Basic printmaking processes and techniques are explored from a historical point of view in this quinmester curriculum guide for grades seven through twelve. Application of design using a variety of media, including linoleum, wood, found materials, paper, and cardboard, is emphasized. Major objectives are for students to: identify historical and contemporary relief prints; work and manipulate printmaking tools, equipment and materials necessary for relief printmaking; and to design and produce relief prints. Outlined information is included on course description, rationale, guidelines, objectives, course content based on historical background and important names in printmaking, suggested activities, terminology for relief prints, and resources for students and teachers. Related documents are SO 005 207, SO 005 271, and SO 005 273. (SJM)
RELIEF IN DESIGN (BLOCK PRINTING)

6683.11

Art Education
RELIEF IN DESIGN (BLOCK PRINTING)

(Tentative Course Outline)

6683.11
6681.10
6682.10

ART EDUCATION

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for the

DIVISION OF INSTRUCTION
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I. COURSE TITLE
RELIEF IN DESIGN (BLOCK PRINTING)

II. COURSE NUMBERS
6683.11
6681.10
6682.10

III. COURSE DESCRIPTION
Exploration of basic printmaking processes and techniques using a variety of media including linoleum, wood, found materials, paper and cardboard. Application of design to the media is emphasized and the students work with the tools of printmaking.

IV. RATIONALE
Although the relief method of printmaking is recognized as one of the most ancient methods of reproducing designs, it is still in use today as a popular contemporary form of expressive printmaking. In this course, the student will incorporate his understanding of the historical development of relief prints into his own creative and experimental manipulations of tools and materials to produce in relief.
V. COURSE ENROLLMENT GUIDELINES
   A. Grades 7-12
   B. No prerequisite for this course.

VI. COURSE OF STUDY OBJECTIVES
   A. Upon completion of this quinmester course, the student will be able to identify historical and contemporary trends in relief printmaking.
      1. The student will distinguish between historical and contemporary relief prints.
      2. The student will describe various uses ascribed to relief prints through its development from historical to contemporary times.
         a. The student will identify similar qualities in historical and contemporary relief prints after a visual presentation.
         b. After a presentation of historical uses of relief prints the student will produce a relief print which illustrates one of the uses ascribed to relief prints in historical times.
c. Given a visual presentation of prints which have been produced by various methods, the student will discuss prints he selects as being produced as a relief design.

B. Upon completion of this course the student will be able to correctly manipulate and maintain the tools, equipment and materials necessary for relief printmaking.

1. Given selected equipment or tools, the student will manipulate them safely and correctly.

2. The student will select the proper tools and materials for a specific task.

3. The student will apply the means necessary for the proper maintenance of tools and equipment in use.

   a. After a demonstration of the correct handling of sharp cutting tools the student will illustrate his understanding by manipulating them safely.

   b. After using tools, equipment and materials the student will reorganize them in a predesignated order.
C. Upon completion of this course the student will be able to design and produce relief prints.

1. The student will apply the elements of design in the planning and production of relief prints.

2. While the block is in the process of being developed, the student will critically examine his efforts in progress by means of proofs.

3. Given selected materials, tools and equipment the student will complete the steps necessary to produce a relief print.

4. The student will discuss critically the completed prints pulled from the relief block.

   a. The student will explore the possibilities of producing effective relief prints by using a variety of materials and activities involving techniques other than lino or wood block prints.

   b. The student will investigate cutting techniques in lino or wood cuts to produce effective prints.
c. The student will investigate printing techniques to enhance designs produced as relief prints.

d. The student will correct and improve the block he is developing as he sees the need for it from the proofs pulled.

e. After the design is ready to print the student will number the edition of prints in sequence.

f. Upon completion of the prints the student will critically evaluate his work by displaying it for a class critique; discussing the results with the teacher; discussing the results with fellow students.
VII. COURSE CONTENT

A. Historical background of relief printing

1. 105 - Chinese invented paper.

2. 150 - Chinese produced copies of existing reliefs in form of "rubbings".

3. 770 - Japanese edition of more than one million copies printed from wooden, metal and porcelain blocks.

4. 837 - Chinese libraries - 13,000 wooden blocks cut to print Buddhist and Taoist books and printed sheet by sheet by hand.

5. 868 - First dated book discovered later in an old Buddhist monastery.

6. 1400 Before this time woodcuts were used for the following:
   a. Printing on fabric (coptic designs)
   b. Decorative pieces on boxes, doors
   c. Decoration in prayer books
   d. Calendars
   e. Political, satirical caricatures
   f. Religious prints which were sold at monasteries when pilgrimages visited
   g. Playing cards - very popular pastime
   h. Block books - story and illustration out from one block
7. **1423** - First dated woodcut from the west of St. Christopher.
- Beginning of "broadsides" - large printed sheets forerunners of newspapers telling news of sensational happenings.

8. **1450** - Gutenberg invents movable type which is used in printing.
- Screw press comes into usage by printers. (Prior to this printing was done by inking the raised surfaces and stamping or burnishing.)

9. **1500** - "Incunabula" name given books printed prior to this date.
- Color prints using several blocks developed.

10. **1600** - "Chopbooks" - depicting stories of such heroes as Robin Hood, Robinson Crusoe and Gulliver, as well as ballads and rhymes.
- "Broadsides" also popular during this period.
- Tiny books of children's stories.
11. 1700 - Wood engraving
   Wood engraving or woodcutters were known as "formschneider". They cut blocks designed by other artists.

12. 1800 - Woodcuts used as reproductive medium for illustrations.
   - Woodcuts fell into disfavor as a form of printmaking less elegant than etchings.
   - "Formschneider" became quite mechanical about their tasks.

13. 1880 - Introduction and general acceptance of photo engraving process, freed wood block of its servile state.

14. 1895 - Exhibit of modern wood engraving held by Vale Press, creative engravers or artists who cut their own blocks became more evident.

15. 1910 - Linoleum block introduced as workable material.
16. 1918 - Relief printing gained momentum being used first for posters and announcements and then for illustrations.
- An acceptance of woodcuts and relief prints with appreciation for its particular qualities.

B. Important names in relief printmaking

Albrecht Durer  Lucien Pissarro
Hans Holbein   Auguste Lepire
Thomas Bewick   Charles Shannon
William Blake   Sturge Moore
Edward Calvert  Charles Ricketts
Gustave Dore    Reginald Savage
Paul Gauguin

VIII. SUGGESTED ACTIVITIES TO FACILITATE ACHIEVEMENT OF OBJECTIVES

(Numbers following suggested activities correspond with numbered reference books)

A. Relief prints produced by a variety of materials.

1. Impressions made by dipping, painting, or inking a surface or object and pressing it on the paper, or rubbing it.
   a. Finger and hand prints in repeated designs or a pictoral motif. (22)(31)
   b. Found object or press prints using
materials such as spools, bottle caps, paper cups, paper clips, cardboard strips, popsicle sticks, kitchen utensils, sponge styrofoam, brushes, boxes, stones, etc. (9)(22) (30)

c. Transfer prints - ink with a brayer and print by rubbing such things as grasses, weeds, leaves, sandpaper, wood, cardboard, paper shapes or a textural surface. (9)(11) (22)(31)

d. Brayer and roller prints - tin can and yarn, thread spool. (7)(22)

2. Printing surfaces made by attaching objects to a background block to create the raised surface. This is inked with a brayer and printed by burnishing.

a. Beans, stones, or sand glued to surface. (9)(11)

b. Masking tape, sandpaper strips, heavy paper, or cardboard glued to a surface. (9)(11)(22)

c. Pipe cleaners, drinking straws,
toothpicks or string glued to surface. (11) (22)

d. Foam sponge, styrofoam from meat packing trays, inner tube scraps, cork from sheets or bottle caps glued to a surface. (22)

e. Upholstery fabric, rug scraps, metal scraps, collage prints from collected surfaces. (11) (22)

f. Glue, rubber cement, lacquer dripped on surface. (9) (22)

3. Cutting into surfaces create the relief design. This is inked and printed by pressing or rubbing.

a. Plasticene clay modeled into a shape with incised lines. (22)

b. Soap block, plaster block, or wax block prints made by cutting lines and shapes away. (22)

c. Potato, vegetable or fruit cut and used to print. (9) (22)

d. 2 x 2 wooden sticks filled on top to form printing surface; art gum erasers; carved styrofoam blocks. (22)

e. Plasterboard, gypsum board, plywood veneer board, and other build-
ing materials from which printing surfaces can be made by cutting, peeling and scratching. (11)
f. Balsa wood made into printing surface by impressions of various objects and materials into the soft wood.
(11)(22)
g. Slate. (11)

4. Combination prints in which surfaces are both added to by gluing on objects and cut into by various methods are also possible. This requires a soft brayer or roller so ink can be distributed to high and low surfaces of the block and a padded manner of pulling the print so all surfaces can make contact with the paper.

5. Cutting techniques to be investigated.

1. Line designs. (6)
   a. Cutting the block for a white line design - line cut directly surface prints.
   b. Cutting the block for a black line design - background cut away lines are left raised to print.

2. Textural patterns. (6)
a. Patterns which can be made by the natural shape of the cutting tools repeated to create a textural surface.
b. Patterns which imitate a surface from nature: fur, feathers, rocks, grass, leaves, bark, etc.

3. Shape in the design. (6)
a. Cutting a negative image - the object or design is cut out; background prints.
b. Cutting a positive image - the object or design is left raised; background is cut away.
c. Combinations of positive and negative images.

4. Cutting a block for production by the elimination method: first prints are made in lightest color; parts are removed from the block as each color is added. Be sure a sufficient number of first prints are made before continuing, etc. (6)(22)

5. Cutting related blocks to complete a single design. (6)(22)
a. Blocks may be related in subject matter and printed to complete a picture or design-registration
not critical.

b. Blocks are cut for each color of a multicolor print and are printed in careful register to form the completed print.

C. Printing techniques to be investigated. (6)

1. Printing positive and negative images from the same block by printing black on white and white on black.

2. Overlapping to create tones and colors from one block.
   a. Rotate block 180 degrees and print in second color, rotate block in semi-circle.
   b. Random overprinting to create overlapping designs.
   c. Offset overprinting to achieve a two-tone effect. Print strong dark print; pull a reversed print from the first print, then overprint with second dark print.
   d. Superimposing same image several times without re-inking. Receding tones give an impression of movement.
   e. Overprinting a cut block design on a printed textural background such as
might be achieved by an impression from screen wire, grainy wood or fabric.

3. Color masking with a paper stencil which is used to mask out parts of a solid block which has been inked. A second block with a design cut into it is printed over this first print in a different color. (HINT: This is a good trial print before a second block is cut for a multiple block print.)

4. Color print with several blocks. (6)(22)
   a. Design should be well planned; remember designs are reversed in printing.
   b. Color mixture achieved by overprinting.
   c. Register marks are important:
      (1) Make light pencil marks on paper from first block.
      (2) Make a cardboard frame for the registration so each block fits into a carefully cut opening.

5. Repeating prints.
   a. Print in rows.
   b. Diagonal design rotated 90 degrees at each printing.

HINT: Mark back of block with an
arrow to insure proper placement for direction.

6. Encourage students to vary the kind of paper and material used for pulling prints, the manner of inking the blocks and arranging the design to develop a spirit of experimentation and creativity.

D. Projects appropriate for relief prints

1. Art portfolio
2. Posters
3. Greeting cards
4. Book pockets
5. Record covers
6. Story or magazine illustration
7. Program covers
8. Book plates (This book belongs to)
9. Fabric designs for curtains, clothes, shirts. (Be sure to use oil base inks.)
10. Wall hangings (large size)
11. Prints for framing
12. Group projects:
   a. Mural which is made by prints and impressions only.
   b. Booklets which include a print from each student.
E. List of materials

1. Linoleum cut
   a. Pencils
   b. Knife for cutting linoleum
   c. Spoon for burnishing (or press)
   d. Rollers
   e. Tables for inking blocks
   f. Padded table for repeat and fabric printing
   g. Ink: water based and oil based for fabric, assorted colors.
   h. Inking plate or slab (glass or metal)
   i. Rap
   j. Linoleum cutting tools with various nibs
   k. Gouges (more expensive)
   l. Linoleum (wooden backing unnecessary)
   m. Paper: carbon paper to transfer designs, tracing papers, newsprint to pull proofs, assortment of paper, such as: tissue, soft, textured, Japanese, parchment for pulling prints.
   n. A drying rack or place for prints to dry.
2. Wood cut
a. Wood
   (1) Discarded, found pieces, weathered for textures, brush and wash and clean treat with linseed oil to make surface more receptive to ink.
   (2) Plankwood, cut in direction of the grain.
   (3) Plywood, cut away top surface to form print.
   (4) Boxwood, hard, used for engraving.

b. Tools
   (1) V and U shaped gouges.
   (2) Knife for wood cuts.

c. Oil and stones for sharpening tools.
d. Plastic wood or plaster of paris to repair mistakes.

e. Rollers.
f. Inks.
g. Ink slab
h. Pencils,
i. Magic markers
j. Wire brush.
k. Wood saw
1. Tracing and carbon paper.

m. Burnishing spoon or press.

3. Prints made from a variety of materials
   a. String
   b. Cardboard
   c. Inner tube
   d. Plasticene clay
   e. Glue
   f. Tempera paint, water soluble inks
   g. Rollers or brayers
   h. Pipe cleaners, toothpicks
   i. Plaster
   j. Wood scraps

Other materials may be needed depending upon the activities selected.
These may be found around the school: workshops or cafeteria, office packaging materials.

F. Additional activities

1. Design experiments for printmaking
   a. Tone and texture exercises
      (1) Define the shape of each object in a still life arrangement by creating a textural surface without using a rigid outline.
      (2) Develop a geometric design which
achieves the effect of recession and depth by printing corrugated cardboard. The uncut surface prints black, a peeled section exposing middle area of ridges for middle tone and white is achieved by cutting away the corrugated ridged section.

(3) Use four identical shapes, create different texture or tones on each so they will "read" individually when printed partially overlapping in one color.

b. Line and movement exercises

(1) Use string to create linear patterns emphasizing curving qualities, parallel lines, repetition of a line, the division of a rectangle into various areas.

(2) Use matchsticks on toothpicks glued to a surface to create feeling of movement, division of area using straight lines and right angles, overprints to achieve motion and depth.
(3) Corrugated cardboard creates a field of parallel lines. Create optical illusions or vibrations by cutting some areas and printing them with lines going in a variety of repeated directions.

c. Color and shape exercises

(1) Cut a rectangle into several shapes; expand and extend the rectangle by gluing shapes to a background; throw no pieces away.

(2) Cut shapes from tag board; print the positive and negative elements of the design as separate print.

(3) Use various shapes; ink them various colors; place on paper to print.

2. Monoprints - single impression prints

a. Additive method - related to painting.

A design is drawn directly on back of glass to compensate for reversal of print or design may be placed on paper which is put under the glass. Start with lightest and work to darkest colors painting directly on glass. Pull print on dampened paper.
b. Subtractive method - monochromatic related to drawing - A plate (glass or metal) is smeared with ink and the design or picture is taken away.

(1) Lineal monoprint - scratch or draw lines into ink; place paper; pull print.

(2) Tonal monoprint - wipe out lighter tones with various materials (brush, stick, fingers, cotton, sponge, spatula) Add ink for darker tones.

c. Activities for monoprints

(1) Overlay printing
(2) Woodblock transfer
(3) Block type prints
(4) Transfer drawing
(5) Crayon monotype
(6) Watercolor monotype
(7) Cylinder transfer

(See bibliography for comprehensive coverages.)

d. Culmination activity for monoprints

In the year 1900, in artists circles, monotype parties were popular. Guests were provided materials and tools; a subject was announced and a time limit set; improvised compositions were printed,
the results collected and displayed and prizes awarded.

3. Flotographs - float pigments on water. Transfer to paper in a controlled manner using rubber cement as a block out. Could be used for background effects for blocks that have been cut. Could be used for background effects for blocks that have been cut.

4. Rubbings - textured surfaces are printed by rubbing a crayon or pencil on a piece of paper held over the textured surface. This has been developed into a real skill in countries such as Japan and China.

5. The researching and manipulation of wood block prints in the manner established by the Japanese - See 1, 12, 13, 21, 28 in Bibliography.

6. The designing and printing of fabrics to be used for a specific purpose. See 8, 17 in Bibliography.

G. Organization of room and materials

1. Room arrangement
   a. Tables arranged and used for the following:
      (1) Designing and construction or cutting of blocks.
2. Materials

a. Brayers and inking surfaces should be cleaned after use. Equipment should be stored in a manner which makes it accessible, yet easy to determine that all equipment has been properly returned. A pegboard or hooks could be used.

b. Old telephone books, newspaper and newsprint can be used for pulling proofs. Paper which is to be used for final editions of print could be cut and placed in shallow boxes so a variety of

(2) Inking plates, brayers, inks and paints for inking.

(3) Paper for proofs and final print editions.

If the paper supply is located in one area, the actual printing (rubbing, stamping, etc.) can be done at the student's individual table area, or at a press if it is available.

b. Drying facilities: a clothes line with chips or drying racks can be used.
papers are available and yet contained so they will not become crumpled.

c. Safety procedures for use of cutting tools should be stressed prior to student's use of such equipment.

H. Numbering print editions

1. Proofs
   a. Proofs can be used to evaluate a block before final prints are produced.
   b. "Proof" can be written in the margin of such prints.

2. Final edition
   a. The total numbers of prints to be produced should be determined prior to printing. They are numbered accordingly. In an edition of 20 prints numbering would progress 1/20, 2/20, etc., with the numbers placed in the margin of each print.
   b. When printing multicolored editions, the total number of prints desired should be printed in the first color before the addition of other colors in the same manner.
IX. TERMINOLOGY FOR RELIEF PRINTS

**Baren** - A slightly convex hand tool for burnishing the back of paper when printing from an inked relief block. An ordinary household tablespoon is used for the same purpose.

**Boxwood** - Dense hardwood from the boxwood tree prepared in end-grain blocks for use in wood engraving.

**Brayer** - A felt, gelatin, leather composition or rubber-covered roller used for inking blocks.

**Charge** - To cover or roll with printing ink.

**Dabber** - The traditional tool for inking a plate or laying in a ground, usually a cotton pad covered with silk or leather.

**Damp press** - Any device or contrivance which allows paper to be properly dampened for printing.

**End grain** - A block of wood in which the grain runs perpendicular to the surface, especially prepared for wood engraving.

**Impression** - A print from an inked block

**Ink slab** - A large piece of glass, metal, etc., on which prepared ink is rolled.
Letterpress - The art or process of printing from type or relief blocks; the press used in this act or process.

Linoleum cut - Relief process, a block of battle-ship linoleum cut into with gouges, knives or tools wherein the image to be printed is raised above the surface. Also a print from such a block.

Monotype - An approach which lies between the fields of printmaking and painting resulting one-of-a-kind end products. Method involves working a design with oils or inks on the surface of a glass slab, on metal plate, then transferring the image to paper.

Plank grain - Wood on which a wood cut is made; the grain runs parallel to the length of the block.

Plug - Used by some printmakers for corrections, especially in wood engravings woodcut or linoleum cuts. The faulty passage is cut out; a plug is wedged in its place, creating a new working surface.

Proof - An impression obtained from an inked block to determine its particular state.
Proof trial on artist's proof - A progress report or early proof of a block.

Pull - The art of printing the print.

Register - The adjustment and readjustment of separate blocks in color printing to assure proper alignment.

Register marks - Tabs, crosses, triangles or other devices used in color printing for positioning the paper to obtain perfect register.

Relief print - Print obtained from a relief block. Collages on cardboard may be inked and printed to produce relief prints. Also metal plates may be printed as relief prints.

Whiteline - A technique of working up an image using a white line on a black ground.

Woodcut relief process - A block of plank grain wood cut into with a knife and various gouges, chisels, etc., wherein the image to be printed stands in relief above the rest of the block, a print from such a block.

Wood engraving relief process - A block of end
grain wood cut into with tools; a print from an end grain block.

Working proof - A trial proof with additions and corrections indicated upon it as a guide for the next state of a print.

Xyrography - Wood engraving.
X. RESOURCES FOR STUDENT AND TEACHERS

Books

Azechi, Umetaro, *Japanese Wood Block Prints.* (MPL)

Banister, Manly, *Prints from Linoblocks and Woodcuts.* (MPL)

Baranski, Matthew, *Graphic Design: A Creative Approach.* (EC)

Biggs, John B., *Woodcuts—Wood Engravings Linocuts and Prints by Related Methods of Relief Printmaking.* (MPL)


Elam, Jane, *Introducing Linocuts.* (MPL)

Erickson, J. D., *Printmaking without a Press.* (MPL)

Erickson, Janet, *Block Printing on Textiles.* (EC)

Gorbay, Norman, *Printmaking with a Spoon.* (MPL)

Green, Peter, *Introducing Surface Printing.* (EC)

Green, Peter, *New Creative Printmaking.* (MPL)

Grilli, Elise, *Sharaku.* (MPL)


Kent, Cyril, *Simple Printmaking Relief and Collage.* (MPL)

Knowles, Virginia, *The Psalm Book of Charles Knowles.* (MPL)

Kurth, Willi, *The Complete Woodcuts of Albrecht Durer.* (BC)

Lammier, Jutta, *Print Your Own Fabrics.* (MPL)


Leithton, Clare, *Wood Engravings and Woodcuts.* (EC)


Pattemore, Arnel W., *Printmaking Activities for the Classroom.* (MPL)

Rasmusen, Henry, *Printmaking with Monotype.* (MPL)

Reiner, Imre, *Woodcut/Wood Engraving.* (MPL)

Rothenstein, Michael, *Frontiers of Printmaking.* (BC)


Sprague, Curtis, *How to Make Linoleum Blocks.* (MPL)

Suzuki, Tokashi, *Hiroshige.* (MPL)

Watson, Ernest W. and Kent, Norman, *The Relief Print - Wood Cut, Wood Engraving and Linoleum Cut.* (MPL)

Weaver, Peter, *Printmaking: A Medium for Basic Design.* (MPL)

Weiss, Harvey, *Paper, Ink and Roller - Printmaking for Beginners.* (BC)

Woods, Gerald, *Introducing woodcuts.* (MPL)

Zaidenberg, Arthur, *Prints and How to Make Them - Graphic Arts for the Beginner.* (MPL)

Zigrosser, Carl, *Book of Fine Prints.* (MPL)

Periodicals


*Arts and Activities* magazine - each month has articles on art activities and usually at least one article on some form of printmaking.
School Arts - same as above.

Audio-Visual Materials

How to Make a Linoleum Block Print. Bailey, 13 min. B&W (1-11692)

How to Make Potato Prints. Bailey, 12 min. C. (1-11690)

Monotype Prints. Bailey, 5 min. C. (1-04214)

Graphic Arts. (Part 1) 22 (2x2) color slides. (5-20160)

Graphic Arts. (Part 2) 22 (2x2) color slides. (5-20161)

Community Resources

Grove House - Coconut Grove

Miami Dade Junior College - Graphics Classes

Barry College - Graphics Classes

Pier 1 Imports - Block Designs
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(20) Newick, John, Making Colour Prints: An Approach to Lino Cutting, Peoria, Ill.: Charles A. Bennett Co., 1952. MPL
(27) Sprague, Curtis, How to Make Linoleum Blocks, New York: Bridgeman Publishers, 1944. MPL
(31) Weiss, Harvey, Paper, Ink and Roller - Printmaking for Beginners, New York: Young Scott Books, BC


Shoebaken, Marilyn S., "Printmaking", *Everyday Art*, 41: (Fall 1962) 3-21.