarily for elementary school pupils.

Singer-Society for Visual Education, 1345 Diversey Parkway, Chicago, IL 60614. Several sets of picture-story study prints on community helpers, on several facets of community life, on the children of various regions of the world, on space, and on the Indians of Canada and the United States.

Franklin Watts Inc., 730 Fifth Avenue, New York, NY 10019. A set of black and white study prints on City Workers.

Some Characteristics of Good Pictures

The pictures you will want to use will depend upon your aims. Some should be provocative in order to elicit dis-

cussion. Some should be detailed enough to promote scrutiny. Most should be up-to-date in order to be authentic and help remove stereotypes.

In brief, most pictures should be:

- As large as possible.
- Clear.
- Simple.
- Authentic, accurate, valid.
- Timely, pertinent, up-to-date.
- Dramatic.
- Usually in color.

Mounting and Filing Pictures

Almost all pictures need to be mounted so that they can be used many times and by many groups. They can be mounted on oaktag or on some other strong paper, but usually they should be attached to cardboard. If they are to be used on bulletin boards, they should probably be mounted on colored cardboard or paper in order to attract attention.

Then they should be filed so that they can be found easily and quickly. The best way is to place them in manila folders in a filing cabinet according to concepts, periods of history, parts of the world, or courses. If that is not possible, they can be filed in folders in cardboard boxes or in orange crates or some other inexpensive containers.

If you can arrange a system of cross-filing, so much the better. In that way, your picture collection will be more flexible and useful.

If possible, your pictures should be kept in the classroom where you teach so that you and/or your students can use them at a moment's notice. If that is impossible, they should certainly be available in a nearby room, a department office, or the school library.

How Pictures Can Be Used Most Effectively

There are many ways in which pictures can be used. In open classroom situations particularly, pupils can use a small set of pictures individually. However, there is likely to be more learning if a small group can examine them and interact. You may want to encourage individuals or a group to jot down questions about the pictures which they were unable to answer, and then to try to find the answers elsewhere. Occasionally you will want them to se-

lect appropriate pictures to show to the entire class.

Sometimes you will want to use a picture or a set of pictures in an opaque projector, being very sure that the room is dark enough to display them well.

Often you will want to use a few pictures on a bulletin board. If you use them in that way, you will have to do more than post them. You will need to provide time to discuss them.

There are four levels on which you can use such materials. One is the level of enumeration, merely finding interesting items. The second is description. The third is analysis or interpretation. The fourth is conjecturing, or what Bruner has called "the intuitive leap," when students attempt to think about what could happen or what did happen as a result of the situation shown in the photograph.

Basically, there are only a few questions to use with pictures, but they can be used many times to elicit different responses and at deeper and deeper levels. One is "What

do you see?" A second is "What else do you see?" The third is "Why do you think that is important?"

As stated earlier, some pictures should be used for fact finding. Others should be used to evoke feelings. Still others should be situational and incite suggestions for solving problems. Some should be used to encourage comparisons, while others should provide contrasts. Still others should be used for grouping and sequencing.

Proper questioning will usually bring out the answers sought, provided there is patience on the part of the teacher and a frequent use of the question "What else do you see?" or "Why is that important?" Sometimes additional background data need to be provided. For example, a picture of a desert will not show the heat during the day or the cold at night, and those facts need to be noted. A picture of an ox cart, a clipper ship, or a jet airplane will not show the speed of a particular means of transportation, and in most cases that needs to be included.

Good questioning, however, can help students to make "intelligent guesses." For instance, the fact that so many Japanese houses are made of wood can be pursued until students "guess" or surmise that there is much wood in that nation. Or the wearing of a sari by an Indian woman can be used to help students realize that many Indian women usually sit on the floor and hence need that type of garment, or that they go outdoors frequently and hence need a dress with a covering which can be used quickly and easily to protect their heads against the hot sun.

It is important for teachers to bear in mind the fact that each viewer sees a picture through his or her own eyes and experiences. Therefore, perceptions vary. For example, the writer remembers a remarkable experience shortly after World War II when a graduate class from many parts of the world was viewing a picture of a group of people seated alongside a highway. To almost all of the Americans in the group, the people were waiting for a bus or going to a picnic; to the students from war-devastated countries, those people were refugees!

Purchasing Inexpensive Cameras and Film

Some readers of this publication may not be aware of the fact that cameras can be purchased at extremely low costs, especially if they are bought in quantity. Prices change frequently, but here are a few companies which specialize in inexpensive cameras and film (as listed in the booklet *Visual Literacy* and checked in 1976 with the companies listed). In a few instances, inexpensive cameras and film may be purchased in kits.

Some Very Inexpensive Cameras

Power Sales Company, Box 113, 70 York Road, Willow Grove, PA 19090.

Visual Motivations Company, 44 Mary Watersford Road, Bala-Cynwyd, PA 19004.

The Workshop for Learning Things, Inc., 5 Bridge Street, Watertown, MA 02172.

Some Moderately Priced Cameras

Eastman Kodak Company, 343 State Street, Rochester, NY 14650. Check with its dealer in your community.

G. A. F. Corporation, 140 West 51st Street, New York, NY 10020, or its local distributor.

Ritz Camera, School and Audio Visual Sales Department, 11712 Baltimore Avenue, Beltsville, MD 20705.

A BRIEF BIBLIOGRAPHY ON PICTURES

Books, pamphlets, and articles on the use of pictures are not numerous, but some are available. The following references have been chosen to cover a wide range of approaches:

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From the cave drawings of early human beings to the photographs of our planet taken by cameras on the moon, pictures have constituted one of the primary forms of learning. Let's utilize them to the full in our current teaching of the social studies.

