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A compilation of a handbook on batik for teachers.

Lynda Reeves McIntyre
University of Massachusetts Amherst

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A COMPILATION OF A HANDBOOK
ON BATIK FOR TEACHERS

A Dissertation Presented

By

Lynda Reeves McIntyre

Submitted to the Graduate School of the
University of Massachusetts in partial
fulfillment of the requirements for the degree of

DOCTOR OF EDUCATION

August

1975

Education in the Arts and Humanities

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A COMPILATION OF A HANDBOOK
ON BATIK FOR TEACHERS

A Dissertation

By

Lynda Reeves McIntyre

Approved as to style and content by:

Mary H. Beaven

Dr. Mary H. Beaven, Chairperson of Committee

Klaus Schultz

Dr. Klaus Schultz, Member

Teresina R. Havens

Dr. Teresina Havens, Member

Louis Fischer

Dr. Louis Fischer, Dean
School of Education

August

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A COMPILATION OF A HANDBOOK
ON BATIK FOR TEACHERS

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Lynda Reeves McIntyre

BFA University of Massachusetts, at Amherst
MED University of Massachusetts, at Amherst

Directed by: Dr. Mary H. Beaven

ABSTRACT

With an increased focus on human development in education the role of the arts as vehicles for such development is being recognized. The creative process, as defined by Rogers,* encompasses all those areas of human development cited by Berman in her book New Priorities in the Curriculum.** The role of the arts and the creative process in education has, in the past, been unclear, and a limited view of the potential of the arts has left a large gap in the educational training of most classroom teachers.

A survey conducted among pre-service and in-service teachers revealed that most classroom teachers had limited background in the arts, and yet the majority of teachers felt the arts were important in

*Rogers, Carl, "Toward a Theory of Creativity," A Sourcebook for Creative Thinking, edited by Sidney J. Parnes and Marold Harding (New York: Charles Scribner's Sons, 1962), pp. 63-74.

**Berman, Louise, New Priorities in the Curriculum (Columbus, Ohio: Charles E. Merrill Co., 1968).

education. Misconceptions about the arts and the role of arts in education have grown as a result of people's inexperience and fear of the arts process. A re-education of teachers in the area of arts and education seems to be needed if these growing misconceptions and sense of insecurity with the creative process are to be changed. Change is needed for the values of the teacher will more than likely be transferred to the student, cutting off the arts as important vehicles for personal growth.

Many teacher training institutions are now attempting to address this problem of retraining teachers in the arts and education. Yet in-service courses can not reach all interested teachers because of the limitations of time, space and personnel.

An arts text, responsive to the needs and desires of the classroom teacher, appears to be needed. Texts in the philosophy of arts, in methodologies, and in projects are presently available, but none of these types of books directly responds to needs of the classroom teacher. Choosing a narrow field for study, batik, which can be used to help explore specific curriculum units and areas of human development, I have created a handbook for teachers.

The text itself contains a history of batik forms, specific methods of batik suitable for all age groups and budget levels, a discussion of the relation between human development and the arts, suggested extensions into the curriculum, teacher and artist comments, illustrations of processes and products, and resource guides to batik materials, galleries, and literature.

The text was developed with the ongoing help and evaluation of eighty in-service teachers in New Bedford, Massachusetts. Forty of these teachers had background in multi-arts and education. Forty did not. These teachers were instrumental in the creation of projects, the actual implementation of projects, and the evaluation of these implementations; they also evaluated handbook material in regard to clarity, format and usefulness. Teachers suggestions determined the final form of the handbook, and this final form was distributed to participating teachers for their final evaluation and as a text for their future use. The handbook was well accepted and used by both groups of teachers, and questionnaires as to format, usefulness of materials and the amount of teacher use of materials revealed that both groups has similar responses. Follow-up studies have been initiated, and future studies are planned.

The methods used in developing this handbook offer an example for future arts texts. A prototype text, the "Batik Handbook," seems to be responsive to teachers' self defined needs, and a series of such pamphlets on various arts areas might become important resources for the classroom teacher. As a means of clarifying the role of arts in education and of encouraging teachers to involve themselves in the creative process and human development, such handbooks offer avenues through which to reach a large population of teachers and other interested individuals.

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CHAPTER I

THE PROBLEM AND RATIONALE

Introduction to the Problem

Cognizant of current dehumanizing aspects of society and their reflection in the schools, I am interested in the role that the creative arts can play in changing our education system. Schools now tend to be factual, product-oriented institutions, but they could become humanistic, process-oriented places of learning with a greater concern for human development. Humanistic psychologists such as Abraham Maslow, Carl Rogers, Herbert A. Otto, and others contend that experiences in the creative artistic processes foster individual, humanistic growth.

In the past confusion and uneasiness have surrounded the role of arts of education. Because many teachers have misconceptions about the arts, they avoid them in their classrooms, thus losing an effective vehicle for affective growth. Such teachers need to participate in the creative artistic processes and to re-educate themselves as they begin to integrate the arts into basic curriculum areas. As one way to help bring about this participation and re-education, I have chosen to develop an arts text, a handbook on batik, that attempts to meet the needs of classroom teachers.

Rationale

Dehumanization in Society

Today's fast-paced, mechanical world increasingly seems to

dehumanize the individual, as McLuhan and Fuller have pointed out.¹ By immersing themselves in facts, compartmentalizations, and time limitations, people become alienated from themselves and others. They concentrate on becoming like the ideal societal models--especially like the models offered for emulation by the mass media. In doing so people negate their own individualism.

To become competent and efficient, people compartmentalize their time--fifteen minutes for breakfast, ten minutes for riding to work, drinking coffee in the car, three hours for meetings, five minutes for a break They rush about on a prescribed time table in order to feel as if they are accomplishing their goals.

Because of these compartmentalizations and perceived time pressures, many people have not learned to develop the perceptual underpinning of concepts; they sense no need to experience the essence of an object, person, place or idea--to take the time to observe intensely, touch, listen, and wonder. This perceptual experiencing, this observing, and this wondering are essential to creative, artistic processes and to psychological development.

Arnheim in his book Visual Thinking relates perception to conception. It is his contention "that the cognitive operations called thinking are not the privilege of mental processes above and beyond perception but the essential ingredients of perception itself."² He

¹ Marshal McLuhan, Mechanical Bride (New York: Vanguard Press, Inc., 1951); R. Buckminster Fuller, Earth Inc. (Garden City, New York: Anchor Press, 1973); R. Buckminster Fuller, Educational Automation (Carbondale: Southern Illinois Press, 1962).

²Rudolf Arnheim, Visual Thinking (Berkeley: California Press, 1971), pp. 1-36.

goes on to explain "that artistic activity is a form of reasoning, in which perceiving and thinking are indivisibly intertwined. This union of perception and thought . . . (turns) out to be not merely the speciality of the arts" for "there is much evidence that truly productive thinking in whatever area of cognition takes place in the realm of imagery (perceptions that have coalesced into images)."³

When perception is separated from cognitive thinking, Arnheim contends that "various deficiency diseases in modern man"⁴ occur. When people have not developed a perceptual basis for cognitive thought and have lost touch with their senses, they have limited their human development, losing the ability to respond to life freely and appreciatively.

Reinforcement of Dehumanization in Schools

The compartmentalizations and time limitations found in society are reinforced in the schools. For instance, most schools break down the day into prescribed time segments: "Now it is math time," "Now it is social studies time," and so on through the school day. Work and learning in each discipline must be completed on time.⁵ To keep the room neat and orderly, seating arrangements are generally structured for the convenience of the overseeing teacher--row-on-row; boy-girl-boy; alphabetical order: a variety of static seating plans rather than

³Ibid., p. v.

⁴Ibid.

⁵Refer to Appendix A for examples of flexible and less flexible approaches in the classroom.

flexible ones reflecting the changing needs of students and activities. To have all students and teachers look as much alike as possible, dress codes are enforced. The dynamics of our society have produced an educational system that promotes the development of rubber-stamped human beings.⁶

Although there have been attempts to focus on individualization and student-centered learning, many teachers are inflexibly conditioned to compartmentalizations and time limitations. They impose these on their students because of a need to be in control. If, as Eric Fromm has suggested, control is kept by "dominative authoritarian figures," then dependents do not outgrow their needs for instruction, acceptance, and reinforcement from those figures.⁷ Consequently, many of our schools are places that train the "young to be obedient, passive and mechanical, and to accept alienation as a way of life."⁸

Many opponents of public education have viewed the system as "inflexible and routine, stressing performance, inhumanity and inequality."⁹ Education has been seen as the tedious collecting of useless facts, memorized poems, atomic weights, and birth dates of Presidents.

⁶This homogeneity reinforced in the schools is reflected in the larger society as one sees row on row of similarly clad, sideburned, maybe mustached, young executive commuters, folding vertical sectioned papers while waiting to ride a city work bound train.

⁷Eric Fromm, Escape from Freedom (New York: Holt, Rinehart and Winston, 1964), pp. 173-178, 253-65.

⁸Neil Postman and Charles Weingertner, The School Book (New York: Delacorte Press, 1973), pp. 8-9.

⁹Louis Heath, The New Teacher (New York: Harper and Row, 1973), p. 78.

Currently there is a "back to basics" movement in education, and teachers are stressing memorization of such facts and the learning of discrete, testable skills. This "back to basics" emphasis deserves some criticism because it limits individual growth, both on cognitive and affective levels. Although teachers may not overtly deal with affective learning, affective learning occurs, whether or not considered as a component of lesson plans and units. Students learn to prioritize their values in accord with what they experience at home, at school, and in society. They learn to feel comfortable with what they encounter, and the current emphasis on basic skills does not encourage divergent learning. Thus, students become afraid of freedom and do not reach out to explore--this fear is what they have affectively learned.

Schools and Human Development

Our educational systems must recognize what they are doing in this "back to basics" movement and must take appropriate steps to foster positive potentials to affective growth. The first step is to identify the characteristics of a healthy personality: a positive self concept, the ability to take risks and creativity. A school system that attends to these areas of development will probably foster more self-actualizing individuals, persons who feel personally "adequate and responsible,"¹⁰ persons who can productively deal with a changing world.

Characteristics of a Healthy Personality

If people in the fast-changing society of today are going to be

¹⁰Louise Berman, New Priorities in the Curriculum (Columbus, Ohio: Charles E. Merrill Publishing Company, 1968), p. 10.

able to direct the process of cultural change, they will need to become, "fully human,"¹¹ "comfortable with change" and confident about their "ability to improvise."¹² Abraham Maslow in The Farther Reaches of Human Nature describes self-actualizing people as those whose qualities include honesty and devotion to something outside oneself, persons who see life as an ongoing process of growth choices, those who experience transcendental unity and are aware of the value of these peak experiences, and those who live fully with total absorption. Such people, aware of their own courage, work to implement their own decisions. As a result, self-actualizing persons are always in process, finding out who they are and where they are healthy and unhealthy and acting to fulfill their potentials.¹³ Maslow goes on to state, "The society that can turn out such people will survive" while "the society that cannot turn out such people will die."¹⁴

Lawrence Kubie strongly echoes this call for openness, this need for flexibility.

The measure of health is flexibility, the freedom to learn through experience, the freedom to change with changing internal and external circumstances, to be influenced by reasonable argument, admonitions, exhortation and the appeal to emotions; the freedom to respond appropriately to the stimulus of reward and punishment, and especially the freedom to cease when started. The essence of normality

¹¹Abraham Maslow, The Farther Reaches of Human Nature (New York: Viking Press, 1971), p. 28.

¹²Ibid., p. 59.

¹³Ibid., pp. 43-53.

¹⁴Ibid., pp. 58-59.

is flexibility in all of these vital ways. The essence of illness is the freezing of behavior into unalterable and insatiable patterns.¹⁵

To survive in both individual and societal terms, those characteristics of fully-functioning people need to be developed and supported in the schools as well as in the homes and community.

Self concept: a definition

"The most important single factor affecting behavior is self concept."¹⁶ Situations may change, but the "self is the star" of every performance. There are various definitions of "self concept." In Helping Relationships: Basic Concepts for the Helping Professions it is described as "all those aspects of the perceptual field to which we refer when we say 'I' or 'me'." It is "an abstraction, a particular pattern of perceptions of self," used to distinguish self from others.¹⁷ Combining the views of psychologists such as Maslow, Rogers and Otto, Mary Beaven presents a definition in which "self concept" is seen to be the combination of "the image one has of himself as he would like to be and the image he has of himself as he is." She goes on to state that "the more closely these two approximate each other the healthier the personality is. In fact, one indication of neurosis is a person's not liking himself as he is and believing it impossible to become his

¹⁵Lawrence S. Kubie, Neurotic Distortions of the Creative Process (Lawrence, Kansas: University of Kansas Press, 1958), pp. 20-21.

¹⁶Arthur Combs, Donald Avila and William Purkey, Helping Relationships: Basic Concepts for the Helping Professions (Boston: Allyn and Bacon, Inc., 1971), pp. 39-40.

¹⁷Ibid., pp. 39-40.

ideal self."¹⁸

Most authorities agree that as the self grows, the personality and the self concept change. At any time a person's self concept acts as a screen "through which everything else is seen, heard, evaluated and understood."¹⁹ It is this pervading influence of the self concept that determines whether a person feels successful in his or her life or whether a person, having defined himself or herself negatively, falls into a "vicious circle" of self defeating concepts and behavior.

Self concept and risk-taking

To become what Carl Rogers calls a "fully functioning"²⁰ person, one must honestly explore his or her feelings, thoughts and behaviors and come to terms with them, accepting and changing them. Self exploration involves the taking of risks, the trying of something new. Only by risking can one explore, recognize and stretch one's own potential. Maslow speaks of two types of people--those who choose safety and permanence and those who choose growth and development. Risk-taking is a characteristic of people who are growing.

¹⁸Mary Beaven, "The Effects on a Course in the Creative Arts on Teachers-in-training: Course Construction and Measurements," (Ph.D. dissertation, Northwestern University, 1971), p. 43. Mary Beaven does not approve of the sexism implied in the quotation used. However, revisions using he/she and himself/herself and those using they presented either a stylistically awkward sentence or a conceptually misleading sentence.

¹⁹Combs, Avila and Purkey, Helping Relationships, p. 43.

²⁰Carl Rogers, Freedom to Learn (Columbus, Ohio: Charles & Merrill Company, 1969), pp. 282-287.

Risk-taking behavior cannot grow and develop in an interpersonal environment of fear. Carl Rogers speaks of a need for "trust," "trust in human nature," "trust promoting learning and sharing." "When threat to self is low, experiences can be perceived in differentiated fashions and learning can proceed."²¹ Rogers speaks of those people who have chosen growth and development as those who have experienced "trust" in many situations, who have had times of transcendental unity and are aware of the value of these peak experiences, while those who have chosen safety and permanence have rarely experienced an environment that promotes trust in people.²² If fear can be reduced, then experimentation and risk-taking will be much more likely to occur.

Creative expression in the arts offers many opportunities for risk-taking. In a trusting environment, with a teacher-facilitator, not a teacher judge, individual students are encouraged to explore many media as they seek to communicate their feelings, to solve problems, and to respond to their world as they perceive it. In such ways positive affect accrues to the self concept, leading to a more generative, creative individual.

Self concept and creativity

Self-actualization and creativity are almost synonymous. Carl Rogers speaks of three elements of creativity--an openness, the ability

²¹Rogers, Freedom to Learn, p. 166.

²²Ibid., pp. 109-115, 161.

to play, and an internal locus of evaluation.²³ The element of openness is characterized by the ability to seek out and welcome new ideas and situations, by a curiosity about the future instead of a dependence upon rigid structures and answers from the past, and by the ability to view an idea, situation, or person from a variety of perspectives rather than from a single point of view.

The element of play is characterized by abilities to take risks, to experiment and to improvise. Although play may culminate in a final product, the product is not of primary importance. Play is the process through which one interacts with people, ideas and objects, willing to change and finding involvement, satisfaction, and pleasure or absorption in whatever happens. Play promotes adaptability, fluency and flexibility.

Roger's third characteristic of creativity, an internal locus of evaluation, comes from a reliance on one's self for judgment and approval rather than upon outside sources for recognition and support. In the process of self evaluation people choose their own goals, develop their own means to achieve them, act upon these, and look to themselves to assess their progress. It is through self evaluation that one directs future efforts in ways that are self defined and desired. Carl Rogers states that "self evaluation is a major means in which self-initiated learning becomes responsible learning."²⁴

²³Carl Rogers, "Toward a Theory of Creativity," A Sourcebook for Creative Thinking, edited by Sidney J. Parnes and Harold Harding (New York: Charles Scribner's Sons, 1962), pp. 63-74.

²⁴Rogers, Freedom to Learn, p. 48.

It is in self-actualizing persons, those whose growth approximates their potential, that these elements of creativity are well integrated. It is through openness, the ability to play, and the reliance upon an internal locus of evaluation that such self-actualizing people take responsibility for their own growth.

Education: Self-Actualization Through the Creative Process

If, as Maslow has suggested, a necessary goal for society is the development of healthy, self-actualizing beings, then it follows that "education must help people transcend the conditioning imposed upon them" and help "foster 'process persons,' self-trusting courageous and autonomous."²⁵ Rogers has stated that, "Changingness, a reliance on process rather than upon static knowledge, is the only thing that makes any sense as a goal for education today."²⁶ If this changingness is essential, then our education system must try to attend to those areas that can eventually develop and support a self-actualizing person.

In her book New Priorities in the Curriculum, Louise Berman identifies eight process skills, skills required by all beings in their daily living, which, if emphasized and developed in the schools, can open up the "possibility of the development of process oriented persons within our schools."²⁷ These eight are the ability to perceive, the ability to communicate, the ability to care or to love, the ability to

²⁵Maslow, The Farther Reaches of Human Nature, pp. 184, 100.

²⁶Rogers, Freedom to Learn, p. 104.

²⁷Berman, New Priorities, p. 11.

know, the ability to make decisions, the ability to pattern, the ability to create and the ability to value. The artistic creative process embraces and integrates all of these areas.²⁸

It is through one's perceptions that one learns about the world, comes to know it, and reacts to it. The perceptual habits a person forms determine what one observes and how one reacts to those observations. These perceptual stereotypes enable a person to process perceptual information readily. These stereotypes may also limit perceptual growth because they take away the need for close observation. Through the creative process, which depends on close, renewed perception, perceptual habits are stretched to new degrees. New perspectives are discovered, new details are recognized, and new relationships seen.

The discovery of newness motivates people to keep on looking, perceiving, and seeing things afresh each day. As such, the artistic creative process helps students realize that people perceive things in individual ways--no one perceives alike. While working in the arts,

²⁸There is a variety of existing definitions of the creative process. Chandler Montgomery describes this process as "all that goes into the discovery of an idea and all that goes into the working out." (Chandler Montgomery, Art for Teachers of Children, p. 12-15.) Others describe this same arts process as involving the participant in "perceiving, responding, understanding, creating, evaluating and manipulating." (Pennsylvania Dept. of Education, The Arts Process in Basic Education (Pennsylvania: Pennsylvania Dept. of Education, 1974), pp. 6-11.) Maslow describes the process in two stages. The first or primary stage he calls inspirational while the secondary stage is a "carrying out" phase which requires "discipline and hard work." (Maslow, The Farther Reaches of Human Nature, p. 50.) Susan Brainerd in her doctoral dissertation presents the components of the creative process as exploration, improvisation and evaluation. (Susan M. Brainerd, "A Curriculum for an Aesthetic Program for Teacher Education," (Ed.D. dissertation, University of Massachusetts, 1971) The basic ideas of all these definitions are found in Rogers' elements of creativity--openness, ability to play and an internal locus of evaluation.

students identify their own uniqueness and learn to appreciate the validity of perceptions different from theirs.

Through experimentation in various media students learn the potentials of each form of communication and become more able to choose among those vehicles for various purposes. The creative artistic process enables students to develop a wide repertoire of communication skills which satisfy and represent their needs and desires. Closely related to perceiving and communicating is man's ability to love and to care. Sam Keen in To a Dancing God refers to the importance of loving and caring. As interesting details are perceived in an object, person, or situation, one begins to care and to develop an involvement.

It might be a good exercise to have students spend several weeks investigating and learning to appreciate the intricacies of a single flower or a tree. It is not difficult to predict that if such massive attention were lavished upon a simple object, a new way of 'knowing' and a new style of loving might emerge. Once students had learned to love natural and fabricated objects, the more advanced study of the nature and varieties of interpersonal love could begin.²⁹

"Central though love is to all visions of human fulfillment, it is given no place in curriculum."³⁰ The creative artistic process is one avenue through which to develop this ability to care and to love, beginning with the perception of objects, persons, and situations and expanding into all areas of interpersonal perceiving and caring.

As a person becomes involved with perceiving, knowing, and caring, choices concerning priorities and directions continually arise, and one

²⁹Sam Keen, To a Dancing God (New York: Harper and Row Publishers, 1970), p. 59.

³⁰Ibid., p. 57.

must make decisions about them. The creative process is a means for the development of risk-taking behavior. Problem-solving is demanded of one during the creative, artistic process. What does one want to communicate? What media should be used? What size seems most suitable? Should one work abstractly or representationally? What colors should be used? Or should there be any use of color at all? The arts process is a means of developing decision-making skills which involve risk-taking behaviors. Most of these decisions are not based solely upon logical thinking and the collection of facts, but they are more likely to be intuitive decisions, requiring the taking of risks with no assurances of an expected outcome. These kinds of intuitive decisions must be made our whole lives through, and yet students have little experience using this kind of decision making skills in our schools.

The creative arts process also helps one develop the process of knowing. Through the arts process an individual collects a great deal of perceptual information, and from this information one begins to structure cognitive conceptual differentiations and integrations. As Piaget says, in the creative arts process people perceive data, order the information through the selected media, and then communicate their understandings--all necessary elements of cognitive conceptualization or knowing.³¹

³¹Jean Piaget, Science of Education and the Psychology of the Child (New York: Orion Press, 1970), pp. 33-41; Hans Furth, Piaget for Teachers (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1970), pp. 116-127.

Closely related to this process of knowing is the process of patterning, the organization of perceptions, facts, ideas, and relationships. Through patterning one groups or categorizes, one changes groupings, one links references in chronological or spatial order, one compares or contrasts, one free-associates, and so on. This patterning not only helps one deal directly with decisions and ideas he or she is trying to order and communicate, but also this patterning involves one's own life and those of other people, helping one to become aware of the threads and underlie and connect the world, the physical, interpersonal, and even spiritual.

Berman's final priority, valuing, is similar to what Rogers calls the development of an internal locus of evaluation. Berman has suggested that to function in this world, one must have a sense of order and values that reflect personal values and ethics. This valuing adds unity to life, a sense of solidity and cohesion in a world in process and forms a basis for decisions. The creative arts process helps one develop this ability to value; it requires one to open oneself to a variety of avenues of communication and stimulation, to search oneself for truly honest and personal reactions and means of communication, and then eventually to rely on personal valuing for decisions that must be made during the creative process.

As can be seen, all of Berman's curriculum priorities are embraced and cultivated through the creative arts process. It, thus, seems natural for the schools to utilize the arts to develop these abilities and to integrate the arts into basic curriculum areas. In such a way the arts can become a thread weaving together all subjects.

Problems in the Integration of the Arts
into Basic Curriculum Areas

Although the relationship between the arts process and certain desired human processes can be clearly seen, a variety of problems arises when trying to integrate the arts into basic curriculum. These problems do not lie with either the arts or the curriculum areas. Connections between the arts and all areas of the curriculum can be clearly made--connections that can increase learning in all areas. Yet a variety of misconceptions about the arts and their relationship to learning prevent this integration.

Dichotomy Seen Between Work and Play

There is often a dichotomy seen between work and play. Each is seen as mutually exclusive, and in our work-ethic society work seems more valuable than play. This dichotomy tends to lessen the importance of the arts because they are viewed as play activities. All too often teachers regard time spent on exploration and play as wasted.

As Rogers has pointed out, time spent in play is time spent in the development of human processes, processes necessary for a healthy personality. "Play is a natural compliment to worthwhile work."³² It is through experimenting in play that a child brings his or her own questions and ideas to a cognitive concept. Teachers often forget that a child "playing with clockworks is playing with time" or that the

³²Pennsylvania Department of Education, The Arts Process in Basic Education (Pennsylvania: Pennsylvania Dept. of Education, 1974), p. 15.

"stroking of an animal is a tactile learning experience."³³ Recognizing that play is a key element in the creative process and that it is an important vehicle through which to develop cognitive and affective learning, a sensitive teacher can see the value of what Chandler Montgomery calls "purposeful play."³⁴

Arts Considered as Frills

In another misconception, the arts are seen as frills in education, afterthoughts, or desserts, as you will, to the bread and butter of education. The arts are viewed as luxuries; unrelated to the basic goals of education. This narrow view of arts and education overlooks the potential of the creative arts process as viable vehicles to foster both cognitive and affective learning. In his book Crisis in the Classrooms Charles Silberman argues that the arts should be the very business of education.³⁵ Piaget and others argue in a similar vein.

Arts as the Province of a Few Talented Souls

Another misconception holds that arts are the domain of a very few "talented individuals." These tools and territory of the gifted are seen as being unavailable as means of communication and expression for all. Because of this attitude most people have learned to view the arts as being outside their birthright and have come to believe that

³³John M. Pickering, Visual Education in the Primary School (New York: Watson-Guption Publications, 1971), p. 8.

³⁴Chandler Montgomery, Art for Teachers of Children (Columbus, Ohio: Charles E. Merrill Co., 1968), pp. 3, 10, 15.

³⁵Charles Silberman, Crisis in the Classroom (New York: Random House, 1970), p. 8.

they, as individuals, are not creative.

Our education systems generally reinforce this misconception of the arts, emphasizing the product that one creates and neglecting the process of creating. People's initial introduction to art in the schools is commonly recalled as a visit from the art teacher once every three weeks for a forty minute period. One learns about "good" arts and "bad" arts, relying on Old Masters as safe places to develop "taste." Children are often allowed no opportunity to consider their own feelings and reactions or to develop their own creative potential.

Many people directly involved with the arts hold an elitist attitude. "The arts are special and they are mine." "Only a few certain people can really understand art."³⁶ Whether this attitude has developed as a defense to the continued dismissal of the importance of the arts or whether it comes from a true feeling of superiority, it only further alienates people from participation in the creative arts and tends to reinforce negative feelings about the arts and artists.

Throughout our education system there has not been a strong emphasis put on the creative arts, especially for all. At the elementary level this is evidenced by the limited number of art teachers, limited space and time, and limited budgets for supplies.

If teachers could develop appetites in all students for what is "lively, vivid, and personally felt,"³⁷ then perhaps more people would interact with the arts as products of fine artists and also as tools

³⁶Quotes from conversations with artists and art historians.

³⁷Montgomery, Art for Teachers of Children, pp. 2-4.

for communication for all.

Teacher Inhibitions

Another problem with the integration of arts into the classroom comes from the teachers themselves. If multi-arts education³⁸ and related arts curricula³⁹ are to become more prevalent in today's educational systems, then teachers must be familiar with the material and at ease. Without training in the arts teachers often do not feel comfortable with the arts and find it difficult, if not impossible, to integrate arts into their curriculum. This problem is pointed out in the report of a government-funded project, Arts Impact:

One of the major reasons that teachers do not incorporate the arts into their classroom activities is because they have had little training in the arts and because they have been repeatedly told that the art areas must be handled by specialists. Further, the arts, because they are expressive in nature, require teachers to "loosen up" and step out of their authority figure roles. This is very difficult for teachers to do unless they can be encouraged to overcome their inhibitions about the arts and made to feel secure and confident.⁴⁰

³⁸Multi-arts education can be defined as "education where the arts collectively have the same status and educational responsibility as other major departments, where arts are viewed 'comprehensively' and segmented arts areas are organized into one cohesive area of curriculum with unified goals and evaluation procedures." (Pennsylvania Department of Education, The Arts Program in Basic Education, Pennsylvania: Pennsylvania State Department of Education, 1974, p. 16.)

³⁹A related arts curriculum can be defined as basic education in which the "arts are 'infused' into other major subject areas. Infused being defined by Webster as 'implies the introducing into one thing of a second that gives new life, vigor or significance.' Such a curriculum is one in which the arts and other areas mutually nourish each other." (Ibid., p. 16.)

⁴⁰The Arts Impact Evaluation Team, Art Impact: Curriculum for Change a Summary Report (Pennsylvania: Pennsylvania State University, submitted to the Arts and Humanities Program, Office of Education, U.S. Department of Health, Education and Welfare, 1973, p. 42.)

My own experience with teachers reinforces the problem as stated above. A second grade teacher with whom I worked expressed these same needs and concerns:

I have been trying to bring more art into my academic programs but I find it hard as I lack techniques, ideas and connections, though I have taken many books out of the library on specific arts, I just haven't been able to pull it together.⁴¹

Another teacher stated that she had an "art hang up." She felt that she had no talent or creativity, and this feeling inhibited her from "provoking creativity in her students." "If I learn specific arts skills I would feel better about my own work and probably be able to use more arts and be a much more effective teacher." Whether inhibitions are the result of lack of experience or negative experiences, the inhibited teacher will in some way demonstrate his or her feelings about the arts, and these feelings and inhibitions will most likely be passed on to the students. Arts integration is possible only when teachers are comfortable and confident with the arts.

Possible Solutions to Foster the Integration of the Arts into Basic Curriculum Areas

There is a variety of possible solutions to the problems of arts integration. Education, or re-education of teachers, seems a likely starting point. Teacher training institutions could offer more arts and humanities type courses, courses that deal with the arts both theoretically and experientially and that help teachers draw connections between the arts and the curriculum. More ongoing in-service workshops

⁴¹Quote from a teacher in the Spring, 1974 Multi-Arts Course given at the University of Massachusetts, Amherst, Massachusetts.

in the arts could be offered to interested classroom teachers, and more useful and enlightening texts on the arts and their integration into the classroom could be made available. None of these solutions is sufficient in itself, but each is an available avenue toward improved education in the arts.

More Staff Development in the Arts

Teacher training institutions must address teacher needs if they are to train educators who can confidently deal with arts and other curriculum areas. Since the Office of Education has named arts in education a priority and since a number of states have mandated the integration of the arts into basic curriculum areas, more pre-service and in-service courses are now being developed.⁴²

⁴²There are a variety of means available for fulfilling the arts needs of prospective teachers and teachers already in the classroom. It is necessary for teacher training institutions to respond to the stated interest of their students and offer more experiential and theoretical courses in the arts. Furthermore, it seems appropriate to offer these courses to students early in their preteaching programs so that knowledge and skills gained can be brought to their student teaching and that areas of interest can be more fully pursued before graduation.

A variety of programs that address the retraining of teachers in the classroom are in process, among them five are presented in the Arts Impact Summary. In some programs visiting artists work in residence at a school system for varying periods of time, coordinating their talents with specialist and classroom teachers. In others ongoing in-service workshops explore arts activities and their classroom applications with teachers, specialists, school staff and resource persons. Each program is built on the strengths of the people available and brings in outstanding people from the outside to help facilitate change. Important concerns of the programs are to enrich teachers' experience in the arts and to motivate classroom teachers to creatively and confidently teach with the arts. Nonthreatening workshops "fostered increased teacher security in the arts and developed positive attitudes towards the arts as an integral part of programs." (Arts Impact Evaluation Team, Arts Impact, p. 38). Evaluators discovered that the variety of approaches introduced to the teachers were reflected in new flexibility in their

Traditionally when those involved with staff development have recognized additional need for change, they add a required course for pre-service teachers or they arrange for an in-service workshop for their classroom teachers. However, Arts Impact: Curriculum for Change a Summary Report,⁴³ shows in its evaluation that one course or one or two workshops may not be sufficient, for many teachers need almost six months of experience in creative expression before they become comfortable. In my own experiences, I, too, have found that a one or two semester course may not be enough, particularly if the teachers want to explore to any deep extent more than one art form or if they want to investigate many ways to integrate arts experiences⁴⁴ into ongoing curriculum and subject areas. As Chandler Montgomery has stated, "The great teacher of children needs deep roots in experience if he (sic) is to bring the distilled quality of his living into that productive relationship with children's living which is the essence of teaching."⁴⁵

In the spring of 1974 I offered a teacher training course titled Arts and Crafts in Curriculum Development through the Arts and Humanities Program, School of Education, University of Massachusetts, Amherst.

classrooms and that as "art took a more personal role in a teacher's life its role in the classroom increased." (Ibid., p. 42.) Teachers responding to the retraining program and arts workshops said that the experiences had proved to be "stimulating and riching for them personally as well as professionally." (Ibid., p. 38.)

⁴³The Arts Impact Evaluation Team, Arts Impact: Curriculum for Change a Summary Report.

⁴⁴Refer to Appendix E for examples of integrated arts experiences that have been used in public schools.

⁴⁵Montgomery, Art for Teachers of Children, p. 2.

Massachusetts.⁴⁶ Over 140 students signed up for the available twenty spaces.⁴⁷ Curious as to the motivation of these students and as to their interest in arts and education, I conducted a survey.⁴⁸

In response to this survey sixty-eight percent of those enrolled said they had had no training in the arts, fifty-six percent stated that they had "no talent," sixty-eight percent stated that they were interested in developing specific arts skills useful in teaching, fifty-four percent felt there was a need for "arts integration" in the classroom and over fifty percent stated that they felt the arts were important to learning. Only eighteen percent of those responding had taken similar methods courses before and most stated they were dissatisfied with these. Seventy-two percent stated their concern that there were so few courses of this type being offered. Those polled seemed acutely aware of some of their needs as teachers, especially in the area of arts. In response to these stated needs and to the Office of Education's stated priority of arts in education, it seems apparent that more worthwhile courses on the pre-service and in-service levels must be made available to the classroom teachers.

More Literature Needed

While massive doses of in-service courses in the arts might

⁴⁶Refer to Appendix C as to course outline represented in the School of Education Course booklet. Refer to Appendix D as to goals and implementation of those goals in the Arts and Crafts and Curriculum Development Course as contained in my position paper.

⁴⁷Refer to Appendix E for original class roster and breakdown of student population.

⁴⁸Refer to Appendix F for results of my initial tally.

bring about some desired results, it is obvious that all teachers cannot be personally retrained, nor can new and effective teacher training programs be readily developed. A far greater amount of literature on multi-arts needs to be made available (although improved literature alone is not sufficient means to train or retrain teachers).

While working with pre-service and in-service teachers in the areas of aesthetic and transdisciplinary education, I have become increasingly aware of the lack of relevant, written materials on multi-arts. Many good crafts books, books on methodology or techniques, and books on theory exist; however, these types of books are not particularly helpful to a classroom teacher whose experience in the arts is minimal or to one who is just beginning to experiment with multi-arts in the classroom.

More often than not, books on specific art forms are too technical for the classroom teacher. The projects described often require a lot of time and expense and may not be applicable to specific age levels of children. Those arts books written specifically for the classroom teacher are usually project type books and are directed toward one or two specific end products, allowing little consideration for the arts process or for improvisation. Books on the theory of arts integration and aesthetics are helpful, but most teachers are anxious to find concrete connections between the arts, their curricula, and themselves.

Features of a needed text

A fusing of theory and application into an enjoyable, attractive

text seems to be needed: a text that approaches multi-arts not only as an end product but as a vehicle through which to learn; that couples multi-arts with other disciplines; that takes into consideration varying age abilities, variations in class size and school finances, and that mentions particular problems that might arise and available solutions. Such a text should incorporate factual knowledge from a variety of sources and address the area of human development through the arts. It should hopefully go beyond hard facts to become a catalyst, fostering enthusiasm for new ideas and creative endeavors in its readers. The Arts Impact Summary states, "The key to retraining teachers in the arts is the resource person's ability to effect change in teachers and in his or her ability to instill enthusiasm and confidence."⁴⁹ Somehow, the personal warmth and supportiveness of a successful resource person must be captured in a multi-arts text if it is to be successful in increasing teacher effectiveness. The style of such a text should appeal to teachers so that they use the presented material in ways that promote self-actualization. A text, if successful, can through the written word and the magic of printing, multiply the effectiveness of any single multi-arts instructor or course.

Handbook on batik

Because a handbook on multi-arts seems to be needed, I have undertaken its preparation. I have chosen batik as the art form to explore because I am familiar with the process and also because there is limited educational material available on batik.

⁴⁹The Arts Impact Evaluation Team, Arts Impact, p. 42.

This handbook on batik incorporates the above mentioned features of a multi-arts book. The text includes step-by-step procedures, illustrations of processes and products, a brief history of the art form, examples for classroom use, a guide to material resources, and ideas for classroom arts projects directly related to basic curriculum. In the text I have attempted to utilize that which I have found to be successful in the classroom and to present an exciting and supportive exploration into an art form and its uses. Just as the integration of the arts is concerned with the realms of cognitive and affective development, in this text I have consciously tried to deal with these areas, both through methods of presentation and material presented. However, it should be stated that verbal means can never capture the totality or spirit of a presentational or non-verbal form of communication. The essence of what I am trying to communicate can only be experienced through participation in the various batik processes.

The process I used for the preparation of this text included the examination of a variety of resources. It included a review of the literature and visits to galleries and museums, coupled with interviews and visits with experts in the history of batik and batik artists. My own personal work in batik and my experience teaching batik were also important resources. The resulting information was organized in simple step-by-step blocks that were arranged according to age-level abilities and presented in a friendly, supportive style. Because this handbook is directed toward teachers, its preparation included the participation of teachers. Teachers were involved with the creation of the text itself, with testing the projects and reviewing handouts, and with evaluating the

final book through questionnaires and other evaluative procedures. The final text is the following handbook, Chapter IV, rewritten and organized in response to this teacher evaluation.

Summary

As one begins to realize the potential of the arts in education (as means to develop areas of human growth necessary for self-actualization), the importance of the integration of the arts into the basic curriculum becomes apparent. The arts can help individuals to become self-confident and growing in a society that is continually trying to dehumanize them. Rather than supporting this dehumanization, the schools can utilize the arts to promote human development.

However, a variety of misconceptions prevent widespread integration of the arts into basic curriculum areas. Teacher training courses in the multi-arts provide one method of confronting these misconceptions. Another method, the one I have chosen to undertake in this dissertation, is the creation of improved multi-arts literature, and, accordingly, I have prepared a multi-arts handbook on batik.

There are five parts to this dissertation. The "Statement of Problem and Rationale" is included in Chapter I. Chapter II consists of an "Overview of the Field" and includes a review of the literature and a summation of information gathered from interviews and museum visits. Chapter III reviews "The Involvement of Teachers in the Creation of the Handbook," the process of teacher involvement, the instrumentation of evaluation and the results of teacher feedback. Chapter IV consists of the body of a "Batik Handbook: A Teacher's Guide" and Chapter V is a "Conclusion" and summation of thoughts.

CHAPTER I I
AN OVERVIEW OF THE FIELD

When I looked for written material on batik, I found that many of the earliest books on batik are out of print. Most multi-crafts books, however, give at least a few pages to batik, and every now and then some national magazine will feature an article on a specific batik project. Only recently has there been a resurgence of interest in the art, and, thus, more published information is becoming available. Generally, many of the new books on batik are either large picture books of intricate traditional designs or new crafts books written for the craftsman. It is the newer texts, combined with numerous interviews with batik artists, visits to museums and batik exhibitions, and my own personal work with batik that have given me the most information about this art form.

Books on the History of Batik

The most impressive and illustrative books from which to learn about batik are the historical picture books. Each book surveys fabric and designs of a certain era or area. Tameso Osumi's book, Printed Cotton of Asia,⁵⁰ presents a variety of printing techniques, including the batik used in Asia. In this text he traces the origin of regional dyes, techniques, and patterns and examines the influence that international trading has had upon design. With the development of European

⁵⁰Tameso Osumi, Printed Cotton of Asia (Rutland, Vermont: Charles E. Tuttle Company, 1965).

trade, native designs such as birds, religious symbols, trees, etc., distinct to one area began to be adopted and utilized by craftspersons from other countries. Thus, similar designs were eventually to be found in Persia, Japan, India, and Indonesia. As demand for these fabrics increased, production methods changed, and naturally so did the quality of the work. Osumi traces these changes and clearly illustrates and documents them. As a resource text, this book gives excellent background for the methods of printing and dyeing. It also helps clarify the reasons for similarities in designs from distant places. A classroom teacher would find this text useful in preparing work on the age of exploration, the effect of trade, or even the industrial revolution.

Another text that gives clear historical data is Laurens Langewis and Frits Wagner's book, Decorative Art in Indonesian Textiles.⁵¹ Textiles in Indonesia were principally used for clothing--clothing for every day, for special occasions and for status symbols.⁵² Langewis and Wagner examine the techniques and regional rituals involved with creating cloth. They explore paste batik, the most primitive of batiks, and bamboo batik, found almost exclusively in the Central Celebes. Tjanting batik, the most intricate and best known of batik forms, is well examined and illustrated. Many of the finest illustrations of batik in this text come from Java--Java and Bali being accepted as areas where batik has reached its highest artistic levels.

⁵¹Laurens Langewis and Frits Wagner, Decorative Art in Indonesian Textiles (New York: William S. Heinman Co., 1964).

⁵²Ibid., p. 9.

A large portion of this text is given to exploring various patterns and subtle changes in patterns over time. For example, paste batiks were initially geometric in design, having simple suns and animals outlined by horizontal bands. Bamboo batiks were almost always horizontally striped with bands of varying widths. Tjanting batiks used various figures, depending upon the region and the purpose for which the cloth was to be used.⁵³ Ceremonial symbols, birds, spirals, fish, and trees of life are often repeated designs.⁵⁴ Those tjanting batiks that were to be used in ceremonial rituals were generally made of the finest fabric and used the most traditional designs, often sprinkled with gold dust.⁵⁵

More recently, designs and patterns have been exchanged between areas and from one batik form to another. Color preference still varies by district: central Java, for example, is well known for its indigo, brown, and white batiks while northern Java is better known for its works in red and yellow.⁵⁶ But with the exchange of design ideas and with the advent of the "tjap" or copper stamp now used for many Javanese batiks, it has become increasingly difficult to identify from which region a piece of textile comes. However, close examination of the cloth will easily tell which type of batik was used.

⁵³Ibid., p. 25.

⁵⁴Ibid., p. 14.

⁵⁵Ibid., p. 9.

⁵⁶Ibid., pp. 31-32.

Roy Sieber's African Textiles and Decorative Arts⁵⁷ examines similar historical changes and dyeing processes in African fabrics. The textiles of Africa are extremely varied, and methods of designing include printing, tie-dye, warp dyeing and batik. Although tjanting batik is not widely used in Africa, stick and paste batik are well known. Sieber's text is filled with large illustrations of various textile techniques and designs, and I believe that these visual comparisons add more to one's knowledge and ability to distinguish and identify various textile forms than any other written text on textiles.

To round out the social history of batik, I want to mention Albert Lewis' text, Javanese Batik Designs from Metal Stamps,⁵⁸ which delves into the monetary and social reasons for the change from strictly tjanting batik, done by women who would take up to thirty days to complete an intricately designed sarong, to "tjap" or metal stamp batik, done by groups of men using methods to make seven or eight garments a day. This text also describes the production of the stamp itself, the importance of the stamp craftsman and the need to create a reverse stamp that matches exactly. This new technique also requires a different method of melting and holding wax on a pad. The final designs created by stamp batik are generally repetitive and more geometric than the traditional tjanting batik. Sieber's text is beautifully illustrated⁵⁹

⁵⁷Roy Sieber, African Textiles and Decorative Arts (Greenwich, Connecticut: New York Graphic Society Ltd., Museum of Modern Art, 1972).

⁵⁸Albert Lewis, Javanese Batik from Metal Stamps (Chicago: The Field Museum of Natural History, 1924).

⁵⁹These illustrations, coupled with the reputation of the Field Museum as a leading collector of batik in the United States, led me to

Other historical texts that, in some way, add information to the study of batik include Stuart Robinson's texts, A History of Dyed Textiles⁶⁰ and A History of Printed Textiles.⁶¹ Both of these texts give specific historical and technical information, but they are not addressed exclusively toward batik.

However, written information on special areas of historical batik are readily available in the area of "Pysanki" or Ukranian egg batik. The National Geographic⁶² in April of 1972 printed an article on Pysanki. Pysanki, what we might term decorative Easter eggs, hold religious significance for the Ukranians. The symbols on the eggs are traditionally religious symbols, and the eggs themselves are meant only for decoration and are not cooked or eaten. The National Geographic article explores the religious significance, the methods and the tools, including the "kistka," used in creating these beautiful eggs. The article also includes many fine illustrations of completed eggs. More intricate and fine examples of Ukranian pysanki can be found on the cover of the Russian Cooking volume of the Time-Life Series on World Cookery.⁶³ Pysanki,

visit the Field Museum in Chicago to view its fine and varied batik collection.

⁶⁰Stuart Robinson, A History of Dyed Textiles (Cambridge, Massachusetts: The M.I.T. Press, 1967).

⁶¹Stuart Robinson, A History of Printed Textiles (Cambridge, Massachusetts: The M.I.T. Press, 1967).

⁶²Robert Paul Jordan, "Easter Greetings from the Ukrainians," The National Geographic, April 1972, pp. 556-563.

⁶³Richard Williams, senior ed., Russian Cookery, The Time-Life Series Foods of the World (New York: Time Inc., 1968).

as an art form, seems to be rediscovered, in this country at least, every Easter as newstands are flooded with magazines with articles on "How to Make Ukranian Eggs."

Books on Batik Techniques

Most of the historical texts present the history and examples of an art form. They do not concern themselves with a contemporary view of the field or with the ways in which more traditional methods can be adjusted for today's craftsperson. With the renewed interest in batik, a second kind of text is becoming more available. This is the crafts book. Some of these books go into the history of the craft, some do not, but most, in some way, explore how the craft is being utilized today and what techniques today's crafts people are using. Among the most helpful of the new books on batik is Norma Jameson's book, Batik for Beginners.⁶⁴ This text presents a brief history of the craft and then sets forth a series of methods of batik. As a text for someone with some art background, this book is fairly easy to follow, and illustrations of the process help clarify step-by-step procedures. Jameson's section on ideas for designs is excellent, but for the reader who has not had experience with dyeing techniques or designing, this text may be a little too story-like and hard to follow. Her paste recipes are quite useful, but again there is so much information laid forth and so many materials required that many people will shy away from their use. Jameson's book is an excellent pocket text for anyone comfortable with

⁶⁴Norma Jameson, Batik for Beginners (New York: Watson Gupstill Publications, 1970).

his or her own artistic ability; it offers a wide variety of new batik techniques that require some preparation and confidence.

Batik⁶⁵ by Sara Nea is another basic batik text. Nea's book is a well-structured introduction to stencil, block, brush and tjanting batik. Each area is well illustrated, giving the reader an idea of results that can be obtained by the most basic methods. Nea has a strong section on design.⁶⁶ (I personally feel the methods that she uses for creating a design are, at times, gimmicky and repetitive.) She also has an in-depth study of dyes and gives color dye charts that can help the reader decide on the most appropriate dye types. The book closes with examples of contemporary batiks, some of which are magnificent although most are reproduced in black and white. I have found this book helpful; it does not necessarily require previous art experience although some of the dye information is quite technical. Both this text and the previous text are primarily for adults. The Jameson text does, however, include some ideas that do not involve hot wax and, thus, can be used by children.

Nik Krevitsky's book, Batik Art and Craft,⁶⁷ includes some crayon and painting batik techniques applicable for use with children, but the strength of this book seems to lie in its illustrations. Although reproduced in black and white, they give a wide spectrum of batik techniques and end results. Krevitsky begins his book with a well-illustrated history of tjanting, tjap and paste batik, documenting not only

⁶⁵Sara Nea, Batik (New York: Van Nostrand Reinhold, 1970).

⁶⁶Ibid., pp. 24-40.

⁶⁷Nik Krevitsky, Batik Art and Craft (New York: Van Nostrand Reinhold Company, 1967).

the products but also the various steps in the process of creating a batik today in countries where batik is still both a national art and a major commodity. However, his documentation and description of contemporary western batik processes are not easily followed. One of his most interesting batik-like methods that does not include the use of wax is drawing with rubber cement on paper, painting the surface of the paper, and then rubbing the dried cement from the surface when the paint is dry. The results of this resist-painting are beautiful and distinctive. Many of the ideas in this book are well illustrated, but the instructional procedures are presented in a sketchy manner.

Other batik crafts books such as Creating with Batik⁶⁸ by Ellen Bystron and Introducing Batik⁶⁹ by Evelyn Samuel give in-depth procedural studies of batik techniques. They are generally complete, well illustrated, and geared to one who is experienced in various art fields, one who is exploring this new craft as a means to personal artistic expression. Both of these books are useful to the student of textile arts.

One of the most extensive, helpful, and exciting books on batik is Dona Meilach's Contemporary Batik and Tie-Dye.⁷⁰ She includes a brief history of batik and tie-dye and then goes on to procedural methods. Meilach deals almost exclusively with hot wax batik and pysanki; very

⁶⁸Ellen Bystron, Creating with Batik (New York: Van Nostrand Reinhold Company, 1970).

⁶⁹Evelyn Samuel, Introducing Batik (New York: Watson Guptill Publications, 1968).

⁷⁰Dona Z. Meilach, Contemporary Batik and Tie-Dye (New York: Crown Publishers, Inc., 1973).

little of the work covered is applicable for use with children. Her organization in step-by-step methods is good, but the most inspirational part of her book is the illustrations of some of the finest and most diverse of contemporary batiks. She includes batiks on silk, quilted batiks, leather batiks, and even a life-sized stuffed batik Volkswagon--not exactly a beginner's project. Her chapter on dyes is one of the most complete and least confusing I have ever encountered. Even though the beginner may be overwhelmed with the dye charts and elaborate procedures described, the design ideas and possibilities presented are stimulating. I always seem to come away from Meilach's book, my head filled with new ideas and my pencil scratching down thousands of new designs.

It should be noted that none of these texts addresses itself solely to the beginner or teacher who has just bought some wax and dye and stands in front of the stove questioning what exactly to do. Some of the dye companies themselves have come out with texts to help the craftsperson use the dye products. Batik Handbook: A Color Guide to Procion Dyes⁷¹ by Anne D'Angelo and Margaret Windeknecht and the GAF Corporation's Naphthols on Cotton Yarns⁷² are examples of this type of text. Each of these books explains the dye properties, gives color charts, and explains the proper and best ways to work with specific dyes. LeJeune Whitney has a paper manual out titled Basic Batik and

⁷¹Anne A. D'Angelo and Margaret Windeknecht, Batik Handbook: A Color Guide to Procion Dyes (Houghton, Michigan: By the Authors, 1007 College Avenue, n.d.).

⁷²GAF Corporation, Naphthols on Cotton Yarns (Melrose Park, GAF Corporation, n.d.).

Dyeing.⁷³ This manual deals specifically with the products of the Whitney Company, HiDYE, Flex-wax, etc., but the techniques covered can be used with any batik to be done with procion dyes. The Whitney manual is organized in a clear step-by-step fashion with color illustrations and directions for specific projects. This is one of the most helpful company manuals although, again, there is little information that would be useful for those working with children.

Some of the more general arts and crafts books deal with batik techniques on levels that can be used by both beginners and children. Wanklemann, Wigg and Wigg's Handbook of Arts and Crafts⁷⁴ includes batik techniques, ideas with crayon, candles, and rubbings. The book itself is geared to the classroom teacher, and, in that sense, materials and procedures are well outlined and applicable to children, but this text is often dogmatic, leaving few avenues for creativity. It also presents art, much as it has always been presented, as separate from life and history. Handbook of Arts and Crafts is filled with ideas, and it is up to the reader to make any significant connections with curriculum if so desired.

Create⁷⁵ by Mary Platts is another book that includes batik ideas

⁷³LeJeune Whitney, Basic Batik and Dyeing (Sunnyvale, California: LeJeune Whitney Incorporated, 1970).

⁷⁴Willard F. Wankleman, Marietta Wigg, and Philip Wigg, A Handbook of Arts and Crafts (Dubuque, Iowa: William C. Brown Co., 1974).

⁷⁵Mary Platts, Create (Stevensville, Michigan: Educational Service Incorporated, 1966).

for the classroom teacher. Ann Wiseman's Making Things⁷⁶ is a handbook type text that explores a variety of arts projects and techniques with simple direct language and directions. This book is printed in inviting hand lettering and uses the most basic of materials such as paper, beads, and junk to create art activities. The batik projects include crayoning on sheets and pillow cases and then ironing the colored wax designs into the fabric, something even the youngest child can do with guidance. This text is especially good for those working with very young children and for children who can read because young readers can follow most activities themselves. This text is not concerned with developing a high level of skill in the arts, and readers desiring more advanced techniques in the arts will find this text limited.

Among the more general arts and crafts books, Rolf Hartung's More Creative Textile Design⁷⁷ stands out; it begins with an exploration of the limitations of fabric--unlimited length, limited width, varying dyeability--and builds from these limitations. A clearly illustrated book, it presents both methods of dyeing onto fabric and into it. Each method is well outlined and well illustrated. Batik-type methods that are covered include working with candle drips, painting with wax, and making stamps out of linen and copper. The text encourages the reader to experiment--dip, dye, crack and do whatever occurs to one. Then, if the techniques seem to have some possibilities, the reader can develop

⁷⁶Ann Wiseman, Making Things (Boston: Little, Brown and Company, 1973).

⁷⁷Rolf Hartung, More Creative Textile Design (New York: Van Nostrand Reinhold Company, 1969).

skill and control through repeated involvement. Although this book does not deal exclusively with batik, it offers many good batik ideas as well as other textile ideas that can be used by children and experienced craftspeople alike.

Articles on Batik Techniques

Another source for written information on batik is periodicals. Every few months some publication seems to come out with an article on batik. Usually these articles are focused on making a specific product, but most give enough information, if they are well written, for the reader to experiment beyond the proposed product. Some periodicals such as The National Geographic,⁷⁸ previously mentioned, approach the subject of batik as an historical and cultural art; some others, such as Design,⁷⁹ approach the art form from the view of the craftsman today, giving examples of one person's work and then presenting a project for the reader to try. Arts and Activities⁸⁰ magazine in its September, 1974 issue presented a batik project as done by an art class and gave instructions as to how the reader could prepare a similar lesson project. School Arts⁸¹ magazine has had a number of articles on batik and batik

⁷⁸Jordan, "Easter Greetings from the Ukrainians," The National Geographic, April 1972, pp. 556-563.

⁷⁹See L. F. Twiggs, "Painting with Dyes: Some Experiments with Batik," Design, Spring 1972, pp. 24-25; V. H. Maas, "Batik: A Royal Art," Design, Winter 1972, pp. 22-23; and Barbara Albert, "The Ancient Art of Batik," Design, Winter 1974, pp. 2-6.

⁸⁰Don Cyr, "Batik Technique," Arts and Activities, September 1974, pp. 17-19.

⁸¹See J. Dobson, "Batik," School Arts, June 1972, pp. 16-17; J. L. Fontville, "Batik with Cold Dyes," School Arts, March 1972, p. 60;

artists, but only those people truly interested in crafts or arts generally subscribe to these publications.

More recently, however, magazines such as Good Housekeeping,⁸³ Seventeen,⁸⁴ Today's Health⁸⁵ and others⁸⁶ have had informative and instructional articles on a variety of batik techniques. These types of publications reach a larger audience, and more people are now aware of what exactly batik is even if they are not personally acquainted with techniques. Again most of these articles are generally product oriented--make a hanging, make batik curtains--and have little direct applicability to young students or those interested in experimenting with the process. Some people who are not experienced in the arts may be wary of trying such projects for fear that they can not produce such "beautiful" results. Most articles do not have step-by-step illustrations, and directions are often printed somewhere in the back of the publication; thus, they are

Margaret Csapo, "Try the Javanese Art of Batiking," School Arts, February 1973, pp. 14-15; Noreen Fallon, "Batik," School Arts, October 1974, pp. 56-57; and Florence Linstrom, "Oil Pastel Batik," School Arts, April 1974, p. 46.

⁸²John Bernard Myers, "Puppets: Dance and Drama of the Orient," Craft Horizons, December 1974, pp. 26-31.

⁸³Good Housekeeping, December 1972, "Create a Christmas Heirloom with Batik," pp. 116-117.

⁸⁴Seventeen, June 1973, "Batiking It," p. 122.

⁸⁵Dona Meilach, "You Can Wax Enthusiastic over Batik: How to Make Your Own Scarf, Tablecloth or Wall Hanging," Today's Health, Spring 1972, pp. 54-57.

⁸⁶See S. Schraub, "Art: Show and Sell; Students Reap Double Dividend," House Beautiful, Summer 1973, p. 12; S. V. Anger, "Wearable Paintings," Handweaver, July 1973, pp. 34-35; Better Homes and Gardens, January 1973, "Batik," p. 48; and Family Circle, February 1975, "T-Shirts," p. 83.

often hard to find and then to follow. Such articles are helpful because they do lay out basic batik techniques and can involve a person who might not become acquainted with batik in any other way. Most such articles have a good bibliography so that the reader can explore the subject farther.

Visits to Museums and Galleries

Although I obtained a great deal of information from the literature on batik, I have also found my personal viewing at museums and galleries, and discussions and interviews with batik artists and experts to be significant resources. As previously mentioned, the Field Museum in Chicago has an excellent collection of metal stamp batiks and also has a collection of tjanting batiks from Java. There are also a few examples of African batiks. The contrast between style and patterns of batiks becomes clearly evident upon viewing. Tjanting batiks of Java seem to be intricate and elegant, executed in blue, cream and earthy brown. The stamp batiks are repetitious, and the lines are less exacting and fluid than the tjanting work. Brighter colors are often used in these pieces. One can not be sure if these color differences are truly indicative of regional work as they might only be representative of chosen work. The African cloth exhibited was rougher in nature and looked as if the banded designs had been scratched or dabbed into the fabric. The tjanting batiks had the look of a painting or mural while the other types of batik seemed more like patterns on fabric.

Another interesting show on batik was held in the fall of 1974 at the Museum of Fine Arts in Boston. At this show there were many

Indonesian batiks, many tjanting and tjaps, but no paste batik work. Again there was a distinction in artistry between works.

To supplement my knowledge of historical and contemporary batiks, I contacted the Batik Research Institute in Jogjakarta, Indonesia. From this government supported organization, I received more information on specific batik techniques and numerous photos of in process batik work, helpful to my understanding of traditional batik work.

My visits to galleries, craft shops and craft museums, such as the Museum of Contemporary Crafts in New York,⁸⁷ have given me an idea where today's craftspeople have taken this ancient art form. From giant banners, to silk lampshades, to illustrative paintings, to designed clothing, and even to wax resist pottery, each artist uses the process in his or her own way and thereby broadens the avenues for further exploration. As I researched the various batik forms, rather than being overwhelmed by the vastly different directions that artists were taking, the variety seemed to help me to refocus on the basic batik process that underlies all of the work; in other words, the more research and various ideas I discovered the more clear and connected the basic method became.⁸⁸

Interviews with Batik Artists

While interviewing experts and artists in the field of batik, I

⁸⁷Refer to page for a listing of galleries, shops and museums where batik can be viewed.

⁸⁸The basic concept that underlies batik is that oil and water, or wax and water do not mix. By applying or impregnating a fabric with a material that resists water based dyes, designs can be created.

found that they, too, regarded the batik process in the same way. Most of the people whom I interviewed had their own opinions as to which method or style of batik was of highest artistic merit, but generally each artist was interested and excited by all the possibilities of the batik method.⁸⁹ Marion Echkart, an artist-teacher from Cape Cod, Massachusetts, has spent years studying batik and has spent time in Indonesia and India studying techniques of traditional and non-traditional artists. She found that only one person in all of Indonesia uses the old techniques. Most craftspeople now work for the government and do tjap batik. A fine artist doing tjanting batik can produce a piece in eight days and will be paid about ninety cents a day and given rice, which is considered good pay. Because traditional designs were not always as bright and marketable as the tourists desired, new designs with bright colors are now being produced for export. The government supports the arts school and many students study batik techniques at this government institution. Most of the younger artists now use batik to create panoramic scenes, religious and secular, rather than only clothing. Echkart shared with me her beautiful collection of Indonesian batiks on cotton and silk, sarongs, hangings, and functional items made from batiked fabrics. She also showed me her Indian batiks, which she prefers. These are done with a stylus made of a ball of human hair which holds the hot wax, through which there is a metal tip rather than a tjanting for drawing. The subject of most of the Indian batiks is religious. The colors most commonly used seem to be oranges, reds,

⁸⁹Refer to page for notes and comments from interviews with batik artists.

and brown-blacks. Spending the day with Ms. Eckhart, sharing her travels, sharing the ways in which the people whom she visited worked and the pieces that she had brought back, gave me a true glimpse of an art form that is truly integrated and a necessity of everyday life and survival to these people.

As I spoke with more artists, it became clear that all had a real respect for traditional methods but were equally interested in experimenting. I spoke with artists such as Stella Schoenhaut, trained in design, who started experimenting with batik about five years ago and now runs her own fabric printing business, and with Sandy Cofflin and Carol Law, two women from Massachusetts who have been working on batik pieces for the last four years. Now they are showing and are planning to open a store specializing in batik. Laura Danziger is another batik artist whose work often combines batik techniques with appliques and other textile techniques. Craftswoman Lauren Proctor directs her batik work toward intricate pysanki. In talking with these and other artists it seemed that some were more interested in the materials used and the finished batik product that was being produced; others seemed more concerned with the batik process--how one applies the wax, etc. It also became obvious as I spoke with these craftpeople that they loved their art form and were more interested in doing their work and sharing ideas than in competing with other artists.

In discussions and correspondence most of the artists with whom I communicated were open and friendly about sharing their ideas and information. Dye formulas, wax mixtures, fabric outlets, tricks, and short cuts were shared. For example, Lauren Proctor suggested that one could

use a quill pen and heat wax in the tip over a candle when doing pysanki, for appropriate tools are difficult to find. Recommendations such as this are not generally found in any of the literature, and such practical advice can be extremely helpful in overcoming or avoiding common problems in batik. Visits to the artists' studios also gave me clear ideas for efficient and effective operational set-ups unavailable through most texts.

Summary

My own experience in the field of batik for the past five years, both as an artist and a teacher, afforded me direct knowledge of materials, procedure, tricks, and problems related to the process. From all these sources--written, interviews, and experience--I have gathered information on the batik process. It is also clear to me that currently no one source book has had as its concerns the education, inspiration, and motivation of the untrained person or classroom teacher who may be interested in using batik but not particularly comfortable or confident with its techniques. Presently applicable techniques and historical information are scattered from book to book. Using the resources I have found and combining these with my own personal experience, I have developed a handbook on batik. This handbook, whose overall concern is the improvement of teacher effectiveness, seems a natural culmination of my interests in batik and teacher education.

CHAPTER III
THE INVOLVEMENT OF TEACHERS IN THE
CREATION OF THE HANDBOOK

For a person to create a handbook responsive to the needs of teachers, teachers must be included in the process of creating that book. Most texts in the creative arts that I have reviewed have minimally, if at all, involved teachers in the preparation of the material. In most cases, teachers merely submitted photographs of class work. For this handbook on batik teachers were involved by testing project ideas, by evaluating them, and by rewriting those sections that did not seem suitable or relevant to them.

The Teachers Involved

While teaching multi-arts courses for the University of Massachusetts in Amherst and while teaching these courses for the University's Division of Continuing Education in New Bedford, Massachusetts, through the Arts in Action Program,⁹⁰ I became aware of many needs and desires that teachers had in relation to the arts and arts texts. Consequently, these teachers became important resources in the creation of this

⁹⁰The Arts in Action Program is a joint venture undertaken by the Arts and Humanities Program of the School of Education, University of Massachusetts and the Massachusetts Council of Arts and Humanities. It is an adjunct program to the Artist in the Schools Program and has as its general goals the increased effectiveness of the Artist in the School Program, the use of its consultants as catalysts for action in the arts reflective of community and school needs and the training of teachers and community members to continue arts integration into the classroom and community after the artist in residence and consultant leave.

handbook. Using information gathered from tallies of the Arts and Crafts in Curriculum Development Course offered in Amherst in 1974,⁹¹ coupled with the participation of eighty teachers in New Bedford during 1974 and 1975,⁹² I was able to utilize teachers' ideas in the batik handbook. In the initial survey of students in my spring 1974 course, most were untrained in the arts, most had a generally negative view of their own creative skills and yet most desired to use arts in their classrooms, believing the arts were important to the creative growth of the child.⁹³ While most of the New Bedford teachers interviewed before the beginning of my course felt that practical experience was the most effective way to get involved with the arts, the majority also expressed the concern that there was a great need for arts texts that could be useful to the classroom teachers.

Questionnaire to Determine Teachers' Needs

To gather data about the need for such a text, I developed a questionnaire to ascertain teachers' acquaintance with helpful arts texts.⁹⁴ One hundred percent of those responding felt that there was a need for an arts text that addressed the concerns of the classroom

⁹¹Refer to Appendix F for results of my initial tally of the spring 1974 class.

⁹²Of these eighty teachers involved with teacher feedback in New Bedford, half were involved with my multi-arts courses while the others were not.

⁹³Refer to Appendix F for the results of my initial tally of the spring 1974 class.

⁹⁴Refer to Appendix G for the form and results of teacher questionnaire as to need for and acquaintance with useful arts books.

teacher. Thirty percent said that they were not acquainted with any such text. Sixty percent said they were acquainted with one such text, though the text differed from teacher to teacher, and only ten percent had found more than one text helpful to them. One teacher stated that the texts that she felt came closest to what the majority of teachers seemed to be seeking were those "how-to books written for children."

The teachers involved in this feedback procedure, having stated their desire for suitable arts texts and having found that they were acquainted with only a few such texts, were generally anxious to become involved with the creation of a new type of handbook.

Questionnaire to Determine Preferences

Because there were a variety of ways in which interested teachers could become involved, again I developed instruments to determine which type of text would be most helpful to the teacher.⁹⁵ This questionnaire (given both to teachers in my course and other teachers not involved with multi-arts courses) examined the following: the variety of forms such a book could take (pamphlet, project kit, historical exploration, theory, etc.) and the audience for such a text (children, teachers, art specialists, the general public). The teachers also rated their preference for writing style and rank ordered types of material that should be found in the handbook.

The results of this survey showed that there were no differences between the responses of those involved in multi-arts courses and those

⁹⁵Refer to Appendix H for outline of questionnaire used to determine teacher desired textbook.

not involved. Both groups of teachers responded to the questions, submitted ideas about the organization of the handbook, and suggested projects that they would like to see included.

In defining what type of book teachers would find most helpful,⁹⁶ all of those responding stated that they wanted a book that covered a variety of techniques. All of those responding also felt that a format of pamphlets, each covering a specific art form and curriculum extensions would be desirable. Approximately eighty percent of the teachers felt that a project-type book would be useful. Thirty-seven and one half percent of the teachers felt that a text on history and techniques would be helpful and only twelve and one half percent felt that a book exploring the theory of the arts would be useful to them. These responses reflected the desires of the teachers, and although desires do not always reflect actual needs, I chose to use these responses as my guidelines.

In response to the question, "For whom should this text be written?" seventy-five percent felt that it would be most useful if it were written for teachers with classroom concerns. At the same time seventy-five percent also said that they would find a text written for children to be very helpful because such a text would "take nothing for granted" and because projects seem "more relevant to children if they can follow the directions on their own." Over sixteen percent felt that the "man-in-the-street" approach might be helpful and approximately eight percent felt that the text should address the arts specialist and/or experienced individuals. In regard to the style in which the

⁹⁶Refer to Appendix I for the results of the questionnaire as to teacher desired texts.

text should be written, seventy-five percent felt that a format emphasizing outlines would be most appealing. Approximately fifty-seven percent of the teachers felt that the style of writing should be informal or casual; close to seventeen percent felt that the text should be educationally technical and/or artistically technical. Some teachers suggested that recipes for art materials be included and that some children's ideas also be used.

In ranking fifteen areas for possible inclusion in a handbook, those responding made their preferences clearly known. One hundred percent of those responding felt that the inclusion of a variety of methods and techniques, of set-ups and procedures, and of variations according to age were important. Eighty-six percent felt a listing of materials needed for projects was important, and eighty-nine percent felt it was desirable to list where materials could be obtained. In this same area seventy percent felt it was very important to present alternatives for materials so that budgets could be considered. Eighty-five percent felt it was important to offer a variety of techniques and methods, and seventy percent felt it important to include the approximate time required for each project. Seventy-five percent felt it was important to include problems that might arise while sixty-four percent felt it would be most useful to include curriculum extensions. Eighty percent felt it was very important to have illustrations of the processes, and eighty-nine percent felt it would be helpful to have illustrations of actual completed objects. All of the teachers responding felt it would be useful to have other resource materials listed, but only fifty-six percent felt that this was of extreme importance. Forty-two

percent felt the inclusion of teacher and student comments would be helpful, and only twenty-one percent felt that the inclusion of the history of the art form was very important. No other areas were suggested by teachers as being necessary or important.

Evaluation of Handouts

Drawing together the material gathered from this questionnaire, I set up a pamphlet-type handbook exploring batik. This pamphlet was a composite of outlines of batik processes. Each outline included reference to age, advantages and limitations of the specific process, listings of materials, and procedures. Suggested extensions, my own and those of my teachers, were also included. A listing of cautions and problems that might arise was included.

As each outlined segment on a specific method of batik was completed, it was given to the teachers to read, review, and evaluate. They were asked to use the technique, if possible, in their classrooms. Each handout was accompanied by a questionnaire⁹⁷ developed by me and interested teachers. This questionnaire examined the format of the materials and asked whether the materials were concise or confusing, whether the materials were relevant to teaching needs, and whether the teachers felt that the children had learned from the activities suggested. These questionnaires, evaluation forms, comments on handout sheets, and teacher suggestions were then returned to help me in the revision of the material for the format of the handbook.

⁹⁷Refer to Appendix J for the format of questionnaire that accompanied handouts.

In general response to teacher recommendations, the writing style in the handouts was kept simple and direct. I attempted to be informal in my style and to present ideas and methods in a manner that could be easily used by both teachers and students with some reading capability. Linear drawings were used to illustrate processes and help clarify the text. Specific and individual changes were made on each handout in accord with teacher suggestions.

As stated before, the questionnaires accompanying the handouts addressed the acceptability of format, relevancy in teaching, and importance of suggested activities. Reviewing the information gathered from these questionnaires was a slow, ongoing process, which resulted in the restructuring of projects and the reorganization of the total text. This final text, a compilation of the revised handouts, and a questionnaire were given to teachers for evaluation. Response to the finished handbook came from both teachers participating in multi-arts classes and those not involved in such classes.⁹⁸

Of those teachers responding to this final questionnaire, all felt that the format was concise and useful. None found the format confusing. Seventy-one percent found that the materials were relevant to their teaching needs. One hundred percent of those responding felt that the students would gain a great deal from these sorts of activities. One teacher added that she, too, could gain a great deal from such projects.

⁹⁸Refer to Appendix K for results of questionnaires that accompanied final pamphlet handouts.

All of the teachers answering the questionnaire, even those not involved with the course, did use some of the activities in their classrooms. However, those involved in the multi-arts course used more project activities in a shorter span of time than non-participants. Those involved with the multi-arts course carried out between six and eleven projects during a three month period of time while those not involved with the course implemented three to eight such projects apiece during the same period. Both groups of teachers listed some sixteen other projects which they were interested in using in the future. Reasons for the higher number of initial class activities undertaken by participants in the multi-arts course could be many: familiarity with arts techniques, availability of immediate feedback and support from me and the class, or even a feeling of pressure to produce and impress the teacher. Whatever the reasons for implementation, the feedback as to the effectiveness of projects undertaken by both groups was the same. Both groups were generally satisfied with the results of the activities, and every single teacher had plans for future activities.

Over nineteen completely different types of projects were tried, including rubbings, scratch boards, crayon batik, painted batik Christmas hangings and crayon batik on paper. Many similar projects were undertaken by different teachers working at various grade levels throughout twenty-seven schools in New Bedford, Massachusetts. Ninety-one percent of those teachers responding found that projects and ideas could be incorporated into curriculum units, and some had plans to use ideas in social studies sections, in the study of color, for textural studies, and in reading units. Learning disability specialists were especially

interested in how the projects and their presentation could help with the development of "visual perception, fine motor skills, and auditory processing of directions." As such a specialist stated, "Arts are a field in which most children with guidance can achieve some success, and this is very important, especially for the children with whom I work."

The only suggestions that teachers offered for the improvement of these handouts and final pamphlet was the increased use of illustrations, the typing of lists in columns, and the exclusion of specific class projects, replacing these with a variety of suggestions for projects. I followed the first two suggestions; however, I did keep specific projects as part of the text to help demonstrate to readers tested project possibilities, procedures for curriculum projects and various resource materials available. Teachers commented that they specifically liked the "step-by-step" presentations and that it was unique to find a text that attempted to "not take things for granted."⁹⁹ Following the recommendations and comments offered, the text underwent final revisions in typing format and more informative illustrations were added.

Follow-up Evaluation

To evaluate the success of texts created through teacher involvement, long range evaluation procedures are needed. In the case of the "Batik Handbook," teacher response to the initial questionnaires revealed one thing, and yet after being acquainted with the text for a longer

⁹⁹Refer to Appendix M for comments and suggestions of teachers in regard to specific multi-arts handouts and their usefulness and classroom ideas.

period of time, teachers' feelings as to patterns of usage and even desired format may change. A follow-up questionnaire sent to those acquainted with the material being evaluated would give useful information as to the ongoing usefulness of such material. Such a questionnaire should include questions about the number of projects implemented, the use of materials, the format and presentation of the handbook, and, if possible, an assessment of childrens' responses to the activities.

Because teachers had access to the "Batik Handbook" for only three months, a follow-up written survey on a large scale seemed inappropriate. I, however, conducted a random telephone survey of the involved teacher population and found that the responses have remained approximately the same as the initial set of responses for both sets of teachers.¹⁰⁰

Future Involvement of Teachers

In the future it seems important to have more teacher participation in the preparation of arts texts. To increase the number of teachers involved, those involved with text preparation could work closely with a teacher-training institution or with a target-school system. Teachers could work along with those developing the text, giving their own ideas and opinions, rather than simply being "yes" people for a finished product. It would also be advantageous to test the text in various geographic locations. Information gathered from this testing and evaluation would determine areas for revision of text

¹⁰⁰See Appendix L for format and responses to random follow-up questioning of teachers in regard to ongoing use of Batik Handbook.

and after its completion follow-up surveys could be instituted at intervals such as six and eighteen months.

The utilization of teachers and institutions of learning as testing grounds for educational material is not new. But the use of these sources in the creation of arts handbooks is a new task. Such a process of creation and evaluation takes a long period of time, and teachers need to feel necessary and important in the development of the materials. They need to see the incorporation of their ideas and suggestions. I have found that teachers concerned with improving their professional effectiveness and willing to devote time to evaluation become some of the best sources for information and energy in the creation of such material.

Summary

An arts text that is developed through the ongoing involvement of classroom teachers most likely will meet other teachers' needs. Such a text brings together ideas and methods in a manner sympathetic to concerns previously ignored, thus creating a multi-arts text unlike those formerly available. The question can still be asked, "How far can a book lead toward creativity?" The fact that in the case of the "Batik Handbook," both groups of teachers, those involved with an arts course and those not involved, did implement projects and ideas generated from the text, and proposed project plans of similar scope for the future may, on a small scale, document the effect a text can have on teachers.

CHAPTER IV

BATIK HANDBOOK: A TEACHERS' GUIDE

BATIK HANDBOOK: A TEACHER'S GUIDE

Introduction to Batik

Suggestions for Using this Book

Batik and Human Development

A Brief History of Batik

Batik Methods

Introduction to Cold Wax Batik and Similar Methods

- Peper Batik
- Pysanki
- Scraped Crayon Batik
- Rub Off Batik
- Candle Rubbing Batik
- Candle Dripping Batik
- Scratch Technique on Paper

Introduction to Paste Resist

- Paste Batik
- Other Paste Resist Methods

Introduction to Hot Wax Batik

- Materials
- General Methods for Hot Wax Batik
- Melted Crayon Batik
- Melted Candle Wax Batik
- Brush Batik
- Scratch Wax on Fabric
- Introduction to Tjanting and Related Methods of Batik
 - How to Make a Tjanting Tool
 - Tjanting Batik
- Bamboo and Stick Batik
- Introduction to Stamp Batik
 - Stamp Batik

Stencil Batik

Finishing a Batik Piece

Cautions and Helpful Ideas

An Example of Curriculum Use of Batik in Sixth Grade Social Studies

Batik Lesson Plan for Indonesia Unit

Teacher Suggested Project Ideas

Sources of Materials

Some Galleries, Museums and Shops that Carry or Show Batik

Interviews and Comments of Batik Artists

Concluding Statement

Bibliography

Introduction to Batik

Batik is an ancient art form and craft. The exact origin of the craft is unknown, but some of the earliest examples and, surely, some of the finest come from Indonesia. The Javanese are well known for their batik work as are the people of India and many of the African tribes.

Today a great many people from a variety of cultures are exploring the batik process. They are systematically studying it from historical and technical perspectives; artists are experimenting with batik processes and extending the potential of the craft; and men, women and children with limited crafts experience are deriving pleasure from working with batik.

Batik is a method of resist dyeing. By applying a substance, such as wax, that resists dye to cloth and then immersing the cloth into a dye, a distinct pattern of dyed and non-dyed fabric will be developed. Repeated waxing and dyeing will create a multi-colored, multi-patterned fabric.

The batik process is not as complex as it might sound. People who have decorated an egg by drawing a design with a waxy crayon and then dyeing the egg have done a form of batik and are aware of the basic principle of batik--that grease and water do not mix. They are also aware of what might be called "batik thinking," that is, that you draw or wax all those areas you wish to remain the background color because the dye will penetrate all other areas. This "batik thinking" is the necessary basis for almost any successful batik.

Batik is an important art form because it is both regional and universal. It is duplicated and used in a variety of cultures, but well known in only a few. The processes of ceramics and weaving, like batik, are highly developed arts in some geographic areas and not in others; yet almost every area of the globe uses some sort of ceramics and weaving. Therefore, batik, like ceramics and weaving, can be a process through which to view both the commonalities and differences among cultures.

Because batik is not as well known as other craft areas, there is more freedom from predetermined ideas of designs and patterns so that people can more readily experiment with materials and create something from their own spirit. Unlike ceramics, where people's familiarity with bowls, planters, ashtrays and other common ceramic articles often results in the creation of numerous pieces that attempt to imitate favorite articles, batik offers few examples to copy. Thus, batik work is not "limited" to any "acceptable products." People involved with batik must explore the process for themselves and discover what the process is and the possibilities it offers. With no "ultimate correct batik" with which to compare one's work, one is free to experiment, to fail, to succeed, and to develop at one's own pace.

Whether done alone or in a group, batik is an extremely enjoyable process. Working with a new process is always exciting, and creating designs, painting with wax, and using various dyes offer many areas for experimentation and discovery. One is often totally absorbed in these processes of designing and waxing while the dyeing process offers a time for sharing ideas and almost always the sharing of anticipation as to

the results of one's designs. As if by magic, plain fabric becomes a patterned and colored cloth.

As a process batik has an advantage of being applicable in some form to almost any age group or any financial constraint: preschool children scribbling with waxy crayons on manilla paper and then painting over the paper; second graders crayoning on old pillow cases and then dyeing them; and high school students printing fabric with waxed block prints and then dyeing. Whether such processes involve the use of crayons, paraffin or beeswax, paper, cotton or silk, inexpensive paint or special dyes, they can be exciting and successful. As an art form batik contains an element of surprise as the outcome of any project is not completely predictable. Wax may crack. Dye may change. It is a process that requires both planning and the ability to improvise.

Recently a widespread interest in batik has encouraged publishers to print several books on batik. These books are addressed to crafts people with some degree of experience and to those interested in a historical and cultural perspective. However, classroom teachers who might want to explore the batik process but who have limited training in the arts still have difficulty locating suitable guides to help them in their work with children. For that reason this book was written in response to teachers with limited training in the arts, and the material is addressed to their needs and interests.

In my work with teachers and students, I have found that there is great enthusiasm and excitement when one is learning through doing. Projects and activities that involve the participant are memorable

learning experiences because throughout these experiences the participant must rely on himself or herself to explore, to improvise, to test out ideas, to manipulate materials and to make decisions as to the direction and to the value of his or her work. Discoveries and answers uncovered through such processes come from personal exploration and, thus, take on solid and significant meaning. Many teachers with whom I have worked would like to include more crafts projects into their curriculum but shy away because they feel they lack the talent or confidence to carry out a project or art activity. Consequently, in my book I offer whatever the novice may need--an organized listing of materials, directions, procedures, and resources--for successful and exciting batik projects. The material presented was not developed in isolation; instead the projects and examples in this book come from my classes with elementary teachers, from elementary classrooms themselves, and from individual artists exploring the craft.

Although the structure of the book was created by teachers hoping to set up a useful booklet for themselves and other teachers, the usefulness of the book is in no way limited to the classroom: it can be used both as an exploration of the history and extensions of the batik process and as a guide to clearly illustrated methods of batik. As each type of batik is presented, other suggestions are offered: ages for which the specific process is appropriate; material needed; procedures; ideas for incorporation of batik into basic curriculum areas; and curriculum projects or units that have been successfully used by teachers in their classrooms. The book also lists reasons for success and failure in such projects as well as other resources for information on batik

(museums, slides, records and places to purchase needed materials) and a bibliography for further reference materials. This booklet should help both teachers and students to engage in activities that are not only enjoyable in themselves but that can be easily integrated into the classroom to broaden the available learning experiences.

The enjoyment and beauty of batik is unlimited, and no matter how limited one's background in the arts, the batik process offers a structure for self expression and learning. This book invites you to read, to participate, and to improvise.

Suggestions for Using this Book

As I worked with teachers on this project, we developed a format for this text that seemed clear to them, easy to understand and follow and one that can answer those questions that most commonly arise in respect to batik. Each section concerns itself with some aspect of batik and its relation to the classroom. The section called "A Brief History of Batik" offers background into batik forms, symbols, techniques and dyes used in various cultures. This section can give a teacher historical, social and economic background on the art of batik and, in doing so, can help illuminate areas in the curriculum where the batik process can be usefully integrated.

"Batik Methods" presents a variety of techniques and projects. These batik projects begin with those that do not necessarily require the use of hot wax and, thus, are applicable for use with very young children and then progress to varieties of hot wax batik that are more applicable for use with older children and adults. This organization does not necessarily mean that those first batik projects are the most limited and those later techniques are the most complex; all of the techniques offered can be used to create very intricate and artistic results, depending upon the skill and imagination of the participant. Each major section in "Batik Methods," such as "Cold Wax," "Paste Resist" and "Hot Wax," has a brief introduction which includes the history and common techniques used in this method. This overview offers the teacher a quick look at the type of batik and information as to whether the type of batik is applicable to the classroom. The basic information offered in these sections is necessary to understand the

projects that follow, for projects will refer to information in the introduction rather than repeating such information in each project section.

Following the introductions to each section, there are a number of specific batik methods. Each method begins with a statement concerning the appropriate age level, approximate time required, budget considerations if applicable, and a brief statement about technique. This combination of information should help a teacher to decide if such a project is suitable for his or her class.

At the top right hand corner of each method section there is either a drawing or an actual example of that specific form of batik. These are not meant as examples to copy but merely as illustrations to familiarize the teacher with the type of result that a specific method can produce. Other illustrations are included when they seem helpful in clarifying a process.

The material written for each specific method itself follows this format: a list of materials needed for the project so that a teacher and students can then assemble the equipment in advance and a step-by-step outline so that the process can be presented in parts, as a whole or even written on the board for students to follow at their own rate. The outline will be most helpful if the teacher reads it in advance and becomes familiar with the steps and the progression of steps involved with the process. There are often procedural options that a teacher might want to consider beforehand. Where there has been teacher feedback concerning the successful classroom application of specific methods, ideas for curriculum extensions suggested and implemented by teachers

are also included.

Following the section on "Batik Methods" there is a section on "How to Finish a Batik Piece." In this section ideas for finishing touches (how to hem, how to quilt, how to make clothing, etc.) are included. The teacher can use this section as a guide in helping put together those things created through the batik process into some final and finished product. Rather than having to look to another text for ideas after working with batik, some common and exciting uses for batik work are included in this section.

"Cautions and Helpful Ideas" is probably one of the most important sections in the text as it outlines common problems involved with batik and solutions to those problems. This section includes ways to tell if the wax will penetrate, reasons why dyes might not take, and even ways to organize a large class so every one can work with hot wax under close supervision. This section should be read before undertaking any project and should be referred to frequently if problems arise.

Because this text is directed toward teachers whose experience in the arts is limited, a section on "Teacher Extensions into Curriculum" is included. One specific lesson plan is outlined, giving the reader an idea of how such projects have been successfully integrated into classroom units. This lesson plan also includes how filmstrips, supplementary texts and records can be used to broaden a learning situation. Other curriculum ideas used successfully by teachers are also briefly explained. This section offers the inexperienced teacher a guide for project integration and a variety of ideas for classroom use.

Following "Teacher Extensions into Curriculum" comes "Sources of Materials." This section presents the names of stores which most commonly carry materials needed to do batik and distributors that deal specifically with batik and art supplies.

A section on "Some Galleries, Museums and Shops that Carry or Show Batik" is included to help the reader locate places to view batik pieces in different regions of the United States and England. Following this listing is a selected group of "Interviews and Comments of Batik Artists." In this section contemporary batik craftspeople share with the reader personal ideas, processes and specific techniques related to batik.

A bibliography of the most important texts in the field of batik and dyeing is included at the end of this text. Although most of the material in the listed texts is geared to the craftspeople or those who are familiar with the arts, each of the books listed offers new ideas, new techniques and/or a historical perspective that might be useful to the classroom teacher. Most texts offer excellent illustrations that are useful in presenting ideas to a class.

Each section of this text is useful in itself as each was written addressing a specific concern of teachers. The total usefulness of the book, however, depends upon the reader's use of the materials and sections that relate to his or her planned project. The teacher's preparation through reading and gathering of materials and resources may determine the success of a project.

Batik and Human Development

As today's educators become increasingly concerned with the development of the whole student, the potential of the arts as a means to promote this human development becomes more evident. The creative process, a process requiring openness, an ability to play and an internal locus of evaluation, can become a means through which to develop areas of human growth such as perceiving, communicating, knowing, caring, patterning, decision making, and valuing.* Teachers now addressing these areas of development have found that arts are an exciting means of involving children in processes of physical, cognitive, affective and spiritual growth. They are means through which children learn, and equally important they are a means through which children enjoy the learning process.

Batik is one of many art forms that can easily be incorporated into the classroom to directly relate to curriculum studies and at the same time offer enjoyable explorations in creativity and human growth. Batik as an art form requires planning, perceiving, sensitivity to color and form, knowing about and caring about materials and procedures, and it requires ongoing decisions as to directions, color, etc. It also requires improvisation and the ability to be flexible and to react to new and unexpected development. "Whoops, I dropped wax on my sky." Improvise. "A cloud? No, it will become a rocket." The process also requires a sense of valuing and self judgment that eventually results in self satisfaction and self confidence.

* These areas of growth have been pointed out as priorities in education by Louise Eberman, New Priorities in the Curriculum (Columbus, Ohio: Charles E. Merrill Publishing Company, 1968).

Because batik is not a well known art form, there exist few stereotypical end products as models. The limitations and procedures of the process are the only structure on which to build one's ideas. This allows, if not forces, students to develop their own methods, forms and symbols. The manipulation of the materials alone is an exciting process. And those processes of human development, rather than being separate areas to which teachers must individually address themselves, are, instead integral elements of the artistic creative process that can be fostered through the exciting participatory process of batik.

A Brief History of Batik

The exact origin of batik is not known, but it is theorized that the art form is indigenous to either India or Indonesia because the earliest known works come from these areas. Early first century batik fabrics have even been found preserved in Egyptian tombs; the designs on these early pieces seem to be Indian in origin. Because fabric tends to disintegrate rapidly, the history of batik remains incomplete with large expanses of time unaccounted for.

Batik itself is a Malaysian word used to refer to the resist process. This process involves painting a prepared fabric with wax that penetrates the material and then dyeing that fabric. Areas of fabric that have been waxed will resist the dye to create a design. It is in Indonesia, particularly Java and Bali, where batik became a highly accomplished art form. In the thirteenth century noble ladies of the court used batik techniques to skillfully decorate fine clothing worn by the aristocracy. Since this was a long and tedious task, eventually servants and others joined the women in the process because demand for batiked fabrics increased.

The original and best known batik technique is called tjanting (pronounced "janting"). Tjanting is a Malaysian word that refers to a copper writing tool having one, two or three spouts through which hot wax flows. Designs are created by drawing on fabric with this tool. Early batiks were done on rough cloth, but with the development of trade the use of fine cotton and silk became popular. Because tjanting batik was a slow, hand-drawing process, each design could take from fifteen to fifty days to complete, depending upon the number of dyes. A "tulid"

cloth or sarong was the usual garment made by this process. These sarongs were about three feet wide and six feet long and were originally decorated with motifs reflective of family history, regional designs, or symbols of religious significance. Although many of the patterns have changed over time, symbols such as the peacock, representative of wealth, and the "swat," a Hindu bird figure, are still used today.

Each region has historically had its own dyes. The northern areas of Indonesia are most famous for their reds and yellows while areas to the south are known for traditional blues and browns. Often fine gold dust is added to the designs of religious robes. Although natural and traditional dyes such as indigo blue and sago brown are still used today, commercial dyes have also become popular because of the wide variety of colors that can be achieved.

As demand for batiks increased both from within the countries themselves and from foreign countries, quicker and more efficient ways to work with batik were sought. The English attempted to duplicate batik work in factories in Britain; this attempt was unsuccessful, for the resulting products looked more like printed fabric than cloth that was made through a resist process. The Javanese began to use a "tjap," or stamp, to apply wax. Using two perfectly reversed copper stamps, one man could produce seven to twenty waxed batik garments a day. The designs made by stamp batik were in no way as fine as tjenting designs, but this method made batik fabrics available in quantity for the general populace and for export. The designs on these batiks were usually derivations from earlier tjenting designs, adjusted for more effective repetition. Dye colors for these batiks remained the same as tjenting

colors. As the work shifted from solely tjanting batik to tjep batik, women became less involved with the waxing process, and now most tjep batik is done by men. Women, however, still do the majority of the hand-drawn tjanting batik in Indonesia.

Two other types of batik are found in the Indonesian area. Paste batik is a primitive form of batik in which a starchy paste is applied to fabric, and then dye is painted onto the cloth. Because the paste is thick and the tools used in applying the paste are sticks, brushes, or fingers, the designs are bold, often striped and limited in details. In the Central Celebes another type of batik, bamboo stick batik, is found. As the name implies, a stick is used to apply the resist substance which is usually paste or wax. The sticks used usually have blunt tips, and, thus, there are no straight fluid lines in batiks of this type. Patterns consist of geometrical arrangements of dotted lines. The patterns used in both paste and bamboo stick techniques seem to have little if any relation to those found in Java.

Following World War II, Indonesian artists and craftsmen began to create more and more batiks for export. Initially the artists formed cooperatives, and finally because of the cultural and economic importance of batik, the government of Java created the Batik Research Institute. Here artists today work together on a variety of types of batik. The institute is both a training center for those young artists to learn the craft and a place for more established artists to work and share ideas. Work at the institute ranges from personal artistic expression through batik to mass production of tjep batik.

India, too, is known for outstanding batik work although it is more famous for its printed fabrics. In India most batik is done by a tjanting-like method of drawing on fabric with hot wax. The tool for this process is made from a ball of human hair. This ball acts as a reservoir for wax that is fed down a metal drawing tip. This tool gives lines often as fluid as those in tjanting batik, but the designs used in Indian batik are quite different from those of Indonesia. Most designs deal pictorally with some religious tale. In India batik clothing is not as popular as in Indonesia, and most batiks are made for visual display. The dye colors used are also different from those of Indonesian batik. The Indians generally use commercial dyes and seem to favor reds, oranges, and browns although blues and greens are sometimes used.

It is important to note that there are many African batiks although these are rarely examined in most batik studies. African batik is generally a paste batik made with cassava starch. This paste, like that used in Indonesia, is usually applied with a stick or with the fingers. Sometimes designs are scraped into the paste. Most of these batiked fabrics have repeated stripes and are dyed with natural bark and vegetable dyes. The resulting colors are earthy browns, reds and ochres. Today, however, much batik work is done with commercial dyes as are the more famous African tie-dyes.

Another well known type of batik is Ukranian "Pysanki" or colored eggs. With the adoption of Christianity in the tenth century, the Ukranians developed the art of symbolically decorating Easter eggs. These eggs are not cooked and are meant for decoration only. Each egg

is traditionally divided into sections and decorated with various symbols representative of both pagan and Christian religious beliefs. Using a "kistka," a tjanting-like tool, to draw on the eggs with hot wax, the artists section off areas of the egg for dyeing. Repeated waxings and dyeings result in intricately designed ritualistic eggs.

Traditional methods of batik, including pysanki, paste, bamboo, tjep and tjanting, are still actively used today, but as with most traditional arts, the symbols, colors, and techniques used are undergoing changes in response to new ideas and creative experimentation with new kinds of materials, dyes and instruments.

Batik Methods

Introduction to Cold Wax Batik and Similar Methods

There are a variety of batik methods that use wax as a resist but do not require that the wax be hot. These methods are not traditional methods of batik, but they offer batik processes that can be easily used with children or large groups. Results acquired from these methods can be quite similar to traditional batik forms, and the materials involved with most cold wax batik methods are inexpensive.

The basic cold wax batik method involves drawing with either a waxy crayon or candle on fabric or paper to create a design that resists water. Designs can be made by rubbing, direct drawing, and even by painting if the wax is melted. The wax can even be crumbled and cracked like traditional batik if desired, and then the final design is painted over with water paint or dye. The dye will take to the parts of the paper or fabric left unwaxed. Each specific method has its own particular procedures and resulting effect. Pysanki, colored easter eggs, can obviously not be cracked while rubber-cement paper batik can. Rub-off batik does not use wax as a resist, but because the techniques are so similar, it is included in this section.

Each of the methods in this section on batik can be adapted through design to reflect traditional symbols, colors and uses. In some form, each process can be used with very young children and at the same time each can be used to create intricate, artistic results with simple inexpensive materials.

Paper Batik

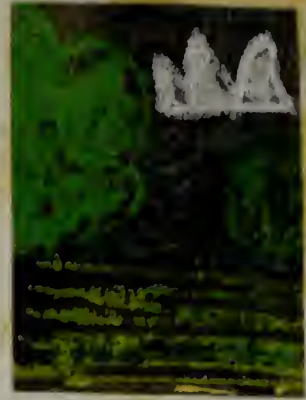
Age Level: 6-11 years.

Time: Approximately twenty to thirty minutes.

Budget: Inexpensive materials used.

Paper batik is an easy, fast and inexpensive introduction to the batik process.

Materials: wax crayons
manilla paper
other paper (newsprint)
paint brushes
tempera paint, ink or dye
iron
water
sponge



Procedure:

1. Crayon very heavily on manilla paper leaving a thick layer of waxed crayon. Bright colors such as yellow, etc., show up best.
2. Dampen and crumble the paper, thus cracking the wax.
3. Brush on tempera paint, ink or dye (usually a dark color) over the paper. Do this quickly, as slow work may cover the crayon.
4. Sponge off excess paint and let partially dry.
5. Iron crayoned side down against another manilla paper or newsprint, thus impregnating colored wax in the original drawing and creating a reverse print on the second piece of manilla.

Other Ideas: For more varied results use rice type paper or a textured dye paper such as watercolor paper or even poster board.

Rubbing is also a technique that can be used. To do this place a sturdy piece of paper over a textured surface or an object that has a lifted design. Use the broad side of a crayon or paraffin to rub back and forth over the paper. Press hard and firm but do not rip the paper. Be careful not to move paper while rubbing for this will cause a distortion and a fuzzy outline of your object or texture will result. The rubbing can then be dyed or painted as outlined above. Good surfaces for rubbings include leaves, wood, gravestones, building surfaces, etc.

Teacher Suggested Extensions: This kind of batik can be included in the following areas of study:

1. Comparison of textures.
2. Comparison of colors, how they interact.
3. Symbols.

Projects in which this type of batik can be included:

1. Collecting textural rubbings of environment according to season.
2. Collecting home or school environment rubbings and creating a miniature environment in a shoebox.
3. Making varied textured and colored geometric shapes to be used in color, shape and texture identification and to help develop vocabulary.
4. Creating a paper batik quilt on a selected theme. Each child would create a square.
5. Creating batik stick puppets similar to those used in Java and creating a play production involving the puppets and some selected theme.

Pysanki

Age Level: Eight years - adult.

Time: Approximately thirty minutes to three hours, depending on number of dyes.

Budget: Inexpensive materials used.

Pysanki is a batik technique used to create designs on Easter eggs. It originated in the Ukraine and has become popular elsewhere. Pysanki designs are traditionally geometric yet never repetitive.



Materials: uncooked eggs (traditional) or hardboiled eggs or blown eggs* (white eggs dye best)
 tjanting tool (traditional) or kistka (traditional)**
 a thin brush
 clear or white waxy crayons
 vinegar
 wax
 tin cans
 hot plate or heating device
 sauce pan
 household dyes, food coloring, or Easter egg dyes
 dye bowls
 spoons

How to Make Dyes: If you are not purchasing dyes, it is very easy to make your own.

1. Place one teaspoon of vinegar in a teacup.
2. Add boiling water and food coloring to make a shade a little darker than desired.
3. Dip egg into this dye for a minute or two.

Procedure:

1. Clean and prepare egg surface by washing with a solution of warm water and vinegar.

*Eggs can be hollowed out by putting a pin hole in each end of a raw egg, stirring the contents to break membranes, and then blowing through one pin hole. The inside of the egg will be forced out of the other hole. Catch the inside of the egg in a small cup or bowl and refrigerate and use for cooking within a day or so.

**Both of these tools are available through distributors listed at the end of this handbook.

2. When egg is dry, paint or draw design either with hot wax melted in a tin can on a hot plate and applied with a thin brush or tjanting tool or with a clear or white waxy crayon. Your design can be linear or created with filled-in spaces. Experiment. When using crayons, you might experiment with a variety of colors and use only one dye.
3. When you have completed your first design area, dye egg in household, Easter egg or homemade dye. Start with the lightest color desired. Follow the directions that come with the dye.
4. Remove eggs from dye as directed and let dry completely.
5. Repeat the waxing process or crayon drawing. If you are using wax or a clear crayon, draw on all those areas you wish to remain the color of the first dye. If you wish to draw with a colored crayon, the color of the crayon and design will remain on the egg and resist further dyeing. Do not, however, melt or rub colored crayon drawings off the egg or you will lose the color.
6. Repeat dyeing procedure with next color and let dry.
7. Repeat waxing and dyeing procedures until the desired result is achieved.
8. Let dry thoroughly.
9. If desired, remove clear wax by scraping or by carefully melting over a candle.

Teacher Suggested Extensions: This kind of batik may be included in the following areas of study:

1. Study of Ukraine and Russia.
2. Comparison of religious rituals.
3. Design elements of pysanki and Russian architecture.
4. Use of eggs.
5. Food as symbols.
6. Symbols.
7. Comparison of pysanki and jewelry.
8. Easter and other spring festivals occurring in every culture and religion.

Scraped Crayon Batik

Age Level: Four years - adult.

Time: Approximately thirty minutes to an hour.

Budget: Inexpensive materials used.

This method of batik is inexpensive, fun and easy. It can be used with very young children if some steps are done by the instructor.



Materials: wax crayons
cheese grater or vegetable peeler
heavy paper or material
newspaper
iron
tempera paint (for paper)
brushes (for material)
cold water dye (for material)
tubs (for material)
stirring sticks (for material)

Procedure:

1. Decide which colors you would like to use; grate crayons and keep colors separated.
2. On the fabric or paper draw design outlining areas of color. If you want the outline to show, use a permanent magic marker. If you do not want the outline to show, use a light pencil. The grated crayons will give a dimple effect and cannot be accurately applied for solid color.
3. Place grated crayon colors in areas desired. Because the colors will not spread out, apply heavy layers where you want the color to be intense. Experiment if you wish by flicking crayon shavings or by mixing colors.
4. When you are satisfied with the pattern, place newspaper under and over fabric or paper. Iron the wax color into your drawing. Use a low setting on the iron.
5. An option for paper: if you wish, paint lightly over the design with tempera paint and quickly wipe off excess paint.
6. An option for fabric: wet fabric and follow dye bath procedure as listed in "Hot Wax Batik Methods" on page 95. This procedure includes rinse, dye, and rinse.
7. Let paper dry flat or hang fabric to dry.

Other Related Ideas: Simply place scraped crayon pits between two pieces of waxed paper. Place a piece of newspaper above and below the waxed paper and iron. This method results in transparent stained-glass window-like effects.

Teacher Suggested Extensions: This kind of batik can be included in the following areas of study:

1. Introduction to colors.
2. Comparison of scraped crayon method and mosaics.
3. Fabric designing.
4. Introduction to the processes of heating and cooling.
5. Transparency and opaqueness.

Projects in which this type of batik can be used include:

1. Elementary level group murals.
2. Creating costumes or clothing.
3. Filling specific areas of a picture related to curricula for the purpose of furthering motor development in very young and learning disabled children.

Rub-Off Batik

Age Level: Four years - adult.

Time: Approximately twenty minutes.

Budget: Fairly inexpensive materials used.

This method is very easy and at the same time very dramatic in its effects. Rubber cement has a beautiful way of forming line. It can easily be used for lettering or any form of calligraphy. Masking papers produce hard edged lines, a contrast to the fluidity of cement drawings.



Materials: rubber cement
 water colors
 thinned poster paint
 papers - hard finish, tough, good bond, watercolor
 brushes
 masking papers - design lettering, masking tape, drafting
 tape
 matte board or poster board (for masking paper project)

Procedure:

Option for Rubber Cement:

1. Draw or paint with rubber cement on paper.
2. Let dry completely.
3. Paint over total area with paint or ink.
4. When paints are thoroughly dry, either rub off rubber cement to finish the piece or apply another drawing of rubber cement to those areas you wish to remain the color you have just painted. Again paint over dried cement. Let the second paint dry and continue until the desired effect is achieved. Then rub off all of the rubber cement. DO NOT RUB OFF CEMENT UNTIL PROCESS IS COMPLETED.

Option for Masking Papers:

1. Cut masking papers as desired. Because papers must be cut or torn, improvisation is limited.
2. Adhere papers to matte board or poster board according to desired design.
3. Paint board with ink.
4. When ink is completely dry, either continue to add papers and continue the inking process with other colors or remove papers to complete the process. As with rubber cement, papers should be removed only after all inking is completed.

Teacher Suggested Extensions: This type of batik can be included in the following areas of study:

1. Art Nouveau and Deco.
2. Architecture and drafting.
3. Introduction to line and form.
4. Petroleum - products and uses.
5. Comparison of concepts of fluidity and rigidity.
6. Africa and its textile techniques.

Candle Rubbing Batik

Age Level: Six years - adult.

Time: Approximately thirty to forty five minutes.

Budget: Very inexpensive materials used.

This is a fun, easy-to-do method of candle batik that is similar to the crayon rubbings previously mentioned.

Materials: candles
strong thin paper
brushes
ink or tempera paint

Procedure:

1. Firmly position paper on a textured object.
2. Rub paper firmly with side of candle. Be careful not to move paper and blur image.
3. Paint quickly with ink or tempera paint, wiping off excess.

Teacher Suggested Extensions:* This type of batik can be included in the following area of study:

1. Textures - natural and man made.
2. American history - grave stones, etc.
3. Development of sensory perception.



*Refer to crayon batik for other ideas.

Candle Dripping Batik

Age Level: Ten years - adult.

Time: Approximately thirty minutes.

Budget: Inexpensive materials used.

This technique involves working with lighted candles. Candle wax can thus be dripped, splattered, and drawn over paper and material.

Materials: candles
matches
paper or cotton fabric
tempera paint and inks (for paper)
cold water dyes (for fabric)
dyeing container (fabric)
stirring sticks (fabric)

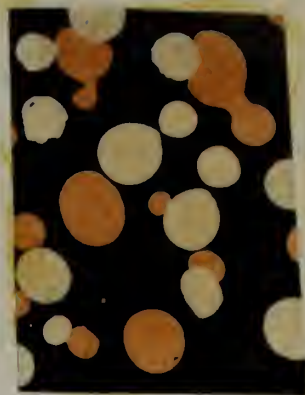
Procedure:

1. Light candle.
2. Drip wax on paper or material. Experiment: one can control drips, can drop them in lines, can slant the paper for runs, or can make dotted circles.
3. Option for paper: paint piece with ink or tempera. Repeat with waxing and painting other colors if desired. After all wax and colors have been applied, chip off wax dots. Paper can then be ironed between pieces of newspaper to remove all wax.
4. Option for material: after waxing wet fabric and dye according to instructions on dye package. Again when fabric is dry, you may continue with another layer of wax and dye until you achieve your desired result. When fabric design is completed, rinse fabric and iron wax out between pieces of newspaper.

Other Ideas: You can draw with a lighted candle. To do this, the flame must be kept close to the paper. Be careful not to burn paper. These candle wax lines can then be cracked, producing a traditional batik effect.

Teacher Suggested Extensions: This type of batik can be included in the following areas of study:

1. American history - candles in history.
2. Textile design.
3. Writing and tools of writing.
4. Introduction to pattern.



Projects in which this type of batik might be used include:

1. Making a quilt of various patterns created with one form, for example, dots.
2. Creating letterheads.
3. Designing cloth for costume, dolls, curtains, etc.

Scratch Technique on Paper

Age Level: Seven years - adult.

Time: Approximately forty five minutes to two hours.

Budget: Inexpensive materials used.

This familiar scratch-board technique related to Javanese batik methods is easy and inexpensive and gives beautiful results.



Materials: Heavy paper or poster board (textured paper is very effective)
 India ink
 tempera paints (thick)
 wax crayons
 scratching tool (needlepoint needle, dissecting tool*)
 brush
 cotton wad or paper towels

Procedure: You can draw your final design directly on the paper with crayons, paint over it, and then scratch through to reveal your design. Or, you can lay down various areas of color with crayons on the paper, paint over, and draw your design through the paint or ink revealing the colors below.

1. Draw your chosen design heavily with crayons onto the paper or board. If you wish, you may want to outline your drawing with India ink first. Fill the whole paper, including the background area with colored crayons.
2. When crayoned area is complete, paint over entire paper with India ink or thick tempera paint. Make sure all areas are covered.
3. Let dry thoroughly.
4. Scrape off paint through to crayons, but NOT THROUGH TO PAPER. You can scrape off the paint in line designs or with a razor blade if you prefer. Scraping will give you both the crayon design and some textural effects from the overlaid paint.
5. When the desired amount of drawing is uncovered and scraping is complete, rub the picture with cotton wads or paper towels to add luster and shine to the picture.

*A dissecting tool is used in biology classes for dissecting frogs, etc.

Teacher Suggested Extensions: This type of batik can be included in the following areas of study:

1. Introduction to etching and intaglio printing.
2. Comparison of effects of scratch technique and oriental woodblocks.
3. Comparison of scratch technique to present day photoline printing.
4. Introduction to color.
5. Introduction to form.
6. Introduction to drawing techniques.
7. Introduction to line.

Projects in which this type of batik might be used:

1. Drawing landscapes such like early etchings.

Introduction to Paste Resist

Paste resist is one of the traditional methods of batik. It is commonly found in areas of the Middle East, Far East, Japan, Indonesia, India, Africa, and Okinawa. Each area has its own ingredients from which the starchy paste is made, and generally each artist has his or her own specific, and often secret formula, for the paste that most effectively suits their needs. Usually the pastes are made of rice and bran flours, mixed with zinc sulphate and salt. This mixture is cooked until it becomes a transparent cream. In Nigeria and West Africa the basic paste is made with cassava starch, which is also cooked until clear and creamy. The prepared paste is then applied to a variety of natural fabrics, mostly imported cotton. The paste is applied either freehand, with the fingers, through stencils, or by squeezing through a tube-like instrument much like our cake decorators. The paste is applied to one surface only, and a cold water dye is painted onto areas left clear of resist. After drying, this process is continued until the fabric is finished and ready for the final dye. The final dye is traditionally a bark dye that is brushed all over the fabric. The fabric is then steamed for at least one hour to set the dye. Several lengths of fabric are steamed together, usually separated by newspaper to keep dyes from transferring. Eventually the pieces are removed from the steaming area and are repeatedly rinsed in cold water till all the resist paste is removed.

Geometric designs and designs utilizing simple animals, suns, and horizontal panels are traditional patterns of paste batik. Each geographic area has specific symbolic designs and motifs that are

distinctive, and each artisan has his or her own way of approaching the design. In most countries at present the women do the intricate designing, and the men do the stamp and paste designing. The women make the pastes and dyes, and the dyeing process is done by either the men or women, depending on local tradition.

Paste Batik

Age Level: Six years - adult.

Time: Approximately one hour for paste work, although you may want to let paste dry overnight.

Budget: Inexpensive materials used.

This batik method is great for children as it requires no hot stove or hot wax. Paste

batik is closely associated with the batik of Nigeria, which is done with cassava starch.

Materials: paste*

Procedure:

1. Paint paste resist on natural fabric such as cotton, linen, silk, or wool. The paste will not go through the fabric.
2. Wait until the paste is completely dry. Twenty-four hours is a good amount of time to wait before cracking paste or dyeing fabric.
3. Lines can be scratched into the paste while wet. Hairline cracks are formed by crumpling fabric when paste is dry.

Dyeing:

Concerning dyes:

1. A liquid dye will soften the paste so that one must use a dye in paste form.
2. Dye is applied to one side of fabric only, the side on which the paste has been applied.
3. All dyes must have a binder added to their formula to make sure that the color will hold to the fabric after paste is rinsed off.

Formula for dye in paste form:

Materials: caloon
Kaldex (dye thickener)
cold water
urea (helps dye penetrate cloth)
hot water
dye powder



* There are a variety of recipes for pastes available, but the easiest to make is a combination of flour and water mixed to a thick and smooth consistency.

sitol flakes
 bicarbonate of soda
 two pound jar
 one pound jar

Procedure for stock-paste dye:

1. Fill one pound jar one quarter full with urea.
2. Add hot water to the half way mark.
3. Add two teaspoons of dye powder (this makes a strong color).
4. Add one teaspoon of sitol flakes.
5. Fill to top with binder (below).
6. Mix well until the liquid is syrupy. This mixture is stable.

To activate dye:

7. Add one half teaspoon of bicarbonate of soda to two ounces of dye paste. This dye must be used within two days.

Procedure for binder dye thickener:

1. Dissolve one teaspoon of calgon in two pound jar (two pints) of cold water.
2. Add one tablespoon of Keltex till liquid thickens. This mixture will last for weeks if the container has a tight lid.

Dyeing Procedure:

1. When the cloth is dried, sponge or paint on dye paste. Be sure to get the dye paste into cracks if you wish cracks to show in your final piece.
2. Let dry twenty four hours.
3. Repeat paste resist and dye process if other colors are desired.
4. When finished, pick off paste.
5. Iron for five minutes between newspaper to set dyes.
6. Rinse in cold water to remove excess dye.

Extra fix: (optional) Soak fabric three minutes in one half teaspoon synthropol in full saucer of water.

Teacher Suggested Extensions: This type of Batik can be included in the following areas of study:

1. Comparison of textile processes.
2. West Africa.
3. Chemistry of dyeing and binding.
4. History of clothing.
5. Uses of grains.
6. Introduction to colors.
7. Chemistry of colors.
8. Symbols on clothing.

Other Paste Resist Methods

Age Level: Four years - adult.

Time: Process takes twenty minutes to one hour, but drying takes twenty four hours.

Budget: Very inexpensive materials used.

Materials: Library paste used as is, or
wheat paste mixed with water until creamy, or
flour paste mixed with water until creamy, or
corn starch mixed with water until creamy, or
crisco or fat
fabric or paper
water proof inks
brushes
water

Procedure:

1. Apply very thick resist paste.
2. After the paste (fat should be used on fabric and washed out after the batik process is complete) is dry, brush on water proof inks carefully. Do not run back and forth as this will smear resist.
3. Allow ink to penetrate paper and dry.
4. Gently wash off resist.

Teacher Suggested Extensions: Areas of extension are the same as with basic paste resist.

Introduction to Hot Wax Batik

There are four main methods of wax batik. Yet whether one is working with painting batik, stencil batik, tjanting batik, or block printing batik, the materials and suggestions that apply to all these methods of wax batik and immersion dyeing are generally the same.

MATERIALS:

Fabric: The choice of fabric is determined both by the intended use of the batik and the natural properties of the fabric. Natural fabrics such as cotton, wool, silk, and linen take cold water dyes, which must be used with wax. Some synthetics can be used with special dyes, but generally synthetic materials or drip dry and treated fabrics will not work well for batik. A closely woven, thin fabric will provide the best base for designs which require clear lines because the wax will not bleed in a tightly woven fabric. The thinner the fabric the easier for the wax to penetrate thoroughly, avoiding the need to wax both sides. Heavy fabrics do require waxing on both sides, and they also require more dye and more water.

Suggested fabrics: cottons, old sheets, linen, silks, flannel-ette, jute, wools, etc. Linen and silk dye better than cotton, and pure satin takes dye very well. Since batik is a resist method of laying on color, it is wise to start with a fabric that is white or light in color.

Wax: Each artisan has his or her own specific preference for a mixture of wax, but for the beginner a mixture of one half beeswax and one half paraffin is recommended. Paraffin itself is inexpensive and is adequate for working. It is brittle, however, and cracks and flakes, which may not be helpful in a batik of many colors. Beeswax is much more expensive and often difficult to obtain, but it is ideal because it is much more flexible and holds up under dyeing. When mixed in half and half proportions, the waxy, flexible material can be cracked for effects and can withstand repeated dyeing without coming loose from the fabric.

Tools: Depending upon the method of batik one chooses, the tools for waxing will differ; however, all the methods can be used in combination. For painting batik, brushes are generally used. Natural bristle brushes stand up best as synthetic brushes can melt. Pointed brushes can be used for making dots or thin lines and clear outlines; wide brushes will cover large areas more easily. Chinese ink brushes can be used to delicately

paint wax on fabric. Larger brushes can be cut out and shaped to achieve desired results. Wax will harden on brushes after use but will re-melt again when immersed in hot wax. Remember, once a batik brush--always a batik brush. Trying to get all the wax out of a brush is a hopeless task; so choose only those brushes you wish to remain batik brushes. Good quality brushes will last a long time and will not bristle and shed into your work.

For use in block printing or stamping batik, a variety of tools exist or can be made. In this method of batik the hot wax is picked up by a patterned stamp and then printed on the fabric. Because the wax often does not go all the way through the fabric, sometimes both sides of the fabric must be stamped, requiring stamps with mirror images. Stamps can be made from cork, wood, brass tools, sponges, pipe cleaners, aluminum foil, cardboard, cookie cutters, and a variety of other materials (see Stamp Batik, page 124). A waxing pad is also handy, though not required. Such a pad would be one eighth inch foam pad placed in a shallow tin filled with enough wax to barely cover the pad. The block would first be stamped into this pad and then on the fabric; however, the block can be merely dipped into liquid wax in melting tin and printed as desired. The types of blocks and stamps are endless, and again experimentation is recommended.

Stencil batik requires both brushes for painting the wax and for stenciling. Certain brands of shelving paper that is sticky on one side can be easily cut and used as a stencil. Heavy acetate and clear plastic materials can also be cut into stencils, and they have the advantage of allowing you to see the fabric for proper placement. Thick cardboard or heavy paper can also make fine stencils. Traditional Indonesian stencils are made of thin metal. A stencil should be cut with small, fine scissors such as nail scissors or with a sharp matte knife. When not in use, the excess wax should be scraped off, and the stencils should be laid flat.

There are a variety of tjanting tools available for working on tjanting type batik. A tjanting tool is generally a spouted tool with a metal well and a wooden handle. Melted wax is held in the well, and a line whose thickness is determined by the diameter of the spout is drawn onto the fabric. In Java these tools are made with reeds and folded metal; however, tools can be made by cutting wax milk carton containers into triangles and folding into cones with various spout sizes. (See Tjanting Batik, page 119.) Commercially made, tjanting tools are available with one, two, or three spouts of various diameters. An alcohol cup is recommended for heating a metal tjanting tip to keep the wax melted. A candle can be used, but soot will mark the fabric and such soot is difficult to remove. A metal wellled tjanting tool can be left in the wax melting vessel if

the total metal area is kept covered with melted wax. It is also important to note that hot wax will flow through the spout very quickly and that by holding a piece of cardboard under the tjanting tip you can prevent accidental drips as you move over the fabric. Cold wax will clog the spout. A clogged spout can be cleared with a pin or nail.

Other tools that can be used in batik include pointed bamboo sticks, which are used in traditional methods of batik in the Far East, and syringes and square containers for applying dye.

✓ Dyes:

Do not use dyes that require boiling the fabric, for heat will melt the wax. Lukewarm dyes or cold water dyes are best. When choosing a dye, make sure it is compatible with the fabric you are using. Instructions with the dye will indicate which fabrics can be used. Commercial cold water dyes are generally expensive, but they give more permanent and vivid colors. Vat dyes are commercial and rather complicated to work with; cold water dyes, available at art stores, are generally colorful and work well with batik on natural fabrics; instant dyes such as RIT, Tintex, etc., are limited in their usefulness in batik because they are supposed to be used in hot water. With batik they must be used cold and so they lose their colorfastness.

There are basically two kinds of cold water dyes that are effective for batik: precision dyes in which the colors are built up on a normal color scale where the dye color is visible during the dye process, e.g., yellow plus red make orange; and aniline dyes in which the color is determined by the salt solution in which the fabric is immersed after two preliminary immersions in a base solution. Colors here are determined by chemical reaction and must be read from a prepared chart as the solution itself does not visually represent the final color. Precision dyes are generally very bright and intense in their colors while aniline dyes are generally more earthy and subtle.

Dyes should be chosen for the effect one wishes and for the convenience and safety needed in use. Cold water dyes seem to be the easiest and give the best results in basic batik while five cent and ten cent store dyes are the safest for children. Each particular dye has its own specific directions which should be followed for best results. Note distributor's listing on page 143.

Presently there are colored waxes on the market that can also be used to dye fabric in a batik process, or they can be approximated by melting colored crayons and paraffin. This dyed wax is then usually cracked and dyed by immersion in any one of the dye preparations mentioned above.

Other Basic Equipment:

heaters: either a hot plate, an electric fry pan, or stove (placed on non-flammable surface).

a pan in which to place melted wax, a container, a double boiler, etc.

a tin can, dish or tray in which to melt wax (muffin tins for different colors).

a stretcher of frame or cardboard on which to stretch fabric tight to prevent it from touching table surface.

plastic tubs for dyes and rinses.

jars or bowls for small mixtures of dyes.

vinegar and salt to set dye.

spoons and stirring sticks.

measuring cups and spoons.

clothesline or area for drying

iron

rubber gloves

newspaper

solvents for wax

boiling pan

soap flakes

mineral spirits

cleaning fluid

General Methods for Hot Wax Batik

Age Level: Eight years - adult.

Time: Half hour to five hours; each dye takes twenty minutes.

Equipment: Moderate to expensive tools and materials are usually used, although inexpensive supplies can be supplemented.

Fabric:

1. Choose a natural fabric--cotton, linen, silk, generally white or light in color.
2. Allow at least a two inch border all around your designed area.
3. Wash and press the fabric to remove any sizing. While this may cause shrinkage, it avoids later shrinkage during the dyeing process.
4. If available, apply a thin layer of spray starch to fabric to help wax flow smoothly and to help reduce bleeding and fuzzy lines.
5. Stretch the fabric over a wooden stretch frame and tack with push pins or staples. This will keep fabric smooth, taut, and off the table surface while working.
6. For experiments or large groups when frames are not available, one can tape one side of fabric to the table with marking tape and place newspaper under fabric. When waxing fabric by this method, one lifts the fabric and holds it taut as wax is applied.
7. For very large work, tack sections of fabric to stretcher.
8. One can work on a vertical frame, but this is difficult because of the tendency of the hot wax to drip and because tying tools are shaped for use on a horizontal surface.

Design:

1. Choose a design suitable to the type of batik with which you are experimenting. This may be a free-hand improvisation or a well-planned, studied design. However, it is usually wise to do a complete color sketch on paper before beginning.
2. Think in layered colors. The batik process is a layering of colors, and depending upon the dyes you are using, the color progressions will be different.
 - a. With aniline dyes one must choose colors by a chart depending upon different salt solutions in which the fabric is immersed. It is wise to plan to go from light to dark.

- b. With precision and many other dyes, colors follow the general color chart and should be added from light to dark in accepted progressions: yellow to orange to red, etc.
- 3. With charcoal, outline on the fabric the first areas to be waxed. These will be the areas that remain the color of the original fabric. The charcoal outlines will wash out; other materials can be used, but most do not wash out as easily as charcoal. Repeat this charcoal outlining for each successive waxing and dyeing.

Waxing:

- 1. Heat wax mixture (paraffin and beeswax) in a tin can, muffin tin, whatever, within a pan of water on a hot plate, stove or electric frying pan.
* DO NOT USE DIRECT HEAT.
- 2. When wax is melted and translucent in appearance, it is ready to use. If wax dries on the surface of the material and does not penetrate, it needs to be hotter.
- 3. Apply your first coat to all those areas you wish to remain the existing background color. Your applications can be done by brush, stencil, tjanting, stamp, bamboo stick, squeeze bottle, etc. Remember that the wax must be clear and flowing for all methods of application.
- 4. When first waxing is complete, it is wise to check the fabric to make sure that the wax has penetrated. If it has not, then wax the reverse side where needed. Incomplete waxing will cause a "staining" effect and a partial dyeing of poorly waxed areas.

Dyeing:

- 1. When wax on fabric is cool, the fabric is ready for the dyeing process.
- 2. Fabric should be rinsed thoroughly in clean water to prepare the cloth for dyeing. A wet fabric will take the dye more easily and evenly.
- 3. The first dye bath should be the lightest color that is to be used in the total design.
- 4. Mix dyes as directed on package and follow directions as to stirring and time required in dye bath. Proper procedure will insure even and brilliant color. Remember that one cannot use hot water dyes on batik. It is also important to have enough dye bath to cover all the fabric to prevent uneven dyeing. When the fabric is wet, the color will appear darker and brighter than the actual finished dry fabric color. To accommodate this difference, it is wise to dye the fabric to a shade

darker than desired. It is also wise to have the rinsing pan and the dye pan next to each other to reduce drips. Another hint to help with even dyeing is to add one tablespoon of soapflakes to the dye bath.

5. After dyeing is complete, rinse the fabric well. Adding one tablespoon of soap flakes to the rinse water will help set the dye.
6. Blot the rinsed fabric between newspapers.
7. Hang blotted fabric to dry. Do not fold over a clothesline but hang from one side with clothespins. If the fabric is hung while it is still too wet, the dye will streak. Another method of drying is merely to lay the fabric on newspapers; this method takes more room and requires a longer drying time.

Second Waxing:

1. When fabric is dry from the first dyeing, the areas for the second waxing may be drawn in with charcoal. These areas will be those intended to remain the color of the first dye.
2. Follow all the steps as in the first waxing.

Second Dye:

1. The second dye bath will be darker than the first when using procion dyes and will be in a different salt solution when using aniline dyes. Remember with Procion, Rit, etc., type dyes that the first color will have some effect on the second color, and so forth.
2. Follow the same procedure as in the initial dyeing, including the pre-rinsing of fabric, mixing of the dye, the proper dyeing procedure, and the final rinse and drying.

Subsequent Waxing and Dyeing:

Fabric can be waxed and dyed as directed as many times as desired; however, after a period of time the initial wax will break down and begin to flake. If this begins to happen, rewax all areas affected as such flaking will cause uneven dyeing and streaking.

Cracking Wax:

Anytime during the batik process one may crack the waxed fabric, thus creating small and intricate lines that can be dyed creating a traditional batik look. If subsequent dyeing is to take place, one should rewax the cracks if they are to keep the color of the lighter dye.

Cracking can be done in a variety of ways:

1. Crack in pleats for straight lines.
2. Crack in radiating streams from a center point.

3. Crack on diagonals.
 4. Crumple and crack at random.
- For most effective cracking, to create distinct lines, crumple or fold fabric as desired. Be sure to use enough pressure to crack the wax well and then stretch fabric flat, flapping off cracked wax and leaving areas of fabric exposed.

Removal of Wax After Final Dyeing:

There are a variety of methods that can be used to remove wax from a completed batik.

1. The easiest method for removing wax is to iron the fabric, covered on both sides with plain newsprint, between sheets of newspaper. (Newspaper print may come out on fabric if plain newsprint is not put next to fabric.) Ironing must be repeated several times to remove most of the wax. All the wax cannot be removed by this method, but this ironing technique is sufficient for wall hangings or any non-wearable items.
2. Solvents such as kerosene, gasoline or cleaning fluid will remove the wax if the fabric is immersed in the chosen solvent. The wax will settle to the bottom and the solvent can be poured back and reused. This process should be done outside as these solvents are flammable and toxic. Hang fabric outside to dry.
3. If strong and durable procion dyes were used, the wax can be boiled out of the fabric without affecting color. Fabric should be boiled in a large pan. Add about a teaspoon of soap flakes to the boiling water. Boil only three to five minutes because colors will fade. Move fabric as this helps loosen the wax. Wax will rise to the surface of the water. This wax can be skimmed off the surface of the water and mixed with other wax for reuse. Rinse boiled fabric in cold water and scrape off any excess wax flakes.

DO NOT pour wax down the drain. It will harden in the pipes. Wax dregs can be put in plastic bags or milk cartons, etc. and thrown away if not reusable.

Aniline dyed fabric cannot be boiled.

Fixing the Dyes:

Most dyes will have their own fixatives or have some instructions for fixing color. If no specific method of fixing is suggested, a steaming with a white vinegar and water solution is advisable.

1. Newspaper rolls, in this method, are liberally splashed with a white vinegar and water (half and half) solution. A fabric or many fabrics are rolled up in the newspapers (each fabric separated by a few layers of newspaper). The newspaper rolls

are then steamed in an oven at 200 degrees F for about thirty minutes. Sprinkle papers with vinegar and water solution if papers dry out.

2. Steam iron. Cover fabric with a piece of cloth saturated with a solution of half white vinegar and half water. Iron.

With both methods the fabric should be rinsed in clear water to remove the solution and smell and hang to dry. The colors should now be fixed as fast as can be achieved by this method.

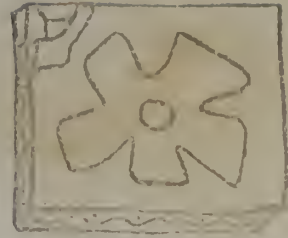
Cleaning Finished Batiks:

1. If strong dyes are used, fabrics can be safely washed with soap (not strong detergent) by machine on a gentle cycle. Handwashing is recommended, however.
2. The best over all way to clean a batik to assure bright color-fast results is to dry clean pieces.

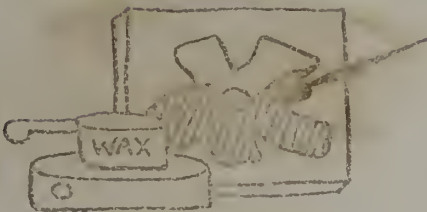
Hot Wax Batik Process



1. Draw design on fabric with charcoal.



2. Stretch fabric over frame.



3. Wax areas that are to remain background color.



4. Rinse waxed fabric in clear water.



6. Immerse work in dye for appropriate amount of time.



5. Prepare dye bath according to directions.



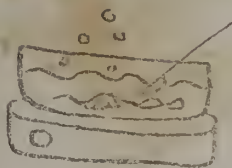
8. Hang or lay flat to dry.



7. Rinse dyed fabric in water.



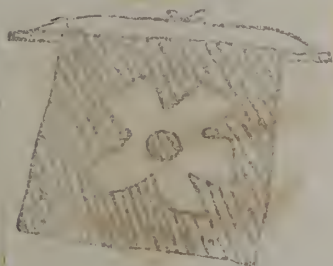
9. Iron wax out of batik by laying fabric on newspapers and covering fabric with paper toweling - then iron.



10. To remove remaining wax boil fabric in water - skim wax off surface.



11. Rinse de-waxed fabric with water and soap flakes.



12. Finish batik as you desire.

Melted Crayon Batik

Age Level: Six years - adult.

Time: Approximately one half to one and one half hours.

Budget: Inexpensive materials used.

An easy method using old crayons and fabric or paper.



Materials: rice paper, or
white or light colored "natural" fabric, washed and dried
first to remove sizing (cotton, silk, etc. Polyesters
generally do not take the dyes), or
old T-shirts, pillowcases, sheets
muffin tin or tuna cans
double boiler
hot plate
crayons
old brushes
cheap five and ten cent dyes (these will not stand up to
washing, refer to dyes in last section)
salt
newspapers
iron
tubs (plastic not metal as these often oxidize)
masking tape or frame for material

When using the melted crayon or any of the hot wax methods of dyeing, a few things are very important:

1. The wax must be hot enough to penetrate fully. The wax will have a translucent appearance.
2. The wax must not be too hot as to cause a fire. Do not let wax smoke or boil.
3. The material you are working on must be lifted away from the working surface so that the wax does not adhere it to the table. Tacking your cloth on a frame will work, or even masking tape on one end and lifting the fabric as you paint will work. Have newspapers under the fabric to catch drips.

Procedure:

1. Stretch material or paper over frame or attach one end to table with masking tape.
2. Heat crayon wax. Separate colors in muffin tin compartments. The colors of the crayons will remain in the final object. To thin colors, add paraffin.

3. Designs may be drawn with charcoal or pencil, or one may paint freely with the wax--splatter, drip, etc.
4. Make sure the wax penetrates.
5. Use different brushes for different colors if you want to keep your colors separate.
6. When finished, dip the material in water to cool wax and wet uncovered material.
7. Crack wax if desired.
8. Paint with dye mixed to desired color as directed on package. USE COLD (hot dye will melt wax). Or dip into dye bath of prepared dye. Five and ten cent dye will work though not colorfast because it must be used cold. For more colorfast dyes use procion or aniline (refer to previous section on Hot Wax Batik).
9. Dry and iron out wax between newspapers.

Teacher Suggested Extensions: This type of batik can be used in the following areas of study:

1. Indonesia.
2. Introduction to colors.
3. Chemistry of Dyeing.
4. India.
5. Symbols.
6. Textile industry.
7. Chemistry of wax.

This type of batik can be used in the following projects:

1. Group murals.
2. Quilt of symbols.
3. Pictorial charts (e.g. atomic weights, alphabet, numbers, water cycle).
4. Creating fabric for window covering, costumes, etc.
5. Story illustrations.

Melted Candle Wax Batik

Age Level: Eight years (with close guidance)
- adult.

Time: Approximately one hour.

Budget: Inexpensive materials used.

This process is very close to what we know as true batik; candle wax is brittle and lends itself to crackling effects.

Materials: candles
double boiler
cloth, washed and dried, natural fiber (light color preferable)
hot plate or stoves
three tubs (not metal)
old brushes (can use stamps, see page 124)
cold water dye (for permanency) (one or more dyes can be used in coordinating colors, or five and ten cent dye for hanging)
frame or tape method of holding fabric
iron
newspapers

Procedure:

1. Melt wax in a tin can in vessel of water.
2. Draw planned design (charcoal washes out best). Think "batik." What you paint will be the main background color (or color of candle). If you wish to use many colors you may wish to sketch out the total design first and organize dyeing patterns.
3. Paint with wax the first resist areas: experiment, drip, splash, flick, etc.
4. Crack if desired. Experiment with cracked patterns.
5. Rinse and dye according to dye instructions.
6. Dry.
7. If a second dye color is desired, wax those areas to remain first dye color. Crack wax if desired. Rinse and dye fabric. Dry.
8. To remove wax, iron fabric between layers of newspaper or dry clean.

If cold water dyes were used, wax may be boiled out of fabric. Be careful not to let wax go down the drain as it will clog the pipes. A good method is to skin wax off top of water in boiling container as wax can be reused.



Teacher Suggested Extension: This type of batik can be used in the following areas of study:

1. Indonesia.
2. India.
3. Use of candles.
4. Textile industry.
5. Division of labor.
6. Symbols.
7. Historical costumes.
8. National life styles.

This type of batik can be used in the following types of projects:

1. Flags.
2. Game designs.
3. Costumes for plays.
4. Puppets.

Brush Batik

Age Level: Eight years - adult.

Time: From one and one half hours to many days if many dyes are used.

Budget: Inexpensive to moderate priced materials are used.

Brush batik can be one of the freest and easiest methods of hot wax batik. It can also be well planned and intricate, depending upon one's approach. Brush batik is a traditional form of batik found in Africa, India, and Indonesia. Presently this type of batik is most popular in India and the West.

Before attempting brush batik, read the section of "General Methods for Hot Wax Batik" as brush batik is a special branch of this general technique.

Materials:

- wax
- tin cans
- hot plate or heating device
- saucepan
- water
- brushes
- material
- stretcher or masking tape
- dye
- rinse and dye containers
- rubber gloves
- stirring sticks
- clothesline
- newspaper
- iron

Procedure: Follow the "General Methods for Hot Wax Batik" found on page 99, basically.

1. Prepare fabric by washing.
2. Stretch fabric.
3. Choose design. A painterly design or improvisation will work well with brush batik; one can splatter paint, drip paint, work with various size brushes, and cut brush tips for various effects.
4. Draw design with charcoal on fabric if desired.



5. Wax. Painted wax must be hot and clear. If wax turns white on the brush, it is too cold and will not penetrate fabric; paint design as desired. A thin brush is best for outlines, pointed brushes are good for dots, thick brushes are best for wide sweeps and filling in areas. Experiment--flick, drip, etc. One may wish to crack the wax before the first dye bath.
6. When the first waxing is completed, follow procedure for first dye bath--rinse, dye, rinse. (Refer again to hot wax batik instructions on page 99.)
7. Repeat the waxing and dye processes until desired end result is achieved.
8. Dewax by scraping, ironing, using solvents or boiling.
9. Rinse the final fabric and hang dry.

Regarding brush clean up: Brushes will have wax hardened on them. Hot water will rinse out the wax. Heavy wax can be chipped off the handle of the brush. Wax can be left in the brush as it will remelt when the brush is again dipped in wax. Cleaned brushes should be stored with bristles up.

Teacher Suggested Extensions: This type of batik can be used in the following areas of study:

1. Indonesia.
2. India.
3. Division of labor.
4. Religious symbols.
5. Art and symbols.
6. Symbols and architecture of India.
7. Puppetry and drama in the Orient.

This type of batik can be used in the following types of projects:

1. Making natural dyes.
2. Making banners and flags.
3. Costumes for plays.

Scratch Wax Batik on Fabric

Age Level: Six years - adult.

Time: Approximately one to two hours.

Budget: Inexpensive materials used.

Scratch wax batik is an easy way to achieve both linear effects and various color gradations with only one dye. This technique is related to Javanese scratch batik in which a design is scratched into a completely waxed cloth.

Before attempting scratch wax batik, read the chapter on the "General Methods for Hot Wax Batik," as scratch batik is a special branch of this general technique.

Materials: wax
tin cans
hot plate or heating device
sauce pan
water
brushes
scratching tools---sharp sticks, table knife, dissecting tool
fabric
stretcher or masking tape
dye
rinse and dye containers
rubber gloves
stirring sticks
newspaper
iron

Procedure: Follow the "General Methods for Hot Wax Batik" found on page 99.

1. Prepare fabric by washing.
2. Stretch fabric.
3. When fabric is dry, paint total fabric with melted wax, except those places where you might want broad dye color areas.
4. Scratch design into waxed fabric with sharp tool. Remember to scratch through wax to fabric. Scratch on both sides if you want dye to penetrate both sides. The final color will be darker if both sides are scratched. For larger areas of color, scrape away wax with table knife. The amount of wax scraped away will determine how dark the color will be. Again,



- for the darkest color, scrape wax off both sides all the way to the fabric.
5. When your scratched design is complete, follow procedure for dye bath--rinse, dye, rinse. (Refer again to hot wax batik instructions on page 99.)
 6. If you wish, when the fabric is dry, you can re-wax and scrape further designs and go through further dye processes.
 7. When the desired result is achieved, dewax by scraping off all wax possible. This wax can be reused. Then use an iron, solvents or boiling water to remove remaining wax.
 8. Rinse and dry final fabric.

Teacher Suggested Extensions: This type of batik can be used in the following areas of study:

1. Indonesia.
2. Comparison of etching and scratch batik.
3. Woodcuts.
4. Oriental design.

Introduction to Tjanting and Related Methods of Batik

The tjanting (pronounced janting) method of hot wax batik is probably the best known, and most intricate of the traditional methods of batik. Tjanting is often referred to as the "highest form" of batik as it takes great skill and patience. Tjanting batiks are noted for their fine lines and exacting detail. These details and lines are produced with what is called a tjanting tool. In Java and Bali, where the finest tjanting batik is produced, this tool is made from a small copper reservoir with one, two, or three tiny spouts of varying diameter, which are fixed to a bamboo handle.* Variations in the spout diameter create lines of various thickness. When the tool is dipped in hot wax and then used for drawing upon cloth, continuous lines of wax penetrate the fabric. Sometimes, glue is used instead of wax, and gold dust is placed on glue to produce golden lines. A cloth made by this method is called a tulis cloth and can take anywhere from fifteen to fifty days to make. Most tjanting batik is produced by women following hand-drawn patterns on cotton and silk. Initially this textile dyeing method was done on rough hand woven cloth, and the tulis cloth was worn only by nobility. Today in Indonesia the tulis has been partially replaced by the tjap, a stamp batiked cloth, made by men. One man can produce up to twenty tjaps a day. The workmanship is less accurate, but this method makes such cloth available to more people at less expense.

Another tjanting-like tool is used in India.* By wrapping human hair in a loose ball, attaching a stylus-like point and a bamboo handle,

*Refer to page 117 for illustration of these tools.

the Indians create a drawing tool with an open wax reservoir in the balled hair. Much practice is needed to be able to know how much wax should go in the hair reservoir and how quickly and with how much pressure one should draw for effective results.

In the Central Celebes and in parts of Africa, simple, pointed bamboo sticks are used to make lines. A bamboo stick, however, does not give a fluid, continuous line but rather rectangular pieces of lines. Designs created with the bamboo reed are generally metrical and striped. These stripes usually run horizontally and vary in width. Both the Indian tool and the Java tjanting tool are commonly used to portray mythical episodes and symbols. The peacock stands for wealth and power, the "sawat" or bird figure comes from the Hindu "garuda." However, many of the patterns have become distorted over time, and the original meaning has been lost.

How to Make a Tjanting Tool

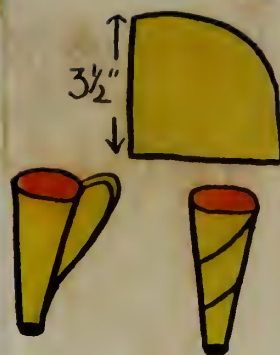
Age Level: Six years - adult.

Time: Thirty minutes.

Expect: Very inexpensive materials used.

Commercial tjanting tools are easily available and not very expensive. However, you can easily make your own tjanting tools from household items.

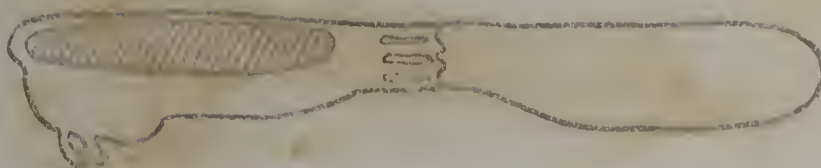
Materials: wax carton (milk, etc.)
heat resistant glue
needle
clothespin
oaktag or any stiff non-absorbent paper



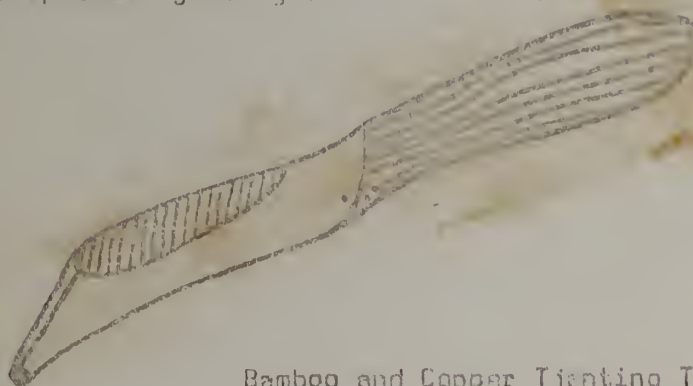
Procedure:

1. Cut wax carton or stiff paper into triangle shape, at least three and one half inches on short legs.
2. Form into a cone, trying to leave no hole at the pointed end.
3. To make the tool, glue the triangle into a wrapped cone shape. You will need a handle, and a clothespin will do (see illustration). Or you may glue the sides of the triangle together to form both the cone and a handle. (see illustration).
4. Stick a pin, needle etc. through the tip of the cone to form the hole for wax flow. The size of the needle will determine the width of the tjanted line.

Traditional Tools for Hot Wax Batik



Double Spouted Tjanting Tool



Bamboo and Copper Tjanting Tool



Indian Batik Tools: Metal Tipped with Human Hair

Tjanting Batik

Age Level: Ten years - adult.

Time: Approximately two to ten hours,
depending upon the number of dyes.

Budget: Moderate to expensive materials used.

Tjanting batik can be both intricate and flowing. Today tjanting tools, similar to the original Javanese tools, are available through most better art stores. A variety of tools with graduated diameters and one to three spouts are available. You can also make your own tools by forming a metal bowl with a spout or a cone from sheet copper or aluminum. Attach this reservoir to a wooden handle, and you have a crude tjanting tool.

Before attempting tjanting batik, read the section on the "General Methods for Hot Wax Batik," as tjanting batik is a special branch of this general technique.

Materials: wax
tin cans
hot plate or heating device
sauce pan
water
tjanting tool
alcohol lamp (if available)
small piece of cardboard
material
stretcher or masking tape
dye
rinse or dye containers
rubber gloves
stirring sticks
clothesline
newspaper
iron

Procedure: Follow the "General Methods for Hot Wax Batik" found on page 99 basically.

1. Prepare fabric by washing.
2. Stretch fabric.



3. Choose design. A linear design will work well with tjanting batik, or the tjanting tool can be used to make fine outlines to be filled in by painting, etc.
4. Draw design with charcoal on fabric if desired.
5. Wax. Practice and experiment. Wax that is too hot will make a fat line that bleeds into the material; cold wax will sit on top of material. Straight lines, curves, accurate drawings of abstract designs are all possible if one practices. Practice on scrap pieces of fabric first. The bowl of the tjanting tool must be kept hot so that wax will not clog the spout. This can be done by heating it over an alcohol lamp (a candle usually leaves soot marks), or by leaving the metal part of the tjanting tool in the melted wax container if there is enough hot wax to immerse the bowl. To fill the tjanting tool, you dip the tool in the wax and then tip the tool so the wax settles in the well behind the spout. To draw you merely tip the tool forward so the wax runs out the spout. To avoid drips, hold a piece of cardboard under the spout until you are ready to draw.
6. When first waxing is completed, follow procedure for first dye bath; rinse, dye, rinse (refer again to "General Methods for Hot Wax Batik" on page 99).
7. Repeat the waxing and dye processes until desired end result is achieved.
8. Dewax by scraping, ironing, using solvents or boiling.
9. Rinse the final fabric and hang dry.

Teacher Suggested Extensions: This type of batik can be used in the following areas of study:

1. Indonesia.
2. The roles of men and women in various cultures.
3. The Industrial Revolution.
4. Symbols.
5. The chemistry of dyeing.
6. India.
7. Decorative symbols in clothing and architecture.

This type of batik can be used in the following types of projects:

1. Making organic dyes.
2. Making printing or dyeing tools.
3. Making puppets.
4. Making clothing for ritual plays or Indonesian dances.

Bamboo and Stick Batik

Age Level: Eight years - adult.

Time: Forty five minutes to one and one half hour.

Budget: Inexpensive materials used.

Bamboo and stick batik are very simple, and in some ways, limited forms of traditional batik.

Tools for this type of batik can be made by cutting bamboo pieces on a diagonal to a point much like a pen. The handle of a Chinese water color brush would make an excellent tool allowing one to produce both brush and stick batik with one instrument. Regular pointed sticks can be used, but they have no real reservoir for wax.



Before attempting bamboo and stick batik, read the section on "General Methods for Hot Wax Batik" as stick batik is a special branch of this general technique.

- Materials:
- wax
 - tin cans
 - hot plate or heating device
 - saucepan
 - water
 - pointed bamboo sticks or regular pointed sticks
 - material
 - stretcher or masking tape
 - dye
 - rinse and dye containers
 - rubber gloves
 - stirring sticks
 - clothesline
 - newspaper
 - iron

- Procedure: Follow the "General Methods for Hot Wax Batik" found on page 99 basically.
1. Prepare fabric by washing.
 2. Stretch fabric.
 3. Choose a design. Stick batik makes rectangular shapes rather than a fluid line. Think in terms of dotted lines or short

lines around a focal point. Other batik methods can be used in combination with stick batik.

4. Draw design with charcoal on fabric if desired.
5. Wax. EXPERIMENT ON SCRAP FABRIC FIRST to see how much wax you can take in your tool and how long, wide, etc. your lines can be. Wax must be hot and clear. When ready, paint stick batik design as desired. Use sticks with a variety of widths, splatter, or dot if desired.
6. When first waxing is completed, follow procedure for first dye bath; rinse, dye, rinse. Refer again to hot wax batik instructions on page 99.
7. Repeat the waxing and dye processes until desired end result is achieved.
8. De-wax by scraping, ironing, using solvents or boiling.
9. Rinse the final fabric and hang dry.

Wax will cool on the sticks. This wax can be chipped off and added to the usable wax mixture.

Teacher Suggested Extensions: * This type of batik can be used in the following areas of study:

1. Africa.
2. Symbols.
3. Comparison of African architecture and fabric design.
4. Introduction into pattern and repetition.
5. Simple tools.
6. The role of fabric in societies.

This type of batik can be used in the following types of projects:

1. Making simple tools.
2. Creating picture stories.
3. Developing symbolic systems.
4. Making natural dyes.
5. Making clothing or costumes.

*Refer to page 137 for an example of a specific lesson plan using batik in basic curriculum.

Introduction to Stamp Batik

Stamp batik is another traditional form of batik. The African "ashanti" cloth is almost always made by the stamp batik method. In fact, most batiked African cloth is produced by the stamp method. India also has a great deal of stamp batik work though true block-printed fabric is more common. In Java, however, the stamp method was developed as a replacement and initially an imitation of the tjanting batik. Because tjanting batik was so exacting and required so much time, up to thirty days for one sarong, products made by this method were extremely expensive, and only the very wealthy could afford them. In 1860 the use of stamps or tjaps was introduced in Java. Two identical reverse stamps began to be used to stamp both sides of the fabric in such a way that the wax penetrates fully and creates clear and concise lines on both sides. Today's batik stamps are generally made of metal strips and wire imbedded in wood. Brass and copper are commonly used, but some African stamps are made with linen fabric attached to a wooden stick. The earliest tjaps were all wood, but wood does not carry wax well. From the beginning of its use in Java, stamp batik has been traditionally done by men, as contrasted with tjanting batik which is done by women. One man can produce the cloth for ten to twenty sarongs a day by this method. The resulting fabric does not have the fine fluid lines of tjanting, but generally has a geometric and repetitive pattern that can be both beautiful and accessible to the public.

The process of stamp batik is like other forms of hot wax batik. The stamp maker, however, is a very important person in the process. Each stamp must be extremely accurate and be matched to an exact reverse

stamp. Most of these stamps are geometric in design so they are easier to match up accurately in a continuous printing. The cloth, which is factory made, is stretched over wood pieces, and the stamp is dipped either into a pot of melted wax or into a wax-filled stamp pad. The design is then printed on the fabric. The printing continues until one side of the fabric is completed. The fabric is then turned over, and the reverse stamp is used to carefully print a line-for-line match with the initial stamp.

At the completion of the stamping process the fabric is dyed and rinsed. Traditional stamp batiks may be stamped and dyed numerous times; however, it is most common to see a stamped batik that has been dyed once or twice in the blues, ochres, or browns most commonly used in Javanese batik.

Stamp Batik

Age Level: Six years - adult.

Time: Approximately one to two hours.

Cost: Inexpensive to moderately priced materials.

Stamp batik can be as easy as dipping a pipe-cleaner form in wax or as difficult as creating two exact reverse stamps for printing two sides of a fabric. Stamp batik is a traditional form of batik marked by visual repetition. This repetition can be both a strength and a weakness in this form of batik as results can be excitingly beautiful or boring.



Because batik stamps are not yet available commercially, people have to create their own stamps. A variety of materials and designs can be used if it is remembered that the stamp will be used for printing wax. This fact automatically rules out lightweight paper, and so forth, and also requires that the printing surface be flat. If cardboard, pipecleaners, etc. are used the hot wax will eventually distort the initial shape. If the stamp is made of metal, some sort of handle or pot holder will be needed to protect fingers from the heat. The materials listed below are those which I have tested; however, I am sure there are many other appropriate materials available.

Before attempting stamp batik, read the section on "General Methods for Hot Wax Batik," on page 99 as stamp batik is a special branch of this general technique.

Materials for Stamps:

- cardboard tubes
- rock (designs cut in)
- cookie cutters (pot holder, pliers)
- nuts and bolts (attached to handle)
- flat designs formed with aluminum foil attached to dowel handle
- match boxes
- stiff cardboard, oak tag, formed into shapes and taped
- nail patterns of same height in a block of wood
- pipe cleaners formed into flat design with handle
- brass strips inserted into bamboo stick

dried potatoes, carrots, etc. cut into designs
(improvise)

Materials for Stamp Batik: stamps
wax
tin cans
hot plate or heating device
saucepan
water
quarter inch foam pad
natural material
stretcher or masking tape
dye
rinse or dye containers
rubber gloves
stirring sticks
clothesline
newspaper
iron

Procedure: Follow the "General Methods for Hot Wax Batik" on page 99 basically.

1. Prepare fabric by washing.
2. Stretch fabric.
3. Choose or make your stamp(s).
4. If you have a specific pattern or design to follow, rule it off on your fabric with charcoal.
5. Wax for stamps.
 - a. If you are using a delicate, thin lined stamp, you should make a wax pad by cutting a piece of thin foam (one eighth to three quarter inch) to the size of a shallow can. Place the foam in the can with just enough wax to cover the pad. This can should be placed in a heated pan of water to keep the wax melted. The stamp should be pressed into the wax filled pad, and any excess wax should be dripped off before printing on fabric.
 - b. If you are using thicker stamps, cardboard, pipecleaners, etc., you can dip the stamp directly into the melted wax pot. Again scrape or drip off excess wax before printing.
6. Test your printed stamp on a scrap piece of fabric before your final printing. Do you need to wax before each stamp? Can you stamp a few times with one waxing? Wax that is too hot will flow too fast into the fabric and cause a sloppy outline. Wax that is too cold will cake on the stamp and not penetrate or even adhere to the cloth. If you are using a thin fabric, it should not be necessary to wax both sides.
7. Stamp print your design as desired. If some of these do not stamp well, they can be touched up with a thin brush and hot wax.
8. When the first waxing is completed, follow procedure for first dye bath; rinse, dye, rinse (refer again to hot wax batik instructions).

9. Repeat the waxing and dye processes until desired end result is achieved.
10. De-wax by scraping, ironing, solvents or boiling.
11. Rinse the final fabric and hang dry.

Teacher Suggested Extensions: This type of batik can be used in the following areas of study:

1. Africa.
2. Indonesia.
3. Comparison of Africa and Indonesia.
4. Roles of men and women in society.
5. Industrial Revolution.
6. Capitalism and the law of supply and demand.
7. Comparison of hand drawn and machine made fabrics.
8. Block printing.
9. Measuring.

This type of batik can be used in the following types of projects:

1. Making quilts.
2. Making alphabet forms with pipecleaners.
3. Making printed books on paper or cloth.
4. Exploring repeated shapes and geometrics.
5. Designing fabric or paper based on repeated designs and prediction.
6. Creating clothing and costumes for a play, etc.
7. Making organic dyes.

Stencil Batik

Age Level: Eight years - adult.

Time: Approximately one to two hours.

Budget: Inexpensive to moderately priced materials.

Stencil batik is not a popular traditional method of batik but applies a commonly used method of printing to the batik process.

The method requires making a stencil and carefully applying hot wax through the stencil onto cloth. Most patterns created by this method are repetitive and geometric. Before attempting stencil batik read the section on "General Methods for Hot Wax Batik" as stencil batik is a special branch of this general technique. Stencil batik is used in parts of Africa, where stencils are made of metal.

Preparation of Stencils - Materials:

contact paper (clear or gridded is the easiest)
transparent plastic
oak tag (for children)
nail scissors stencil cutter

Procedure:

1. Design a simple design as intricate designs will not be reproducible by stencil techniques.
2. Trace design on contact paper.
3. Cut stencil with sharp tools.
4. Keep unused stencils in between waxed paper, lying flat.

Stencil Batik Materials:

stencil	water	stirring sticks
fabric	brushes	clothesline
wax	dye	stretcher or
tin cans	iron	masking tape
hot plate	rinse and dye containers	newspaper
sauceron	rubber gloves	



Procedure: Follow "General Methods for Hot Wax Batik, page 99, basically.

1. Prepare fabric by washing.
2. Stretch fabric.
3. Choose your stencil design and make your stencil.
4. Draw guidelines, if desired, on your fabric with charcoal to keep your stencil design even.
5. a) If you are using a sticky-backed stencil, peel the back off and adhere stencil to fabric in the desired spot.
b) If you are using oak tag, hold stencil firmly in place while waxing.
6. Wax. For stencils you should be careful not to have too much wax on your brush as it will seep under the stencil. Seepage will also occur if your wax is too hot, or if you work too rapidly. It is wise to practice a few times, at first. Brushing from the stencil itself onto the open fabric with small amounts of wax usually gives a distinct edge. Wax will build upon stencil. Let it cool and chip or peel it off.
7. Repeat your stencil waxing until your design is completed.
8. Place unused stencil between waxed paper.
9. When first waxing is completed, follow procedure for first dye bath; rinse, dye, rinse (refer again to hot wax batik instructions on page 99).
10. Repeat stencil waxing and dye processes until desired end result is achieved.
11. De-wax by scraping, ironing, using solvents or boiling.
12. Rinse the final fabric and hang dry.

Teacher Suggested Extensions: This type of batik can be used in the following areas of study:

1. Africa.
2. Comparison of African stencil batik and American wall stencils.
3. Screen printing process.
4. Roles of men and women in societies.

This type of batik can be used in the following types of projects:

1. Introduction to geometric shapes.
2. Creating repeated designs for fabrics.

Finishing a Batik Piece

The proposed function of your batik will determine the way in which you finish your piece. Fabric that is to be used for clothing will necessarily have to have all of the wax removed; fabric that is to be a wall hanging need not have all the wax removed.

IDEAS FOR FINISHING:

1. For a framed picture batik either a) stretch your fabric over cardboard, taping on reverse side and then cut a matboard or frame for the stretched piece; or b) stretch your fabric over an artist's stretcher (purchased from an art store) or a simple wooden frame. Tack fabric to frame with carpet tacks or staple with a staple gun. Start tacking from the center of opposite sides of the stretcher and work towards the corners. In this way there will be no wrinkles. If you tack the fabric all the way around the back of the stretcher, there will be no need of a frame. Otherwise, a thin frame of molding strips is very effective.
2. For making a wall hanging it is wise to hem the total piece leaving a larger hem at the top, through which to run a dowel or rod. You might want to hem only the top and leave the other edges raw for a more primitive effect.
3. For pillows, you should cut a piece of fabric that is to be the backing. This piece should be the same size as the batiked piece. With right sides together, sew the pieces together leaving about a three inch opening on one side. Turn the pillow right side out and stuff with cotton, polyester, or shredded foam. Hand sew the opening when the pillow is well stuffed. (For very sheer batiks you should sew

- a lining to the batik itself before joining it to a back panel.)
4. For stuffed items, animals, pop-food containers, or anything three-dimensional, it might be wise to make a model from muslin first to make sure all pieces will fit. On your finished batik, sew pieces with right sides together. Complete all seams except one where it seems easiest to put in the stuffing. Again leave at least a three inch opening (larger for a large piece where you might want to use your whole hand for stuffing). Turn the sewn pieces right side out and stuff until desired fullness is achieved. Hand sew the stuffing hole.
 5. For placemats, scarves and table runners. It is sometimes easier to hem these items before they are batiked; if, however, they are batiked first, it is easy to finish these items. Fold an eighth inch hem toward the reverse side of the batik. Seam this with either a machine or with very tiny hand stitches. Fold this hem around the total fabric and then fold the seamed hem itself toward the back of the fabric another eighth to quarter inch. Again sew with machine or by hand. Though it takes more time, hand sewn hems on these types of pieces are much neater and more appealing.
 6. To make clothing for men, women or children. If you are going to make clothing, be sure all of the wax is out of your fabric. There is no special preparation needed to use batik fabric when following a purchased pattern. Merely follow the pattern directions whether they be for a tie, shirt or dress. No pattern is needed to make a simple caftan or dashiki from batiked fabric. Simply fold fabric in half, the fold being across the neck and shoulders. Leave two inches

for a hem. Cut a V or U for the neck hole and roll a hem to keep fabric from fraying. Cut sleeves in, leaving four or five inches extra in the chest area (remember each seam takes one half inch from each piece of fabric). Cut the garment with some flare from the arm pit to the hip, again leaving four or five inches extra at the hip for freedom. When fabric is cut, just reverse the shoulder fold and seam the sides together leaving arm holes, neck and bottom hem open. Then hem all these areas. (See illustration on page 133.) As complicated as this might sound, it is very easy, and children can make their own clothes with only two seams and a neck hole.

7. To make furniture, lamps, curtains, upholstery. Upholstering with batiked fabrics is just like any other upholstery; merely follow directions and be sure that your fabric is strong and durable. Lamp shades can be made by stretching batiked fabric around a metal lampshade frame and hemming the edges together and hemming the fabric to the frame. Light through such a shade is beautiful and looks very much like stained glass.
8. To quilt batiks. You can either quilt a batik on the lines that are created from the dyeing itself or you can cut and sew various batiked pieces together and quilt them in a regular pattern. Either way, your final piece must be lined with either cotton batting or a thin cotton blanket. Then it must be backed with a piece of material that in some way compliments the front of the quilt. All pieces, the batiked piece, the filling and the backing piece should be cut to the same size. They should then be pinned or basted together and quilted (sewn from one side to the other) in whatever pattern

desired. Bias tape can be used to finish the border.

9. Utilizing scraps or cutting batiks for different purposes. You can cut up pieces of batiked fabric and glue them to stationery, you can also cut and hem a batik to fit a window opening and display it much like stained glass, and you can sew together scraps of batiked fabrics to make a patchwork for clothing, tote bags, etc.

There are many ways to use the qualities of batik to create an exciting finished piece. Use some of the above suggestions, then visit craft stores for other ideas, and finally, experiment on your own.

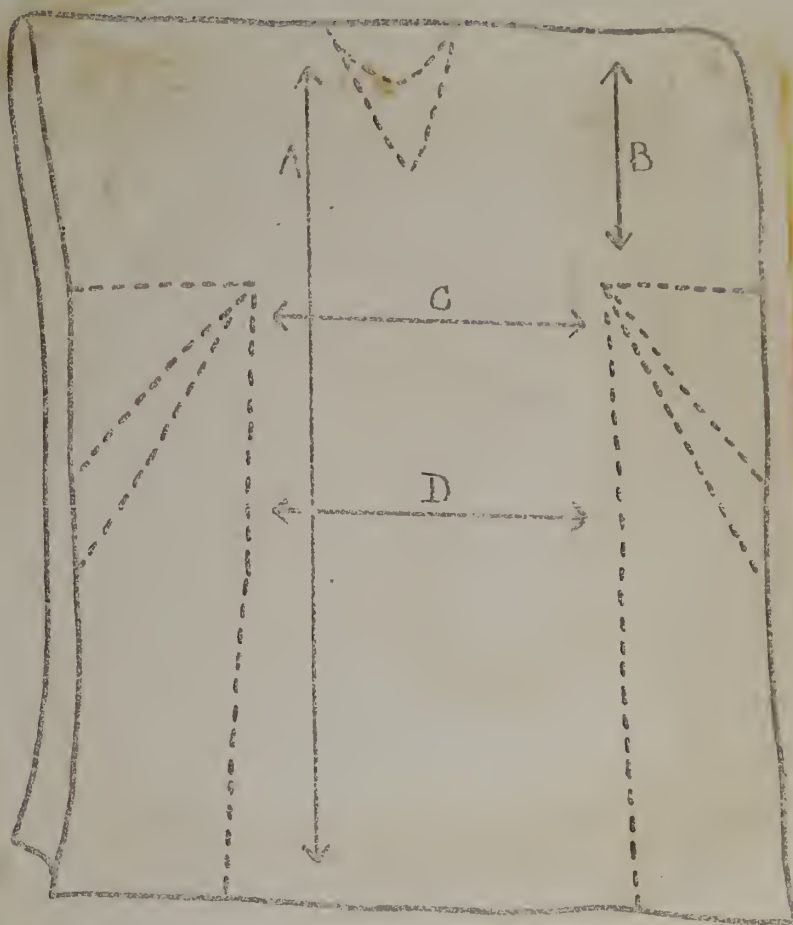
Diagram for Caftan or Dashiki Construction

Cut "U" or "V" neck so material slips over head easily.

Fold

Selvage

Cut straight or winged sleeves.



- A. Length from shoulder to desired length plus two inches for hem.
- B. Underarm length at least that from the shoulder to underarm plus four inches.
- C. One half full chest measurement plus four inches.
- D. One half hip measurement plus four inches.

Cautions and Helpful Ideas

- FABRIC:** Synthetic fabrics will not take most dyes.
 Unprepared (unwashed) fabrics will not dye evenly.
 Keep fabric taut while waxing, or wrinkles will show.
 Keep fabric off table while waxing. Otherwise, the wax will go through the fabric and adhere to table or pick up newspaper print, etc.
 Draw design on fabric with charcoal. The charcoal washes out.
- WAX AND WAXING:** Clear wax will penetrate cloth. Milky wax will not.
WAX THAT IS TOO HOT WILL CATCH ON FIRE (don't let the wax smoke).
 Wax will not take to wet or damp fabric.
 Hot wax or waxy water will clog drains. **DO NOT PUT WAX DOWN THE DRAIN!**
 Never heat wax on direct heat.
 Wax that is too hot will bleed through the fabric and cause fuzzy lines.
- TOOLS:** A cool tjanting tool will clog with wax.
 Use waxy crayons rather than pressed crayons.
 Wear synthetic aprons or clothing as splattered dye will stain natural fabrics.
 Use only plastic tubs for dyes; metal tubs can cause chemical reactions with the dyes.
- DYES:** Insufficient dye amounts will cause irregular dyeing.
 Use cold water dyes for wax batiks.
 Aniline dyes cannot be boiled, and so wax must be removed by alternative methods.
 Boil precion pieces to remove wax. Boil less than five minutes as longer boiling will change dyes.

Suggestions for teachers of children:

Work in small groups when possible. Working round-robin, that is having a group wax and then dye and having another group wax while the first is dyeing seems to work out very well. This way you, as a teacher, can work more extensively with each child while waxing, and there will be less chance for accidents.

An Example of Curriculum Use of Batik

in Sixth Grade Social Studies

Because there has been concern about how one would integrate a batik project into a classroom unit, teachers have found it helpful to read the following supplement to a social studies unit on Indonesia. It is in no way attempting to be innovative. It is, however, an example of one teacher's approach to arts integration using the prescribed curriculum and texts of the New Bedford, Massachusetts, school system.

Unit: Indonesia, a two week unit.

- Goals:
- to develop familiarity with the geography of Indonesia.
 - to become familiar with the political system.
 - to become familiar with the resources.
 - to learn about the social structure of the country.
 - to learn about the economics of the country.
 - to become familiar with vocabulary:

East Indies	kapok
purges	quinine
subsistence farming	Moslems
plantations	malaria
cobra	hemp
Tagalog	tjanting
spices	cinchona bark
batik	tjap

- Resources: 1. Readings: basic text
 DeVorsey, Louis; Hodgkins, Jordan; and Lyons, Marion.
Europe and Asia: Lands, People and Cultures of the World. New York: W.H. Sadlier, Inc., 1970.

Supplementary texts made available to students.

Exploring Regions of the Eastern Hemisphere.
 New York, Follett, 1969.

Exploring Regions Near and Far. New York: Follett,
 1969.

People and Resources of the Earth. New York: Harper
 and Row, 1964.

Regions Around the World. Field Educational Publi-
 cations, 1972.

Ways of Man. New York: Macmillan Press, 1971.

2. Music from Indonesia: available through
 Folkways Records
 701 Seventh Avenue
 New York, New York
 10036

3. Filmstrips: Living in Indonesia and the Phillipines*
East Indies*
Indonesia - Village and City Life*
Indonesia - Products, Customs and Arts*
4. Topics for discussion: climate
geography
economics
clothing
social structure
natural resources
cities
5. Open-ended questions:
What would it be like to be a child in Indonesia?
How are you similar to someone living in Indonesia?
How are you and someone from Indonesia different?
What kinds of questions would you want to ask someone from Indonesia?
6. Talk by Indonesian visitor.
7. Projects on Indonesia:
 - a. Writing a story about Indonesia.
 - b. Experiencing batik.
 - c. Preparing a group map of Indonesia including cities, resources, typography, products, climate, etc.

Evaluation Procedure:

1. Children will present and discuss projects.
2. Quiz will be given on material covered in unit, including paragraph on batik.
3. Teacher will observe children's ability to follow directions and ability to cooperate.
4. Teacher will observe children's level of involvement and level of enjoyment.

*All available from Scott Education Series, Lower Westfield Road, Holyoke, Massachusetts.

Batik Lesson Plans for Indonesia Unit

Many teachers have found it helpful to refer to a lesson plan, such as the one that follows, to help them prepare and organize a project in their own classrooms. The following plan was used in conjunction with the preceding Sixth Grade Unit on Indonesia.

Objectives:

- to learn to identify different types of batik.
- to become familiar with batik tools.
- to learn about the properties of wax.
- to learn how to mix dyes.
- to learn about the process of dyeing.
- to learn about the role batik plays in the social and economic structures of Indonesia.
- to have a creative and enjoyable experience.

Methods: First week

1. Readings from books listed in the bibliography.
2. Collection of materials for batik projects:

Materials to be brought in by children:

- old white sheets and cotton fabric
- newspapers
- tuna cans
- waxy crayons
- candles
- pipecleaners
- matchboxes

Materials to be brought in by teacher:

- three plastic tubs
- cold water dye
- stirring sticks
- hot plate
- saucepan
- masking tape
- old paint brushes
- wax
- pipecleaners
- newspapers

First day of project. Half hour.

1. Discussion of importance of batik in Indonesian society.
2. Presentation of various batik articles and batik tools.
3. Discussion of different types of batik.
4. Assignment for children to create stamp design at home for class.

Second day of project. Two hours.

1. Demonstration by teacher of stamp batik process.
2. Stamp batik project.

- a. Divide class into groups of seven.
- b. Place newspaper under waxing area.
- c. Follow method for hot wax batik.
- d. Have first group make shapes out of pipecleaners. They may follow their designs or improvise. Make sure that stamps have a flat surface to contact fabric.
- e. Dip pipecleaner stamps into melted wax.
It is hot!
- f. Scrape off excess wax and stamp onto fabric.
- g. Stamp in rows, patterns, etc.
- h. When the first group is finished, they should thoroughly rinse their fabric.
- i. Teacher will then demonstrate how the dye is mixed.
- j. Group one places dampened, stamped fabric into dye bath.
- k. At this time group two begins to print their fabrics.
- l. Continue this process of group waxing and dyeing until all children have completed a stamped fabric piece.
- m. Remove fabric from dye according to time required.
- n. Rinse dyed fabrics and lay them on newspapers to dry.
- o. Groups not working directly on batik project can be reading or working on other related projects in the Indonesia Unit.

Third Day. Half hour.

1. Demonstration of technique of ironing out wax so children or parents can finish the process at home.
2. Distribution of handouts on how to iron out wax.
3. Discussion of project. Suggested ideas for discussion:
 - What did you do?
 - What effect did the wax have upon the fabric and dye?
 - How did you make your stamp?
 - Did you have any problems?
 - What kind of stamps did you make? Why?
 - What can you do with what you have made?
 - Why did you use cold dyes?
 - Why do you think the Indonesians use stamps for printing?
 - How would you make a design that had two dye colors?
 - Are there any other kinds of batik you would like to try?
 - How long do you think it would take you to make material for clothing like the Indonesians make?

Evaluation Procedure:

1. Observation of cooperation between children.
2. Observation of children's ability to follow directions.
3. Observation of the intensity of children's involvement with project.
4. Quiz on the unit including a paragraph in which the children will write about what they learned about the batik process and what they liked and disliked about the project.

Teacher Suggested Project Ideas

Many classroom teachers in the New Bedford, Massachusetts, public schools have successfully used batik projects. Some projects were directly related to basic curriculum while others grew from student and teacher interest. The following project examples were based on the batik methods presented in this text.

Projects:

Batik Panorama Map: grade six; "We made a crayon batik map for our social studies unit on Indonesia. On this map the children outlined and crayoned land masses, cities, resources, etc. We painted land areas green and water blue. The crayon colors were then ironed into the fabric, a white sheet. Each child signed his name on the border. The project took two weeks."

Name-Batik Quilt: grade two; "The children are learning both how to print and write their names. We decided to make a quilt using their names and the batik method. Each child crayoned his or her name on twelve-inch square pieces of fabric. (We used light blue and light yellow and white cotton.) On one piece of fabric the child printed his name. On another he wrote his name. On a third he made a crayon self portrait. We made dyes from dandelions and birch bark and dyed the self portraits, which were on the white fabric. I then ironed in the crayon colors and sewed the pieces together."

Batik Pillow Cases: pre-school; "The children brought in cotton pillow cases from home. Each child drew a picture or design on the fabric with crayon. We worked in groups of four. This way I could make sure that each child was crayoning heavy enough, and I could help each child when I was needed. The children helped me mix up the dyes. We dyed the pillow cases, and I ironed out the excess crayon wax. This project took two days though it could easily have been completed in one."

Colors: grade six; "We as a class were beginning to study color, colors of light and pigments. We had previously studied how the early colonists made dyes, etc., and so we decided to try to make our own dyes. I took out a few simple books from the library and

then gathered a variety of weeds and flowers and barks that were good for dyeing. Our first dyes were rather dull and we merely dyed plain pieces of cotton. We then began to tie-dye cotton. We then experimented with combining colors. Most natural dyes were very dull and so we switched to procion dyes. We used red, yellow and blue and experimented with making as many colors as possible out of these primaries. Each child set up his own project using the primaries to create other colors. As we were experimenting with these dyes, I introduced painting and tjanting batik to the students for our next social studies unit was on Indonesia. The students were anxious to do some batik. I was a little nervous about the hot wax. Working in small groups we successfully made batik cloth sarongs and dyed them in our own favorite dyes."

Stamp Batik Clothing: grade four; "The stamp batik project we undertook was both easy and exciting for my class. I wanted the class to be involved with creating, measuring and making something personal while also learning about other peoples and breaking down some of the boy-girl differences that are beginning to form. Each child brought in an old sheet from which he or she was going to make a caftan or dashiki. Each of us made stamps from pipe cleaners. We printed our fabrics with wax and then dyed them in an orange dye. We then stamped our fabrics again with wax. Some children made many stamps and stamped out their names. Others used the same stamp over and over. Some traded stamps. After the second stamping we dyed our fabrics in red. When our fabrics were dry the children helped each other measure themselves for the width and length of the garment. Often the children merely folded the fabric at the shoulder seam and lay on the fabric. Another child would trace around them leaving about five inches on each side. We cut our fabric and sewed our two side seams by hand. All of the children were delighted at the results." (A similar project was undertaken by an eighth grade home economics class.)

Pysanki: grade two; "At Easter time my class made pysanki or colored Easter Eggs. I showed the class pictures of Ukrainian eggs and talked about the meaning of the symbols on the eggs. Using colored crayons each child drew designs on an egg that we had hollowed out by blowing. When our designs were complete we dyed the eggs and then using thin wire we made an Easter egg tree."

- Paper Batik Stained Glass Windows:** grade five; "Using fine rice paper and waxy crayons, my class created a stained glass window in sections that was eventually four feet by eight feet in size. As a group they decided upon a design and then enlarged the design onto paper with an overhead projector. Each child had one or two panels to work on. We used a combination of painted crayon and regular crayon batik. Working together, deciding on colors, etc. the children completed the total drawing in two days. We lightly painted the paper with pastel inks and then taped the sections together and used thin strips of black paper to give a paneled window effect."
- Texture Rubbings:** grade three; "Over the school year we worked with texture rubbings of different environments. Sometimes using the flat sides of crayons and sometimes using candles, we made a group of rubbings of textures in our homes, textures in our schools and textures in nature. We went to the park and did rubbings of various tree barks and leaves. We used the batik method of washing over the rubbings with ink to make it stand out. At the end of the year, each child had a booklet of rubbings. The rubbings themselves were used as illustrations for stories the children wrote."
- Batik Puppets:** grade six; "In our study of Indonesia we took time to look at the Javanese stick puppets. These batik puppets are quite easy to make with paper batik. Breaking into groups of seven, my class made puppets and then created a play involving the puppets they made. Each play dealt with the differences and similarities between cultures. One child even made a President-Nixon-batik puppet."
- Batik Hangings:** grade ten; "One student in my home economics class created a large batik hanging of atomic weights for the chemistry classroom. The project took well over a month but was beautiful and definitely welcomed."
- grade six; "Each child in my class made his own painted batik hanging. I have a large class and we took three days to complete the project. Each child brought in material, outlined a design and chose colors to work with. In small groups we painted with colored wax. When all pieces were waxed we dyed the pieces red. We let the fabric dry overnight and then ironed in the colors. Each piece was hung from a dowel. Designs included stars, bells, angels and even Snoopy."

grade two; "We made an alphabet hanging. Each child had a square of fabric on which he or she made a capital and small letter. Each child had a different letter of course. The letters were drawn with crayons and then each piece was dyed in one of three dyes I had made up. I ironed and sewed the pieces together and we hung our banner on the wall."

Other successful batik projects include:

Batik Map of Discoverers: grade five.

Batik Book Bags: grade two.

Batik Cloth Story Books: Junior High.

Batik Self Banners: Junior High.

Stuffed Batik Pillows: grade three, "for our reading area."

Sources of Materials

Although batik as an art form is not well known in our country, materials used in batik are easily accessible and are within most budgetary means. Most materials can be found in community stores or may be ordered from distributors. This partial listing of stores and distributors is presented as a helpful guide to available batik materials.

Fabric: Natural fabrics such as cotton, wool, silk, linen may be found in fabric stores or most department stores with fabric departments.

Wax: Batik wax: Many art stores or listed distributors carry this kind of wax.
 Paraffin: Art stores, grocery stores, and hardware stores will have this product.
 Beeswax: Bee keepers, hardware stores (rarely), and marine supply stores sometimes carry beeswax. (Beeswax is difficult to find and expensive).

Tools: Tools are available from most art stores and from distributors listed.

Dyes: Rit and Tintex Hot Water Dyes. Most five and ten cent stores, grocery stores, and some drug stores carry these. Aniline and Procion Dyes are available at art stores and from listed distributors.

Brands and Distributors:

1. Aiko Art Materials
714 N. Wabash Ave.
Chicago, Ill. 60611 - dyes, tjanting, wax, paste
2. Aljo Manufacturing Co., Inc.
116 Prince St.
New York, N.Y. 10012 - dyes, thickeners, tjanting, wax
3. Batik Formula Dye
American Reedcraft Corporation
- dyes and dye paste
4. Bati Kit
Rub'n Buff
Indianapolis, Indiana 46268 - dyes, dye paste, colored waxes

5. Glen Black
1414 Grant Ave.
San Francisco, Calif. 94133 - dyes, wax, tjanting
6. Dick Blick Art Materials
P.O. Box 1267
Galesburg, Ill. 61401 - dyes, wax, tjanting
7. Arthur Brown and Brothers Inc.
2 West 46th Street
New York, New York 10036 - dyes, wax, tools
8. CCM - Arts & Crafts, Inc.
9520 Baltimore Ave.
College Park, Md. 20740 - dyes, wax, tjanting
9. Craft Kaleidoscope
6412 Ferguson Street
Indianapolis, Ind. 46220 - dyes, wax, tjanting
10. Crafttools Inc.
1 Industrial Avenue
Woodridge, New Jersey - dyes and tools
11. W. Cushing and Co.
North Street
Kennebunkport, Me. 04046 - dyes, wax, tjanting
12. Dadant and Sons, Inc.
Hamilton, Ill. 62341 - beeswax
13. Dharma Trading Co.
1952 University Ave.
Berkeley, Calif. 94701 - dyes, waxes, tjanting
14. Dylon Cold Water Dyes
local art stores
15. Farquhar International Ltd.
939 Dillingham Rd.
Pickering, Ontario
Canada L1W 1Z7 - dyes, tools
16. Fezandie and Sperile Inc.
103 Lafayette Street
New York, N.Y. - dyes, tools
17. Fibrec
2815 18th Street
San Francisco, Calif. 94110 - dyes, waxes, tjanting

18. F. C. Larson Co., Inc.
7330 N. Clark Street
Chicago, Ill. 60626 - dyes, tjanting, wax
19. LeJeune-Inc.
Sunnyvale, Calif. 94086 - dyes, wax, paste
20. Magnus Craft
109 Lafayette St.
New York, N.Y. 10013 - wax, tjanting
21. Polyproducts Corporation
13810 Nelson Avenue
Detroit, Mich. 48227 - general batik supplies
22. Putnam Dyes
Quincy, Ill. 62301 - dyes
23. RIT
Best Foods Division CPC International
1137 W. Morris Street
Indianapolis, Ind. 46206 - dyes
24. Sax Arts and Crafts
207 N. Milwaukee
Milwaukee, Wis. 53202 - batik supplies and dyes
25. Test Fabrics Inc.
P.O. Box 53
200 Blackford Ave.
Middlesex, N.J. 08846 - unsized fabric
26. Lee Ward
840 N. State
Elgin, Ill. 60120 - wax, cotton

Local community stores and the products they may carry:

ART STORE

tempera paint
rubber cement
masking papers
masking tape
matte board
brushes
tjanting tools
rice papers
cold water dyes
stretchers
bamboo pens

GROCERY OR HARDWARE STORE

egg dye
hot water dyes
vinegar
tubs
masking papers
masking tape
candles
calgon
keldex
urea
sitol flakes

heavy clear plastic
wax
charcoal

5 and 10

stamps
stamping pad
hot water dyes
candles
tubs
fabric
brushes

cleaning fluid
muffin tins
cork
contact paper
nuts and bolts
wide brushes

Some Galleries, Museums and Shops

that Carry or Show Batik

- Alabama: Mobile Art Gallery, Mobile
Ferguson Center Gallery, Tuscaloosa
- Arizona: Heard Museum, Phoenix
- California: Art Fabrics, Los Angeles
Jubilee, Sherman Oaks
Mills College Art Gallery, Oakland
Berkeley Civic Center, Berkeley
Crocker Art Gallery, Sacramento
Lan Art Galleries, Claremont
- Colorado: Lower Eastside Gallery, Aspen
- Connecticut: Brookfield Crafts Center, Brookfield
The Elements, Greenwich
Silvermine Guild of Artists, New Canaan
Farmington Valley Art Center, Avon
- Delaware: Delaware Art Museum, Wilmington
- Florida: Lowe Art Museum, Coral Gables
Pensacola Art Center, Pensacola
- Illinois: The Field Museum, Chicago
The Chicago Art Institute, Chicago
- Indiana: Evansville Museum of Arts and Science, Evansville
- Iowa: Charles MacNider Museum, Mason City
The Octagon, Ames
Waterloo Art Center, Waterloo
- Kansas: Workshop 803, Lawrence
- Louisiana: Masur Museum of Art, Monroe
Louisiana Crafts Council, New Orleans
- Maine: Plum Dandy, Wells
Red Hedgehog, Ogonquit
- Massachusetts: Museum of Fine Arts, Boston
Fogg Museum, Cambridge
The Crafts Center, Worcester
Skera, Hadley
Leverett Craftsman, Leverett
The Dream Merchant, Provincetown
- Michigan: Cranbrook Academy of Art, Bloomfield Hills
Lantern Gallery, Ann Arbor
- Minnesota: The Tweed Museum of Art, Duluth
- Missouri: Craft Alliance Gallery, St. Louis
- Nebraska: Sheldon Memorial Art Museum, Lincoln
Old Market Craftsmens Guild, Omaha
- Nevada: Las Vegas Art Museum, Las Vegas
- New Hampshire: New Hampshire League of Craftsmen, Nashua, Concord, and
Manchester
- New Jersey: The Montclair Art Museum, Montclair
Beautiful Things, Scotch Plains
Summit Art Center, Summit
Lillian Kornbluth Gallery, Fairlawn

New Mexico: Museum of New Mexico, Santa Fe
 Hill's Gallery, Santa Fe
 Clay and Fiber Gallery, Taos

New York: Pot-pourri, Florida
 Firehouse Gallery, Garden City
 Carborundum Museum, Niagra Falls
 Art Gallery, Plattsburg
 Harthorn Gallery, Saratoga Springs
 Gallery 656, Buffalo
 Craftsmen Gallery, Scarsdale
 Visual Arts Gallery, Stone Ridge
 Suffolk Museum, Stonybrook
 The Brooklyn Museum, Brooklyn
 The Queens Museum, Flushing
 The Living Workshop, Larchmont
 Museum of Contemporary Crafts, New York City
 Art Weave Textile Gallery, New York City
 A Show of Hands, New York City
 American Crafts Council, New York City
 The American Museum of Natural History, New York City
 SoHo Craftsmen Gallery, New York City
 Metropolitan Museum of Art, New York City

North Carolina: New Morning Gallery, Asheville

Ohio: Akron Art Institute, Akron
 Cleveland Institute of Art, Cleveland
 Egner Fine Arts Gallery, Findley
 Gallery One, Findley
 Columbus Gallery of Fine Arts, Columbus
 The Green Apple, Cincinnati

Oklahoma: Oklahoma Art Center, Oklahoma City

Oregon: Hoffman Gallery, Portland
 Contemporary Crafts Gallery, Portland

Pennsylvania: Allentown Art Museum, Allentown
 Woodmere Art Gallery, Philadelphia
 Community Arts Center, Wallingford
 Sheradin Art Gallery, Kutztown
 The Works, Philadelphia

Rhode Island: Providence Civic Center, Providence
 Westerly Library, Westerly
 Cooper Gallery, Newport

Tennessee: Hunter Museum of Art, Chattanooga
 Tusculum College, Greenville

Texas: Michener Gallery, Austin
 Blaffer Gallery, Houston
 Southwest Crafts Center Gallery, San Antonio

Virginia: Handworkshop, Richmond

Washington: Carnegie Center Inc., Walla Walla
 Tacoma Art Museum, Tacoma

Washington D.C.: Smithsonian Institution

Wisconsin: Eluehjeun Art Center, Madison

Wyoming: Fine Arts Center, Rock Springs

England: Electrum Gallery, London
Commonwealth Institute, London
Nova Scotia: Mount St. Vincent University Gallery, Halifax

This is only a brief listing of places to view batik. There are numerous other galleries, shops and museums that carry batik within driving distance of most communities.

Interviews and Comments of Batik Artists

Most batik artists are excited about their work and anxious to share their excitement and enthusiasms with others. Some people stumbled across the batik process while others were involved with arts their whole life. Taped interviews and ongoing dialogues through the mail gave me insights as to the wonderment such artists hold for batik. In hopes of sharing this enthusiasm and wonderment portions of these interviews follow.

Marjorie Puryear: Weaver, Textile Artist

"All my life I have been interested in textiles I went to the Chicago Art Institute in Textile Design and then on to Indiana University in Textile Design. I began to experiment with batik in Chicago. Chicago's many museums have some of the most beautiful examples of batik in the world. Initially I was so influenced by these designs from original Indonesian batik that I did very little of my own designing. I began to experiment with bleaching, home made dyes, silks, etc. I now prefer to work with aniline dyes because they have an earthy feel and are very subtle in their color changes. I work on silk almost exclusively because of its dyeing properties. My work has grown from simple scarfs to large stuffed hangings and triptychs. I love making silk yardage, but since I use a minimum of four dyes, the process takes a great deal of time. Presently I am working on commissioned pieces for Bristol Community College."

Marion Eckardt: Potter, Batik Artist and Art Educator

"I guess I first became interested in batik about eight years ago after seeing an exhibit of Javanese batik. I did a lot of research and read as much as I possibly could on the subject area. I experimented with different kinds of batik, but at that time there were not very many batik artists practicing in the country. Those who were practicing were not fully recognized as artists. My knowledge of batik came in hit and miss fashion through experimentation.

"I am a director of arts for a public school system, and with the number of years I had in the system I decided to take a sabbatical and go to Indonesia to do further research on batik. I was hoping to write a book on the art form, its history, and its present practices. I spent a year in various parts of Indonesia, interviewing artists, living with artists' families, talking with those involved with the government's research institute for batik. In Java the government runs a Batik Research Institute where national artists and craft persons study and work on both traditional and contemporary batik designs. The Javanese have a great deal of pride in their work, although most is not done for strictly artistic purposes. Most work is commercial, and it is for sale and export. Originally most Indonesian batik was done with a tjanting tool, often with three spouts for thin parallel lines. Today tjap batik or stamp

batik is the most common form of batik to be found. I prefer the tjanting batik because it is more fluid and intricate. It is interesting that the Javanese still stay close to traditional patterns--birds, leaves, etc., and color--indigo and sago brown. Their sensitivity to color is very subtle and though they use modern dyes and dyeing techniques, their work has the same qualities as works from hundreds of years ago. Modern artists, especially younger artists, are beginning to favor bright colors. During my stay in Indonesia I collected all sorts of tools and fabric samples. (Ms. Eckardt took me on a tour of her collection which included scarves, paintings, sarongs, umbrellas, purses, hangings and incredible Indonesian and Indian tools.) I had gathered lots of information as to designs, waxing techniques and dyeing techniques, and then I decided to go to India and compare Indian batik with that of Indonesia.

"I must admit that I find Indian batik much more lively than Indonesian. The drawing is done with a tool made of balled human hair. Wax is almost always applied to cloth with this type of tjanting tool. Very little stamp batik is done though regular printed fabric is a major product of India. Themes found in Indian batik are very representational. Most batiks are made for hanging and in some way tell a story, usually religious. Rather than working with subtle and dull colors like those used in Indonesia, the Indians prefer bright colors, oranges, blues, reds. I collected many batik articles and recorded Indian batik techniques.

"When I returned to the States, I began to work with tjanting batik. Experimenting with commercial dyes, I found that the aniline dyes were the most like those I had seen in Indonesia. I work almost exclusively on cotton though some of my students work on silk. The first year I was back, I brought a number of batik artists to this country to give demonstrations. They were warmly received and shared a lot of technical information which I had not collected.

"In my own eyes I am not a batik artist, a potter maybe, but a batik artist no. I don't really know the material yet. I firmly believe that the Indian batik artists are the best expressively while the Indonesians are the best technicians. I do hope to go back to study more about batik, but right now I am working on my own batik material and teaching batik methods in public high schools in the area.

"My book? Oh, the publishers that had said they were interested hired someone else to write a book on batik just before my return. I am not really a writer anyway."

Lauren Proctor: Artist and Student.

"I have always done some sort of art work all my life, and I first became interested in Pysanki after seeing an article on the Ukrainians and decorated Easter eggs. I really haven't become interested in other forms of batik, but, who knows, I might get involved some day.

"Pysanki is a most beautiful and traditional art form. After reading a National Geographic article and looking at pictures on the Time-Life cooking series and covers, I was anxious to try my skills at this art form. Although the forms used on the Ukrainian eggs are all of religious significance, the forms I use are more for decorative purposes. I also do not use the traditional "kistka," or writing tool. I use a crow quill pen instead. Although I do not get absolutely perfect lines, I find this tool easier to handle and to heat to keep the wax melted. I do use the "kistka" for filling in large areas of wax. For an absolutely smooth and even line, exact measuring of wax is necessary, but I have found that I can approximate my proportions and do very well. The original dyes used for Pysanki are poisonous and the uncooked eggs that are used cannot be eaten because of the toxicity of the dyes. I use food coloring dyes and hollow out the eggs. This way I can use the food part of the eggs. If I want to hard boil the eggs, the dye will not affect the food value. Hard boiled eggs are harder to dye because boiling does change the surface of the egg. Another interesting difference in my technique of pysanki is that I only use beeswax. Many people use combinations of waxes, but I have found beeswax to be the most easily and even applied wax.

"What do I do with the eggs when they are finished? I mostly give them away. I really feel I am a student of the art at the moment. I have sold a few of my eggs, but most of my income comes from other art work. Presently I am most interested in studying more about the history of pysanki, its designs and ritualistic use. This will hopefully give me a feel of the art, and from there I can create designs in keeping with the purpose of the art form."

Carol Law: Batik Artist

"My work in batik started years ago with experimentations with wax and dye after seeing some batiks. I guess I am like most American batik artists in that I wasn't really trained in batik. I am a visual artist who is now focusing on color and fabric. I worked on my own, discovering dye outlets, material wholesalers, etc. I knew almost immediately that I wanted to make my living doing batik. I studied with whomever was teaching batik in my area. Some people were excellent; others were struggling just as I was. I wanted control, the ability to create forms exactly as I wanted them. Control of fluid wax is very difficult. I am a representational artist, and most of my works are identifiable. I wanted to be able to use the batik technique to bring a rich and fantasy feeling to the real world I see. Devoting most of my days to batik and whatever spare time I had to earning money, I slowly became adept at tjanting batik. Only constant work seemed to help my technique. I just cannot read and learn. I must do. I began to sell works. One person would see something and then want to order a piece. I soon began to work on commission and sold to local arts stores. A friend, Sandy Cofflan, and myself decided to give the "batik

business" a try. We opened a shop, the Dream Merchant, in Provincetown on the Cape. Here we sold batik works and other art work during the summer months. In the winter we would work producing new pieces and having shows at different galleries in the Northeast. Although we are not rich by any means, we have been doing a good business and are hoping to open another store in western Massachusetts.

"In my own batik work I prefer using cotton because it is not particularly expensive. I usually stick with procion cold water dyes as they give me a wide range of colors with which to create. I rarely if ever do any stamp batik. I am a drawer, a tjanting batik artist. I sometimes paint with wax. Almost all of my work is in the form of hangings. I have made some material and practical types of items, but hangings are the best way for me to express my visions."

Sandy Cofflan: Batik Artist

"I guess I first became involved with batik when we first worked together. (Sandy and I were counselors together.) Our workshops in the arts and crafts for others were probably the beginning of my interest in crafts. I was always interested in painting and photography. I was, and am still, always searching for ways to express my feelings. My first batik experience was that hit and miss pleying with wax and dye one evening. I believe it was really a painting with wax and then a tie-dye dipping in different dyes. I have to admit I really liked the results yet I went back to photography and painting for about a year. I then moved to Rockport and met a batik artist. I became excited about batik again and began to study and work as an apprentice in batik. My work was clumsy at first. I think everybody's work is clumsy at first. Batik is a very difficult technique to master. One has to "go with the flow" because so many things can happen during the process. I was working in Rockport, doing batik and helping run the store. I began to show my work, mostly realistic work on cottons and silks. Response to my work was very good, and I decided to try to open a store of arts and batik with a friend. This store, on the Cape, has been doing well. Because the best business is done in the summer, this leaves the winter to work intensively on new pieces. I really enjoy batik, tjanting and painting on silk. Silk is magic in the way it takes color. I prefer procion dyes because of their richness and their versatility. Often people prefer aniline dyes because they seem more "authentic," but I am not trying to produce "authentic," traditional batiks, but rather beautiful, descriptive visual pieces. For my purposes, procion dyes are the best.

"I really don't know how long I will work in the field of batik. I am often anxious to try other art forms, but I am also aware that I need to perfect my techniques in batik. Looking over the types of batik I have seen, I am inspired by the delicacy of the Indonesian

work, and I probably have stolen some ideas from them. Most of my ideas, however, come from my own fantasies and dreams. I try not to paint for the public, not that I am not painting for the public, but I am trying to honestly express ideas in a medium I love. The public seems to respond to these ideas.

"It is also important to know that this art is an integral part of my life. It reflects my dreams and is also a gift to others. This is one way I feel close to those artists in Indonesia, where the art form is a part of the everyday life. In this country art often gets separated from our lives. I try to have my art reflect my life and to have my life always conscious of art."

Laura Danziger: Artist, Radio DJ, Mother

"Ah, batik! About two years ago I was busily occupied as an apprentice to a silversmith, loving every minute of it. I was very excited about working with metal and designing jewelry. I was extremely enthused about what I was doing, feeling I had found my "niche." Right in the middle of all this "knowing," I came home one night to find my roommate doing a batik. If I remember it correctly, it was a head of Buddha. For the next few days I just quietly observed what she was doing and the excitement she felt about it. We spent many long hours discussing the merits of our newly discovered pastimes, deciding that our individual attractions to the hard vs. the soft medium were due to the differences in our personalities, etc. We had it all figured out.

"What was really happening the whole time was that I was beginning to think about working with colors, fabrics and designs. Finally I had to try batik. My first batik was a Zuni Indian motif on cotton muslin. The colors were faded and not at all what I had intended them to be. The bathroom was a glorious mixture of maroon, apricot and brown, as were my hands, forearms, and feet. But I was hooked. The second batik was more disastrous than the first, but I forged on.

"About four weeks later, Holly, my roommate, and I were batiking about seven hours a day. You couldn't tell if our apartment was a home or a studio, diapers, drawings, paint, dyes and toys, everywhere. I think about a tenth of the kitchen was given over to food. The rest of the house was given over to batik.

"We started taking our stuff to various shops. We were timid at first, but the first store bought two of my batiks for one hundred dollars a piece so I was quickly encouraged. We then spent the rest of the spring working and selling to stores and showing at crafts shows.

"Since then my batiking has been in some ways unpredictable. Often I do a lot of work, and other times my ideas are not really good enough to follow up.

"I almost always use cotton batiste, beeswax and paraffin, and procion dyes. I am presently ready for new dyes and fabric. Looking for new horizons altogether, I hope to do more work in mixed mediums--acrylic and batik, needlework and batik, stuffed batik. I usually apply wax with a variety of brushes. I hardly ever use a tjanting tool.

"Inspiration? I usually do whatever pops into my head. These ideas are often complex and take time to figure out which procedure makes the most sense to get the desired result. I often use American Indian designs. I like the way they look and feel. Sometimes a picture or a scene will generate an idea for a batik. Each of my works is very different and individual. I don't usually work in series.

"As I continue to work and show, I am constantly searching for new ideas and for artists to share ideas with. You once asked why there are so many women batik artists. I have no answer, yet some of the finest work I have ever seen was done by an old man in Java. Maybe men in this country have not been able to express their artistic talents in fabric and crafts yet. In other countries where the art form is well accepted there are many more men artists than women. I think America has a long way to go."

Concluding Statement

Working with batik has brought many hours of pleasures, new discoveries, new friendships, beautiful projects and joyous expressions of growth to me and to others with whom I have worked. The ideas and enthusiasm shared in this handbook will hopefully inspire the reader to explore the process and other similar arts processes.

My thanks and greatest appreciation go to all those teachers, students and artists who worked with me in developing this handbook-- adding ideas, sharing discoveries and sharing their personal enthusiasm and support for the project. Their dedication and spirit have been a joy to me, a joy that I have attempted to share with the reader. It is, however, very difficult to use the written word to fully capture the spirit of enthusiasm for participation in a batik process. Batik is in some ways such a visual art form--the projects themselves, the faces of those participating--that if more illustrations were possible, I would have anxiously included them.

For one to truly "know" the batik process, one must "experience" the process. This handbook can be a helpful guide to that experience. Again, I invite the reader to read, to gather equipment, friends and students and to participate in an exciting and fulfilling creative experience.

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CHAPTER V

CONCLUSION

Living is a process: from before birth, through birth, through the sequential human developmental stages, to death and maybe even beyond. Humans thrown into this process find little constancy because facts quickly change and internal and external situations are always in flux. The only thing that appears to be constant is change itself. Thus, to function fully in this world, to be as Maslow has said, "fully human," individuals must be "comfortable with change" and confident with "their ability to improvise."¹⁰¹ If our education system is concerned with the development and survival of a healthy society, it must then help foster the development of these "fully human" individuals.

Other areas of learning must be added to that which our education systems normally address. Man's abilities to perceive, to communicate, to know, to love, to pattern, to take risks, to create and to value are processes that need to be recognized and fostered.¹⁰² The development of a positive self-concept cannot be ignored.

One subject area through which all these processes can be addressed is the creative arts. The arts are human beings' vehicle for self expression. They "intensify and clarify human experience."¹⁰³ They

¹⁰¹Maslow, The Farther Reaches of Human Nature, pp. 28-59.

¹⁰²Berman, The Humanities and the Curriculum.

¹⁰³Pennsylvania Dept. of Education, Arts Process, p. 6.

can be, according to Maslow,¹⁰⁴ Rogers,¹⁰⁵ Montgomery¹⁰⁶ and others a vital force in the development of a healthy human being. And within our education system they can offer a "highly integrated structure for learning."¹⁰⁷

If our education systems hope to address larger humanistic and creative concerns, then our teachers must be trained (or retrained) in these areas. Effectiveness in any field comes with confidence. Because teachers, too often, are not confident in their own creative abilities, this lack of confidence is reflected in their teaching.

It has been documented that the effectiveness of in-service training for teachers in the arts is dependent upon a resource person who works with classroom teachers, helping them develop ideas, gather resources, and try out new ideas. The most significant characteristic of that resource person is his or her "ability to instill enthusiasm and confidence."¹⁰⁸ And indeed, one possible solution to large scale in-service staff development in the arts would be to train available resource people to work with classroom teachers as they begin to plan more creative artistic experiences for their students.

But even that resource person needs inviting books to put into the hands of teachers. If an arts text can be created to convey

¹⁰⁴Maslow, The Farther Reaches of Human Nature, pp. 43-53.

¹⁰⁵Rogers, Freedom to Learn.

¹⁰⁶Montgomery, Art for Teachers of Children, pp. 12-17.

¹⁰⁷Pennsylvania Dept. of Education, Arts Process, p. 10.

¹⁰⁸Montgomery, Art for Teachers of Children, pp. 12-15.

instructional information blended with the spirit and support that make an effective resource person, then the number of teachers significantly touched by a new learning experience and invited into it might be considerably multiplied.

For my initial attempt at creating such an arts text I chose a single art form, batik, to explore. I chose batik because I am familiar with the process, because it can easily be applied to any grade level, because it has many historical and cultural extensions, because teachers can extend the study of batik into social studies, science, literature, reading, and other units, and, most important, because batik has not been well explored in education. The fact that most people are not familiar with the batik process is advantageous as they are less likely to bring any preconceived notions of what a product should look like. Teachers first experimenting with batik are most likely to explore the process, and it is through this exploratory process that "the learning takes place,"¹⁰⁹ learning which involves the total personality.

For the creation of the text, research material was gathered from a variety of sources. Available literature on batik offered helpful, instructional, and illustrative information. But because no text set forth creativity or even teacher effectiveness as its concern, these texts were limited resources for the spirit I hoped to convey. I, thus, went directly to the artists and to collections of actual pieces. It was the magic of seeing, reacting, and creating that I hoped to capture. The artists I visited shared ideas, techniques, and, more than this,

¹⁰⁹Montgomery, Art for Teachers of Children, pp. 12-15.

they shared their enthusiasm for the art form and for the batik project handbook. By pulling together the resources I explored, and by drawing upon my own experience with batik, I created a text that serves as an invitation to the reader to try various methods of batik and, in the process of exploring, to share the joy other artists and I have found.

Because this text was specifically created for teachers, teachers themselves were important resources, testing out ideas and evaluating them and the format. Teacher participation, both by teachers engaged in my in-service multi-arts courses and those not enrolled in courses, was vital. In reality the teacher responses created the organization of the text, chose the types of materials and projects to be listed and pinpointed areas for revision.

Because the text was developed to motivate teachers to try new activities, it was important that some of those evaluating the text have no background in the arts. I expected a vast difference between those who were taking the courses and those who were not. However, in many of the areas surveyed there was little difference between the two groups. Either the needs of both groups of teachers were the same, or the text responded to both sets of needs. Only in the implementation of specific projects was there a difference between the two groups. Both groups did use the text as a starting point for new activities; however, those taking the course began such activities sooner and utilized more activities than those not taking the course. In regard to future projects both groups had similar plans.

A text is only one way to motivate teachers to try new activities in the arts. Although it is a means by which to touch many teachers,

it still does have the drawback of being inanimate, non-human, and often impersonal. It also is limited by the impossibility of trying to translate non-verbal processes and feelings into words. Nevertheless, in my opinion a successful text can give sufficient information and then go beyond that information, attempting to capture the spirit that motivates people to act. Such a text turns the written word into a living craft. On a small scale, "The Batik Handbook: A Teachers' Guide" has indicated that the written word can be effective in helping classroom teachers explore their creativity. It would be possible to design other multi-arts texts using the procedures developed in this dissertation and to engender a process of interactions among authors, their texts, teachers, and children.

APPENDICES

- Appendix A Examples of Flexible and Less Flexible Approaches in the Classroom
- Appendix B Example of Integrated Arts Experiences in the Public Schools
- Appendix C Course Outline Spring 1974
- Appendix D Goals for Arts and Crafts in Curriculum Development Course 1974
- Appendix E Initial Class Roster and Statistical Breakdown
- Appendix F Reactions from Initial Arts and Crafts in Curriculum Development Tally
- Appendix G Teachers' Need for and Acquaintance with Useful Arts Texts: The Form and Results
- Appendix H Textbook Questionnaire
- Appendix I Results of Textbook Questionnaire
- Appendix J Format of Handbook Questionnaire
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- Appendix L Follow-up Handbook Phone Questionnaire
- Appendix M Teachers Comments and Suggestions about the Usefulness of Handouts and Projects

APPENDIX A

Examples of Flexible and Less FlexibleApproaches in the Classroom

Flexibility is a continuum on which each teacher, through experimentation, finds the place most comfortable and productive for his or her teaching. Though the facts and figures may remain the same, each teacher chooses his or her own means through which to encourage children to interact with the subject matter. It is often the kind of interaction rather than the "facts" that determine the success of the lesson and the students' responses.

The following are two examples of how teachers might structure the same sixth grade social studies unit with varying degrees of flexibility. Even if the same outline were followed, there would be a difference in each teacher's interaction with students. Some teachers ask. Some teachers tell.

This unit, the goals and the readings come from the sixth grade social studies curriculum in New Bedford, Massachusetts.

Unit: Indonesia.

Time: One week.

Goals: to develop familiarity with geography of Indonesia.
 to become familiar with the political system.
 to become familiar with the resources.
 to learn about the social structure of the country.
 to learn about the economics of the country.
 to become familiar with vocabulary:

East Indies	kapok
purges	quinine
subsistence farming	Moslems
plantations	malaria
cobra	hemp
Tagalog	tjanting
spices	cinchona bark
batik	tjap

Resources: 1. Readings: Basic text - DeVorse, Louis; Hodgkins, Jordan; and Lyons, Marion. Europe and Asia: Lands, People and Cultures of the World. New York: W.H. Sadlier, Inc., 1970.

Supplementary texts -

Exploring Regions of the Eastern Hemisphere.

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Exploring Regions, Near and Far.

New York: Follett, 1969.

People and Resources of the Earth.

New York: Harper and Row, 1964.

Ways of Man. New York: Macmillan Press, 1971.

More Flexible Approach: Reading in the basic text would be given to children and reading in other texts would be encouraged. Children would be encouraged to go to the library and to look through magazines to find other related books and articles. Children would have the freedom to explore whichever text they wished and to do so during any open period of time. A table of books on Indonesia would be set up, and children could contribute books they have discovered.

Less Flexible Approach: The basic text would be assigned and reading would be done during specified times. Outside reading could be done at home or specific outside readings would be assigned.

2. Music: Indonesian music available through:
Folkways Records
701 Seventh Avenue
New York, New York 10036

More Flexible Approach: Teacher and music teacher would try to correlate their programs. Records could be introduced and a discussion of instruments, rhythm and the relation of this type of music to other studied music would be encouraged. Children could be encouraged to make instruments or to look for other records or tapes of Indonesian music to share with the class. Records would be available to students during appropriate times.

Less Flexible Approach: Music teacher would be responsible for the introduction to Indonesian music. A discussion on specific elements of the music would be led by that instructor.

3. Filmstrips: Living in Indonesia and the Phillipines
East Indies
Indonesia - Village and City Life
Indonesia - Products, Customs and Arts

(all available from Scott Education Series, Lower Westfield Road, Holyoke, Mass.)

More Flexible Approach: Two or more filmstrips would be shown on different days. Children's questions would be the basis for discussion. Using something in the filmstrip as a starting point, interested groups of students would create their own cartoon strips

on Indonesia. Other students could write about three questions that the films have left unanswered. These projects and writings could be done during open periods throughout the day and at home.

Less Flexible Approach: Filmstrips would be shown if there were time. A brief discussion would follow the filmstrip. The teacher would lead the discussion and ask factual questions of students.

4. Topics for Discussion:
- climate
 - geography
 - economics
 - clothing
 - social structure
 - natural resources
 - cities

More Flexible Approach: Topic areas would be used as starting points for discussion. Groups of students could work together on a topic area and make a visual, verbal, or whatever kind of presentation to the class and then hold a panel discussion afterwards. Students could submit questions in topic areas, and a certain number of questions could be picked for discussion. Students would also be encouraged to submit ideas for other areas of discussion. Discussion could include some open ended questions such as: What would it be like to be a child in Indonesia? How are you similar to someone living in Indonesia? How are you different? Such questions could be answered through writing stories, creating plays, or working with visual arts.

Less Flexible Approach: Topic areas explored would be those suggested in the text. The teacher would prepare a presentation on topic or reading on topic would be required. Teacher would ask questions and select students to answer questions.

5. Talk by Indonesian Visitor.

More Flexible Approach: Children would be informed of the coming visitor and asked to submit questions that are of interest to them. Such questions could be given to the visitor to help him or her prepare for the visit. Children might like to make an Indonesian food or presentation for the visitor. The visitor's presentation could include use of slides and music. Discussion based on submitted questions would follow. Other questions would also be answered. Teacher would follow up discussion when visitor leaves. Children could create some "thank you" response to visitor in form of a batik, a collage of new ideas, or any of a number of projects combining "thanks" with what they have learned. The visitor might even be invited back.

Less Flexible Approach: Visitor would make a presentation on topic

suggested by teacher. Children would then ask questions of visitor. When the visitor must leave questioning stops. Maps could be made.

7. Projects on Indonesia:
 - a. Writing a story about Indonesia
 - b. Experiencing batik processes.
 - c. Preparing a map of Indonesia.

More Flexible Approach: Children could choose in which projects to involve themselves. With the exception of the batik project, children could work on projects during any open time. Stories could be turned into plays, and batik fabric could be used for costumes. Map could be made by a group using collage, painting, batik and other media methods. Batik processes could be presented over a week so children could prepare ideas. During the batik process children would be encouraged to improvise and experiment. Projects and results could be shared with the class and with parents. An Indonesian feast could be held in conjunction with project presentations. Art teachers could help with planning and implementation of projects.

Less Flexible Approach: Children would be assigned to specific project groups. Specific time would be given to projects. Maps would be painted. Each group would make a presentation or teacher would collect and correct projects. One type of batik would be presented, and specific designs would be followed to produce desired results. Projects would be taken home to parents.

Evaluation Procedure:

More Flexible Approach: Children would be asked to present and discuss projects. Teacher would evaluate projects on level of participation, learning, and creativity. Teacher would observe children's ability to follow directions, to cooperate, and observe children's levels. Children would be asked to write a paragraph or sentences using vocabulary words. They could be given a choice of many visual projects such as drawing a map of Indonesia knowing that they were not being judged on their drawing ability or filling in factual information on a map that was already drawn. A quiz would be given on material covered in the unit. The quiz could include true-false questions, essay questions and choice questions on a variety of areas covered. Included would be a paragraph about the children's project to help determine the childrens' feelings about their own work. Parts of this quiz could be answered by students during the unit week.

From observations, quiz results and childrens' paragraphs, a teacher could then know whether the material covered was learned and which activities were successful, thus giving ideas for future methods of student involvement.

Less Flexible Approach: A test on material covered in the unit would be given at the end of the unit week. Test would contain true-false questions, multiple choice questions, fill in the blank questions and a testing of vocabulary words. Answers to this test would satisfy the teacher as to whether the children had learned the material that was covered.

APPENDIX B

Examples of Integrated Arts Experiences
in the Public Schools

These examples were collected from both my own personal experiences as an integrated arts consultant for the New York State Department of Education and from Kaleidoscope 12*, a special issue on Arts and Humanities, Fall, 1974, published by the Massachusetts Department of Education.

Tribal Rhythms - Lincoln, Massachusetts

This program was an ongoing classroom activity involving music, arts, and creative drama in which students simulated the formation of a simple society among relative strangers. They developed an elementary culture. Children were introduced to society ritual, to tribal count, to symbols and chants. They became involved with rituals of food preparation, harvesting, etc. The students were exposed to a variety of preparatory workshops and then went on to explore specific cultures with their classroom teachers. Music, art and physical education specialists used the tribal themes in their projects and acted as consultants to classroom teachers. This program was implemented in classrooms K-8 and was an underlying theme for the academic year. The year closed with a student-teacher planned celebration.

"b or d: which way?" - Greece, New York

Greece, New York, has been trying to integrate arts into the curriculum and has successfully utilized movement in developing better reading and writing skills. An example of the use of movement in learning letters is illustrated by using large arm movements and leg movements to distinguish the letters b and d. These letters are often confused by first and second graders. By using the total body to create the letter, and by adding a sound to the movement, the children become more aware of how the letter is formed. With b and d specifically it is most helpful to use the right foot to make a b--b goes to the right--and the left foot to make a d--d goes to the left. If the feet are reversed, the child cannot create the correct letter. Working on one letter for a period of time until children understand the letter's formation, the children can then graphically depict the letter in large full strokes on a letter mural. These large letters are then filled in with smaller similar letters, and pictures of words beginning with that letter are pasted on the

* Beverly Lydiard and Natalie Norton, ed., Kaleidoscope 12 (Massachusetts: Commonwealth of Massachusetts Department of Education, 1974).

mural. When one letter is understood, the class moves on to the other letter. The class follows the same process and finally compares the letters. Children found it easier to distinguish left from right, b from d and to make a b or d by involving their whole bodies rather than just their hands.

Humanities and Primary Social Studies - Chelmsford, Massachusetts

This social studies program is based on the "Family of Man" social studies program. It is designed to help children learn to be both nation-oriented and world-oriented. The program itself requires inquiry, is interdisciplinary, and involves multi-media. The program utilizes arts and humanities for intercultural studies. Children study drawings of Russian children to make inferences about Russian life. Poetry of Pushkin and rhythms of Ashanti are used to explore cultural universals. Games and dances such as the Hopi Rain Dance help children find new meanings in movement and play. The specialist teachers worked closely with the classroom teachers throughout this year long program. As the children began to develop a concept of "The Family of Man," they began to discover the universality of the arts.

Family of Man - A similar program to that listed above was offered at the secondary level in Scituate, Massachusetts.

Creating Imaginary Worlds - Brookline, Massachusetts

Two eighth-grade English classes were involved with a four week unit on "Creating Imaginary Worlds." After discussions of what makes a world, students were involved with the construction of their own worlds, and with reading and writing about such worlds. The students created their worlds with a variety of media and then wrote plays, TV broadcasts, radio broadcasts, newspaper articles, short stories and fables about this world. Reading for this unit included works by Wells, Vonnegut, C.S. Lewis, Orwell and others. The unit study culminated with an Imaginary Worlds Fair.

Finding Richness in the Community - Gateway Schools, Huntington, Massachusetts

This program was designed to relate the school to the community and the community to the school. The project involved all grade levels, and individual classes set out to learn about and document their community through whatever means most appropriate. Craftspeople from the community became involved with the school. English classes, social studies classes, art and music classes were all involved with studying the community as it was in the past, as it is, and as it might be in the future. Changing values were discussed, physical changes were recorded, and interviews were conducted. This ongoing project attempts to break down school/community barriers and help students learn and utilize educational skills outside the school environment.

Science and Humanities - Fraedonia, New York

Through Project SEARCH sponsored by the New York State Department of Education, teams of teachers from various school districts were trained in the arts and their usage in a related arts program. Each team of teachers returned to their individual schools and developed an integrated arts program reflective of the specific needs of the school. The use of movement and arts integration in Fraedonia is exemplified in a related arts and science lesson on the development of the butterfly. Three fourth grade classes were involved with the study of the development of the butterfly. They had seen films, read articles, had seen actual butterflies at different stages in development, but the process and stages of development were still confusing. To help clarify these concepts, the teacher led the classes on a trip through the life of the butterfly from egg to caterpillar to pupa to butterfly. The children took the form of the egg and made sounds and described the environment. They broke through the egg and became a caterpillar, moving as they thought a caterpillar might, calling out words as to how they felt, how they were moving, what they were doing. The children were then led to the pupa stage and finally to the butterfly stage, drying their fragile wings and flying. The class then discussed what they had done, how it might feel to be a butterfly, and how the progression of changes occurred. The words gathered were used in later writings about butterflies. This exercise clarified the progression of the butterfly for the students and also gave them new experiences to interpret. These classes use a great deal of movement in their curriculum, and the children are familiar and at ease with this method of discovery and expression.

Children and Their City - Cambridge, Massachusetts

This is a social studies and Bicentennial project involving grades three to eight and secondary students. Students will be involved with writing the history of Cambridge in Greek, French, English, Spanish and Portuguese. They will be making and binding books written in various languages and creating a permanent children's library. The students will be illustrating the texts with photos and making cassette recordings describing various historic sites. Those interested will be conducting interviews with interesting community leaders and members. These interviews will be translated into five languages also. Some students will be trained as guides for the bicentennial if they desire. This program is a combined effort of the arts specialists, social studies, English teachers, and local citizens.

APPENDIX C

Course Outline Spring 1974

Arts and Crafts in Curriculum Development

300 modules of Credit

Mondays 4-6

School of Ed. 226

Enrollment - initially over 140, limited to 31

Course Description:

This is a doing course whose aim is to acquaint would-be teachers with the technical know-how involved with the use of various materials and specific crafts, such as batik, relief painting, weaving, decoupage, sand-painting, macrame, and photography. We will be sharing skills and through research and experimentation we will set up curricula including arts and crafts. This is an active lab course where we will be personally exploring an art or craft each week, sharing our skills and having guest craftsmen visit.

We will be implementing some of our curriculum in the outside community and will also explore the "making do" that confronts a teacher in a system of limited resources.

Organization--discussion and lab.

Readings--suggested readings in specific crafts, in cultural literature and any related material.

Requirements--active participation

sharing

a planned and implemented curriculum

3 required books--Chandler Montgomery

Art for Teachers of Children
Linderman and Herberholtz

Developing Artistic and Perceptual
Awareness

Wanklemann, Wigg and Wigg

A Handbook of Arts and Crafts

3 required book reviews

a rationale on "arts in the classroom"

evaluations

APPENDIX D

Goals for Arts and Crafts in CurriculumDevelopment Course 1974

1. To develop new perspectives of the world.
2. To acquire useful technical skills in the arts and an ease with working with the arts.
3. To promote self-actualizing behavior by reducing feelings of inadequacy, by bolstering positive self images and self reliance, by promoting risktaking, and by discovering the importance of self evaluation.
4. To develop a holistic interdisciplinary approach to learning by becoming aware of aesthetic experiences and by realizing and understanding the creative process and its importance in education, thus viewing the arts as central to a curriculum.
5. To kindle sparks of enthusiasm in my students and me so that which transpires in the classroom will be carried over into our personal and professional lives.

APPENDIX E

Initial Class Roster and Statistical Breakdown

<u>Key:</u> Acctg	- Accounting	PE	- Physical Education
BDIC	- Independent major	PlSoil	- Plant and Soil Science
Educ	- Education	Psych	- Psychology
Excg	- Exchange	SBA	- Business Administration
HEc	- Home Economics	Socio	- Sociology
HumDev	- Human Development	Spec	- Special Student
LSS	- Nursing	SpecEd	- Special Education
Gallagher, Michael D.	Educ	Hawley, Carol E.	Educ
Huggins, Ellen G.		Heyl, Katherine R.	Educ
Pickering, Patricia L.	Excg	Hutchins, Rosemary	HumDev
Allen, Cynthia L.		Johnson, Carol A.	Educ
Arcus, Rochelle L.	Socio	Kangas, Laura L.	Educ
Baker, Susan R.	Educ	Keens, Judith A.	Educ
Barbati, Susan M.		Kennedy, Jane E.	HumDev
Barton, Phyllis M.	Speech	Kneeland, Jane E.	Educ
Bennett, Christopher J.	Psych	Kulis, Joseph P.	PE
Beren, Sandra J.	HumDev	Lang, Karen M.	Educ
Berkowitz, Cindy R.	Educ	Laster, Nancy C.	Educ
Binda, Rosemary E.	SpecEd	Leveau, Charleen I.	Educ
Bloom, Janis S.	Educ	Liddell, Rebecca F.	LSS
Bors		Light, Nancy B.	Educ
Bouldry, Karen E.		Lofchie, Anita	BDIC
Braz, Debra L.	Educ	London, Marilyn C.	BDIC
Brennan, Deborah A.	PlSoil	Lukas, Marie Ann M.	Educ
Brown, Robin J.	Excg	Lynch, Susan A.	Educ
Callanan, Catherine F.	HumDev	Mann, Cynthia L.	Educ
Caner, Janet B.	Educ	McDonough, Pamela A.	HumDev
Carpenter, Nancy J.	LSS	McDonough, Paula	LSS
Carpenter, Nancy	HumDev	McManus, Tenley A.	Educ
Chen, Michael J.	SBA	McNamara, Susan C.	Educ
Colton, Linda G.	Educ	Miller, Deborah I.	Educ
Conforti, Cynthia L.	Educ	Monagle, James E.	Educ
Cox, Susan E.	HumDev	Newton, Diane J.	Educ
Crossland, Barbara A.	Educ	Owen, Susan L.	HumDev
Cunningham, Paula M.	Educ	Parlee, Nancy E.	Educ
Dale, Elise M.		Polansky, Karon B.	HumDev
Dewinter, Rachelle	HumDev	Poli, Antoinet D.	HumDev
Dicker, Scott A.		Potts, Nancy A.	Educ
Dwyer, Patricia M.	Educ	Pyles, Delphine M.	Educ
Elliott, Marilyn S.	Educ	O Rega	
Ellison, Christine I.	HumDev	Ross, Nikki E.	English
Ettinger, Sharon P.	Acctg	Sadler, Susan F.	Educ
Fasano, Norma J.		Scholten, Jill D.	Educ

Finestone, Lisa J.		Shapiro, Toma L.	Educ
Fole	HumDev	Shields, Helen T.	Educ
Fusia, Jan K.	Educ	Slilaty, Sharon M.	Educ
Gaber, Renee E.	Educ	Smeedy, Sharon	Educ
Galonek, Linda A.	HumDev	Stanchfield, Barbara	Educ
Goldman, Michele J.	Art	Stone, Donna M.	HumDev
Goulet, Denise M.	LSS	Swanson, Michael R.	Educ
Greenwood, Dale A.	BDIC	Sylwestrzak, Linda A.	HumDev
Hassan, Donna M.	HumDev	Taylor, Deborah A.	
Vagenas, Valorie A.	Educ	Vachon, Donna M.	Psych
Vanwert, Janet K.	Educ	Winiker, Roberta L.	HumDev
Wailgum, Howard	Educ	Wolfe, Donald C. Jr.	HumDev
Waksmonski, Susan	ArtEd	Wolfe, Michael A.	Psych
White, Arlene R.	HEC	Woodcome, Sheryl L.	Educ
Whiteley, Patricia L.	Educ	Gallagher, Linda M.	Spec

Roster Breakdown

Accounting Majors	1%	Graduate Students	1%
Art Majors	2%	Special Students	1%
BDIC Students	4%	Seniors	38%
Business Majors	1%	Juniors	40%
Computer Studies	2%	Sophomores	16%
Education Major	46%	Freshmen	3%
Exchange Students	2%	Unrecorded	1%
General Home Economics Major	1%		
Human Development Major	20%		
LSS Majors	3%		
Nursing Majors	1%		
Physical Education Majors	1%		
Plant and Soil Science Majors	1%		
Psychology Major	3%		
Special Education	1%		
Special Students	1%		
Speech Major	1%		
Sociology Major	1%		
Unknown	10%		

Initially accepted: twenty five senior education majors
 one graduate student
 two exchange students

APPENDIX F

Reactions from Initial Arts and Crafts
in Curriculum Development Tally

This questioning addressed itself to "WHY" people were interested in this course--I asked for all the whys involved. Approximately one hundred and forth students signed up for this course. I chose twenty five senior education majors to participate. Knowing that the students had already been chosen for the existing spaces one hundred and four students stayed for the first class and responded to this tally.

Because the class was so large and definitely not what I was expecting, the tally questions were oral and the students' own interpretation determined to value and extent of the answers.

- I asked for 1. all the reasons why people were interested in taking this course.
2. what kinds of feelings they had about--arts, themselves and education.
 3. their teaching background.

Results--50% had teaching experience

- 36% were going to teach within a year
- 30% were in Special Education
- 14% had had some art experience
- 18% had had previously unsatisfying methods courses
- 30% were required to take this "type" of course
- 10% were interested in a general introduction to arts in the classroom
- 20% wanted a DOING course rather than just theory
- 68% were interested in developing specific technical skills useful in teaching
- 20% took this course for "fun"
- 6% had this course recommended to them
- 50% felt arts were important to learning
- 54% felt a need for "arts integration" into the classroom
- 56% felt they had "no talent"
- 68% felt they had really had no arts training
- 72% were disappointed there were so few courses of this type

APPENDIX G

Teachers' Need for and Acquaintance
with Useful Arts Texts

The Form and Results

1. 40 I have participated in a Multi-Arts course.
40 I have not participated in a Multi-Arts course.
2. Do you feel there is a need for a Multi-Arts text for teachers?
80 yes
0 no
3. Are you acquainted with such texts?
56 yes
24 no
- If so, how many?
68 One such book
6 Two such books
2 Three or more such books

APPENDIX H

Textbook Questionnaire

_____ I have participated in a Multi-Arts course.

_____ I have not participated in a Multi-Arts course.

1. What sort of an art book would be most helpful to you?
(please rank order, 1 being most helpful)

_____ a book covering a variety of techniques
 _____ history and techniques of one art form
 _____ a book on art theory
 _____ pamphlets--each one on a specific art form with curriculum
 _____ extensions
 _____ a project book
 _____ other

2. For those books ranked as most helpful, for whom should the book
be written?

_____ children
 _____ teachers with classroom concerns
 _____ art specialists
 _____ individuals interested in learning an art form
 _____ general public or novices
 _____ experienced individuals
 _____ others

3. For those books checked as most useful, what sort of writing style
would be most appealing to you?

_____ formal
 _____ educationally technical
 _____ artistically technical
 _____ informal or casual
 _____ outlined procedures
 _____ other

4. What do you feel should be included in a multi-arts text to make it
most useful to you? (rank order from 1 being not important to 5
being very important)

_____ history of the art form
 _____ set up and procedure for art form
 _____ listing of materials needed for project

_____ problems that might arise
_____ age appropriateness and variations
_____ material variations in regard to budget
_____ approximate time required for project
_____ curriculum extensions
_____ where to get materials
_____ other resource materials--books, records, films
_____ photos or illustrations of the process
_____ photos or illustrations of the products
_____ teachers and student comments
_____ other

APPENDIX I

Results of Textbook Questionnaire

40 I have participated in a multi-arts course.

40 I have not participated in a multi-arts course.

Participants' responses are in column one.
Non-participants' responses are in column two.

1 2

1. What sort of an art book would be most helpful to you?

<u>100%</u>	<u>100%</u>	a variety of techniques book
<u>37.5%</u>	<u>33.3%</u>	history and techniques of one art form
<u>12.5%</u>	<u>12.5%</u>	theory of arts book
<u>100%</u>	<u>100%</u>	pamphlets--one each on a specific art form with curriculum extensions
<u>88%</u>	<u>77%</u>	a project book
<u> </u>	<u> </u>	other

2. For those books ranked as most helpful, for whom should the book be written?

<u>75%</u>	<u>75%</u>	children
<u>75%</u>	<u>75%</u>	teachers with classroom concerns
<u>8%</u>	<u>10%</u>	art specialists
<u>32%</u>	<u>34%</u>	individuals interested in learning an art form
<u>16%</u>	<u>16%</u>	man in the street approach
<u>8%</u>	<u>10%</u>	experienced individuals
<u> </u>	<u> </u>	other

3. For those books checked as most useful, what writing style would be most appealing to you? (differences less than 2%)

<u>0</u>	<u>0</u>	educationally formal
<u>17%</u>	<u>15%</u>	educationally technical
<u>17%</u>	<u>17%</u>	artistically technical
<u>60%</u>	<u>57%</u>	informal or casual
<u>75%</u>	<u>75%</u>	outlined procedure
<u> </u>	<u> </u>	other - recipes and childrens' ideas

4. What do you feel should be included in a multi-arts text to make it useful to you? (rank orders were averaged and again there were no noticeable differences in results)
4.5-5 = very important, 3.5-4.4 = important, 2.5-3.4 = average,
1.5-2 = not important, 1-1.4 = not very important at all

21%	5	4	3	2	1	History of the art form.
100%	5	4	3	2	1	Set up and procedure for the art form.
86%	5	4	3	2	1	Listing of materials needed for project
100%	5	4	3	2	1	A variety of methods and techniques.
75%	5	4	3	2	1	Problems that might arise.
100%	5	4	3	2	1	Age appropriateness and variations.
70%	5	4	3	2	1	Material variations in regard to budget.
70%	5	4	3	2	1	Time required.
64%	5	4	3	2	1	Curriculum extensions.
89%	5	4	3	2	1	Where to get materials.
56%	44%	4	3	2	1	Other resource materials.
80%	5	4	3	2	1	Photos or illustrations of the process
80%	5	4	3	2	1	Photos or illustrations of products
42%	5	4	3	2	1	Teacher and student comments.

other - none listed

APPENDIX J

Format of Handbook Questionnaire

_____ participated in a multi-arts course

_____ did not participate in a multi-arts course

Handout material title _____

1. The format of the material was concise and useful _____ the format was confusing _____
 very _____ average _____ very

2. What suggestions do you have to improve the format?

3. The material was relevant to my teaching needs _____ material was not relevant to my teaching needs _____

4. My students would gain a great deal from the activities suggested _____ my students would not learn anything constructive from suggested activities _____

5. I have already tried the following activities from the materials

6. I plan to use the following activities

7. I found I could incorporate projects into curriculum easily _____ not at all _____

8. I plan to incorporate these ideas and activities into the following projects or units:

9. What recommendations can you offer for improvement of material you are reviewing?

APPENDIX K

Final Handbook Results

40 participated in multi-arts course

40 did not participate in multi-arts course

No major differences in results between participants and non-participants unless listed.

1. The format of the material was concise and useful the format was confusing

92%
8%

2. What suggestions do you have to improve format?
 wish it were longer, more outlines, simple line drawings

3. The material was not relevant to my teaching the material was relevant to my teaching needs

2 1/2%
2 1/2%
24%
71%

4. My students would gain a great deal from suggested activities my students would not learn anything constructive from suggested activities

92%
5 1/2%
2 1/2%

5. I have already used the following activities from the materials.
 Multi-arts participants average number of activities: 6-11.
 Non-participants average number of activities: 3-8.
 Examples of activities:
 batik Christmas hangings, scraped crayon batik, paper batik, scratch paper batik, rub off batik, candle dripping batik, wax rubbings batik, hot wax stamp batik with pipecleaners, paste batik with flour and water, painted hot wax batik.

6. I plan to use the following activities - participants and non-participants had similar numbers and ideas.
 Examples of planned activities:
 batik, rubber cement batik, scratchboard, crayon and tempera, batik on manilla paper, brush batik, tjanting batik at the sixth grade level and above, stamp batik (making own stamps), alcohol marker batik, crayon batik on rice paper, stencil batik, candle drip and line batik, pysanki.

7. I found that I could incorporate these projects into curriculum
easily not at all

91%

| 5%

| 4% |

8. I plan to incorporate ideas and activities into the following
projects or units.

Examples: postal unit mural, sense of touch and sight, use of
colors, seasonal unit, reading (making letter quilt), social studies-
Indonesia, India, Africa, Easter eggs, age of discovery unit, how
to make dyes, clothing in other countries, stained glass windows,
stamps and printing, developing areas of visual perception, fine
motor skills, auditory processing of directions, how to make colors...

9. What recommendations can you offer for improvement of material you
are evaluating?

More materials for lower levels, more step by step presentations,
more materials for upper levels, when you are finished do it again
with another art, don't take anything for granted.

APPENDIX L

Follow-up Handbook Phone Questionnaire

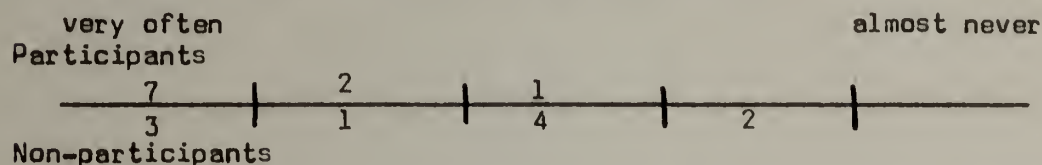
Three months after teachers had responded to the initial Handbook Questionnaire, a follow-up telephone questionnaire was conducted. Because I did the calling it is possible that the results were biased. The interviews themselves were businesslike and teachers phoned were chosen by having their names picked out of a hat. The first ten names picked out of all the multi-arts participants and the first ten names picked out of the non-art participants were contacted.

Format of Telephone Questionnaire and Responses

10 participated in a multi-arts course

10 did not participate in a multi-arts course

1. How often do you use arts in your classroom?



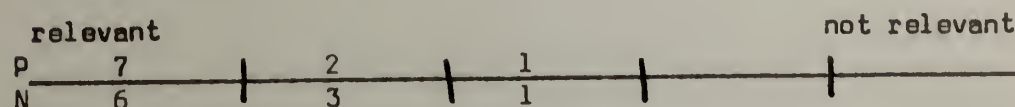
2. Have you used any information from the Handbook in the past three months?

	<u>yes</u>	<u>no</u>
P	10	0
N	10	0

3. How have you found the format of the Handbook?



4. How relevant to your teaching needs is the material covered in the Handbook?



5. How many projects involving information from the Handbook have you used in the last three months?

	0	1-3	4-7	8 or more
P	0	1	6	3
N	1	2	5	2

6. What types of activities based on Handbook material have you used in the last three months?

Responses of both participants and non-participants were similar. Participants had an average of 6.9 activities. Non-participants had an average of 5.9 activities.

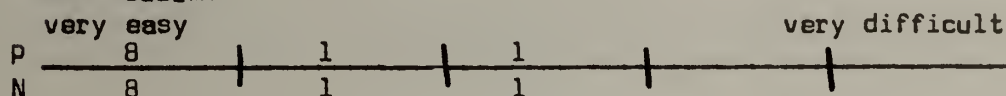
Examples: Crayon batik, stained glass window batik, pysanki, rubbings from trees, batik murals, hangings, painting batik, batik clothing during study of Indonesia, rubber cement batik.

7. What types of activities do you have planned for the future?

Similar activities were planned by both groups of teachers. Participants planned an average of 5.8 activities while non-participants planned an average of 5.6 activities.

Examples: pysanki, candle batik, crayon rubbings, painting batik, dye making, alcohol marker batik, pipecleaner stamp batik.

8. How easy or difficult was it to incorporate activities into curriculum?



9. What recommendations can you offer for improvement of this Handbook material?

loose leaf binder format (suggested several times)

create similar handouts in other art areas (suggested several times)

more ideas for higher grade levels

ideas for learning disabled children's activities

color photos of work examples

APPENDIX M

Teacher Comments and Suggestions About the
Usefulness of Handouts and Projects

- Having everything in list form is extremely helpful. -first grade teacher.
- I found I could do hot wax and crayon batik with third graders, if I did the ironing and supervised the work closely. -third grade teacher.
- Cost concerns kept our work simple--paper and crayons--but the results were beautiful. -fourth grade teacher.
- I tried paper batik with my learning disabilities kids and it was great. I was skeptical at first. -L.D. teacher.
- This spring we will do some candle rubbings of outside textures. We have done rubbings of interior textures and painted the textured areas according to some handout materials. The batik painting makes the texture much more apparent but I suggest that others trying this form of batik wipe off all excess paint immediately as thick paint will not roll off crayons or candle rubbings and your images can become lost. -second grade teacher.
- My kids loved making a batik quilt. Each child made his own square and we sewed them all together. We even made our own dyes. The quilt was hung in the hallway for other students to see. -teacher from an impaired hearing class.
- Classes are just too short for some of these projects. -sixth grade teacher.
- Some of the boys in my class are really taking an interest in making metal stamps. I incorporated this type project into our study of Indonesia. The girls quickly got involved with batik, but it took the boys a little longer to become involved. Now most are fascinated with making reverse and repeating stamps. -junior high teacher.
- We made a chipped crayon batik mural in my kindergarten class. I did the ironing but the children chose the colors and placed them on the fabric (an old sheet). -kindergarten teacher.
- We tried paper batik and it was great. All of the children were excited by their own work; however, they did get competitive. The older children always do better than the younger children and since all the children are in the same class they all want to do work of the same quality. Most of the children were proud of their work and they are inclined to

praise each other also. -teacher of hearing impaired students.

-We used candle batik to make a textured background for cutouts of people, scenes and produce of India. -fifth grade teacher.

-For a bicentennial project, this winter we studied candle making and then made candles. This spring we will be continuing the study and going into the properties of wax and then making painting batiks. We will be making dyes (much like our ancestors) out of local barks etc., and then we will compare our historical use of wax and dye to the use of these materials in other cultures. This fits very well with the social studies progression from our own country to a broad study of world cultures. -sixth grade teacher.

-Because of limited class time our projects are usually cut off in the middle but because batik is such a step by step process, we were able to split up our batik projects into short sessions. The kids became "masters," at least in my eyes, by the time they began their second dyeing. Those involved with the first dye project became instructors for the second project. This rotating leadership worked very well. -fourth grade teacher.

-Previously I have never incorporated fabric making into my course in home economics. This spring however, we tried some printing and batik. The girls in my class were frustrated at first because they had planned very complicated designs and found that it was difficult to produce such designs on their first attempt. Lots of drips and mistakes. The class then became more free and improvised designs as you suggested. They were much happier with the results. We used these first fabrics for bags and scarves. In our second batik project we used design ideas from nature and made large fabric pieces that were then made into tunics and skirts. junior high home economics teacher.

-With thirty three in my class, hot wax batik seemed like an impossibility, but with the help of the art specialist and an aide we were able to attempt a simple hot wax batik project. We related the project to the study of colors from our previous art class. By breaking the class into smaller groups, the project was easy to handle and the results were very successful. -fifth grade teacher.

-Batik is fascinating and colorful. It is rich in kinesthetic fulfillment. I work with six to eight year olds and though hot wax batik is far too dangerous for my hyperkinetic learning disability students, we have worked with the history of batik, learned about the tools, made paper batiks and have made our own dyes. Through these projects students were involved with following directions. They learned how colors combined and complimented each other. They also learned what dyes were and how they are made. - L.D. Teacher.

-Wow! Melted crayon batik was excellent for my third grade. Most kids

- wanted to do cartoon like pictures or landscapes. Some did designs. All loved the process--crayon resisting the tempera. We started to use rub off techniques with rubber cement, but the way the kids use the cement it was getting to be too expensive. -third grade teacher.
- Easy, inexpensive and fun. Though I was unsure of such a project at first (I am no artist), paper batik makes beautiful designs and every child involved could easily get some satisfaction out of their work even if they weren't particularly talented in art. -fifth grade teacher.
- I attempted to use batik in my history class at the High School level. It was difficult at first to get up interest. The day of the dyeing, after preparing the class, showing samples, etc., everyone had brought in prepared cloth and even some students had made stamps. It was a great class. We both made some interesting articles and learned a little more about a culture whose economy and life style are very different than ours. We also had a long discussion the following day about the importance of arts in various cultures. I will admit I am very lucky. I have my class last period of the day and the students were willing and able to stay after class to work on their projects. -high school teacher.
- Unfortunately, I felt reluctant to use batik in the elementary grades because of the hot wax and the hot iron. However, I demonstrated hot wax batik to my students and followed up with an easier form of batik--crayon on cloth. Children wishing to use hot wax batik were given a set of instructions to share with their parents. Surprisingly enough, a group of parents (three) put together a hot wax batik class on Saturday for a group of ten interested kids. -fourth grade teacher.
- I used hot wax batik with my junior high art class. These kids are pretty independent and were careful about the wax, etc. All of the kids had made designs in advance and had seen batik hangings. This project took about two weeks and most students experimented with lots of designs before they were satisfied. One girl made a batik watermelon. (I believe she got ideas from the Meilach text.) There is a sort of magic about batik that makes all of the students and myself excited about the dye process. You never really know what the final result will be until you remove the fabric from the final dye bath. -junior high art teacher.
- Batik is an outstanding process for both art experience and cultural studios. The social studies teacher and myself (the arts specialist) combined a program for our seventh graders where we used batik in the study of eastern cultures. We combined classes and introduced batik as an historical art form and a modern industry. The classes did their own batiks and some student went on to make batik puppets and put on a play for extra credit. This was a successful combination of history and art. It did take some scheduling changes but the small troubles were definitely worth it. We hung our pieces in the corridor windows and documented the process with photographs so that passing students

and teachers were aware of what we had done. -junior high art specialist.

-The only problem we had with our hot wax project that we did with melted candles was the drips left on the table. We didn't put down enough newspaper and spent a good deal of time scraping the wax off the tables. Tedious but the kids didn't seem to mind. -fourth grade teacher.

-Every year going over the discoverers I keep on wanting to change my activities. We always make maps. This year again we made maps but I used some of your ideas with batik and printing. We made textural rubbings of different areas of land. We made small stamps to stamp our different routes (hot wax batik). We used different colored crayons for drawing in different materials and places discovered. All this was done by small groups of students in the class. We worked on a large old sheet. We then painted the oceans blue and the land areas green. We ironed in the waxed areas and had a large hanging map of discoverers on which we pinned additional produce discovered, stories about the area explored, etc. This was a long undertaking. This project took about two and a half months to complete and it isn't really complete as more can be added as we read more. It was very successful but I don't look forward to deciding who will get the final map at the end of the year. -third and fourth grade teacher.

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