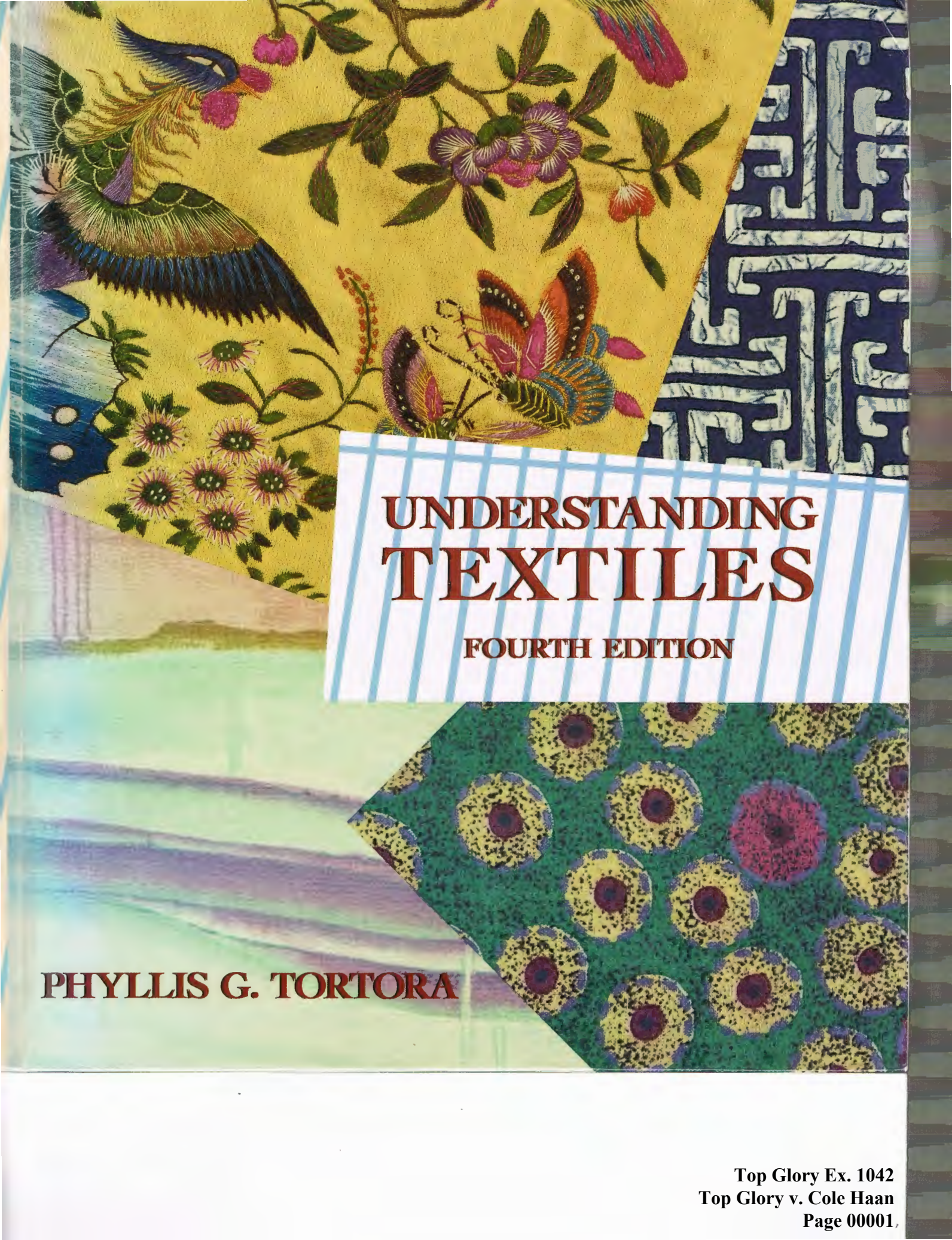
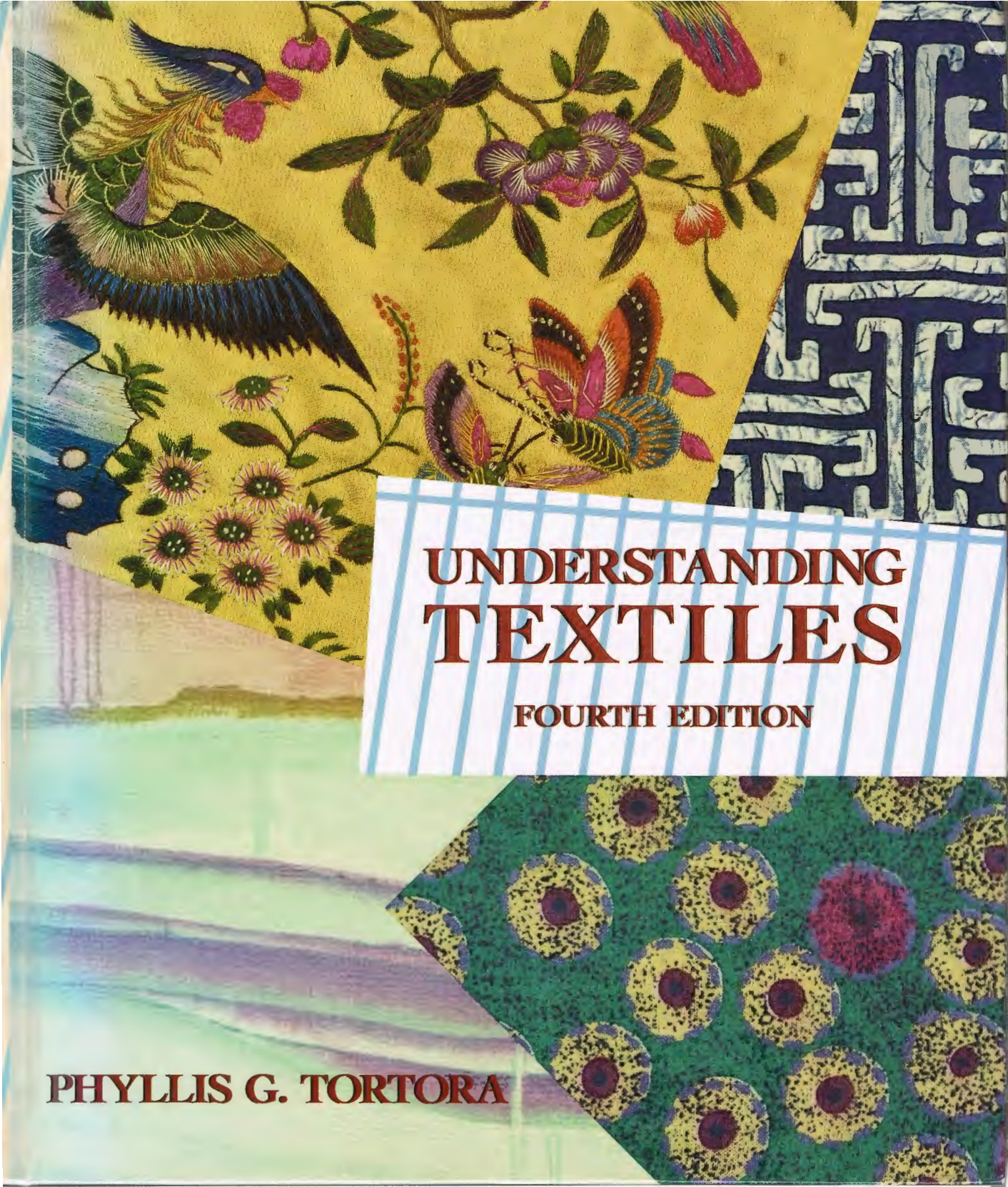




UNDERSTANDING TEXTILES

FOURTH EDITION

PHYLLIS G. TORTORA



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Production Manager: Aliza Greenblatt
Cover Designer: Eileen Burke

This book was set in Weiss by Progressive Typographers, Inc.,
printed and bound by R.R. Donnelley & Sons.
The cover was printed by Lehigh Press.

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Printed in the United States of America

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Macmillan Publishing Company
866 Third Avenue, New York, New York 10022

Macmillan Publishing Company is part of the Maxwell
Communication Group of Companies.

Maxwell Macmillan Canada, Inc.
1200 Eglinton Avenue East
Suite 200
Don Mills, Ontario M3C 3N1

LIBRARY OF CONGRESS CATALOGING-IN-PUBLICATION DATA

Tortora, Phyllis G.

Understanding textiles / Phyllis G. Tortora.—4th ed.

p. cm.

Includes bibliographical references and index.

ISBN 0-02-421195-8

1. Textile industry. 2. Textile fibers. 3. Textile fabrics.

I. Title.

TS1445.T63 1992

677—dc20

91-7808

CIP

Printing: 2 3 4 5 6 7 Year: 2 3 4 5 6 7 8

ISBN 0-02-421195-8

1. Flat or circular jersey or single knit machine: one needlebed and one set of needles.
2. Flat or circular rib machine: two needlebeds and two sets of needles.
3. Flat or circular purl or links-links machine: two needlebeds and one set of needles.

JERSEY OR SINGLE KNITS

Jersey or single-knit machines have one needlebed and one set of needles. With one set of needles and one needlebed, all needles face the same direction; all stitches are pulled to the same side of the fabric. As a result, jersey or single-knit fabrics have a smooth face with a vertical grain on the right side of the fabric and a widthwise grain on the back side. The loops formed by the jersey machine are formed in one direction only (See Figure 16.8.), which gives a different appearance to each side of the fabric. The basic fabric produced by this machine is known as a *plain, single knit, or jersey*.

Plain, single knit, or jersey stretches equally in both the lengthwise and crosswise directions. If one stitch breaks, the fabric may ladder or "run." A great many items of hosiery, sweaters, and other wearing apparel are made in the plain knit. Jersey fabrics tend to curl at the edges and are less stable than are some other types of knits. This is the result of the pressures exerted during knitting. Special finishing techniques are used to overcome these tendencies and maintain fabric stability; the principal ones use starches, gum mixtures, polyvinyl acetate emulsions, and resins.

Plain knit fabrics can be made into designs of two or more colors by use of a patterning mechanism that controls the selection and feeding of yarns and types of stitches to create jacquard knits. (See Figure 16.9.) Jersey machines can also produce terry, velour, fleece, and sliver knit fabrics.

High-Pile Fabric

High-pile fabrics, such as imitation furs and plushes, are usually knitted, utilizing a jersey machine. While the knitting is taking place, a sliver of staple fiber is fed into the machine. These fibers are caught in the tight knit and are held firmly in place. Although any staple fiber can be used for the pile, the greatest quantity of these fabrics are made with acrylic and modacrylic fibers in the pile. (See Figure 16.10.)

By using staple fibers of varying lengths, adding color through fiber dyeing or printing on the surface of the pile, and by shearing or brushing the pile, an enormous variety of effects can be achieved. The use of knitted pile fabric ranges from excellent imitations of furs, such as