

Hands in Clay

Fourth Edition



Charlotte F. Speight
John Toki

1092

HANDS IN CLAY

FOURTH EDITION

CHARLOTTE F. SPEIGHT

JOHN TOKI

California College of Arts and Crafts



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Preface

Hands in Clay can be read in a variety of ways: as a story of humanity, as a glimpse into the well-springs of creativity, and as a challenge to learn the skills that offer a lifetime of joyous experiment and expression in clay.

The story we tell in the first part of the book, “Shaping the Past,” takes a winding path through time and geography. Not only has clay been shaped by human hands for thousands of years, but the objects created by those hands also have shaped the daily lives of the people who used them. In addition to objects crafted to fulfill utilitarian needs, artists have formed clay into works that have communicated each era’s deepest beliefs, its strongest communal emotions, its aesthetic concerns, and its most pressing spiritual aspirations.

As we explore ceramic developments around the world through history, we introduce the reader to many of the ceramic terms that will be encountered in later technical chapters, and we lay out many of the basic techniques that must be mastered to work competently with clay. We have included short discussions of the shape, form, and decoration of ceramic objects from the past, thereby introducing a number of the formal considerations ceramists face as they work in clay. The final chapter in the historical overview, Chapter 8, “Worldwide Interaction,” gives a short

survey of the radical changes that have taken place in the field of ceramics during the twentieth century.

In the second part of the book, “Shaping the Present,” Chapter 9, “The Artist’s Vision,” explores the aesthetic philosophies of a number of contemporary ceramic artists, disclosing how their creativity stems from their individual perceptions and experiences. This chapter encourages students to explore their own creative roots and to draw on them imaginatively for inspiration.

In “Getting Started” (Chapter 10) and “Handbuilding” (Chapter 11), the emphasis shifts to a hands-on exploration of the qualities inherent in clay. These chapters offer a progression of techniques and processes as groundwork before proceeding to the more technically advanced building methods. They take the reader through the most basic handbuilding processes and provide photographs of contemporary ceramists wedging, coiling, pinching, rolling out and building with slabs, sculpting solid, hollowing out, and reassembling sections. A chart showing basic tools is included as well as drawings that explain the workings and use of large studio equipment. Chapter 12 thoroughly covers throwing on the wheel, while Chapter 13 demonstrates slip casting, mold-making, and formation of tiles. Chapter 14 contains glaze and testing infor-

mation, and also examines the basic ceramics materials and compounds. Chapter 15, "Firing," provides information about the most modern kilns and firing methods appropriate to pottery and sculpture. It also shows how the ancient techniques of wood-firing, sodium vapor-firing, and raku can be adapted to contemporary usage. Chapter 16 discusses the intricacies of building and firing large sculptures along with installations and site specific works, with emphasis on commissioned work. Finally, for those who have become deeply involved with the craft and art of ceramics, Chapter 17 provides the information needed to set up a studio, offering advice on what equipment to buy and how to create a safe and healthy environment.

The appendixes provide further help for both beginners and advanced students who will find in them specially formulated clay and glaze recipes for testing as well as recipes from professional ceramists; temperature charts; detailed information on using ceramics material safely and successfully; materials and equipment sources; books, video sources, and on-line sites; and health and safety information resources. An expanded glossary explains the specialized terms that appear in bold type in the text.

NEW TO THIS EDITION

In response to requests for more advanced technical information in *Hands in Clay*, we have revamped this edition to serve an even wider range of ceramics students. Beginners will still find the basic material here, intermediate students will be helped to develop and polish their skills, and experienced students will now receive the necessary information to plan, construct, finish, and fire their work to a professional level.

We've made the following changes and additions:

- Part one, "Shaping the Past," now begins with the earliest-known fired, clay objects from Japan and Europe, emphasizing the global development of ceramics. Later, in the geographically specific historical chapters, we have added new archaeological information on the emergence of ceramics technology and expanded the coverage of aesthetics from culture to culture.
- In part two, "Shaping the Present," Chapter 9, "The Artist's Vision," is rich with challenging new concepts. One newly participating artist offers an installation that forces us to reevaluate the importance of our sense of touch, while another asks us to consider pottery forms metaphorically.
- Chapter 11, "Handbuilding," now shows professional artists adapting the basic clay-forming methods to complex construction. It illustrates building a clay original from which to make multi-part molds for casting and using integral clay frameworks to build large work. It also shows a method of building a tall slab vase in a wooden cradle. In addition, we've added material that demonstrates preparing thick-walled sculpture for safe firing.
- We've specifically concentrated on enhancing and expanding Chapter 12, "Working on the Wheel." Although the new photographs still cover the basics of centering, opening, and pulling up the walls, the experienced wheel student can now follow several professional potters as they demonstrate production techniques in their studios; forming a pitcher, throwing a large bowl, collaring in a vase, fitting the lids for a soup tureen, and pulling and adding its handles. New photos compare differing aesthetic approaches to using the wheel. In addition, an enriched section on altered wheel forms challenges the student to achieve a greater design potential while using the wheel.
- In Chapter 13, "Working with Molds," we've added a section on handmade tiles that demonstrates making a press mold for forming tiles. New illustrations in the color plate section show applications of handmade sculptural tiles used in an architectural setting.
- Chapter 14, "Texture, Color, and Glaze," includes updated information on the decorative use of glazes and underglazes by contemporary ceramists. There is also a new series on masking related to glaze application. Chapter 15, "Firing," now offers more specific information on how ceramic materials interact in the kiln, and new photos illustrate firing a vapor kiln and raku firing.
- Chapter 16, "Installations, Large-scale and Architectural Works," includes new illustrative examples of installations, showing the diversity of artistic expression achieved by artists from around the world.
- Chapter 17, "Setting up a Studio," is now enhanced with new photographs. These illus-

trate a production potter, a member of a cooperative studio, a sculptor, and a high school teacher in their diverse working studios.

- Throughout part two, we've carefully chosen new illustrations of work by artists from many countries to highlight the continuity of the history of ceramics, while at the same time representing the vast range of styles and processes available to today's ceramists. These new works range from classic glazed ware to mixed media sculpture and installations.
- Among the new color photographs are finished works of a number of the artists who are shown working in the process sections. This connection shows how experienced ceramists carefully integrate their choice of clay with the surfaces they choose to apply, then bring their work to completion through chosen methods of forming, glazing, and firing. The color illustrations now include a global array of contemporary artists.
- To further emphasize the integration of available aesthetic methods with the technical aspects of ceramics, the Appendix includes new recipes for glazes from some of the artists illustrated in the book. The resource lists for ceramic supplies have been expanded and updated and reorganized for easier reference.

NOTE TO THE READER



A concern for health and safety in the ceramics studio figures prominently in this book, and the icon shown here in the margin and throughout the text alerts readers to the need for precautions. In addition, the materials lists in the appendixes rate ceramics materials according to their toxicity. The most up-to-date research in the field of ceramics forms the foundation of this book, and every effort has been made to provide appropriate warning where potentially hazardous substances or procedures are involved. Anyone following these procedures should use his or her best judgment and common sense. The author and publisher shall not be liable in any event for

incidental or consequential damages in connection with, or arising out of the furnishing, performance, or use of the theories, procedures, and techniques herein.

ACKNOWLEDGMENTS

We are grateful to the ceramists we approached to participate in this book and who graciously took the time to pose for photos, to explain their forming methods, to share glaze and firing information, and to encourage our efforts. Other friends and colleagues helped in many ways. Our friend in London, Tom Cook, once more brought ceramists to our attention and obligingly gathered material for us; Xavier Toubes, Artistic Director of the European Ceramics Work Centre in Holland provided us with information and photos; Vanessa L. Smith, Manager of Native Soil ceramics gallery and studio in Evanston, Illinois, gathered photos for us; and Tony Yeh, Taiwan, editor of *YANN/Ceramics* magazine was of immeasurable help in collecting information on artists in Taiwan, Republic of China, and in the mainland People's Republic of China. Kristen Olson assisted with permissions.

We would like to express our appreciation to the many talented people at Mayfield, and we are grateful for the continued support of Richard Greenberg, President. Senior Editor Jan Beatty gave us invaluable help based on years of insight and experience in the development of *Hands in Clay*. When it came to turning the manuscript into a book, many more people became essential to the process, and we were in good hands with Mayfield's editors, designers, and production team: copyeditor Margaret Moore's discriminating judgment and her care for the quality of the book once more improved the manuscript; designer Anna George brought her graphic skills to the difficult job of creating an aesthetic design while successfully integrating text and photos; design manager Susan Breitbard created the handsome cover that reflects the philosophy of the book; production editor Carla White Kirschenbaum managed the production and coordinated the intricate scheduling that is needed to pull the mass of detail into a book. Thank you all.

10,000 B.C.

5000 B.C.

4000 B.C.

3000 B.C.

2000 B.C.

1000 B.C.

The movement of ceramics history reflects continuity and constant interchange between peoples.

WESTERN ASIA

Turntables to wheels



2-4



2-5



1-14

Anatolia

1-5

Sumer
Clay tablets

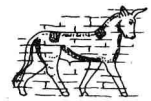
1-4



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Covered
updraft kilns

2-6

Babylon
Glazed

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PersiaPainted pottery
throughout**EGYPT**

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Mythical
inventor of
the wheel

Figurines

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Painted pottery
Egypt

Egyptian paste

Color Plate 51

Mesopotamia, Egypt develop glaze

MEDITERRANEAN**Cyprus**

1-15

GREECE**Crete**

Minoan painted ware



2-14

Geometric



2-17

EUROPEPainted pottery spreads
from Asia through the Balkans

Incised ware



6-2

JAPAN

Figurines



3-4

Handbuilding until wheel brought from China

Handbuilt ware with cord pattern



3-2

Incipient Jōmon



3-3

Mid-to-Late Jōmon

Earliest known
pottery**CHINA**

Hillside kilns



3-7

Incised ware



3-6

Painted ware



3-5

Pit kilns



3-8

SOUTHEAST ASIA
Early pottery**AMERICAS**c. 12,000 to 14,000
years agoHunters cross from
Asia to North America
to Mesoamerica and
South America**SOUTH AMERICA**Early pottery
c. 7000**MESOAMERICA**

Olmec

Olmec culture
influences all
Mesoamerica

5-2

Tlätitlco



5-3

500 B.C.

100 A.D.

1000 A.D.

1100 A.D.

1200 A.D.

1300 A.D.

ISLAMGlazed bricks
in architectureLuster decoration
on tilesLuster and underglaze
on potteryGlazed tiles
in architectureTin glaze and
luster spread
through
North Africa
to Spain

3-34



Color Plate 5

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figures

4-2

Islamic influences in North Africa

Handbuilding and open firing
of domestic ware**Athens**

Greek potters work throughout Mediterranean

Black and red
figure vases

2-23



2-27

Tanagra
figurines**Byzantium**
Lead glazes**EUROPE**Wheel and kiln
technology return
to northern Europe**Spain**
Hispano-Moresque
tiles influenced by
Islamic art

Lead glaze



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6-4

ROMECeramic factories:
Terra sigillata kilnsRoman Empire falls, ceramics technology
lost in northern Europe**ETRUSCAN**

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2-29a



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KOREAOld Silla
pottery

Figure vessels

JAPAN

Wheel comes to Japan from China through Korea

Chinese-style kilns
High-firing ash glaze

3-28



3-27



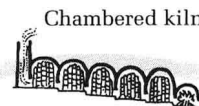
3-26



3-25



3-23



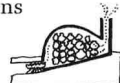
3-20

CHINABronze shapes
copied

3-9

Life-sized
figures

3-10

High-firing
kilns

3-13

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stoneware

3-12

Tang
figurines

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Lead
glazes

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glaze

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Chün
glaze

Color Plate 3

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MESOAMERICAMaya painted
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1500

1600

1700

1800

1900

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Austria
Stoves

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Holland

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Staffordshire potteries
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Wedgwood factory



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Gauguin

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Clay sculpture



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6-6



6-7

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Salt-fired stoneware

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England

Slip-decorated ware



6-15

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Secret of porcelain discovered, kaolin found in Europe

Factories established

Scandinavia

Factories established

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1920

1930

1940

1950

1960

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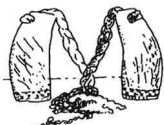


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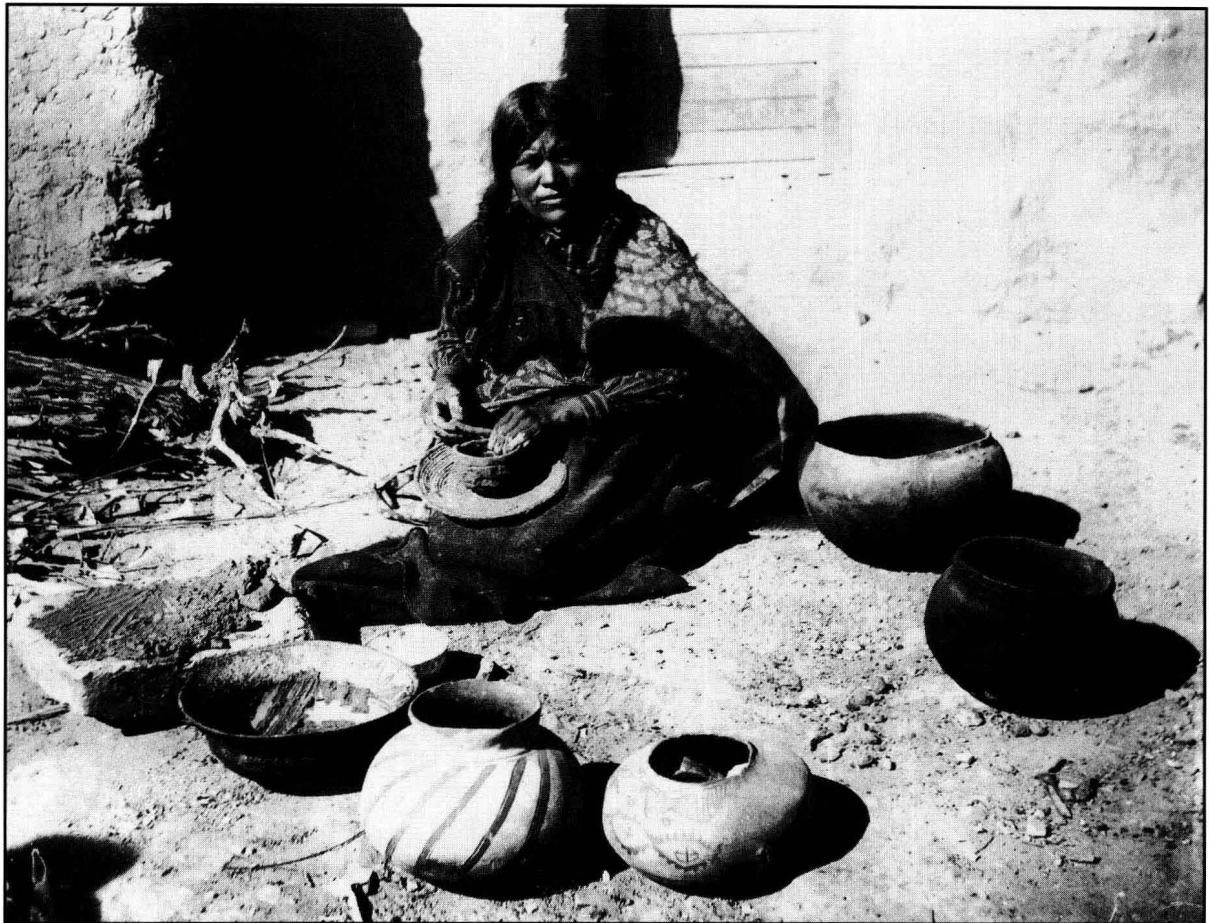
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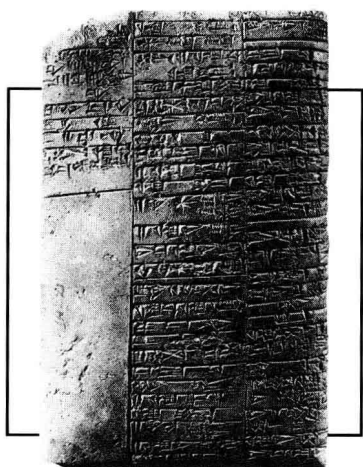
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SHAPING THE PAST



Overleaf:

A Hopi woman in Arizona around the beginning of the twentieth century gathered clay near her home, spread the wet clay on a rock to stiffen it slightly before using it, and began to shape her pot as she added coils. This potter used a handmade basket to form the convex base of the pot. As she continued to build the pot she added coils, developing its shape as she carefully placed the coils. *Courtesy Museum of the American Indian, Heye Foundation, NY.*



1

An Introduction to Clay

Clay feels soft and pliable in your hands. Pick up a lump of it, let your fingers respond to its **plasticity**, and as you pinch and poke, the clay seems to have a life of its own, to which your fingers respond. With these pinching gestures, you are repeating the actions of untold numbers of humans who have worked with clay even as far back in time as the Ice Age, 37,000 to 12,000 years ago. The earliest known examples of clay objects formed by human hands are unfired representations of animals modeled on a moist clay bank in a cave in France and some fired clay animals, female human figures, male figures, and others of no specific gender found at an Ice Age site in eastern Europe (1-1).

This very early use of fire to harden clay, though it predated the oldest **pottery** yet found, was apparently localized. Some pottery, like the proto-Jomon (1-2) in Japan, has been dated at more than 12,000 years ago, and shards of pottery dating to about 10,000 years ago have been found in North Africa.

In excavations of early sites around the world, archaeologists have frequently dug up small fired clay figures of women. While their exact purpose is unknown, the clay figures are believed to have had a magical or religious purpose. Since many of these have been excavated in domestic rather