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<tr>
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<th>Brass Finish</th>
<th>Legs-set of 4</th>
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Editor Louis G. Farber
Business Manager Spencer L. Davis
Assistant Editor Shirley Abrahamson
Editorial Associates Mary Elliott
Thomas Sellers
Art Director Robert L. Creager

Advisors and Special Contributors: Carlton Atherton; F. Carlton Ball; Marc Bellaire; Kathe Berl; Edris Eckhardt; John Kenny; Zena Holst; Dorothy Perkins; Jo Robert; Ken Smith; Don Wood

Cover by Robert L. Creager


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AFTERMATH OF A SHOW

Editor’s Note: As soon as the results of the Fifth Annual Miami National Ceramic Exhibition were released, the CM mailbox began to bulge. When the results of this Exhibition were featured in CM’s “Show Time” (April issue), the mailbox bulged some more. The following letters, selected from many received, are typical in tone and content:

Dear Editor:

It is invigorating and interesting to read your recent publication of letters concerning juries and awards. There are many discrepancies in current systems of choosing jurors and the manner in which they jury shows. One of the most disconcerting situations occurring here in Los Angeles is the matter of the famous Peter Voulkos as a juror.

The most striking case in point is the announcement of the winners of the Fifth Miami National Ceramic Exhibit of which Mr. Voulkos was one of three jury members. The listing of winners are PaulSoldner, John Mason, Kenneth Price, Bill Bengston and Jerry Rothman as came as no surprise. They are all students of Peter Voulkos, teacher of ceramics at the Los Angeles County Art Institute.

Does this not appear strange? Among the thousands who submit to a national exhibition are his students the only ones eligible for awards? This is not so strange in itself but when one considers that in 1955 at the Wichita Show, Mr. Voulkos was also on the jury and Paul Soldner, one of his students at that time, came away with first prize plus a purchase prize. And further, to wit, at our local County Fair, where Mr. Voulkos was also a juror for ceramics the same list of names were presented in an attempt to get a fair cross-section of the problems involved and this help advance the art.

There is a current situation which I cannot condone. It involves a vital facet of the potter’s art. I would like to state my opinion and ask some questions. Perhaps another potter of similar opinion. This will, no doubt, lead to clarification and understanding.

In the current Miami Exhibition, five award winners are students of Peter Voulkos, one of the members of the jury.

In the 1953 Wichita Show, two first prizes were awarded to Paul Soldner, a student of Peter Voulkos, a member of the jury.

In the fall of 1956, Peter Voulkos was a member of the regional jury of the Syracus Show. From the large number of pieces submitted, only a couple dozen were accepted. Two of them were produced by his students.

Before I go on, let me say that I respect Mr. Voulkos as a potter. He is an outstanding potter and has done a great deal to further the craft. If he feels that the pots he helped choose, were the best pots in the show, then of course he has every right to award prizes. I am terribly disturbed, however, because many potters feel that their pots have been given prizes to his students rather than for the best pot.

If this feeling continues to prevail, great damage can be done to the forward movement of art pottery. The potters who usually send work to exhibitions will stop if they feel the jury is biased. This will result in inferior exhibitions and would be unfair to hard-working museums. Through misunderstanding and bitterness, the jurying of exhibitions can degenerate into a political battle rather than a sincere and honest choice of the best work.

Should there be a first, second and third prize? Should there be a first and second prize? Should art potters send work to shows? Should potters judge pottery? Should student’s work be awarded prizes? Should a juror disqualify himself from judging the work of relatives, students and friends? These are some of my thoughts and questions on this subject. I am quite disturbed, although it is possible that too much importance is being given to isolated incidents.

As a Trustee of the American Craftsman’s Council, I feel a responsibility to all craftsmen and crafts. Thus, various fields are represented in an attempt to get a fair cross-section of contemporary American work. We are all contributors of the art field, in equal measure. Signature are masked so that each piece of ceramics to be judged is made by anyone with whom he is closely connected (pupil, spouse or very close friend).

We all go to a great deal of trouble and expense to send pots to shows, and should be rewarded by more than just being allowed to fill up the space left empty by the jurors’ clique. Eliminating the possibility of collusion, a juror could incidentally acquire the publicity and reputation of being an excellent teacher, whose pupils are bound to win prizes in shows? Or are our efforts to be judged on their merits of craftsmanship and artistic endeavour? If the latter is the case, then the jury, through the possibility of which a juror disqualifies himself if a piece of ceramics to be judged is made by anyone with whom he is closely connected.

I realize that this is a controversial subject, but I would appreciate your publishing this letter. If I feel it is a matter which is of great importance to all who love and respect our Art and its integrity.

Hal F. Fromhold
Los Angeles, California

Ed: In an attempt to bring about a cooperative consensus, the Editor wrote to the Ceramic League of Miami and to the Lowe Gallery, telling them of the volume and nature of these letters, and asking if they would care to comment:

Dear Editor:

The Exhibition was originated primarily so that we might have an opportunity to see and exhibit work done by America’s best artists. One of the most thrilling developments has been meeting and talking with our jurors. We realize that there is only one exhibition which only top flight exhibitions can bring. A competent jury does much to attract the work of outstanding potters, and assumes the stature of such an exhibition. The high level of quality and the diversity of viewpoints we seek in our jury is clearly indicated in the list of distinguished names of our past jurors...[Continued on page 6]
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WRITE FOR LITERATURE

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DEALER INQUIRIES INVITED

MAY 1957
It is an unfortunate concomitant in any competition that one person must be judged worthy of exhibition or prize, another eliminated. That no one can be certain of the prices any competitor must pay. In this case, the Ceramic League of Miami (a sister group to this one) is the most capable and best-balanced group of jurors of national reputation available. That jury should note, to list down and applied itself conscientiously to the task at hand.

It would have been easy and popular to have chosen a manner-capturing piece in the award categories. We established our role, rather, to seek out new directions and fresh ideas, and in the process, the juried course of duty by submitting entrants successful and rejected, we sought to verbally justify those choices.

As a professional museum director (whose current Columbia Painting Biennial represents a new adventure to its public and has received somewhat kindred perplexed comments after its choice by an impartial Jury), I would have received with the greatest pride the ceramic exhibition bias.

The Beaux Arts Purchase Award in particular is a dynamic form of celebrated freshness and unusual artistic exploration. It may not be the ultimate in its exhibitionary vein, but I should be most happy to have included in this Museum's own permanent collection of contemporary American art for its unique and daring beauty, for its implications in the adaptation of today's aesthetic directions, and for the technical brilliance inherent in its form.

Any vituperative backbiting, stated or implied, regarding the ethics of any member of the Jury merit neither my comments nor the discussions on our page.

Dear Editor:

I remember as a small boy how I used to think it would be nice to live the peaceful and undisturbed life of our cat who did nothing but eat and sleep. How disillusioned I have become about life since those boyhood thought meanderings.

I am thoroughly convinced that the director lists will no less.

One would have little justification for stating or implied, regarding the ethics of any member of the Jury merit neither my comments nor the discussions on our page.

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Dear Editor:

It is always a distinguished honor to serve on an important national art jury, the Miami National; and never has it been my privilege to serve on one with finer or more knowledgeable co-jurors than Peter Voulkos and Kenneth Bates. Their devotion to their discriminating duties and their personal integrity in the highest ideals and their crafts were unquestioned in my eyes. I can have only the highest esteem for their jurying processes and for the final prize award choices made.

As for partiality, the dissenters should realize that each piece submitted had the signature of the artist carefully covered up with adhesive tape. The show was judged without craftsmanship identification as stated in the brochure. If, in the final analysis, the prize winners turn out to be some of Mr. Voulkos' students, or for that matter, three of my own former students, it prefer to think of it as a compliment.

Dear Editor:

I have never in the past responded in writing to any criticism of my work as artist or someone who might see or feel its praise or severe its censure. I have strongly felt that criticism should be full and free and that an artist's sensibilities should play no part in interfering with public discussion of his work.

In addition, I have the extreme distrust of the critical expression for the unsigned accusation. However in all fairness to the craftsmen whose work I have voted for and against, I feel that I should write this letter for as justification of my actions as potter and juror but as clarification of my ideals and of myself as an individual.

First, I admit that I am biased. I am biased in this sense: When I jury a show there is only one thing I look for—quality. I cannot imagine myself as an unbiased mind. I repeat--it seems unfair to make a public discussion of his work.

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—Mrs. C. Warren Carter
Vermilion, Ohio

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—Mrs. D. N. Cook
Los Angeles, Calif.

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—Mrs. Pearl E. FitzPatrick
Gary, Ind.

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**KANSAS, WICHITA**
through May 20
The 12th National Decorative Arts and Ceramic Exhibition at the Wichita Art Association, 401 North Belmond Avenue. Ceramics, jewelry, ceramic sculpture, and enamel included in media.

**MICHIGAN, FLINT**
May 10-June 2
Selected ceramics, including prize winners, from the 19th Ceramic National at Syracuse, At the Flint Institute of Arts.

Big annual hobby-trade shows of the ceramic field will be held this year at Asbury Park and Chicago in May. On these occasions manufacturers and dealers put on display, for the benefit of hobbyists, all that is new and/or useful in the way of supplies and equipment—glazes and underglazes, enamels, kilns, molds, tools, brushes, etc. Concurrent with each show is a competitive exhibition with prizes.

**EASTERN CERAMIC HOBBY SHOW**
Convention Hall, Asbury Park, N.J. May 4-9
Sponsored by Ceramic Leagues, Inc. Trade exhibits, demonstrations, competitive exhibit.

**GREAT LAKES CERAMIC HOBBY EXHIBITION**
Conrad Hilton Hotel, Chicago May 26-30
Sponsored by Great Central Ceramic League and Michigan Ceramic Dealer's Association. Trade exhibits, demonstrations, competitive exhibit.

**MICHIGAN, MUSKEGON**
May 5-May 26
"New England Crafts," Smithsonian Institution Traveling Exhibition, at the Hackley Art Gallery.

**NEW HAMPSHIRE, MANCHESTER**
May 8-June 2

**NEW MEXICO, ALBUQUERQUE**
May 19-June 10
Smithsonian Institution Traveling Exhibition, "Italian Arts and Crafts," at the New Mexico Art League, Public Library.

**NEW YORK, KENMORE**
May 19
Annual exhibit sponsored by the Kenmore Ceramic Guild at Memorial Hall, 3354 Delaware Ave. Theme: "Table Arrangements." Hours 3 to 8 p.m.

**NEW YORK, NEW YORK**
June 3-7
Twentieth Annual Art Exhibition of the American Physicians Art Association at the Colonnade.

**NEW YORK, ROCHESTER**
May 3-June 2
The 1957 Rochester-Finger Lakes Exhibition sponsored by the Rochester Memorial Art Gallery. Includes ceramics, pottery, enamel, and sculpture from artists and craftsmen in 19 counties of New York State. At the Rochester Memorial Art Gallery.

(Continued on page 36)
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WRITE TO

H. B. Klopfenstein & Sons

359 Pearl St. Crestline, Ohio
SHOW TIME

Ninth Annual
Ohio Ceramic and Sculpture Show

Two-spout bottle, 12½" tall, won a $50 prize for Toshiko Takaezu, Cleveland.

THE NINTH ANNUAL Ohio Ceramic and Sculpture Show at the Butler Institute of American Art in Youngstown, Ohio, included 182 works selected from nearly 300 pieces submitted. Purchase prizes, totalling more than $750, were awarded and the winning pieces added to the permanent collection of the Institute. Maija Grotell, head of the ceramics department of Cranbrook Academy, Bloomfield Hills, Mich., judged the show.

Several of the winning pieces are shown.

Paul Bogatay, Columbus, was awarded $50 for his 5½" Brahma Bull (left). A 10½" Horned Animal (right) won a $50 prize for Charles Lakofsky of Bowling Green.

Leza S. McVey of Chagrin Falls received a $100 award for her 23" bottle and stopper.

A 21½" ceramic vase by Viktor Schreckengost, Cleveland, received a $100 prize.
From the earliest times, man has drawn inspiration from birds. Our greatest poets have been charmed and fascinated by these beautiful winged creatures whose habitat is heaven.

The Old Testament says, "A bird of the air shall carry the voice, and that which hath wings shall tell the matter." John Milton wrote, "Sweet is the breath of morn, her rising sweet, with charm of earliest birds."

Every home where there are trees and birds needs a birdhouse—or several of them for different kinds of birds. I believe one reason we do not see more birdhouses is that they usually are made of wood, which is not very durable. After a few years, perched high in a tree, buffeted by wind, soaked by rain, and covered with snow, these tiny habitations soon fall apart—victims of the weather.

For a weatherproof birdhouse, and one which will retain its color and finish indefinitely, what is more logical than clay? Clay, when fired and glazed to a high temperature, is far more durable than most other materials. History proves this. Clay figures from the Indus Valley of India, estimated to be 20,000 years old; Greek vases over 4,000 years old; Egyptian figurines; Babylonian bas reliefs—still retain their original beauty after surviving several thousand years. For the potter, this truly is a heaven-sent opportunity.

BUILDING a clay birdhouse need not be a difficult task. In fact, it is so simple that it would be an excellent child's project for a school or craft center. Here's how Cynthia built her "model home" for tree swallows. This is the simplest form of house to make, and is a good beginning project.

At the outset, of course, you must decide what kind of bird you wish to attract to your house. The general rule is that the larger the entrance, the larger the bird tenant the house will attract. A house, such as Cynthia's, is designed for tree swallows.

Before you begin, assemble all your tools and materials. A piece of oil-cloth, canvas side up, makes an ideal working surface since the clay will not stick to it. Your tools are the very simplest—a plaster bat about 1 inch in diameter, a rolling pin, a small darning needle or other sharp-pointed tool, one or two clay-modeling tools, and a sponge.

The quality of the clay you use is...
not important, since birds are not particular in aesthetic matters. However, it is most important that your clay be very plastic, so it may be easily rolled into long coils and worked into shape without cracking. In this demonstration, Cynthia used a prepared white clay body which had a fine, plastic quality. Here is the procedure she followed:

1. Roll out a slab of well-wedged clay on the plaster bat. The slab should be about half an inch thick.

2. Cut a circular base, about seven inches in diameter, from the slab. A plate or saucer may be used as a pattern for the circle. The needle makes a good cutting tool.

3. Using the coil method and thick coils, build up the house—one coil on top of another. Work each coil carefully with the fingers into the one below. Follow the photographs for design. Thick walls are one of the greatest advantages of this clay house, as compared to a wooden one, because they tend to keep the house cooler in summer, and warmer in winter. Ornithologists demand a house of this type; the thicker the walls the better. Be careful to avoid air spaces between the coils.

While the clay is wet, the house should measure about nine inches in height. However, it will shrink about one inch while drying. If you wish, you may make the house taller than nine inches, or wider, but not smaller. The little cap at the top may be added as a decorative detail. But it is not technically essential.

4. Smooth the outside surface as much as possible with the fingers. Then finish it with a wet sponge.

5. While the clay is still damp, cut the entrance hole with the needle. This hole should measure about nine inches, or wider, but not smaller. Be careful to avoid air spaces between the coils.

6. For fastening the house to a tree, pass the needle through the birdhouse from front to back about three inches from the top. Make the holes about half an inch in diameter, large enough to accommodate a bolt. Of, if you wish to suspend the house by wires, cut two small holes about one inch down from the top. However, most birds prefer a house which is firmly fastened to the tree.

In addition to the insulation afforded by the thick clay walls, birds need plenty of ventilation. To ensure adequate ventilation, pierce many ventilation holes about one inch up from the base of the house, as well as additional ones scattered higher up.

Now the house is ready to be put aside to dry. Allow at least three days for drying at room temperature. Do not try to speed up the drying as there is a danger of warpage if the piece is dried too fast—especially if it is very thick. During the first two days of drying, allow the house to stand upright on the bat. On the third day, lay it on its side to allow the base to dry completely.

When drying is completed, the house is ready to be decorated with underglazes or engobes. After the piece is decorated, allow it to dry in a warm place for several hours before placing it in the kiln for bisque firing.

Firing should begin very slowly. In an electric kiln, allow at least two hours for the temperature to reach 1,000°F. During the first hour, leave the kiln door open about an inch to allow kiln moisture to escape. Bisque fire to about 1,500°F. At this temperature most clays become hard enough to be ideal for glazing. Slightly porous bisque is best. If your bisque is fired too high, the surface becomes so hard that glaze will not readily stick to it.

If you have decorated your birdhouse with underglaze or engobes, you should use an uncolored, transparent glaze. Apply a good, even coating of glaze by either brushing or pouring. Glaze fire the piece to the maturing temperature of the glaze recommended by the manufacturer.

Now the birdhouse is ready to install. Find a tree which is not too near your house, but which is in plain view from your window so you may watch the birds entering and leaving. Using a long galvanized lag screw with a square head, fasten the house firmly to the tree. Be sure to place the house high enough in the tree to assure safety for the birds.

Once you have attracted a pair of swallows or other birds, they will give you many weeks of entertaining and amusing experiences as they build their nest. Soon the new generation will appear and you can watch them grow day by day. When cold weather comes, your bird family will leave and your birdhouse may remain unoccupied until the next mating season. Possibly it may be taken over by another species.

At any rate, your birdhouse will remain a thing of bright beauty through many seasons, giving ornament and interest to your garden the year round—retaining its original finish just as it came from the kiln. Building a birdhouse is a rewarding ceramic project. You will find that it will bring pleasure to you as well as comfort to the birds for many years to come.

Rolling out the clay on a plaster bat is the first step in making a birdhouse. A quite-plastic clay should be used.

Using a circular object as a "pattern." Cynthia cuts the base for the birdhouse. A darning needle or other sharp-pointed tool is used to cut the clay.

Cynthia carefully joins the coils, blending each one carefully into the one below. Thick walls provide insulation which birds need.

The size of the entrance determines the size of the bird tenants. Cynthia cuts an entrance designed for tree swallows and makes holes for ventilation.

MAY, 1957

15
A PREFACE TO ENAMELING

ENAMELING PROCEDURES

by KENNETH F. BATES

Every field of endeavor has its own "standard procedures." Usually there are as many standard procedures as there are people.

The recommended procedures given below are those that Kenneth Bates has developed during his many years of studying, teaching and practicing the enameler's art. They are presented as a preface to his feature articles on cloisonne, plique-a-jour and camee, which will begin appearing in CM next month.—Ed.

Working Sketches

Preliminary thinking, planning and sketching should be done on paper before going ahead with the finished piece. Make the drawing in detail and to scale, and render it in full color. An outline tracing can be made on ordinary tracing paper.

Cover the face of the metal to be enameled with a thin coat of white tempera and transfer the design to this surface. Now with steel point or scribe, retrace or scratch the line on the copper. The white tempera is now washed off with water leaving a clean surface with a scratched outline.

To make the transfer, attach the tracing at the top of the piece: insert a sheet of thin red carbon paper (non-greasy) under the tracing paper: and make the tracing with a 4H pencil, sharp-pointed stylus or jeweler's scribe in order to produce an accurate thin line.

Concentrated Gum Tragacanth

For wet inlay, each enamel color to be used is mixed with a few drops of concentrated gum tragacanth. The gum may be made in the following way:

Fill a quart Mason jar three-quarters full of distilled water. Carefully dust one tablespoon of dry powdered gum tragacanth on the surface of the water. Let the powder settle gradually. In about six hours, the thickened solution at the bottom of the jar may be used as concentrated tragacanth. For use in an atomizer, dissolve the concentrate with ten times as much distilled water. If the gum tragacanth mixture has a bad odor in a few days, a few drops of pure wood alcohol (not rubbing alcohol) will be sufficient to purify it. Some enameler use a drop or two of carbolic acid.

Stoning

Carborundum stone is used for the stoning process in enameling. Several grades of the stone are on the market. I find that the most useful is a stone about 7" x 2" x 1½" which has a coarse Carborundum on one side and a finer grade on the other. To stone enamel, take a firm grip on the piece, hold it under rapidly flowing water and rub the surface in a circular motion with the Carborundum stone. Use the coarser grade of the stone at first and rub vigorously (in cloisone work, avoid burring the edges of wire by rubbing too hard). Try to flush off tiny particles of enamel as you stone instead of grinding them into the
enamel. Switch to the finer grade of stone and, as the work progresses, gradually rub more and more gently until your last strokes merely caress the surface (this is the only way to avoid light smudges which so often occur in beginner's work). Dry the piece of enamel with a soft rag and if no shining area can be seen, it is ready for refiring. Never apply more enamel to a stained surface without refiring first.

If a dull or matt finish is desired, simply omit the firing after stoning.

Polishing

Exposed metal surfaces and/or wires may be buffed with a felt wheel and one of the fine polishing agents such as bobbing compound or a fine grade of tripoli, followed by a soft cotton buff with jeweler's rouge. Do not, however, use so much pressure as to wear away the metal and leave the enamel slightly raised; be careful especially if you are working with fine silver. In some cases, a fiber brush with bobbing compound is sufficient for the polishing job. Enamelled surfaces are not affected by the compounds suggested unless some particularly soft and porous enamel has been used. If very soft colors are to be incorporated in a piece, plan to work with fine silver or pure gold because it will require less buffing and polishing.

Generally, if copper wire is used, the above information regarding buffing wire surfaces after the final firing would hold true. However, in some cases, the numerous firings required cause excessive fire scale which presents a problem in cleaning the coppper.

I suggest that, if copper wire is to be incorporated into the design, the artist should plan to allow the wires to remain at a higher level than the enamel. He then will be able to buff the surfaces of the wire as vigorously as he desires with no danger to the enamel surface. This effect in cloisonne is entirely legitimate, and there are many craftsmen who prefer the raised wire effect for contrast to the lower or sunken areas of enamel.

Gauges

Measurements of the thickness of a wire or sheet of metal are designated in gauges. The gauge is a round or oblong sheet of heavy steel with slots and holes of various sizes. These slots may range in width from .005-inch to .50-inch. Sheet metal is measured by inserting it into one of the slots in the gauge. The holes in the gauge are used for measuring wire. Each gauge number corresponds to a dimension in inches.

In the United States, the Brown and Sharpe (B & S) gauge is the standard for all measurements of wire and sheet metal. A portion of the B & S gauge numbers with inch equivalents is reproduced in the table below. You will note that the finer the wire, or thinner the metal, the higher the gauge number.

<table>
<thead>
<tr>
<th>B &amp; S Gauge</th>
<th>Thickness (in.)</th>
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<tbody>
<tr>
<td>16</td>
<td>.050</td>
</tr>
<tr>
<td>18</td>
<td>.040</td>
</tr>
<tr>
<td>20</td>
<td>.032</td>
</tr>
<tr>
<td>22</td>
<td>.025</td>
</tr>
<tr>
<td>24</td>
<td>.020</td>
</tr>
</tbody>
</table>

Selection of Gauge

Much could be said about the craftsman's selection of the proper gauge metal for a specific project. In judging craft exhibitions, the selection of the proper gauge metal seems to be a major basis for criticism. Often, when a too heavy gauge is chosen, the enamelist seems to feel that it is his prerogative to load on coat after coat of enamel. The end result is almost as heavy as a piece of pottery. This practice is entirely erroneous. Enamelware should never be heavy. If it is, the whole integrity of the medium is forfeited.

By the same token, enameled bowls, trays, or plaques should not be made on such thin-gauge metal that they appear "tinny," cheap and flimsy. There must be a richness to the quality of the piece which is definitely established by the choice of gauge in the first planning.

It is difficult to give a "rule of thumb" for this subtle, but vital, matter of weight which has so much to do with tactile characteristics. If the enamel is to be framed and hung on the wall, the problem of choice of (Continued on page 28)
There is a difference between good pottery and ceramics,” Antonio Prieto wrote in connection with the 1955 International Exposition of Ceramics at Cannes. “To me, good pottery, besides expressing the character and personality of the creator, expresses the character and potentialities of the materials. I do not think you can separate them and have sound work.”

The work of Maija Grotell exactly fits Mr. Prieto’s definition of good pottery: it expresses the character and personality of the creator as well as the character and potentialities of the materials.

The point is strengthened in an article by Robert L. Matters in which he states his belief that artist-potters in this country are more indebted to the work of Maija Grotell than to anyone else.

“...From the start her work has been strong, individual, and an artistic expression of her life and age,” he writes. “Her development, at Cranbrook Academy of Art in Michigan, of a program aimed at the potter who is interested in producing fine individual pieces as art put pots on a level with painting and sculpture, rather than heavy production. It brought about the major change in American pottery concept.”

All of Miss Grotell’s work is stoneware, high fired within a range of cone 6 to 10. But one should not, she insists, be dependent on any one tool or temperature. As we watched her decorating a pot as shown in photos on these pages, she explained that the same technique she was using can also be used with softer clays and lower temperature.

She was working on a thrown pot which had been bisque fired for fourteen hours. It was made of an especially colored clay for which Miss Grotell gave the formula: set aside 10 pounds of stoneware clay and 2½ pounds of grog; grind in a mortar 20 grams of cobalt with a handful of clay and some water, and sieve through a 60-mesh screen; then add the rest of the clay and the grog to the mixture. “It is a difficult process to get an even color,” she said, “because the cobalt is granular and hard to mix—so mix it well.”

As Miss Grotell decorates with her sure hand, it all looks so simple, but at the same time one realizes it takes years of practice to achieve this sure hand and certain knowledge of how glazes will react.

First, she brushed an undercoat of iron glaze on the fired pot (see recipes, page 32).

The glaze could be sprayed on, she explained, but she prefers a brush “because with a brush the glaze can be better controlled.” Although she happened to be using a Japanese brush, she is usually happiest with a sable.

Brushing the glaze around the pot while slowly revolving the banding wheel on which it sat, she went on talking: “The undercoat should be equivalent in thickness to the top coat, or the two glazes will run together and the design will be lost in firing. To feel this as you work takes experience.”

After the first coat of glaze had dried, she applied a high-feldspar white glaze into which she had mixed white Karo syrup for the binder. “This keeps it at a good consistency for painting,” she explained. “The use of Karo is not original with me. I thought it was until I found other potters using it too!”

She painted the inside of the pot with the same glaze but thinned it so the cobalt body underneath would show through as a green-blue color after firing.

After the coat of white glaze had dried, I watched her decorate freehand, cutting through the glaze coating with a sharp tool in a sgraffito or carving technique. Obviously, this step is one that the unpracticed potter might be reluctant to undertake. The only answer, says Miss Grotell, is practice and more practice. The same is true, of course, of the glazes which must be tested many times to discover how they react in different temperatures and kilns.

The glaze firing comes last, with constant surveillance to see how the glazes are reacting. In the case of this pot, the dark underglaze coming out in iron spangles and crackles through the white top glaze gave the surface a marvelous, deep texture. Occasional drips of glaze into the cutout design makes the pot even more fascinating in appearance.

MISS GROTELLE, who came to the United States from Finland in 1927, was graduated from the Central School of Industrial Art in Helsinki. In this country, she taught first at the Henry Street Settlement House in New York. She became a ceramics instructor at Rutgers University in 1936, and in 1938 went to the Cranbrook Academy of Art to head the ceramics department at the invitation of the late Eliel Saarinen, first president of the school.

As resident artist at Cranbrook, Miss Grotell is expected to carry on her own work as well as to teach the eager young potters who are accepted for instruction. To do this, she has literally lived beside her kilns for the past nineteen years, on many a stormy night walking the length of Academy Road, from her apartment to her studio, to check on the progress of an important firing. “Even if we had mechanically regulated kilns, I wouldn’t trust them,” she says. “When I am firing I trust no one and nothing but myself.”

Part of her reward is the purchase of her work by eighteen leading museums, ranging from the Metropolitan Museum in New York to the Wichita Art Association Gallery. She won the silver medal at the 1937 Paris International Exposition; has taken awards at five of the National Ceramic shows in Syracuse, and won many other important prizes. It is only natural that (Continued on page 32)

by MARION H. BEMIS

ONE GLAZE ON ANOTHER produces deep textures and varied color. Miss Grotell shows the steps. An undercoat of iron glaze is
ija Grotell

A Noted Potter Demonstrates A Favorite Technique

brushed on (1) followed by a coating of white glaze (2). Then a design is cut through (3). During firing, the iron glaze bubbles through the top glaze creating a spotted, textured surface. A closeup is shown at right; the finished pot, above left.
DECORATE with UNDERGLAZES

RUBBER STAMP SHAPES

... A NEW TECHNIQUE

methods and designs by MARC BELLAIRE

ALTHOUGH the brush is the decorator's best friend, there are many tools and "gadgets" that lend themselves ideally to the decorator's needs. In fact, there are many occasions when the adaptation of a special tool will enable you to accomplish a unique effect that otherwise would be impossible.

One such special tool is a stamp cut from foam rubber or foam plastic. Since Marc Bellaire's basic premise is that every object can be broken down into a series of basic shapes, these stamps play right into his hands. Scissors and a pad of rubber do not lend themselves to fine, detailed work. This means that you are forced to get your story across to the viewer using only rough, basic shapes.

A quick glance at the examples shown here will prove that a pleasant variety of motifs can evolve from this rubber stamp technique. Briefly, the procedure involves cutting the basic shape from a sheet of foam rubber or foam plastic and painting on one side with underglaze color. Painted side down, the stamp is laid on a fairly flat green-ware surface, then removed. The underglaze color is pulled away from the stamp and remains on the surface of the greenware. Details can then be added, although the final motif should be kept quite simple. Remember, this is a "rough" technique.

This technique permits quick, effective results, yet it is highly creative. Children will find it to be fun. Beginning adults will appreciate the quick start it permits. And experienced decorators will enjoy the many possibilities it has to offer by itself or in combination with other techniques.

(For another motif, please turn the page.)

Another version of the rubber stamp technique is made by cutting only a portion of the motif from foam rubber. The design is completed with a brush. Here only the body of the bird is printed, at various angles, on the plate.
THE SIMPLE TECHNIQUE of printing with a foam rubber stamp is demonstrated at the right by Marc Bellaire.

1. A horned goat-like animal is cut from foam rubber with scissors. Areas, like the eyes and the space between the legs, that should not print, are cut back or gouged out.

2. One side of the stamp is painted with underglaze color.

3. A fairly flat piece of green ware is well dampened. Then, the stamp is set in place, painted side down. It is pressed down to ensure good contact at all points.

4. In a few seconds it can be picked up. The underglaze color no longer is on the stamp, but on the piece of green ware. Details may be put on with a liner brush.

HERE IS A VARIATION—both the decorative details and the base color are applied to the stamp and printed together.

1. Details are put on first since they will be on top when the design is transferred to the green ware.

2. When the first color has dried, the overall color is painted on. The same procedure is followed for each fish.

3. The stamp is pressed, painted-side down, on a tile with a net background. The green ware pulls all color from the stamp.

4. After a few seconds, the stamps are removed and the “self-decorated” fish remain—waiting for glazing and firing.

A WIDE RANGE of variations are possible. Try some of your own. This technique will prove to be creative fun for the entire family!
In this series of articles, no specific brand of underglaze is either suggested or implied. The nationally advertised brands are highly competitive in quality and price. Mr. Bellaire’s advice is to use those brands you feel give you the best results.

... UNDERGLAZES (continued from preceding page)

ANIMAL M

Methods and designs
by MARC BELLAIRE

ANIMALS have basic shapes too. They do not all fit into one category as do some motifs.

To see the basic shape of an animal, you must eliminate the appendages—the head, feet, tail. When you do this a dachshund becomes a long oval. A Scottie is a rather angular oval or rectangle. A circle or almost-round oval represents the elephant-rhino-hippo family. The horse family—horse, zebra, deer, etc.—can be represented by a pair of “S” curves.

So you see, you must study each animal to find the basic shape that is hidden—camouflaged by appendages, hair or fur.

How to convert a pair of “S” curves into a zebra is graphically illustrated in the accompanying step-by-step photos. Because it does not involve many colors, the zebra design shown here is quite simple. However, its black and white boldness makes it a dramatic motif. The other illustrations—the gazelle and the deer—are excellent examples of making motifs fit the shapes on which they are placed.

To fit a long shape, the general proportions of the deer (left) were exaggerated—body squeezed together, neck elongated.

Long horns convert the deer into a gazelle (right). He was made to recline to fit the shape, his head turned back for convenience.
The dramatic effect produced by the white sgraffitoed lines on the zebra's black body is shown on the finished piece after glazing and firing.

1. A pair of "S" curves is put in with black. Plate has been spattered with medium gray.
2. Next, head and feet are added to the basic "S" shape.
3. The tail then is printed in black, and the body filled in.
4. Decorative elements, such as teal blue leaves, go in next.
5. Black outlining and other details are put in with small liner brush.
6. A sgraffito tool, used on its side, scratches in zebra's broad, white stripes.
Strictly Stoneware

slips and engobes (cont.)

by F. CARLTON BALL

Last month the subject of slips and engobes was introduced. Mr. Ball discussed various materials that can be used for slips and engobes, elaborating on their physical and chemical properties. He gave other fundamental information and included several engobe recipes. Below, Mr. Ball continues this subject, picking up where he left off.

Here are some very versatile engobes. They can be used for earthenware as well as stoneware, their range extending from cone 04 to 9.

<table>
<thead>
<tr>
<th>Slips</th>
<th>Parts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exceptions</td>
<td>8-10</td>
</tr>
<tr>
<td>Kentish stone</td>
<td>5-50</td>
</tr>
<tr>
<td>Felspar</td>
<td>10-50</td>
</tr>
<tr>
<td>Clay (China or ball)</td>
<td>25-55</td>
</tr>
<tr>
<td>Flint</td>
<td>25</td>
</tr>
<tr>
<td>Borax</td>
<td>5</td>
</tr>
</tbody>
</table>

For those who wish to do some experimental work to create their own slips, the following ranges of compositions will help:

For a fire clay, grog body, cone 8-10:

- Potash felspar: 20% - 45%
- Flint: 10 - 40
- China clay: 30 - 60
- Calcium carbonate: 0 - 10

For vitrific slips for clay-grog bodies fired at cone 4 and 5:

- Cornwall stone: 25% - 50%
- Felspar: 0 - 35
- Clay (China or ball): 25 - 55
- Flint: 0 - 10

For cone 3-7, the following ranges may help:

<table>
<thead>
<tr>
<th>Clay</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parts</td>
<td>30%</td>
<td>41%</td>
<td>45%</td>
<td>57%</td>
</tr>
<tr>
<td>Whiting</td>
<td>8</td>
<td>5</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Flint</td>
<td>12</td>
<td>35</td>
<td>10</td>
<td>21</td>
</tr>
<tr>
<td>Felspar</td>
<td>0</td>
<td>20</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>Cornish stone</td>
<td>0</td>
<td>15</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

These ranges may be of help at cone 3-8:

- On leather-hard body: 
  - Kaolin: 25% - 65%
  - Cornish stone: 5 - 50
  - Flint: 0 - 45
  - Ball clay: 10
  - Sodium carbonate: 0.1

Also at cone 3-8, the same ingredients would vary as follows for use on biscuit-fired ware:

- Kaolin: 15% - 25%
- Cornish stone: 25 - 55
- Flint: 13 - 50
- Ball clay: 10
- Sodium carbonate: 1

Some suggestions for adding colors to slips or engobes are given below. Nearly all these colors are good for both oxidation and reduction firing:

- 20% Red iron oxide—a good iron red
- 25% Red iron oxide plus 5% manganese dioxide—a brown-black
- 10% Manganese dioxide—brown
- 40% Barnard clay—brown (similar to above)
- 10% Black underglaze—blue-black or green-black
- 1% Black cobalt oxide—medium blue
- 2% Black cobalt oxide plus 3% red iron oxide—strong blue
- 2% Red iron oxide plus 5% black cobalt oxide plus 5% green chromium oxide—strong blue-green

It is possible to add quite a number of colors to this list by using glaze stains produced by various manufacturing companies which make ceramic colorants. From 10% to 20% of a glaze stain is usually effective.

To prepare the engobes, first weigh the dry ingredients; then add them to enough water to make a creamy slip. Stir this slip by hand, screen the slip first through a 30- or 40-mesh screen, then through an 80- or 100-mesh screen—perhaps twice through the 100-mesh. The process mixes the slip well and makes it smooth, and this is sufficient for an art potter. A slip can be processed to a greater extent. If the mixture is put in a ball mill the result will be very satisfactory.

For building up a good palette of engobes the following test is suggested.

For working up a good palette of engobes the following test is suggested. Make several 6” x 10” tiles 3/4-inch thick. Paint an inch-wide band of engobe the full 10-inch length of the tile and repeat with each color being tested. The number, name or any other information you wish to note may be scratched through each band of color. After the tile is bisque fired, apply various glazes in strips two inches wide across the bands of slip. Each glaze can be identified with a black underglaze pencil. When the tile has been fired to the proper cone, you will know which colors will work and the strength with which they will show through glaze. Some glazes will be good over some colors while other colors will be changed or destroyed by the glaze. A very few glazes will be quite good with all colors.

Some of the following glazes may work well over engobes:

<table>
<thead>
<tr>
<th>Glaze</th>
<th>Parts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glaze A, clear glossy, cone 8-10</td>
<td></td>
</tr>
</tbody>
</table>
| Feldspar | 25%
| Whiting | 25
| Kaolin | 20
| Flint | 30

(Continued on page 34)

CERAMICS MONTHLY
You don't necessarily have to carve with a knife or other sharp tool to get the effect of carving in a decoration! A design in relief can be created with wax and a sponge.

Brush wax, in a design, on the surface of a piece and give it a few minutes to set; then rub the surface with a wet sponge to wear away the clay background. The area covered with wax will not, of course, be affected by the sponging and, when the work is done, the decoration will be left standing out, as though the background had been carved away.

"Carving" by this method is less painstaking and quicker than regular carving. Moreover, it results in a more spontaneous decoration because a design executed with brush strokes tends to be freer in effect and more subtle than one done with a cutting or carving tool.

The work should be done when the piece is at an advanced leather-hard stage but not yet dry. Perhaps the better resist material to use for this particular technique is paraffin because it will withstand rubbing with a wet sponge longer than will other masking devices.

Heat the paraffin until it is very hot, remove from the fire and use immediately. Then clean the brush right away with carbon-tetrachloride so that all traces of wax are removed.

A wax-resist emulsion of the type used for decorating can be used instead of paraffin, if desired, but it will wear away more quickly under rubbing—perhaps before the decoration is as outstanding as you want it to be. By watching carefully, however, you can detect signs of the emulsion's deterioration and make another application of the material before sponging further.

When the sponging is finished, dry the pot and bisque fire it (the wax will burn off in the kiln). Then, the choice of glaze is important for it should enhance and not obliterate the decoration. Too viscous a glaze would hide the design as would most of the matt glazes because of the heavy application required. For best revealing the decoration, a semi-opaque glaze that tends to break on edges or to pool is perhaps the most successful.

Glazed and fired, relief decoration done by the wax-and-sponge method is free and subtle in feeling. This easy way of carving is a technique worth trying. •

HOW TO GET A CARVED EFFECT using wax and a sponge

by MARY ELLIOTT

YOU CAN produce a raised decoration in two steps. 1) Using wax like paint, brush a design on the leather-hard surface of a pot. 2) With a wet sponge, wear away the background. The design will remain outstanding as shown in the finished pieces above.
With a minimum of "extras" added, a wheel-thrown cylinder can be turned into a piece of sculpture as shown in the photo sequences on the facing page.

In each case the core or basic shape was a cylinder. After this was thrown on the wheel, such appendages as feet and wings were cut from a slab of clay and fitted closely to the core. Areas which needed building up—the head of the cat, for example—were then filled in with small pellets of clay and later modeled and smoothed with a wooden tool. Surfaces were embellished with pattern, in the form of incised design and areas of color, when the clay had become leather hard.

The walls of the cylinder for this kind of sculpture need not be left very thick in throwing; one-fourth to one-half inch is sufficient. Areas demanding a heavier wall (as in the case of the cat's chest) can be built up with slabs or pellets.

For the throwing, here, a body composition composed of 2 parts red-
firing clay and 1 part grog was used. This same clay was also used for the slab parts. The slabs were prepared with great care, the clay being thoroughly wedged to eliminate air bubbles and rolled in several directions to reduce the chance of warpage during firing. Parts cut from the slabs were attached to the cylinder with slip made from the same clay.

Two different techniques were used in making the incised patterns on the sculpture. In the case of the cat, the technique was sgraffito. The body was coated with slip and lines were scratched through the slip to reveal the original red-clay color. Bands of additional color (this can be colored slips or underglazes) were later brushed on areas of the surface.

The sculpture was bisque fired to cone 08 and, since no underglazes had been used, it was not necessary to glaze the pieces. The body was coated with slip and lines were scratched through the slip to reveal the original red-clay color. Bands of additional color (this can be colored slips or underglazes) were later brushed on areas of the surface.

When glazing is desired there are, however, two transparents (cone 06) which give unusually fine results. One is merely a half-and-half mixture of the body clay and lead carbonate; the other is composed of Frit 3195 with a small amount of red iron oxide added to give a beautiful amber tone. Under such glazes, the colors and values of the slips are modified considerably.

Whatever the glazes and slips to be used, it is always a good idea first to run test tiles so that reactions can be "pinned down" precisely. Then values can be more easily controlled and disappointing results avoided.

As can be seen, even in black-and-white photographs, color and pattern were introduced freely in the sculpture shown. In designing the form or shape of a piece originally, however, one must recognize a certain limitation. It is best, for both aesthetic and practical reasons, to plan the form so that it will be completely self-contained and require the addition of as few parts as possible. Therein is the key to a happy ending.

The author acknowledges with thanks the assistance of Harold Bennett, a skilled thrower and former student, who threw the basic shapes and aided generally in the preparations of the demonstrations presented here.
Bates: Enameling

(Continued from page 17)

gauge does not arise. We soon realize that,
increasing the counter enamel, we can work on 22-gauge, or even 21-gauge, copper as well as on 16-gauge.

I have made large murals using sectional areas made from 22-gauge roofing copper. These in turn were mounted on plywood and, in fact, were much more easily bent into shape than if I had used 18-gauge copper.

For all practical purposes, let us say that 18-gauge is either fine silver or fine copper is satisfactory for a spun bowl up to 12 inches in diameter. For a free form, I prefer 16-gauge. If a more graceful or delicate free form shape is required, I would use metal as thin as 20-gauge, being sure to increase the counter enamel.

Remember that the danger of warpage is proportional to the number of firings rather than the temperature of any particular firing. The thinner the gauge, the more precaution is needed in subsequent firings.

Choice of Metal

It is common knowledge that everyone recognizes and appreciates the value and intrinsic beauty of silver more than copper. From ancient times, the color and qualities of gold have made it admired over all metals. For this reason, it is presupposed that objects made of gold should be a heavier gauge than those made from silver or copper. Today, however, such a hard and fast rule is outdated.

The size of the object and the amount of metal exposed in relation to the color and quantity of enamel are considered the bases for deciding what gauge of metal to use. A metal of too thin a gauge in relation to the size of the object made from it, results in a cheap and flimsy article. This is true of other metals as well as gold.

Fine gold (24-carat) is softer than silver more so than copper. From ancient times, the color and qualities of gold have made it admired over all metals. Today, however, such a hard and fast rule is outdated.

The questions of how thick, how heavy, how massive, or how delicate a metal should be cannot be answered—must be realized (felt) by the artist as an integral part of the whole design. The artist himself must sense such things rather than rely on "rules" which are the convictions of other artists or teachers.
Questions

conducted by KEN SMITH

Q. Is there something I can add to bottled underglaze to prevent it from rubbing off after it is painted on green ware? I find that my underglaze will come off on my fingers with only minor handling.

A. Underglaze should not rub off, and as far as we know, the "standard brands" will not. The prepared underglazes contain certain materials which make them quite tough when dry so that the painted decoration can stand a reasonable amount of handling without smearing or rubbing off. Additions to the underglaze should not be necessary.

Q. How does one go about marketing an original ceramic design that might have commercial value? In fact, what is the secret to successful marketing of hand-crafted ceramic wares in general?

A. The question of marketing is one that plagues even the most experienced craftsman. As you might suspect, it is a subject that cannot be adequately covered in a letter or in this column. Unfortunately, issues of CM containing articles on this subject are out of print.

If back issues of CM are available to you, check February 1953 for an article called "A Potter's Markets"; also, an article in February 1954, "The Wholesale Market."

You might write to one of the large craftsman's guilds such as the American Ceramics Council (29 W. 53rd St., N. Y. City), or the League of New Hampshire Arts and Crafts (203 N. Main St., Concord, N.H.).

Q. Is the screen size or grind of an enamel or copper important? Should different screen sizes be used for different techniques?

A. Our enameling expert Kathe Berl says: "The screen size certainly is important! I always use and work more happily with a sixty-mesh grind. Too fine a grind will clog up the screen; it will get lost in the washing and it has a tendency to get dull—especially the opaque colors."

"Too coarse a grind is no good either. The grains end up too far apart and give a sort of salt-and-pepper effect. There is no trouble with 60 mesh."

Q. Can you recommend a reliable procedure for doing a reduction firing in an electric kiln?

A. Reduction firing in an electric kiln is a tricky procedure. One method is to drop moth balls into the kiln at the proper temperature for a certain length of time. Another is to work out a method for dropping oil into the kiln one drop at a time. You would have to develop your own procedure, based on a series of trial-and-error tests.

A better method would be to try a "local reduction" glaze. By this technique, the reducing agent is introduced into the glaze rather than into the kiln atmosphere. An excellent article on this subject, complete with recipes for glazes ranging from cone 04 to 10, appeared in the December, 1953, issue of CM. Some copies of this number are still available from the publisher (at sixty cents).
Metals other than Copper

Once in a while two people who meet suit each other's needs so perfectly, and are so perfectly matched, that they know at once they will stay together forever. They are not always of the same opinion—oh no—and they have their difficulties. But that makes life interesting, and their relationship is a very happy and constant one. Such a couple is the enameler and his copper. Copper works just fine as we all know. If we have difficulties—well, we'll get over them.

People are also attracted sometimes. I must say, to less steady friendships. Such relationships start out magnificently, and are great fun. But, all of a sudden, it's all over and nothing can be done about it. Such a friend is gilders metal (an alloy of copper and zinc). The happiest enameling can come to a sad end. But, it was an interesting experience.

Another type of friend, although a true and wonderful friend, has to be handled with kid gloves. He is touchy—he can melt away from you. You have to be careful with him. Silver is such a friend.

Still another type is the highly exclusive person. He can be so very exclusive that he does not want to have anything to do with you. No matter how hard you try to be friendly, he just pushes you away. But, when properly approached, he can be a precious friend—of true color—and you can be together for precious moments. That's how it is with gold. (However, not all gold alloys can be enameled.)

I hope you will understand that you will want to use only transparent enamels with the different metals mentioned below. Opales do not care what's under them.

Gilders Metal

Gilders metal, an alloy consisting of 95% copper and 5% zinc, can give brilliant results when used as a base for transparent enamels. In designs where the bare metal shows, its gold tone—a more desirable color than the pink of copper—holds an advantage. However, the drawback is that, to be relatively sure of getting good results, the enameling has to be finished in one or two firings. If it is fired a third time, the enamel can crack, or it can pull together and form small islands on bare metal. The enamel also might peel off altogether and there is nothing you can do but have a good cry. If you are still game, handle gilders metal exactly like copper for enameling.

Silver

An enamel piece on silver can really look like a jewel—shimmering, clear and mellow. It would be such a pleasure to work on silver if only it were less tricky. It does not obligingly get red in the kiln, as does copper, to let you know that the enamel is mature. No! Silver stays whitish, and you have to watch the gloss of the enamel and quickly remove the piece from the kiln when it matures. No interesting effects achieved from overfiring are possible when working with silver. When too hot, silver first gets out of shape, then collapses into an oddly shaped wafer and finally melts into a lump. All this occurs in a few seconds.

If silver is given only a normal acid cleaning before heating, it turns a dark gray and presents a difficult polishing problem. So, I advise you to boil the silver base in a sulphuric acid solution (three parts water to one part acid) in either an enameled or pyrex container over a low flame. Gently boil until the silver turns dull and white. If you follow this procedure, your silver will not tarnish in the kiln. However, if you do not care for this annealing procedure, you need only acid clean your silver as far as the enameling goes. But you will have trouble polishing it after the enameling is finished.

Never place silver in an acid bath that previously has been used for copper. If you do, you will find a copper-plated piece. Fine surprise! A copper surface we can have much cheaper.

(Continued on page 32)
Many hobbyists have probably tried using a Flit gun for spraying glazes. It works fine for backgrounds and overspray but if you have pieces of any size or quantity, the hand-operated spray gun is anything but practical. I have found a way, however, of turning a Flit gun into a power spray gun which can be attached to an air compressor used for spraying paint. This piece of equipment costs almost nothing and is highly satisfactory for applying glazes, even coarsely strained glazes.

Transforming the Flit gun requires only three single changes (see sketch). 1. Remove the wooden-plug and plunger-handle assembly from the rear of the sheet-metal cylinder; then cement a solid plug of wood into the opening and, from the outside, hammer two tacks through the cylinder into the plug to hold it tightly (this end must be reasonably airtight.)

2. Hold the gun in one hand, in the same position as it would be grasped in actual use. At the point where your thumb has rested on top of the cylinder, drill a ¼-inch hole.

3. On the bottom of the cylinder, directly underneath the first hole, drill a second hole. In this one solder a tire-valve stem or a standard brass coupling depending on the function that the air hose, when connected, will drop free and clear of the hand holding the gun.

Now this is the way to use the gun. Attach it to the compressor, hold it in the usual position, place your thumb over the hole in the top of the cylinder and start spraying; to stop spraying, simply remove your thumb from the hole. This makes a control valve without equal. With little practice, the operator learns to feather the control according to the amount of heaviness of spray desired. And the valve, having no mechanical parts to get out of order, is foolproof.

The capillary tube which projects from the gun into the glass reservoir is of ample size to allow fair-sized glaze particles to pass through (this is a distinct advantage when screening of the glaze hasn't been thorough enough)

This simple gun, which cost me less than a dollar to construct, has been giving fine service for more than a year.

It should give the hobbyist or other "occasional" potter eminent satisfaction, too, what with its low cost and ability to handle even coarse glaze materials easily.—Ross Wheelton, Melbourne, Fla.

MAIL IT NOW!

A three-cent stamp can bring you $$$ if you send us an acceptable item. Send your bright ideas to Ceramics Monthly, 4175 N. High St., Columbus 14, Ohio.
Grotell Decorates . . .

(Continued from page 18)

she be represented in the currently travelling exhibition, *Craftsmanship in a Changing World*, organized by the new Museum of Contemporary Arts in New York; many potters who were once her students also have works in this show. Withal, she has found time, too, for serving frequently on juries for craft exhibitions and fairs.

Cranbrook Academy of Art Galleries put on a one-man exhibition of Maja Grotell's pottery in 1952. On that occasion her life's work was summed up expressively by Eva Gatling who was then curator of the galleries:

"As one looks at the amazing variety and quality of her production one feels that she must have been born in a pot shop and that she lives beside a kiln. Her work records a constant and never-ending search for new effects in color and in texture and an extremely high standard of technical excellence."

"The only quality in her work which cannot be seen by every visitor is the overpowering humility which pervades her life and work, a humility with which only a genius could bear to live. Yet it is this quality which has forced her into so many avenues with which only a genius could bear to live."

Enamel's Column

(Continued from page 30)

Do not use too heavy gauge silver or your enamel will chip. Even on silver of the right gauge, the enamel will chip if it is put on too heavily. All transparent blues, greens and yellows look splendid on silver. Flux appears a translucent white on silver but will turn a speckled brown after the second firing. There also is a special silver flux on the market. A basic coat of this silver flux must be used under all reds, pinks, and purples to prevent them from turning brown.

Gold

If you strike it rich and want to try some enameling on gold, better tell your dealer your plans and let him advise you. He can tell you which type of gold to use. There are many shades of gold—pink, green and yellow—according to the type of alloy. Some gold alloys just refuse to be enamelled. Although yellow gold usually works, it is still better to ask your dealer what to use.

Anneal the gold before enameling.

Should it get black in the kiln after annealing, the black can be easily removed by rubbing with baking soda before the piece goes back in the kiln. Colors look stunning on gold. And, if you have the right alloy, they are not temperamental. Silver flux, when used on gold, appears whitish. But the purer the gold, the more golden the flux. Reds are supposed to work directly on gold, and I have been very lucky with them. But remember the words supposed to and lucky. It might be better to play safe and have a basic coat of flux underneath all your reds.

Should you consider enameling a cast piece of gold, forget it before you start. Nothing good will come of it. Life can be beautiful without enamel castings—or any castings for that matter.

Enameled over gold and silver really looks elegant and precious and is worth every bit of trouble and money you have to spend on it. It is distinctly different from the appearance of enamel on gold or silver foil. As much as I like foils, foil under enamel always reminds me slightly of the tin-foil used to wrap candies.
AMONG OUR AUTHORS:

- Kenneth Bates has two loves—enameling and gardening. And he takes them seriously—writing, lecturing and winning many awards in both fields. This love of horticulture explains the predominance of growing things in his enamelf work. For him, nature is the "only" source for creative thinking and design.

- No small factor in Cleveland's reputation as a contemporary art enameling center, Mr. Bates recently completed his 30th year as a teacher of design at the Cleveland Institute of Art. He lives in Euclid, a suburb of Cleveland, with his wife—their three children are grown and away from home. He has a model studio there where a great deal of his prize-winning work is accomplished.

- Kenneth Bates once said, "Unless at the age of fifty, a craftsman is more inspired, more excited with the newness of his craft and the possibilities of experimentation in that medium than he was at 25, it has been a useless struggle."

- It is obvious that his career has been no useless struggle. In 1951, his (now well-known) book, "Enameling Principles and Practice," was published—the first to appear on the subject in fifty years. The book now is in its fifth edition. Kenneth Bates' enamels are represented in 13 museums and numerous private collections.

- Although he has several favorites among his enamels, he states that he has yet to make the piece which he prefers above all the others.

- Henry Bollman had his first taste of ceramics during his college days at Harvard. "It was because the lectures in Greek art came at a convenient time of the day, that I found myself with a fair knowledge of the ceramics of ancient Greece." Proud possessor of a keen sense of humor and always ready with a quip, he adds, "I was particularly interested in the Greek vases in which the satyrs pursue maidens round and round in most interesting ways—and now and then pursue each other."

- Mr. Bollman became interested in pottery again in 1945, when illness forced him to take a long rest. This time he actually got his hands covered with clay and he comments happily, "I haven't gotten it off since!" He opened his own studio-by-the-sea in East Gloucester, Mass. Here he makes pottery and mosaics—in recent months, most of his efforts have gone into tile tables.

- When the officials of Cranbrook Institutions, Bloomfield Hills, Michigan, were looking for a public relations director in 1955 they did not have to go far afield. Their neighbor, Marion Holden Bemis, professional writer and former art editor for the Detroit Free Press, who has lived on a farm four miles from Cranbrook for almost a quarter of a century, jumped at the chance. Mrs. Bemis likes her work at Cranbrook tremendously, she reports, "because of the unequaled surroundings (300 beautifully landscaped acres), the great variety of things to write about, and the quality of faculty and students in the institutions." Maria Grotell, about whom Mrs. Bemis writes in this issue teaches at the Cranbrook Academy of Art, one of the six Cranbrook Institutions.

GREAT LAKES HOBBY EXHIBITION

The Great Lakes Ceramic Hobby Exhibition (Conrad Hilton Hotel, Chicago, May 26-30) is featuring a new idea this year. In addition to the usual dealer exhibits and the hobby competition, will be a comprehensive program of instruction. Not only will there be large scale demonstrations, but also small classes on every phase of making and decorating ceramic ware.

Participating in this program are twenty-five well-known teachers. Included will be the four Ceramics Monthly regulars pictured below.
**Strictly Stoneware**  
(Continued from page 24)

Matt 22, cone 8-10

<table>
<thead>
<tr>
<th>Parts</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feldspar</td>
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<tr>
<td>Flint</td>
<td>54.4</td>
</tr>
<tr>
<td>Clay</td>
<td>20.9</td>
</tr>
<tr>
<td>Whiting</td>
<td>35.4</td>
</tr>
<tr>
<td>Magnesium matt, cone 9-11</td>
<td></td>
</tr>
<tr>
<td>Feldspar</td>
<td>41%</td>
</tr>
<tr>
<td>Colemanite</td>
<td>12</td>
</tr>
<tr>
<td>Dolomite</td>
<td>7</td>
</tr>
<tr>
<td>Talc</td>
<td>15</td>
</tr>
<tr>
<td>Ball clay</td>
<td>5</td>
</tr>
<tr>
<td>Flint</td>
<td>20</td>
</tr>
<tr>
<td>Satin matt, cone 7-9</td>
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</tr>
<tr>
<td>Feldspar</td>
<td>56.1</td>
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<tr>
<td>Nepheline syenite</td>
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<tr>
<td>Whiting</td>
<td>13.3</td>
</tr>
<tr>
<td>Kaolin</td>
<td>8.6</td>
</tr>
<tr>
<td>Barium carbonate</td>
<td>6.6</td>
</tr>
</tbody>
</table>

Bright transparent glazes allow colors to show well but in general look gawdy and are hard to use for good artistic pottery. The matt glazes, allowing the engobe colors to bleed through or show through, usually give an excellent effect which can be used easily for producing good pottery.

**Stoneware Questionnaire**

I love salt-glazed pottery. I have heard that you should not try to salt glaze in an electric kiln. Is this right? Can you salt glaze in an electric kiln if it is used only for that purpose? Would you write about the salt-glazing procedure?—MRS. A.W.W., DENVER, COLO.

I like salt glazed pots too, and I like your question for it is one that is asked must often and needs a clear and emphatic reply.

Salt glazing is good only at cones 3 to 10, so low temperatures are not worth considering. Salt glazing, because of its destructive results, must be done in a specially constructed kiln. Salt glazes every inch of the inside of a kiln and all cracks in the brick, seeming to dissolve the brick. Some insulation brick turns to brown glass. Fire brick may turn to a celadon glaze. Silicon carbide kiln furniture boils and destroys pots set on it in a salt glazing.

Only a kiln fired with gas, oil, coal or wood may turn to a salt kiln in a building. The sodium vapors always get into the room, corroding metal and destroying expensive fixtures.

Pottery fired to a cone 08 bisque in a salt kiln is affected enough by the recrystallization of sodium from the kiln walls to ruin the surface of the pots for any ordinary glaze application, so you should not put salt into your kiln or even your clay. In other words, salt glazing is a special process to be carried on in a special kiln. It is difficult to control and standardize and there are no ways to successfully improve or substitute a type of pottery kiln for a salt glazing kiln.

At some future date I hope to write about salt glazing in detail.—F.C.B.

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**AN IMPORTANT MEETING**  
"Craftsmen Today" will be the over-all theme of the First Annual Conference of American Craftsmen to be held June 12-14 at Asilomar, Monterey Peninsula, Calif. The conference is being held to give those seriously interested in crafts a basic understanding of the place of the craftsman in contemporary society. Professional craftsmen from this country and abroad will lead discussions. Among the well-known craftsmen taking part in the three-day meeting will be F. Carlton Ball, Daniel Rhodes, Marguerite Wildenhain, Virgil Cantini, Antonio Prieto, Peter Voulkos, and Edris Eckhardt.

Each day of the conference, a different aspect of the main theme will be treated. "The Socio-Economic Outlook" will be the topic of the first day's discussion, which will revolve around the evolution of all aspects of craftsmanship in our technological age—its relation to art, to the needs of men, to philosophy, and to industry.

Geared to highlight new avenues of approach and experimentation, the second day will be given to discussion of "Design: Its Importance and Its Relation to Techniques." "Professional practices" will be the final topic for discussion. This topic will include the entire range of problems confronting the professional craftsman in the distribution of his production, including ethics and philosophy in relation to business.

Further information about the conference may be obtained from the American Craftsmen's Council, 29 West 53rd St., N.Y.C.

**CONTEMPORARY CRAFTS** By an intimate manner of display (see photo), the Midland (Mich.) Art Association sought to avoid the feeling of separating works of art from its enjoyment by the viewers. The travelling show, "Craftsmanship in a Changing World," attracted craft and ceramic classes from distant parts of the state.

**CLOSED FOR ALTERATIONS:** On April 1, the Cleveland Museum of Art was temporarily closed in order to complete a new multimillion-dollar wing and adapt certain parts of the state.

(Continued on page 33)
I decorated a large case with luster and after it was fired these were areas that looked as though they had been covered with white powder. This powder rubbed off leaving no luster underneath. Did I overfire?

No! The luster had been applied too heavily in the areas that rubbed off. When doing a large object it is advisable to pour the luster into a small flat dish so the brush can be filled more evenly. Although patting luster with a silk pad removes much of the iridescent quality it is easier to get an even and smoother application on large objects by lightly patting. A second application and firing will enhance the beauty and eliminate the danger of heavy spots that will rub off.

In a naturalistic painting of large roses done in several colors, from white to darkest red, the white rose looked dull in comparison to the dark colors after the last firing. I had done considerable drying with the medium to intensify the darkest shades and these were very glossy. Is there a remedy for the white rose?

Yes. Use colorless transparent (often called “white”) glaze. This is in powdered form and made specifically for producing a gloss finish. It is not a glaze like that used for glazing bisque ware. Brush china painting-medium over the areas that need more gloss. Pat the medium smoothly with a silk pad and allow to dry thoroughly — until it looks dull. This may take several hours or over night. If the medium is still wet looking it will not receive the glaze powder smoothly and will give a mottled finish. Pour some powdered glaze on a glass grinding palette and grind the powder with a palette knife until very smooth and not graney; then dust and spread over the areas of the dry medium (the medium will hold a very light amount of the glaze, enough for the gloss finish). The powder may be applied with either a small piece of soft cotton or a camel-hair brush. After allowing the powder to fall on the area to be covered, push the powder around until the medium holds all it will retain. Be careful to do the dusting with light pressure so as not to scratch the surface of the medium. Brush off surplus powder with a large badger blender brush or clean cotton. Make certain to remove all loose granules. If only the white rose needs glazing you might use the light-ivory-colored glaze instead of the colorless gloss. Pat the medium smoothly with a silk pad and allow to dry thoroughly — until it looks dull. This may take several hours or over night.

I decorated a large vase with luster and after it was fired there were areas that looked as though they had been covered with white powder. This powder rubbed off leaving no luster underneath. Did I overfire?

The glazes referred to here come in several colors but some of them will eat up other colors in a painting. When used in proper places, colored glazes add much brilliance to dark colors in a naturalistic painting. Ivory glaze tends to soften effects where considerable yellow, browns and greens have been used. Lavender glaze gives a slightly violet tone and adds richness to blues, purples and grays. Use blue glaze over pure blues, pink over rose and ruby, red over reds, green over dark greens, and yellow over strong yellows. The glaze colors are quite light tints but when more than one is to be used in the painting begin with the lightest one. After the lightest area has received all the glaze it will hold it will not be receptive to a darker powder. Glazes are used only for the last firing: they contain a good deal of flux and mineral colors cannot be painted over them.

If a student of china painting is very allergic to turpentine what can she use for cleansing brushes and palette?

Use pure denatured alcohol for cleansing purposes. If the china-painting medium being used is heavy in consistency and turpentine is being used in the brush for painting purposes (as is sometimes necessary especially when the medium contains fat oil), then change to a lighter-medium mixture of the essential oils (one without fat oil). After cleansing the brush each time you change from one color to another, you can keep it well oiled with the medium for smoother painting if you use the right medium.

Alcohol evaporates fast and you should not dip into it while painting or use it for thinning the paints as one might use turpentine. It is better to have a small flat container of oil of lavender handy for oiling the brush after each cleansing with alcohol.
York State Craft Fair

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