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ABSTRACT

See SO 007 721 for an introduction to the Visual Arts Education Curriculum of which this course in jewelry design is a part. In the course students further skills in forming complex objects through experience with casting, bezeling stones, and welding. Course content includes an historical perspective on jewelry production and advanced methods in forming and decorating jewelry. Sections on evaluation of students with criteria for evaluation and on resources -- texts, periodicals, and reference books; local resources in Florida; films and slides; suppliers; and professional schools, universities and workshops specializing in jewelry -- conclude the guide. (JH)

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AUTHORIZED COURSE OF INSTRUCTION FOR THE



ART EDUCATION

Advanced Jewelry Design

6684.02

DIVISION OF INSTRUCTION-1971



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ADVANCED JEWELRY DESIGN 6684.02 6685.01 6686.01

ART EDUCATION

Written by: Louis M. Marinaccio

for the

Division of Instruction

Dade County Public Schools

Miami, Florida



PREFACE

Learning has been referred to by many contemporary educators as a noun; but it is a verb experience—full of action and involvement, doing and being. At least it should be—and that kind of involved learning is what this course of study is all about.

The Quinmester Visual Arts Education Curriculum construct is a long range developmental effort directed towards providing a general education for learners in the aesthetically related art education field. To accomplish this goal, instructional courses of study have been developed basically for teachers by teachers. Many Dade art specialists in various arts media have been recruited by the Art Office to write over 75 new and innovative courses of study in the area of art education. Educational specialists from the four corners of this land, along with aestheticians, social critics, and behavioral scientists have hailed the philosophy of the overall art curriculum construct undertaken by the Division of Instruction to be consistent with the latest national trends in art education, and to be an exemplary example of "success" oriented curricula designed to provide intense involvement in aesthetics and creative arts through group and individualized participation on the part of the learner.

All courses of study produced have been constructed with one major goal in mind: to provide a broad framework of goals and objectives; content; instructional procedures and strategies; and suggested learning activities. Many of the technically oriented courses of study list a variety of "Work Sheets" designed to assist the learner with specific and highly technical studio procedures delineated in a manner so that art specialists (teachers) can use them "as is," or utilize the source information as a basis for producing "Learning Activities Packages." The appendix may include other pertinent material needed for today's contemporary art curriculum, e.g., vocabulary, resources for both learner and teacher, etc.

Constructive criticisms or recommendations relating to this publication are invited; please send to: Art Education Office, Room 300, Lindsey Hopkins, A-1.

Charles M. King, Consultant Art Education



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T. COURSE TITLE

Advanced Jewelry Design

II. COURSE NUMBERS

668L.02

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6686.01

III. COURSE DESCRIPTION

The student will develop further skill in forming more complex objects through advanced techniques and methods. Experience will be provided in casting, bezeling of stones, and welding. Students will work on individual interest areas and be encouraged to express their own individuality.

IV. RATIONALE

The art educator should foster the growth of what is unique in the individual and help him to develop a strong sense of empathy toward his visual environment; empathy toward the sensuous quality of the material; and empathy toward the content. There should be a kinesthetic interaction between the student and the media. Emphasis will be placed upon designing and forming more complex objects.

V. COURSE ENROLLMENT GUIDELINES

- A. Grades 9-12
- B. Suggested prerequisite: Jewelry Design I or Art Craft I.

VI. COURSE OF STUDY OBJECTIVES

- A. Competencies: the student upon completion of this unit will be able to:
 - Identify the work of several outstanding contemporary jewelry designers
 - 2. Differentiate between the characteristics of jewelry of the Ancient Near East and Asia
 - Demonstrate several advanced methods of forming jewelry
 - 4. List the equipment and tools used in forging, casting and granulation
 - 5. Demonstrate the decorative techniques of engraving, etching, repoussé, and chasing
 - 6. Identify the basic tools used in decorating jewelry

VII. COURSE CONTENT

- A. Definition and background
 - 1. Historical
 - a. Egyptian
 - b. Ancient Near East



c. Asia

- (1) India
- (2) China
- (3) Korea
- (4) Japan
- d. Classical
 - (1) Crete
 - (2) Greece
 - (3) Etrusca
 - (4) Rome
- e. Byzantium (Rome)
- f. Islam
- g. Pre-Columbian
- h. Renaissance in Europe

2. Contemporary

- a. American Indian
- b. Outstanding contemporary jewelry designors
 - (1) Leo Scherker
 - (2) Olaf Skoogfors
 - (3) John Paul Miller
 - (4) Stanley Lechtzin
 - (5) Jean Knutson
 - (6) F. Jules Reed
 - (7) John Prip

- (8) Lillian F. Kalan
- (9) Victor Ries
- (10) Reinhold Reilling
- (11) Arline Fisch
- (12) Hans Krahmer
- (13) Sigurd Perssons
- (14) Friedrich Becker
- (15) Thomas Gentille
- (16) Elisabeth Treskow
- (17) Robert Pierron
- (18) Alice Boatright
- (19) Frank Patania
- c. Aesthetic Reactions and Movement

B. Jewelry forming

- 1. Advanced methods of forming
 - a. Bezeling
 - (1) Collar bezel
 - (2) Reverse bezel
 - (3) Square bezel
 - (4) Gypsy setting
 - (5) Faceted-stone setting
 - (6) Paved setting
 - (7) Pearl setting

- b. Forging
 - (1) Annealing
 - (2) Forging on a block
 - (3) Forging on a stake
- c. Casting
 - (1) Forming the wax model
 - (2) The investment
 - (3) Casting the model
 - (4) Removing the investment
 - (5) Finishing the pieces
- d. Lost wax casting
- e. Granulation
- f. Electroforming
- g. Combined methods
- 2. Selection of metals
 - a. Metal
 - b. Brass
 - c. Copper
 - d. Silver
 - e. Gold
 - f. Platinum
 - g. Stainless steel
 - h. Niello
 - i. Iron



- 3. Types of advanced jewelry forms
 - a. Sawod pin with stone
 - b. Fused pin with stone
 - c. Filed pin with stone
 - d. Rings with stone
 - e. Split rings
 - f. Chains
 - g. Pendant with stone
 - h. Necklaces
 - i. Chokers
 - j. Cuff links with stones
 - k. Brooch with stones
 - 1. Bracelet
 - m. Found objects
- 4. Forming more complex jewelry forms with mixed metals
- 5. Forming a pendant with stones set in collar bezels
- 6. Forming forged silver carrings
- 7. Forming a completed riveted pinstem and joint
- 8. Forging metal to various shapes by using the correct stakes
- 9. Forming jewelry by using the sand cast method
- 10. Creating jewelry by electroforming over a styrefoam matrix.



- ll. Creating a silver gilt pin with mica and pearls by electroforming over a matrix of wax
- 12. Creating jewelry by combining several methods
- 13. Creating a fused pin with several stones
- 14. Creating split rings with stones by granulation
- 15. Creating jewelry with found objects
- 16. Found object jewelry
 - a. Cracked pottery
 - b. ..atch gears
 - c. Watch crystals
 - d. Broken glass
 - e. Pieces of bone
 - f. Shell
 - g. Fiber
- 17. Equipment and tools
 Flat nosed pliers
 Diagonal cutting pliers
 Round nose pliers
 Tweezers
 Rawhide mallet
 Curved burnisher
 Needle point scriber
 Planishing hammer



Files:

a. 6-inch hund files

b. 6-inch halfround files

c. Needle files

Ring clamp

Saw frame and blades

Ring sizes

Ring mandrel

Bezel mandrel

Hand drill

Steel rules 6 inch length, marked in millimeters and inches

Flexible shaft machine

Beeswax

White casein

Sable brushes #6

Clear acrylic spray

Felt buffing stick

amery cloth

whery stick

Emery paper

Liner of sulfur

Findings

Heating frame

Charcoal block

Annealing pan



Propane gas torch unit

Solder

a. Metal

b. Metallic alloy

Flux

Yollow ochres

Iron binding wire

Sulfuric acid

Sparex

Dental wax

a. Sheets

b. Rods

Metal strue cone

Liquid debubblizer

Sable brushes

Investments

Ring or flask of metal

Clay

Motal scribe

Assorted dental tools

alcohol lamp

Alcohol

Plat motal edge

Kiln

Asbestos

Stilts

Steel tongs

Centrifugal machine

Galvanized sheet metal

Flattened piece of coat wire hanger

Powdered borax

Acetyline torch

Glass container

Metal bucket

Gum solution

Copper salt

Copper foil

Stainless steel tank

Steel stakes

Steel block

Flat face planishing hammer

C. Decorating

- I. Advanced methods of decorating
 - a. Engraving
 - b. Filigree
 - c. Etching
 - d. Repousse
 - e. Inlaying
 - f. Chasing
 - g. Lamination



2. Equipment and Lools

Gravors with wooden handle

- a. Anife
- b. Round
- c. Flat
- d. Liner

Shellac stick

Ring clamp

Scriber

White casein

Pitch (block)

Oilstone

Propane torch

Sable brushes

Nitric acid

Asphaltum

Copper pickling tongs

Sodium bicarbonate

Turpentine

Cloth

Chasing tools

Pitch

Pitch bowl

Leather collar



Chasing hammer Turpentine Cloth

VIII. COURSE PROCEDURES AND STRITTERIES, AND SUGGESTED LEARNING ACTIVITIES

A. Evaluation

It is essential to establish a criteria for evaluating the progress of the student in art experience. Evaluation in jewelry design cannot be rigid to the extent that it will inhibit creative expression. Creativity is unique and personal.

The product itself cannot be evaluated without taking into consideration the process the student experienced from inception to completion. In addition, evaluation must include evidence of the growth of the individual in relation to his attitude, interest, ability to complete a project, how well he can use his past experience toward problem solving, respect for his own ability and the rights of others.

Evaluation is of vital importance to the student's development. It helps to determine the growth of the student so that the teacher can further motivate and guide the student toward his fullest self-development, creativity and aesthetic growth.

B. The criteria established for evaluation will vary due to individual differences manny students and teachers. Each teacher must determine his own goals and formulate standards for evaluation always keeping in mind that evaluation must be positive as well as constructive.

The following are some suggestions in setting up writeria for evaluation:

- 1. Has the student learned to evaluate his own jewelry as well as that of others with consideration to the sensuous quality of the material, form, and content?
- 2. Has the student designed the entire object with an awareness of space, form, hovement, order, relationship of parts to the whole, and good color organization?

- 3. Has the student expressed his ideas creatively in the medium in an original and meaningful way?
- 4. Has the student developed a sensitivity to the material?
- 5. Does the student express his ideas and individuality in jewelry?
- 6. Has the student become aware that texture results from an interaction of the medium and the tools?
- 7. Is the student aware of the difference between tactile and visual textures?
- 8. Has the student become sensitive to the expressive qualities of the different jewelry materials and tools?
- 9. Is the student aware that improper use of materials and tools results in poorly constructed forms?
- 10. Is the student aware that variety can add interest to forms but too much can destroy it?
- 11. Does the student react empathically to the medium in terms of three-dimensional forms?
- 12. Is the student familiar with good jewelry of the past and present?



- 13. Is the student able to identify from contemporary jewelry designers the ways in which the craftsmen manipulate their tools and materials?
- 14. Has the student developed good work habits?
- 15. Has the student's behavior outside the art class improved as a result of his art experience?
- 16. Has the student developed a respect for his personal ability?
- 17. Has the student developed a respect for the rights of others?
- 18. Has the student acquired increased efficiency in handling materials and tools?
- 19. Has the student developed the ability to carry the project through to completion?
- 20. Has the student learned the firing process and how to use it to its fullest advantage?
- 21. Has the student developed good craftsmanship and yet retained the natural mulibles of the metal?
- 22. Has the student learned to form jewelry correctly so it does not warp or crack?



- 23. Is the product suited for the purpose for which it was made?
- 24. Does it incorporate the principles of good jewelry design?
- 25. Is the product the one best suited for work in metal?
- 26. Is the product well constructed?
- 27. Does the product indicate individuality and expressive quality?
- 28. Does the design fit the form?
- 29. Has the student improved in attitude, interests, and development of technical skills?

IX. RESOURCES

- A. Suggested texts for pupils
 - Baerwald, Marcus and Mahoney, Tom, Gems and Jewelry Today. New York: Marcel Rodd Co., 1949.
 - Baxter, William, Jewelry, Gem Cutting, and Metal Craft. New York: McGraw-Hill, 1950
 - Bradford, Ernest, Four Centuries of European Jewelry. New York: rhilosophical Library, 1953.
 - Choate, Sharr, Creative Casting, Jewelry, Sculpture. New York: Crown Publishers, 1966.

Crawford, Thomas, Introducing Jewelry Haking, New York: Matson-Guptill, 1968.

Dali, Salvador, A Study of His Art in Jewels.
The Graphic Society, 1959.

Darling, A., Antique Jewelry. New York: Century House. 1953.

Evans, Joan, A History of Jewelry, 1100-1870. New York: Fitman Publishing Co., 1953.

Gentille, Thomas, Step-by-Step Jewelry. New York: Golden Press, 1968.

Greek and Etruscan Jewelry. New York:
Metropolitan Museum of Art, 1944.

Higgins, Reynold, Alleyne, Greek and Roman Jewelry. London: Methuen and Co., Ltd., 1961.

Huyghes, Graham, Modern Jewelry, New York: Crown Publishers, 1963.

Newble, Brian, Practical mameling and Jewelry Work. New York: Viking Press, 1967.

Stevens, R. W., Simple Jewelry. New York: Watson-Guptill. 1966.

Von Neumann, Robert, The Design and Creation of Jewelry, Philadelphia: Chilton Book Co., 1961

B. Suggested periodicals for pupils

Craft Horizons
29 West 53rd Street
New York, N. Y. 16619

School Arts 50 Portland Street worcester, Mass. 01600

Design Quarterly 1710 Lyndale Avenue Minneapolis 3, Hinn.

C. Suggested places to visit

Grove House School of Art 3496 Main Highway Coconut Grove, Fla. 33133

Village Corner Gallery 1136 South Dixie Highway Coral Gables, Florida

Lowe Art Museum 1301 Miller Prive Goral Gables, Florida

Miami Art Center 7867 North Kendall onlyo Kendall, Florida

Ceramic League of Hiami 7867 North Kendall Prive Kendall. Florida

Hiami Museum of Modern Art 381 N. E. 20th Street Miami, Florida

Grove House Gallery 3946 Hain Highway Coconut Grove, Florida

Museum of Science-Planetarium 3820 South Hiami Avenue Miami, Florida

Fairchild Tropical Garden 10901 Old Cutler Road Coral Gables, Florida

Fantastic Gardens 9550 S. W. 67th Avenue Miami, Florida

Miami Seaquarium Rickenbacker Causeway Virginia Key, Florida

Crandon Park Zoo Key Biscayne, Florida Scholastic Art Awards Exhibition Burdine's Department Store 22 East Flagler Street Miami, Florida

Miami Studio Shop 2363 West Flagler Street Miami, Florida

Bass Museum of Art 2100 Collins Avenue Miami Beach, Florida

Japanese Gardens MacArthur Causeway Miami, Florida

Vizcaya Art Museum 3251 South Miami Avenue Miami, Florida

D. Suggested media resources for pupils and teachers

1. Film strips

Scholastic Film Strips 906 Sylvan Avenue Englewood Cliffs, N. J. 07632

Art by Talented Teen-Agers-1970: Sculpture and other Three-Dimensional Art

Art by Talented Teen-Agers-1969: Sculpture and other Three-Dimensional Art

Art by Talented Teen-Agers-1968: Sculpture and other Three-Dimensional Art

Art by Talented Teen-Agers-1967: Sculpture and other Three-Dimensional Art

Art by Talented Teen-Agers-1961-1966: Sculpture and other Three-Dimensional Art

Collected Works of Teen-Age Art-Sculpture and other Three-Dimensional Art

2. Slides

American Crafts Council Research and Education Dept. 29 Jest 53rd Street New York, N. Y. 10019

- Cl4 Young Americans, 1969 Winning entries in all craft media from the national competition of this title sponsored by the American Crafts Council.
- Objects Are . .? 1966
 An exhibition which sought to question the nature of objects. Covers work by 42 craftsmen in various media.
- Bll Craftsmen U.S. A. 166 National Merit Awards in a
 competition sponsored by
 the American Crafts Council;
 covers all craft media.
- Bl The American Craftsmen, 1964 30 craftsmen and their work in clay, metal, wood, and textiles.
- Three Metalsmiths: Fisch/Kington/
 Skoogfors, 1968 Jewelry and
 metal objects from one man
 exhibitions at M.C.C.
- B52 <u>Creative Casting-1963</u> Metal cast objects by American craftsmen during the periods 1960-63.
- F2 General Metal, 1969 Jewelry, metal sculpture and objects by contemporary American metalsmiths.
- F13 Goldsmith '70 Metal work selected in an international competition.

- Cl5 Silver Design Competition, 1969 Three years of winning designs in the Sterling Design Competitions sponsored by the Sterling Silversmiths Guild of America.
- Dll General Jewelry, 1966 Works by American craftsmen of the early 1960's.
- B5 Creative Casting, 1963 William Underhill photographed making of a bronze bowl and pin by the lost wax process.
- Al3 Young Americans, 1962 Hinning entries in all craft media from the national competition of this title sponsored by the American Crafts Council.
- F4 Objects U.S.A., 1969 A selection of work in all media from the Johnson Collection of Contemporary Crafts.
- Bl2 Folk Art of North India, 1906 Ceramics, embroidery, applique, and jewelry from North India.
- E. Professional schools, universities, and workshops specializing in jewelry

Troy State College Troy, Alabama

Northern Arizona University Flagstaff, Arizona

Arkansas Arts Center School of Art and Drama MacArthur Park Little Rock, Arkansas

University of California Department of Design 234 Wurster Hall Berkeley, California University of California Davis, California

Mills College Oakland, California.

San José State College San José, California

California College of Arts & Orafts 5212 Broadway at College Avenue Oakland, California

University of Colorado School of Art Denver, Colorado

The Corcoran School of Art 17th St. at New York Ave., H. W. Washington, D. C.

Georgia State College 33 Gilmer Street, S. L. Atlanta, Georgia

School of the Art Institute of Chicago Michigan at Adams Chicago, Illinois

University of Illinois College of Fine & Applied Arts 143 Fine Arts Building Urbana, Illinois

Indiana University Fine Arts Building Bloomington, Indiana

Indiana State University Terre Haute, Indiana

Wichita Art Association 9112 East Central Wichita, Kansas

Louisville Art Center School 2111 South First Street Louisville, Kentucky

Newcomb College Art Department of Tulane University New Orleans, Louisiana Haystack Mountain School of Crafts Deer Isle, Haine

Boston Museum Jehool 230 Fenway Boston, Massachusetts

Craanbrook Academy of Art 55 Lone Pine Road Bloomfield Hills, Michigan

Rochester Art Center 320 East Center Rochester, Hinnesota

University of Missouri Department of Art Columbia, Missouri

University of Montana Art Department Missoula, Montana

University of New Hompshire Department of the arts Durham, New Hampshire

Newark Museum of Art 43-49 Washington Street Newark, New Jersey

State University of New York

Alfred University Alfred, New York

Brooklyn Museum Art School Eastern Parkway Brooklyn, New York

Craft Students League 840 Eighth Avenue New York, N. Y.

The New School for Social Research 66 West 32th Street New York, N. Y.

School for American Craftsmen Rochester Institute of Technology 65 Plymouth Avenue, South Rochester, New York Syracuse University School of Art 309 University (Inco-Syracuse, New York

renland School of Traffis renland, Horth Samuline

Cleveland Institute of Art 11141 Mast Boulevassa Cleveland, Ohio

Ohio University Athens, Ohio

Millersville State College Millersville, Pennsylvania

Rhode Island School of Besign Providence, Rhode Island

Museum School of Art of Houston 1001 Bissonnett Houston, Texas

Stout State University Menomonie, Wisconsin

Wisconsin State University River Falls, Wisconsin

F. Jewelry Designers - Resource People

Leo Scherker 1136 S. Dixie Highway Coral Gables, Florida

Lee Alper 1227 W. Flagler St. Miami, Florida

Joe Dean 136 K. E. First Street Miami, Florida

Ilona Bigri 117 H. E. First Avenue Miami, Florida Elva Pacheco 5138 Biscayne Boulevard Miami, Florida

Martin King 407 Lincoln Road Miami Beach, Florida

Vincent Portera 117 H. E. First Avenue Miami, Florida

Lawrence Bril 5138 Biscayne Blvd. Hiami, Florida

Anthony Puccio 11630 N. E. Second Avenue Miami, Florida

G. Jewelry Suppliers

1. General

Craftool, Inc.
One Industrial Road
Woodridge, N.J.

Rock and Shell Shop 2036 S. W. 57 Ave. Hiami, Fla.

C. W. Somers & Co. 387 Washington Street Boston 8, Mass.

Allcraft Tool & Supply Co., Inc. 15 West 45th St. New York, N. Y. 10036

Anchor Tool & Supply Co., Inc. 12 John St. New York, N. Y. 10038

Jewelcraft Supply Co., P. O. Box 222 426 Marion St. Oceanside, N. Y. 11572 2. Gen alones

William J. Orkin, Inc. 373 Achington St. Boston 8, Mass

Sam Kramer 29 Jest 8th St. New York, N. Y.

Craftool, Inc.
One Industrial Road
Woodridge, N. J.

S. Schweitzer and Co. Dept. H., P. O. Box 71 Gedney Station White Plains, N. Y. 10605

Ernest W. Bussinger 402 Clark Bldg. Pittsburgh 22, Pa.

John Barry Co.
Dept. C., P. O. Box 15
Detroit, Michigan 48231

Rock and Shell Shop 2036 S. N. 57 Ave. Miami, Fla.

X. BIBLIOGRAPHY

- Baxter, William, Jewelry, Gem Cutting, and Metal Craft. New York: McGrau-Hill, 1950.
- Choate, Sharr, Creative Casting, Jewelry, Sculpture. New York: Crown, 1966.
- Crawford, Thomas, Introducing Jewelry Making. New York: Watson-Guptill, 1968.
- Dali, Salvador, A Study of His Art in Jewels. New New York: The Graphic Society, 1959.
- Evans, Joan, A History of Jewelry, 1100-1870. New York: Pitman, 1953.
- Gentille, Thomas, Step-by-Step Jewelry. New York: Golden Press, 1968.
- Greek and Etruscan Jewelry. New York: Metropolitan Museum of Art, 1914.



- Higgins, Reynold, Alleyne, Greek and Roman Jewelry, London: Methuen and Co., Ltd. 1961.
- Huyghes, Graham, Modern Jewelry. New York: Crown, 1963.
- Laves, Klares, Jewelry Making for the Amateur. New York: Rheinhold, 1965.
- Newble, Brian, Practical Frameling and Jewelry Work. New York: Viking, 1967.
- Stevens, K. W., Simple Jewelry. New York: Matson-Guptill, 1966.
- Von Neumann, Robert, The Design and Creation of Jewelry. Philadelphia: Chilton, 1961.
- Winebrenner, Kenneth D., <u>Jewelry Making</u>, as an Art Expression. Scranton: International, 1953.