HANDICRAFTS SERIES No. 10

Linoleum Block Printing

Creative HANDICRAFTS

McGILL UNIVERSITY
ADULT EDUCATION SERVICE

HANDICRAFTS DIVISION
MACDONALD COLLEGE, P.Q.

Macdonald College Handicraft Pamphlets
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The Principal Product of a Handicrafts Program should be Better People

Better people because of the greater knowledge of their own latent talents for creative work.

Better families because mother and daughter, father and son and whole families can plan and work together on individual or joint handicraft projects.

Better homes because homes can be tremendously enriched by the innumerable articles that can be designed, knitted, woven, carved, thonged, moulded by the members of that home.

Better communities because an active handicrafts program encourages a community handicrafts centre where people can work together, use equipment in common, exchange ideas, hold exhibitions and become better acquainted.

Ample opportunities are also afforded for supplementing incomes through the sale of high quality handicraft products.

"Every rise in the quality of the work that men do is followed swiftly and inevitably by a rise in the quality of the men who do it."

October 1944

LINOLEUM BLOCK PRINTING

by

PEGGY JOHANNSEN AUSTIN

Are you looking for a hobby which is simple and fascinating, inexpensive and practical, yet which brings delightful results with a minimum of artistry and skill? Then try your hand at Lino-cuts.

The principle involved consists of drawing a design on a piece of linoleum, cutting away all parts of the surface not to be printed, inking the design, and transferring it by pressure on paper. Here, then, you will find the fundamental processes of Design, Engraving and Printing, with unlimited scope for originality and creative ability. The thrill that comes as you pull the first crisp black and white print is ample proof that your time has been well-spent.

EQUIPMENT

1. *Linoleum:* ¼" Battleship Linoleum is best.
2. *Tools:* A set contains 5 steel-bladed tools with wooden handles; veiners with V-shaped ends of two widths for outlining the design; U-shaped gouges for gouging out the backgrounds; and a knife, for cutting sharp angles and corners. All tools must be kept sharp. Fine emery cloth or sandpaper will keep them in trim, but a small two-faced oil stone is necessary for re-sharpening. Grind the outside of the blade at the original angle in a rotating motion, first on the coarse side, then on the fine side of the stone. Use fine emery cloth to remove roughness from the inside of the cutting edge.
3. *Paper:* Black paper, good quality white paper or tracing paper are each useful in the original drawing, as will be shown later. Carbon paper is necessary for design transfer. Printing papers should be light-weight and absorbent, Japanese rice paper giving the best results, but a good substitute is ordinary blank newsprint. Rough typewriting paper or even toilet paper will

Editor's Note—The illustrations, except figure 20, were cut and printed by the author.

also do. Dampen heavier papers and smooth-surfaced varieties by pressing them between moist newspaper for several hours for better printing. Rough and mottled surfaces produce interesting results. Mount your finished print on stiff board.

4. *Ink:* Printer's ink in small tubes is available in black and various colours, and may be mixed to any desired shade. Thick ink is thinned with linseed oil or turpentine; ink, stiff with cold, may be liquefied by warming.

5. *Roller:* Rollers for inking the design to the carved linoleum block, should be cleaned when not in use by rolling over newspaper. Rubber rolls can be cleaned with turpentine or gasoline, and composition rolls with coal oil, but only when necessary, because of deterioration. A dauber made from a small pad of absorbent cotton covered with strong cloth is a good substitute if rollers are unobtainable. A piece of window glass is necessary to mix and spread ink on the roller.

6. *Press:* A teaspoon, stocking darner, or tooth-brush with bristles removed can be used for hand-printing, and a pile of old newspapers and books for foot-printing. A letter press, if available, is excellent.

See catalogue at end of manual for cost of equipment.

DESIGN

The first step in making a linoleum block print is a design. Aim at simplicity. Choose a silhouette of broad masses or a study of a few simple lines. Start with subjects around you—animals, boats, an old barn and fence, or children in action. Try sketching your ideas first with white chalk on a blackboard, or with white pencil on black paper (use a sheet from your photo album). This will give you the same effect as your finished print, for during the process of engraving the white lines of the pencil or chalk become the cutting strokes of the tool. Now draw your design on smooth white paper, complete to the last detail, and fill in the parts to be printed. After much experience you may be able to draw mere outlines and leave detail to be done freely on the block with the tool. If your drawing must be reversed,

as in the case of lettering or people doing things, place it on a piece of carbon paper with the blackened side up, and trace; or you can avoid this extra step by making your original design or lettering on thin transparent paper.

Next prepare your linoleum. Trim the block to about one inch larger than the drawing. If the block has been waxed, clean with turpentine. Rub fine emery paper or pumice powder over the surface to remove all trace of roughness, wash with soap and water and dry thoroughly. A perfectly smooth surface will make a big difference in the printing results. Pin the drawing and carbon paper to the linoleum, placing the pins or thumb tacks in parts which are to be cut away. Use carbon paper because the lines are more permanent than pencil and are black enough to avoid coating the block with ink, paint or chalk. Fill in with pencil the areas to be printed—this may avoid mistakes in cutting.

ENGRAVING

Figs. 1 and 2 show one method of holding the tool and steadying the block as cutting proceeds. This is used for accurate firm strokes and deep cuts where much pressure is needed, as in clearing backgrounds.

Another method, not illustrated, is to hold the tool like a pencil and is better for fine delicate lines where

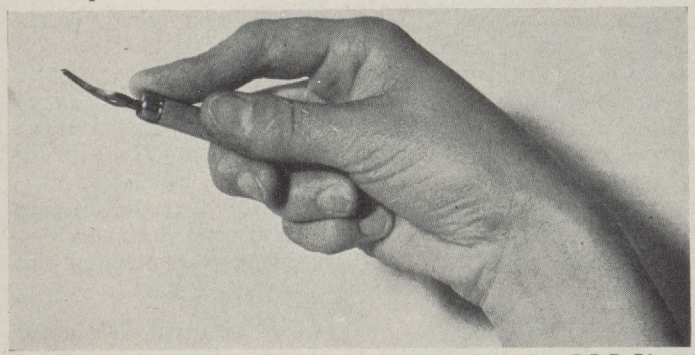

Fig. 1.—Holding the cutting tool. C.P.R. Photo

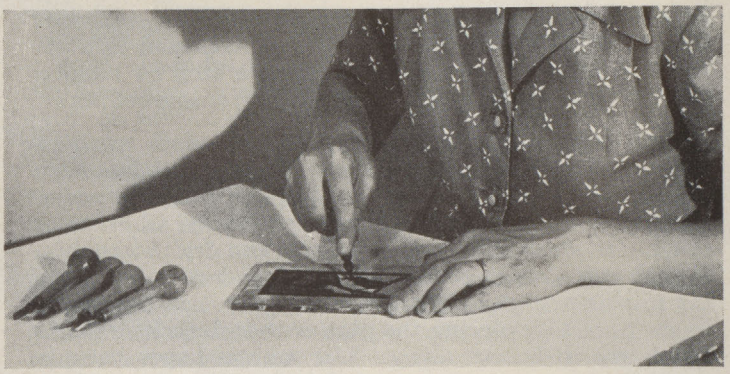

Fig. 2.—Cutting the block. C.P.R. Photo

freedom of movement is essential. Try various positions and adapt the most comfortable one to the type of stroke you are cutting.

Single line cutting, or white line on a black background (figs. 8 and 9), is the easiest to do and will give the quickest and best results for a first attempt. Either of the V-veiners may be used for outlining but remember to work carefully because the slightest nick or unevenness in the lines will show prominently in the print.

Black line work and silhouettes with white backgrounds (figs. 10 and 11) take longer to do and the effect is not always as striking. Work first with the V-veiners and then clear away with the U-shaped gouges all areas not be printed, using the wider gouge to make deep cuts in the large areas. Avoid too much white by distributing the lines, and always have a border to support the block equally under pressure. Cut the outside border with the knife, using a steel square as guide—cut straight down and through the burlap back of the linoleum. Wash the block.

Having mastered a simple line cut, you will need more than outlining for a good print. Shading and texture and background techniques should now be developed.

Half-tones result from the breaking up of large areas by lines of contrasting mass (fig. 14). Experiment using different strokes with various shapes and you will gradually develop a technique which will suit all your needs. Avoid mechanical exactness—never use a ruler but rather a freehand stroke and apply it with freedom. Fig. 13 shows various background techniques. See how their application in figs. 14 to 19 not only adds interest to the subjects but helps to suggest a mood.

In your effort to develop techniques and fine workmanship, don't overlook the essentials of good design. There must be an effective balance of black and white. Borders help to maintain an equal distribution of masses and can be varied to suit the composition. Aim at simplicity in design and boldness in pattern and you will always have a good linoleum block print. *A simple original creation will bring you much further along the road to success than an intricate and finely executed copy.*

PRINTING

There are two simple methods of printing—by hand and by foot pressure. The method used depends largely on the type of paper selected. Light-weight absorbent papers print better by hand, while heavier papers, requiring more pressure, print better by foot.

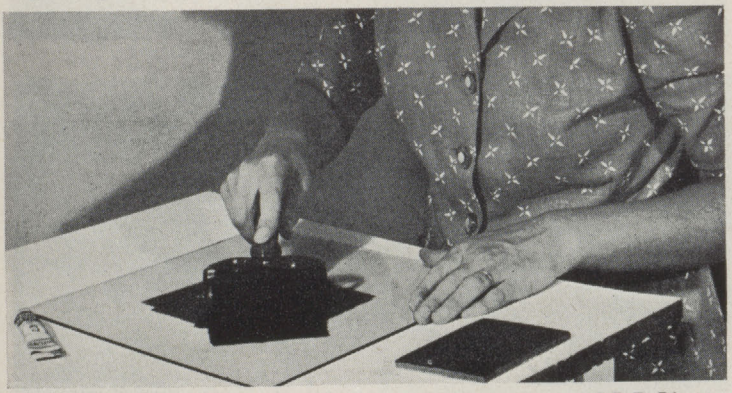

Fig. 3.—Inking the roller. C.P.R. Photo

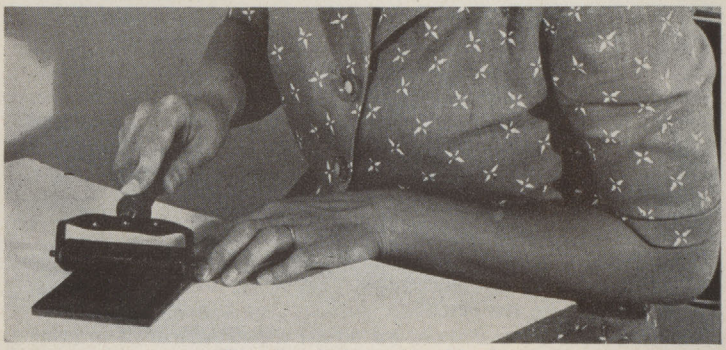

Fig. 4.—Inking the block.

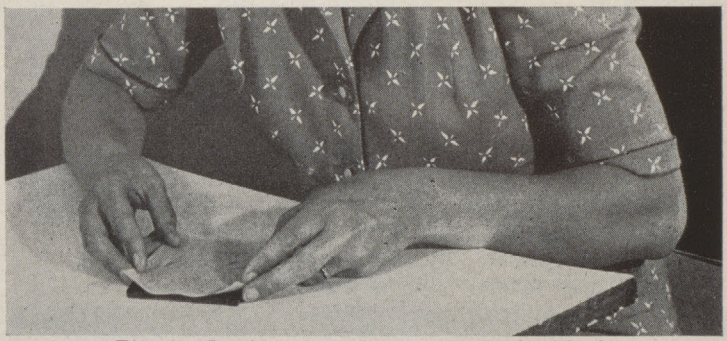

Fig. 5.—Laying the print paper on the block.

Fig. 6.—Hand printing with a spoon. C.P.R. Photos

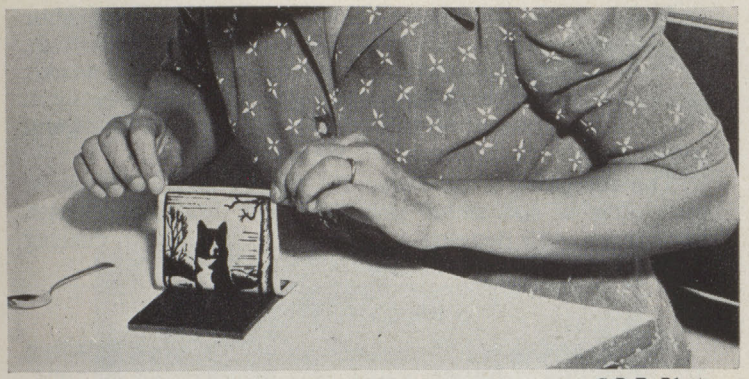

Fig. 7.—Peeling off the finished print. C.P.R. Photo

Hand Printing: Figures 3-7 illustrate the different stages of this process.

1. Roll the printer's ink on the glass until it is evenly and thinly distributed. (Fig. 3.)
2. Charge the block, by rolling the ink over the linoleum first one way and then at right angles. (Fig. 4.) Experience will determine how much ink to use to get the right "tacky" sound. Blocks that are too heavily inked will smudge.
3. Lay the paper (cut slightly larger than the block) carefully over the inked surface. (Fig. 5.)
4. Rub the paper with the back of a spoon until the ink can be seen adhering evenly over the printed surface (Fig. 6.)
5. Peel off the finished print. (Fig. 7.)

If the first proof shows the white grain of the paper through the solid parts it is due to one of the three following causes: (1) insufficient ink on the block, (2) ink too thick, (3) insufficient pressure.

Foot Printing: The inking of the block remains the same in both methods, but printing by foot pressure is done as follows:

Pile several newspapers flat on the floor, and lay your print paper on top. Holding the block a half-inch high, drop it carefully face-down upon the paper. Place a book or other hard flat surface of larger area, directly upon the block and stand on top of all. Pick up the block and paper together, then peel off the print.

The foregoing procedures are suggestions for ways of obtaining a successful print. Each craftsman, with experience, will develop additional techniques in cutting and printing to suit his own needs.

POSSIBILITIES

The practical applications of linoleum block printing are unlimited. Paper prints can be used for framing, greeting cards, posters, book covers, book plates, monograms, letter-heads, programmes, tickets, place cards, gift wrapping paper, illustrations for school annuals, in fact wherever a printed subject is required. The commercial printing of linoleum blocks is much cheaper than other types. In many of these uses lettering will be necessary. Fig. 12 offers suggestions of various styles from which you can work out your own type most suitable to the character of your subject. Bold firm legible letters are always the most effective.

Fig. 8.—White silhouette.

Now consider the possibilities when printing is applied to textiles. The processes and equipment are precisely the same as described above except that any fabric may be used for the printing surface instead of paper. Textiles ranging from smooth-surfaced cotton sheeting to fuzzy Viyella flannel have been successfully printed and are washable provided the ink has been allowed to dry several days. There is no end of fun in arranging your

Fig. 9.—White line.

Note.—This pamphlet is a modification and enlargement of the one originally written for the Canadian Legion Educational Services, which has graciously given permission to use parts of the text and illustrations.

Fig. 10.—Black line.

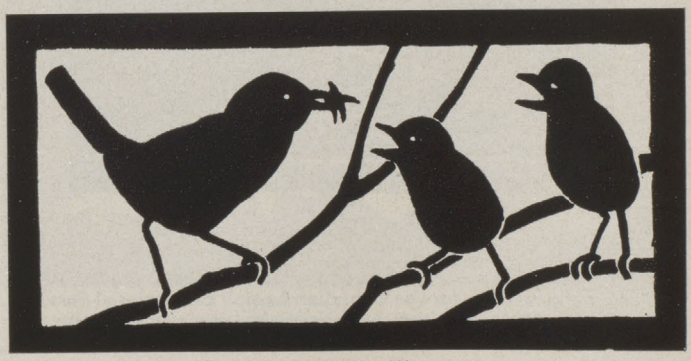

Fig. 11.—Black silhouette.

Fig. 12.—1. *Single stroke letters are easiest to do.*
2. *Single stroke shaded letters are more solid.*
3. *Block letters are most effective.*

blocks to form repeat designs and the same print may be combined in numerous ways to give quite different all-over effects. Fig. 20 is a striking example of textile printing by a 15-year-old school girl. Print your own textiles and make them up into curtains, bedspreads, smocks, aprons, cushion covers and dresses. Pennants, flags, and badges offer more possibilities. Oilcloth mats for luncheon sets may be strikingly printed, but care must be taken to prevent the block from slipping and smudging.

Even the linoleum block itself can serve a purpose. Paint with enamel, oil paint or poster paint, shellac it, mount on wood, and you have a wall plaque. Apply the blocks to book-ends, or use them as hot plate protectors.

These are the fundamentals. Now go ahead on your own and share the thrill of accomplishment that may be had from this fascinating and creative hobby.

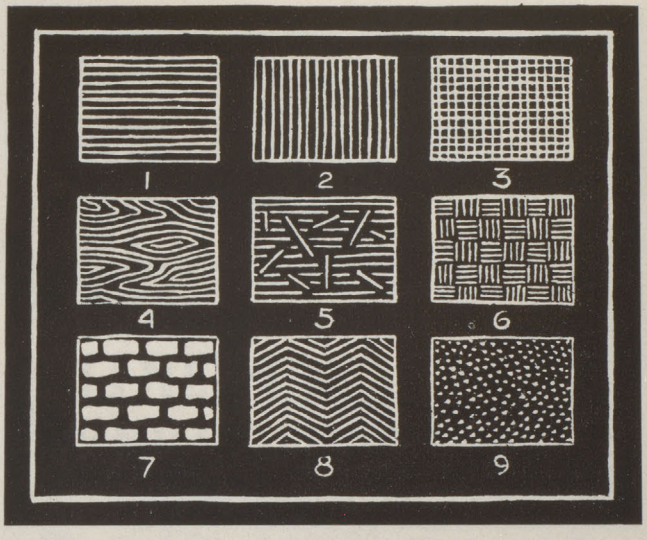

Fig. 13.—Background techniques:

1. horizontal	*2. vertical*	*3. cross hatch*
4. grain	*5. broken line*	*6. basket weave*
7. brick	*8. herringbone*	*9. stippled*

Application of background techniques:

See the following illustrations for some examples in the application on the above techniques:

1. Horizontal - - Fig. 16
2. Vertical - - - Fig. 15
3 & 6. Cross-hatch and basket weave Fig. 14
4 & 7. Are examples to show textures of wood and brick
5 & 8. Make suitable backgrounds for portraits and still life.
9. Stippled - - - Fig. 18

Fig. 14.—Textures, shading and half-tones are simulated by closely related lines of black and white.

Fig. 15.—Vertical lines in the sky suggest height.

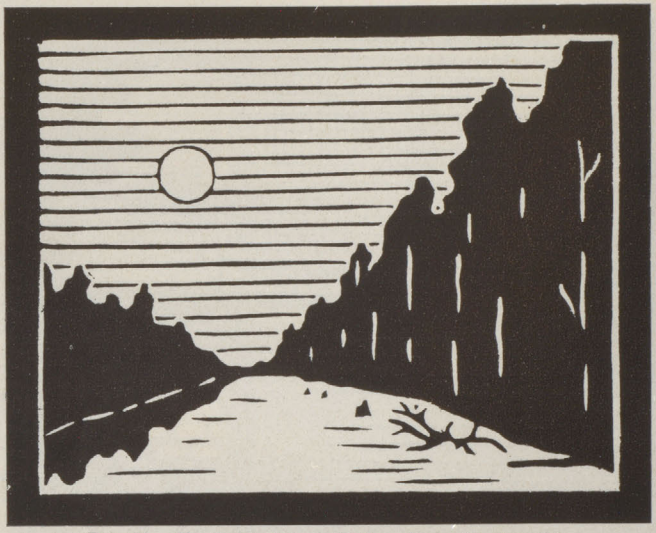

Fig. 16.—Horizontal lines in the sky suggest quiet.

Fig. 17.—A sunburst effect produces the impression of brightness.

Fig. 18.—A stippled sky produces a cold and snowy effect.

Fig. 19.—Slanting and curving lines suggest movement and action.

Fig. 20.—Textile design by a 15 year old girl of the Verdun High School. The original lino-cut of factories, bridge and canal against a mountain background has been combined to form a most effective and well-integrated repeat design.

MACDONALD COLLEGE HANDICRAFTS STORE

Through the Macdonald College Handicrafts Store, a co-operating organization of the Canadian Handicrafts Guild, various supplies and tools described in this pamphlet may be purchased in kit form or separately.

Everyone will understand the difficulties of obtaining adequate supplies of best quality materials. Substitutions may sometimes be necessary.

If a money order or cheque accompanies your order any balance due you will, of course, be returned. Otherwise kits must be sent C.O.D. postage extra.

PRICE LIST (Prices are subject to revision)

Linoleum ¼″ battleship 9″ x 12″	.40
Lino cutting tools, set of five blades with wooden handles	.50
Newsprint sheets 8″ x 10″, per 100 sheets	.10
Lino printing ink, medium sized tubes, black, red, yellow, blue, green, each per tube	.35
Rollers, as available	.40 to .60
Pumice powder per 2 oz. package	.05
Turpentine per 2 oz. bottle	.10
Carbon paper 8½″ x 11″, 2 sheets	.05

PRICES OF THIS PAMPHLET

1 to 5 copies	10c. each post paid
6 to 25 copies	9c. each post paid
26 to 100 copies	8c. each plus postage

Other prices on request.

Address: Handicrafts Division, Macdonald College, P.Q.

Printed in Canada

THE PURPOSE OF THIS SERIES OF PAMPHLETS

About 90% of our boys and girls will earn their livelihood, after they leave school, by the skilful use of their hands. Because they have had little experience with which to guide them in selecting work suitable to their talents, many of them take the first job that they can get. Under such conditions this job is usually a short one. By a trial and error method, often covering a period of years, they find positions which they hold for life. In many cases the work is not really suited to their natural abilities.

Handicrafts offers one means of meeting this great problem. The opportunity to learn a range of crafts provides a means of discovering natural talent. This talent may be in woodwork, metalwork, leatherwork, weaving, pottery, or in design. A person who has talent in a certain craft or phase of a craft will find greatest pleasure and productiveness in a position where that talent can be used to advantage. The nation needs all the natural talents available for its Industries, Arts and Sciences. Hence all will profit when talent finds its useful outlet. Handicrafts in the schools, churches, homes, scout rooms, etc., will give to young people an opportunity to find the sort of work in which they will produce best and be happiest. This pamphlet is one of the arrows pointing the way.