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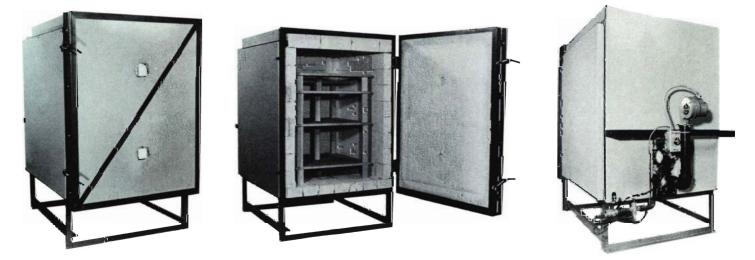


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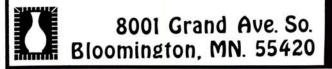
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Ceramics Monthly

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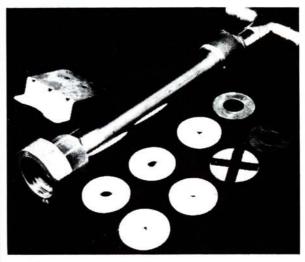
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The Cover

Raku-fired vessel, 16 inches in height, handbuilt, copper glaze, from a recent Berlin exhibition by American potter Jimmy Clark and German artist Thomas Werneke. Ranging from 3-inch figures to a 6-foothigh, free-standing gate, many of the works in "Archaic Ceramics from the 20th Century" were collaborative, with an intent "to capture the spiritual purity of ancient pottery, while incorporating modern aesthetics." *Photo: Udo Hesse.*

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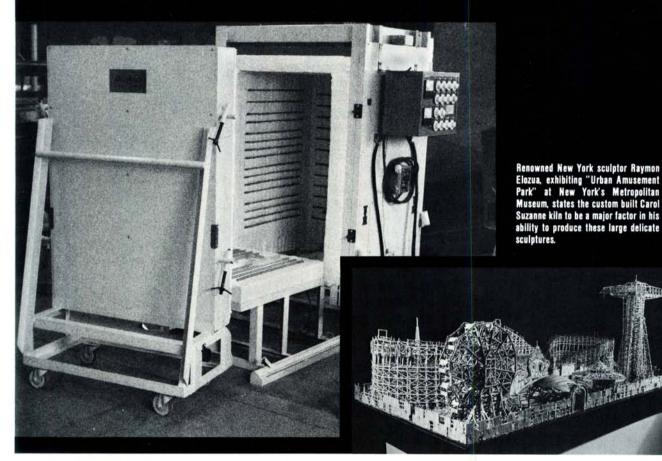


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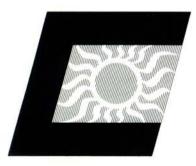
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Letters

Fired Houses

The November 1983 issue is immensely stimulating, specifically Jim Danisch's article "Nader Khalili: Fired Houses." Adobe has been a building material for many centuries, the Romans were the master arch builders, and fire was discovered long, long ago. Isn't it strange that it took all this time for someone to develop this idea?

I find it difficult to complete this letter because I am thinking of floor plans, glaze colors, arched doors and walls just made for touching. I'm not surprised that architects are slow to respond; the average building of our time just cannot compete with the stimulating simplicity expressed through the photographs accompanying the article.

> Magda V Tautphoeus Glendale, Calif.

Aesthetic Vocabulary

In reference to Brian Moeran's articles of the past year, especially the Comment in the November 1983 issue: "thin," "shallow," "impotent," basically "neutered."

> Roy Grisewood Conesus, N.Y.

More on Carpal Tunnel Syndrome

The November letter from Rick Urban prompted me to share some thoughts. In my 20-some years of throwing pots and teaching others, I have never suffered from, nor encountered anyone having this problem. I do not for a moment want to deny the existence of carpal tunnel syndrome. I cannot help but think, however, that it is something the potter can prevent. A careful analysis of one's throwing, wedging and general studio working techniques may reveal wrong habits. An example might be using clay that is improperly wedged, or clay that is really too hard to work with, which translates into having to exert too much pressure on the clay in order to center it. Clay should move freely into the center and then into the desired shape with relatively little pressure. All too often I have found aspiring potters with a tendency to want to overpower clay and see who's the strongest. It is much easier to get to know your clay and then take advantage of its capabilities. An old country potter in Tennessee asked me once what all the fuss was about. When asked about this CTS problem his reply was "Just gotta know yer mud."

I can already hear the grumblings about this guy who probably has not thrown many pots and does not know what it means to be a production potter. After throwing a hundred coffee mugs (at 15 seconds each) the most I ever suffered from was a little stiffness in my fingers which went away after a few simple hand exercises.

Rogier Donker Fairbanks, Ind.

I had a carpal tunnel operation on my right hand in March. Recovery was slow only because I was trying to do too much too soon. By late May my hand was feeling almost normal.

The first time I got back on the wheel was September—I started school at the Kansas City Art Institute and my hand is doing better than before the operation. Sometimes when I wedge or center large amounts of clay my hand does not seem to have the strength it needs right away. I just have to work harder than before.

You lose some strength but it's not from the operation, it's from carpal tunnel syndrome. I was told by different people that if you do not "fix" your hand it gets worse and you lose more strength, so I had an orthopedic surgeon operate on my hand and he did an excellent job.

When I use my hand a lot and really push myself, I do experience a tenderness in the palm—sort of like the base of the hand is bruised.

Debbe Wald Kansas City, Mo.

I developed carpal tunnel syndrome in 1975 in response to an excessive amount of carpentry work—it affects persons of many occupations where the hands are used extensively. I had nocturnal pains for two to three months and thereafter only numbness when doing fine work with my hand. I have been potting since 1976, and CTS has really never impaired my work with clay. The syndrome was intolerable, however, with respect to my profession as a dentist, and therefore I opted for surgical correction in 1981.

I was able to return to both dentistry and pottery within three to four weeks. Some extra care was needed with strenuous tasks for an additional month. To date I am cautious not to lift heavy objects in a manner that would put extreme torque on the wrist. All my symptoms were resolved for eight months. Since that time though, I have experienced periodic pains in the hand, wrist and forearm.

My pain is aggravating but not debilitating. Rick Urban's description of his present pain sounds quite similar to what I now experience having had surgical correction. In my case, however, the intolerable numbness was eliminated and has been replaced by a tolerable amount of pain. The point here, of course, is that if you choose surgery the results may vary from the anticipated ideal. I have spoken with a few other people who have had the surgery and most have had very good results with total resolution of all symptoms. Mine seems to be by far the exception and not the rule. None of these people, though, were potters.

I advise discussing your problem with sev-

eral neurologists—opinions vary. Neurology has a treatment which has shown a high degree of success in treating CTS. Other fields offer possible treatments but I would be hesitant to try any which are not totally reversible. In discussing your problem, explain as best you can the demands pottery places upon your hands. Ask about probable and possible results and how these results affect your ability to use your hands as you require.

David K. Sickinger Dover, Ohio

October Issue

Thank you for printing "Cone 5-6 Slip Glazes" by Gerald Rowan. The Gun Metal Albany Glaze turned out just super. I have not had the same luck with the Albany Blue/ Green to Black Glaze, but that is probably my fault for not letting it set for a day or two.

> Eva Beyer Redwood City, Calif.

Subscribers' Comments

More serious sculpture, please. Every time a great article comes out on sculpture (such as "George Geyer, Tom McMillin: New Definitions," October 1981) the "purists" write a bunch of ridiculous letters and CM backs off. Stand your ground. Clay takes many forms.

> Dale E. Jenssen Houston

How about some articles/comments/advice on what new college grads can do to get started. Examples might include galleries that take new artists, apprenticeships, grad school assistantships, opportunities at crafts centers to teach/take noncredit classes for use of studio, co-op craft studio opportunities, tips on starting a new business. Even one article a year would be of great help.

> Bernadette Stillo Tannersville, Pa.

My own ceramic ambitions are kept in perspective by a sign I pass taking my son to nursery school: "Grade A Worms."

> Linda Boyer Washington, N.C.

Since the birth of my son four months ago, I haven't had much time to do any art work. Thanks to CM at least my imagination is not put on hold, too.

> Michele Denton Mitchel, Neb.

Share your thoughts with other readers. All letters must be signed, but names will be withheld on request. Address: The Editor, Ceramics Monthly, Box 12448, Columbus, Ohio 43212.

January 1984 7

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Where to Show

exhibitions, fairs, festivals and sales

Send announcements of juried exhibitions, fairs, festivals and sales at least four months before the entry deadline to: The Editor, Ceramics Monthly, Box 12448, Columbus, Ohio 43212; or call: (614) 488-8236. Add one month for listings in July and two months for those in August.

International Exhibitions

January 10 entry deadline

Vallauris, France Ninth "Biennale Internationale de Ceramique d'Art de Vallauris" (July 6-September 15) is juried from 5x7 color photographs, up to 2 entries. Contact: Comite de la Biennale, Hotel de Ville, 06220 Vallauris; or call: 64-24-24

January 21 entry deadline

Faenza, Italy "42nd International Competi-tion of Artistic Ceramics" (May 12-August 21) is juried from works, slides/photos and technical de-scription of up to 3 entries, and a resume. Awards: "Faenza Prize" (approximately \$2400) and a solo exhibition; purchase and honor prizes. Forms due January 21; works due February 15. Contact: Concorso Internazionale della Ceramica d'Arte, Palazzo Mazzolani Corso Mazzini 93 Faenza Italy; or call: 28664

January 24 entry deadline

Newport, Rhode Island "Raku and Smoke North America" (April 6-May 21) is open to artists from Canada, Mexico and the United States. Awards. Contact: Raku and Smoke North America, c/o The Newport Art Museum, 76 Bellevue Ave., Newport 02840

April 10 entry deadline Golden, Colorado "North American Sculpture Exhibition" (June 3-July 3) is open to residents of Canada, Mexico and the U.S.A. Juried from 8x10 glossy, black-and-white photographs of up to 3 entries. \$6000 in awards. Fee: \$12.50 per entry. Send self-addressed, stamped envelope to: The Foothills Art Center, 809 Fifteenth St., Golden 80401; or call: (303) 279-3922.

National Exhibitions

January 10 entry deadline Rochester, New York "Introspectives" (March 17-April 28) is open to women artists. Juried from slides. \$1500 in awards. Send self-addressed, stamped envelope to: Introspectives, Pyramid Arts Center, 163 Saint Paul St., Rochester 14604; or call: (716) 232-1376.

January 13 entry deadline

Pensacola, Florida Pensacola Junior College's "National Portrait Exhibition" (March 9-30) is juried from slides. Fee: \$10 for up to 3 works. \$1500 in purchase awards. Contact: Allan Peterson, Visual Arts Gallery, Pensacola Junior Col-lege, 1000 College Blvd., Pensacola 32504. February 5 entry deadline

Murfreesboro, Tennessee "Currents '84" biennial crafts competition (March 5-April 6) is juried from slides of up to 3 works. Fee: \$10. Contact: "Currents '84," Art Department, Middle Tennessee State University, Box 25, Murfreesboro 37132; or call: (615) 898-2455.

February 14 entry deadline Highland Park, Illinois "The Cup Invitational" (March 31-May 2) is juried from 3 slides and resume. Send self-addressed, stamped envelope to: Martha Schneider Gallery, 124 S. Deere Park Dr., Highland Park 60035; or call: (312) 433-4420. February 15 entry deadline

Cuyahoga Falls, Ohio "Fiber and Clay National '84" (April 1-30) is juried from slides of up to 3 entries. Cash awards. Fee:\$10. Contact: Claudia Zeber, Cuyahoga Valley Art Center, 1886 Front St., Cuyahoga Falls 44221.

March 1 entry deadline

Lancaster, California "Desert West Juried Art Show" (April 7-12) is juried from 3 slides. Fee: \$5 per entry. Contact: Desert West Juried Art Show, Box 2811, Lancaster 93539; or call: (805) 948-5886 or 942-0644

March 16 entry deadline

Guilford, Connecticut "Dreams and Other IIlusions," a multimedia show, (May 6-27) is juried from 3 to 5 slides. Awards. Fee: \$10. Send selfaddressed, stamped envelope to: Dreams, Guilford Handcrafts, Box 221, Guilford 06437; or call: (203) 453-5947

April 25 entry deadline Buffalo, New York "Created by Hand Exhibition" (June 9-July 5) is juried from slides of 2 works. Fee: \$15. Jurors: Nancy Belfer and Jack Jauquet. Cash awards. Send self-addressed, stamped envelope to: Patti Brown/Joan Dobrin. Associated Art Organizations Gallery, 698 Main St., Buffalo 14202

Regional Exhibitions

January 6 entry deadline

San Angelo, Texas "Ceramic Competition'84" (February 13-March 16) is open to residents of Arkansas, Kansas, Louisiana, New Mexico, Texas and Oklahoma. Juried from slides. Fee: \$10 for up to 3 works. Contact: Martha Wittstruck, Art and Music Department, Angelo State University, San Angelo 76909; or call: (915) 942-2223. January 8 entry deadline

Detroit, Michigan "Michigan Ceramics '84" (February 10-28) is open to former and current Michigan Potters Association members, and residents of Michigan and Windsor, Ontario, Canada. Juried from 3 works. Juror: Anne Christen-son. Fee: \$10 for members, \$20 for nonmembers. Contact: Michigan Ceramics '84, 4241 Crestline Dr., Ann Arbor, Michigan 48103.

January 18 entry deadline

Belleair, Florida "Ceramics Southeast" (March 23-April 22) is open to residents of Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee and Virginia. Juried from slides. Fee: \$12 for 2 entries. \$2000 in awards. Contact: Ceramics Southeast, Florida Gulf Coast Art Center, 222 Ponce de Leon Blvd., Belleair 33516; or call: (813) 584-8634.

January 29 entry deadline Huntington, West Virginia "Exhibition 280: Works on Walls" (March 4-April 8) is open to artists living within 280 miles of Huntington. Juried from works (wall-mounted forms only). Jurors: Deborah Frumkin, Clair List and Addison Page. Contact: Huntington Galleries, Park Hills, Huntington 25701; or call: (304) 529-2701. March 1 entry deadline

Rockville, Maryland The 16th "Biennial Creative Crafts Council Exhibition" (April 29-May 26) is open to residents of the District of Columbia, Maryland and Virginia. Juried from works. Awards. Contact: Marcia Jestaedt, 13300 Forest Dr., Mitchellville, Maryland 20716. May 12 entry deadline

Ťoledo, Čhio "66th Annual Toledo Area Artists' Exhibition" (June 17-July 8) is open to residents of northwestern Ohio and southeastern Michigan. Juried from works, up to 3 entries. Fee: \$10. Contact: Toledo Museum of Art, Box 1013, Toledo 43697; or call: (419) 255-8000.

Fairs, Festivals and Sales

January 7 entry deadline

West Springfield, Massachusetts "ACC Craft-fair West Springfield," formerly "Rhinebeck," (June 19-24) is juried from 5 slides. Entry fee: \$20. Booth

fees: \$300-\$650. Contact: American Craft Enterprises, Box 10, New Paltz, New York 12561; or call: (914) 255-0039.

January 13 entry deadline

New York, New York "WBAI Spring Crafts Fair" (May 18-20 and June 1-3) is juried from 5 slides. Entry fee: \$10. Booth fee: \$275. Send self-addressed, stamped envelope to Matthew Al-perin, WBAI Crafts Fair, Box 90, Warwick, New York 10990; or call: (212) 279-0707.

January 15 entry deadline

Rhinebeck, New York "Rhinebeck Craft Fair" (June 18-24) is juried from 5 slides. Entry fee: \$5. Booth fee: \$250 for a 1 Ox 10-foot space. Contact: Mil Productions, Box 93, Vernon, Connecticut 06066; or call: (203) 871-7914 or 745-5071. January 20 entry deadline

Birmingham, Alabama "Birmingham Art Connection" (April 13-14) is juried from 3 slides of work and 1 of display. Jurors: Ivan Carp and Paul Brach. \$12,000 in awards. Contact: Eileen Kunzman, Operation New Birmingham, Suite 501, Commerce Center, 2027 First Ave., N, Birmingham 35203; or call: (205) 254-2626.

ham 35203; or call: (203) 254-2626. Saint Louis, Missouri "Laclede's Landing/ Coors Artists' Showcase" (June 2-3) is juried from 5 slides. Application fee: \$5; booth fee: \$75. No commission. Contact: Artists' Showcase, c/o First Street Forum Arts Center, 717 N. First St., Saint Louis 63102; or call: (314) 421-3791.

Sugar Loaf, New York Tenth annual "Sugar Loaf Crafts Festival" (May 19-20) is juried from 3 slides of work, 1 of booth. Entry fee: \$5; booth fees: \$75-\$100. Send self-addressed, stamped, business envelope to: Dori Denninger, Box 339, Sugar Loaf 10981; or call: (914) 469-2391. January 27 entry deadline Guilford, Connecticut "27th Annual Guilford

Handcrafts Exposition" (July 19-21) is juried from 5 slides. Fee: \$10. Awards. Contact: Guilford Handcrafts EXPO 1984, Box 221, Guilford 06437; or call: (203) 453-5947.

February 1 entry deadline Indianapolis, Indiana "Talbot Street Fair" (June 9-10) is juried from slides. Awards. Fees: \$30 for Indiana Artist-Craftsmen members, \$50 for nonmembers. For further information contact: Talbot Street Fair Committee, Box 479, Danville, Indiana 46122

Canton, Ohio "Common Market" (June 9-10) is juried from slides. Fee: \$50 for 100 square feet. Contact: Common Market, Central Plaza South Bldg., Canton 44702; or call: (216) 456-5758. February 4 entry deadline

Winnetka, Illinois " 11 th Annual Midwest Craft Festival 1984" (May 19-20) is juried from 5 slides. Awards. Contact: North Shore Art League, 620 Lincoln Ave. Winnetka 60093; or call: (312) 446-2870

February 8 entry deadline

Knoxville, Tennessee The 24th annual "Dogwood Arts Festival" (April 13-15) is juried from 5 slides. Entry fee: \$5. Booth fee: \$15 for a IOx 10foot space. Contact: Dogwood Crafts Fair, 203 Fort Hill Bldg., Knoxville 37915; or call: (615) 637-4561.

February 15 entry deadline

Bethesda, Maryland "First Annual American Designer Craftsmen Festival" (June 22-24) is juried from 5 slides. Fee: \$130. Send self-addressed, stamped envelope to: American Designer Craftsmen, Marvin Cohen/Michael Strailey, 5704 Dimes Rd., Rockville, Maryland 20855; or call: (301) 340-2320.

Worcester, Massachusetts "Worcester Craft Center 14th Annual Craft Fair" (May 18-20) is

juried from 5 slides. Entry fee: \$15. Booth fee: \$120 for an 8 x 10-foot space. Contact: Worcester Please Turn to Page 64

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Questions

Answered by the CM Technical Staff

Q, I am looking for a white glaze and a black glaze that will go together well when fired in reduction on stoneware. My current black and white glazes crawl when one contacts the other. Any help you might give would be appreciated.—M.W.

A classic black and white combination glaze can be made with the following simply formulated recipe:

TASHIKO SEMIMATT WHITE GLAZE (Cone 9-10, oxidation or reduction)

Whitin	g	20%
	all Stone	
Kona l	F-4 Feldspar	40
	a Kaolin	
		100%
Add:	Zinc Oxide	7%
	Bentonite	2%

To make a black glaze from this recipe, add 5% cobalt carbonate, 1 % manganese carbonate and 20% red iron oxide. Since these glazes have the same base, they should work especially well together.

Q I am experimenting with making my own casting slip and currently have one that contains about $\frac{1}{2}$ of its weight in water. This seems insufficiently deflocculated. What is a reasonable goal for water content in slip?—C.F.

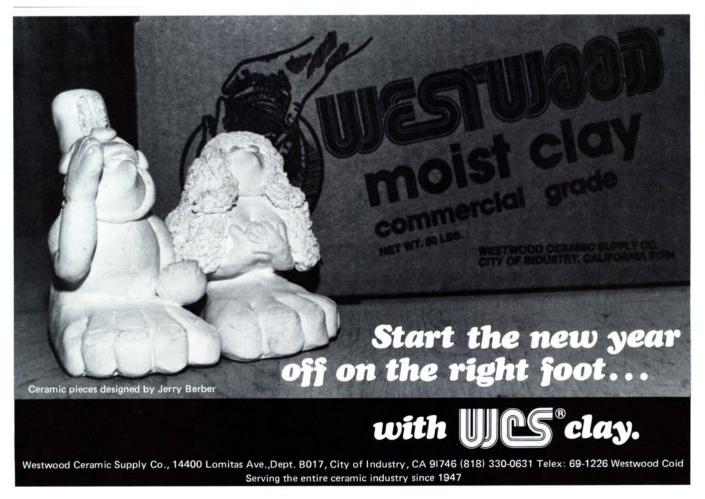
A good casting slip will contain as little as 25% water (by weight). This is achieved by proper deflocculation with electrolytes such as soda ash or sodium silicate in amounts from approximately 0.3% to 0.5% by weight. Usually both sodium silicate and soda ash are used in the slip recipe, and a good starting point is equal parts of each. Some clays, however, will not deflocculate sufficiently to make good slip. If yours seems resistant to further deflocculation, you may wish to try another clay base. Many handbuilding or throwing bodies make fine casting slips when properly deflocculated, and any of these are worth experimenting with.

Q I would like to locate a recipe for white slip which would fit my stoneware clay body, even when applied thickly. What do you suggest?—B.N.

At the recent Echoes conference in Kansas City, Minnesota potter Warren MacKenzie commented during his workshop session that there really is no reason for even thick white slips to be complicated. A line blend of kaolin and ball clay ought to produce slips to fit any clay. To find a good fit for your stoneware body, try a line blend of Georgia kaolin (6 Tile) and Kentucky ball clay (OM 4) in 10% increments: 90% kaolin and 10% ball clay; 80% kaolin, 20% ball clay; etc.

Q Recently I acquired a number of Mason stains from a potter friend, but have discovered they are labeled with the old numbering system discarded by Mason several years ago. Do you have any information that might list these with their corresponding new numbers, as well as give some clue to the chemical composition?—V.R.

Continued



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Questions

Mason Color and Chemical Works provided the following list of stain compositions, with both old and new numbers:

-			**6271
New No.	Old No.	Description and Composition	*6274
BLACK	1.50	Diash (Carra Ca Ni)	*6280
*6600	158	Black (Cr Fe Co Ni)	**6288
6601	1093	Velvet (Cr Fe Co Ni Zn) Plack (Cr Fe Co Ni Mn Sn)	GRAY
6609	299	Black (Cr Fe Co Ni Mn Sn) Chrome-free (Co Fe Mn)	*6500
*6616	616 150	Cobalt-free (Cr Fe)	6503
**6650	150	Black (Cr Fe Co)	6506
6657 6666	K-4266	Cobalt-free (Cr Fe Mn)	6527
	K-4200		6528
BLUE *6300	4-K	Mazerine (Co Si Zn)	6530
*6302	1042	Cadet (Cr Co A1 Si Sn)	6540
*6305	705	Teal (Cr Co A1 Si Zn)	6572
*6306	126	Vivid (Co A1 Si Zn)	6573
6307	1027	Pastel (Co A1 Si Zr Sn)	PINK, CRIMSON, **6000
*6308	8-B	Delphinium (Co A1 Sn)	**6001
*6310	10	Wedgwood (Co A1 Si)	**6002
*6313	M	Medium (Co Zn Si)	**6003
6320	2820	Delft (Co A1 Si Sn)	**6004
*6330	2430	Cobalt Aluminate (Co Al)	**6005
6336	1036	Peacock (Cr Co Al Si Sn)	**6006
*6339	39	Royal B (Co Al Zn)	**6007
6360	1060	Blue Willow (Co Al Si)	**6008
*6363	K-3137	Sky Blue (Co Al Si)	**6009
*6364	K-3364	Turquoise (Zr V)	**6014
6368	11 0001	Copen Blue (Co Zn Al Si)	**6018
*6371	710	Dark Teal (Cr Co Al)	*6020
6373	1073	Turquoise (Zr V Cr Co Sn)	**6023
6376	X-76	Robin's Egg (Zr V)	6029
*6379	X-79	Cerulean (Zr V)	**6030
*6383	K-4704	Cobalt Aluminate (Co Al)	**6031
*6388	K-4420	Mazerine (Co Si)	*6075
*6390		Deep Turquoise (Zr V)	**6098
6393	1503	Turquoise (Zr V Co Sn)	PURPLE-LAVEND
*6396	1296	Peacock (Zr V Cr Co Al)	**6303
BROWN			*6319
6100	300	Woodland (Cr Fe Zn Al Si)	**6331
6101	201	Chestnut (Cr Fe Zn Mn)	**6332
6103	303	Golden (Cr Fe Zn Al)	**6333
6104	K-4404	Tan (Zr V Cr Sn)	**6381
6107	307	Dark Golden (Cr Fe Zn Al)	**6385
6108	308	Walnut (Cr Fe Zn Mn)	**6387
6109	199	Deep Brown (Cr Fe Zn Al)	**6392
6113	3	Claret (Cr Fe Zn)	YELLOW
6119	319	Russet (Cr Fe Zn Ca Zr)	6400
6121	1221	Saturn Orange (Cr Fe Zn Al)	6401
6122	2422	Cedar (Cr Fe Zn Al)	6402
6123	2423	Saddle (Cr Fe Zn Al)	6403
6124	324	Chocolate (Cr Fe Zn Al Mn)	*6404
6125	225	Leather (Cr Fe Zn Al)	6411
*6126	2426	Hazelnut (Cr Fe Zn Al)	*6440
6128	1532	Camel (Cr Fe Zn Al Co Mn)	*6464
6129	297	Golden Ambrosia (Cr Fe Zn Al)	*6471
*6131	31	Titanium Iron (Ti Fe)	6481
*6134	204	Red Brown (Cr Fe Zn)	6483
6149	K-4209	Iron Silicate (Fe Si)	*6485
6153	530	Seal Brown (Cr Fe Zn Mn)	*6486
6157	1357	Medium (Cr Fe Zn Al Si)	WHITE—FLUX
6162	W D 0 (D	Deep Brown (Cr Mn)	6067
6163	K-2863	Tan (Cr Fe Zn Al)	6700
6181		Sandstone (Cr Fe Zn Al Co)	6768
*6190	V 4024	Deep Brown (Cr Mn)	6790
6194	K-4924	Manganese Silicate (Mn Si)	6908
GREEN	00	Evergreen (Cr Co Si)	6910
*6200	90	Celadon (Cr Co Zn Al Si)	6942
*6201	2401		6950
*6202	72 D 204	Florentine (Cr Co Si)	6983
**6204	B-204	Victoria Green (Cr Ca)	*0 1 .
**6206	B-16	Grass Green (Cr Ca)	*Can be used a
6207	7	Celeste (Cr Co Zn Al)	**Glaze must be
6209	2409 K 761	Chrome Green (Cr Si)	■•■Firing limit
*6211	K-761	Pea Green (Zr V Sn)	_ _ i ming mini
*6219	19	French (Cr Co Zn Ca Si)	
6221	1021	Turquoise (Cr Co Zn Ca Zr)	C 1 · 1 · 1
6223	223	Ivy (Cr Al Si) Dark Graan (Cr Ca Zn Si Ea)	Subscribers' in
*6224	1504	Dark Green (Cr Co Zn Si Fe)	be answered
**6225	1525	Victoria (Cr Ca) Dark Leaf (Cr Ca Zn Si Fa)	answered pers
*6226	1126	Dark Leaf (Cr Co Zn Si Fe)	Monthly, Box 12
*6236	1386	Chartreuse (Zr V Sn)	<i>Moninty</i> , DOX 12

1399	Bermuda (Zr V Pr)
644	Deep Sea (Cr Co Al Si Zn)
1734	Blue Green (Cr Co Zn Sn)
965	Leaf Green (Cr Co Zn Ca Si)
668	Peacock (Cr Co)
868	Sea Green (Cr Co Zn Si)
971	Mint (Cr Co Zn Ca Si)
K-4174	Nickel Silicate (Ni Si)
	Avocado (Zr V Cr Fe Co)
1100	
1188	Turquoise (Zr V Cr Ca)
7	Sage Gray (Cr Co Ni Si)
203	Taupe (Cr Fe Al Si Zr)
	$\mathbf{D}_{\mathrm{rest}}$
2706	Pearl (Cr Fe Co Ni Sn)
2727	Shadow (Cr Fe Al Si Sn)
2728	Charcoal (Cr Fe Co Sn Ni)
2630	Silver (Cr Fe Co Ni Sn)
2640	Blue Gray (Cr Fe Co Ni Sn)
2772	Neutral (Cr Fe Zr)
2773	Rose Taupe (Zr V Cr Sn)
ON, CORAL, etc.	/
	Shall Dink (Cr Sn)
203	Shell Pink (Cr Sn)
193	Alpine Rose (Cr Sn)
165	Rose Pink (Cr Sn)
160	Crimson (Cr Sn)
161	Crimson (Cr Sn)
163	Deep Crimson (Cr Sn)
183	Deep Crimson (Cr Sn)
211	Peach (Cr Sn V)
212	Peach (Cr Sn V)
213	Coral (Cr Sn V)
1180	^Persimmon (Cr Sn Pb Sb)
1175	tRedwood (Cr Sn Pb Sb)
11/5	
	Manganese Alumina (Mn Al)
1193	Clover Pink (Zr V Cr Sn)
K-1403	Persimmon (Cr Al Fe Zn)
190	Deep Crimson (Cr Sn)
331	Deep Salmon (Cr Sn Fe)
	Manganese Alumina (Mn Al)
K-3788	Flesh (Cr Sn V Zr)
ENDER	, ,
	Doop Orabid (Cr Sp Co)
1030	Deep Orchid (Cr Sn Co)
	Lavender (Mn Al Co)
	Orabid (Cr Sn Ca)
1076	Orchid (Cr Sn Co)
1076	
1032	Orchid (Cr Sn Co)
1032 1033	Orchid (Cr Sn Co) Lavender (Cr Sn Co)
1032 1033 K-2681	Orchid (Cr Sn Co) Lavender (Cr Sn Co) Blackberry Wine (Cr Sn Co)
1032 1033	Orchid (Cr Sn Co) Lavender (Cr Sn Co)
1032 1033 K-2681 85	Orchid (Cr Sn Co) Lavender (Cr Sn Co) Blackberry Wine (Cr Sn Co) Pansy Purple (Cr Sn Co)
1032 1033 K-2681 85 87	Orchid (Cr Sn Co) Lavender (Cr Sn Co) Blackberry Wine (Cr Sn Co) Pansy Purple (Cr Sn Co) Mulberry (Cr Sn Co)
1032 1033 K-2681 85	Orchid (Cr Sn Co) Lavender (Cr Sn Co) Blackberry Wine (Cr Sn Co) Pansy Purple (Cr Sn Co)
1032 1033 K-2681 85 87 1192	Orchid (Cr Sn Co) Lavender (Cr Sn Co) Blackberry Wine (Cr Sn Co) Pansy Purple (Cr Sn Co) Mulberry (Cr Sn Co) Dusty Lavender (Cr Sn Zr V)
1032 1033 K-2681 85 87 1192 8	Orchid (Cr Sn Co) Lavender (Cr Sn Co) Blackberry Wine (Cr Sn Co) Pansy Purple (Cr Sn Co) Mulberry (Cr Sn Co) Dusty Lavender (Cr Sn Zr V) tNaples (Sn Pb Sb)
1032 1033 K-2681 85 87 1192 8	Orchid (Cr Sn Co) Lavender (Cr Sn Co) Blackberry Wine (Cr Sn Co) Pansy Purple (Cr Sn Co) Mulberry (Cr Sn Co) Dusty Lavender (Cr Sn Zr V) tNaples (Sn Pb Sb)
1032 1033 K-2681 85 87 1192 8 1062	Orchid (Cr Sn Co) Lavender (Cr Sn Co) Blackberry Wine (Cr Sn Co) Pansy Purple (Cr Sn Co) Mulberry (Cr Sn Co) Dusty Lavender (Cr Sn Zr V) tNaples (Sn Pb Sb) *Buttercup (Sn Pb Sb Fe)
1032 1033 K-2681 85 87 1192 8 1062 13	Orchid (Cr Sn Co) Lavender (Cr Sn Co) Blackberry Wine (Cr Sn Co) Pansy Purple (Cr Sn Co) Mulberry (Cr Sn Co) Dusty Lavender (Cr Sn Zr V) tNaples (Sn Pb Sb) *Buttercup (Sn Pb Sb Fe) *Dark Yellow (Sn Pb Sb Fe)
1032 1033 K-2681 85 87 1192 8 1062 13 23	Orchid (Cr Sn Co) Lavender (Cr Sn Co) Blackberry Wine (Cr Sn Co) Pansy Purple (Cr Sn Co) Mulberry (Cr Sn Co) Dusty Lavender (Cr Sn Zr V) tNaples (Sn Pb Sb) *Buttercup (Sn Pb Sb Fe) *Dark Yellow (Sn Pb Sb Fe) •^Primrose (Sn Pb Sb)
1032 1033 K-2681 85 87 1192 8 1062 13 23 301	Orchid (Cr Sn Co) Lavender (Cr Sn Co) Blackberry Wine (Cr Sn Co) Pansy Purple (Cr Sn Co) Mulberry (Cr Sn Co) Dusty Lavender (Cr Sn Zr V) *Buttercup (Sn Pb Sb) *Buttercup (Sn Pb Sb) *Dark Yellow (Sn Pb Sb Fe) •^Primrose (Sn Pb Sb) Vanadium (Sn V)
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1032 1033 K-2681 85 87 1192 8 1062 13 23 301 K-4211	Orchid (Cr Sn Co) Lavender (Cr Sn Co) Blackberry Wine (Cr Sn Co) Pansy Purple (Cr Sn Co) Mulberry (Cr Sn Co) Dusty Lavender (Cr Sn Zr V) tNaples (Sn Pb Sb) *Buttercup (Sn Pb Sb Fe) *Dark Yellow (Sn Pb Sb Fe) •Primrose (Sn Pb Sb) Vanadium (Sn V) *Marigold (Sn Pb Sb Fe) Vanadium (Sn V)
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1032 1033 K-2681 85 87 1192 8 1062 13 23 301 K-4211 K-3146 1371 K-3411 385 386	Orchid (Cr Sn Co) Lavender (Cr Sn Co) Blackberry Wine (Cr Sn Co) Pansy Purple (Cr Sn Co) Mulberry (Cr Sn Co) Dusty Lavender (Cr Sn Zr V) tNaples (Sn Pb Sb) *Buttercup (Sn Pb Sb Fe) *Dark Yellow (Sn Pb Sb Fe) •^Primrose (Sn Pb Sb) Vanadium (Sn V) *Marigold (Sn Pb Sb Fe) Vanadium (Sn V) Zirconium (Zr V) Old Gold (Sn V Cr Fe Zn) Praseodymium (Pr Zr)
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as body stain in porcelain slip at high temperatures.

be zincless and have a whiting content of 12% to 15%

it: Cone 02

nquiries are welcome and those of general interest will in this column. Due to volume, letters may not be sonally. Send questions to: Technical Staff, Ceramics Monthly, Box 12448, Columbus, Ohio 43212.

MIXING BODIES

IS SERIOUS BUSINESS



SOLDNER CLAY MIXERS

HANDLE LOTS OF BODIES ... WITH NO PRE-MIXING!



Capacity 150 lbs. batches Studio Mixer Model No. 355

WHEN YOU USE A SOLDNER CLAY MIXER, YOU DON'T HAVE TO THINK ABOUT PRE-MIXING ANY OF THE INGREDIENTS 1. Put in the water

2. Add all ingredients

3. Let It mix for 10 minutes

AND YOU'VE GOT STIFF, THROWABLE, PLASTIC CLAY.

UNIQUE FEATURES

SELF CLEANING	To mix clay, <u>water is added first</u> because when the concrete tub is wet, the stiff, finished clay releases from the walls! This phenomena is similar to the release of clay from wet plaster bats. It is also useful to determine when the batch is finished, i.e., if the clay sticks to the walls, the batch is too wet.
LOW PROFILE	Both mixers are low enough to load and unload in comfort: The clay breaks up into large chunks for easy removal. 100 pound sacks of clay can be placed on top of the mixer and top-fed into the mixing batch. Both mixers can be moved through a 32 inch doorway; the Studio mixer upright, the Professional mixer on its side.
SAFEGUARDS	The slow speed (35 RPM), lack of moving blades, and steel guards make this mixer the safest and easiest to use. When the lid is opened, the mixer automatically disconnects and cannot be restarted accidentally. All moving parts are surrounded by protective guards. All electrical wir- ing is grounded against short circuits.
MOTOR	The motors are heavy duty and totally enclosed against dust. 1800 RPM, 50/60 cycle, fan-cooled, ball bearing, capacitor start, pre-lubricated.
POWERFUL	Because clay weight is carried on the floor of the tub and the cutting bars are only 1 inch thick, Soldner mixers have an unusually low friction loss, resulting in a very high ratio of batch-size to horse power demand.
STORAGE	The non-rusting concrete tub and the stainless steel blades permit the mixer to be used to store wet clay, either as scrap or finished clay. As a storage tub for trimmings, daily accumulations up to .50 pounds can be collected before mixing.
CONVENIENCE	Unlike pug mills, there is absolutely no danger to Soldner mixers if clay dries out in the machine! They are always ready to mix, wet or dry, and can be easily washed out to change in- stantly from one body to another.
PREMIXING	Complicated clay bodies can be quickly premixed (with water) to facilitate the usually difficult task of adding different materials to the small hopper of studio size pug mills. If desired, dry bodies and slips can also be mixed.
STRONG FRAME	The welded steel frame is triangular in shape and truss-designed for maximum strength. The three leg shape assures that the mixer will be stable, even on irregular surfaces.

Soldner Pottery Equipment

P.O. Box 428, Silt, Colorado 81652 • Call toll free 800/525-3459, (in Colorado 303/876-2935)



CAPACITY 225 pounds of dry mix or 300 pounds of wet plastic mix per batch. 1200 pounds per hour.





Itinerary

conferences, exhibitions, workshops, fairs and other events to attend

Send announcements of conferences, exhibitions, workshops, juried fairs and other events at least seven weeks before the month of opening to: The Editor, Ceramics Monthly, Box 12448, Columbus, Ohio 43212; or call: (614) 488-8236. Add one month for listings in July and two months for those in August.

International Conferences

Massachusetts, Boston *April* 5-6 The annual conference of the International Academy of Ceramics, a worldwide invitational organization, will meet at the Boston Museum of Fine Arts. Surrounding these dates are associated tours and events in Alfred, Syracuse and New York, New York; and Seattle, Washington. Nonmembers also welcome; registration fee. Contact: David Davison, Ceramics Department, Museum School, 230 The Fenway, Boston 02115.

Canada, Ontario, Toronto *February 23-25* The 72nd annual meeting of the College Art Association of America (in the Sheraton Centre) will include sessions on art history and studio art. A placement service is provided for those interested in college teaching, art administration and related fields. Contact: College Art Association of America, 149 Madison Ave., New York, New York 10016; or call: (212) 889-2113.

Conferences

Massachusetts, Boston April 10-15 The annual conference of the National Council on Education for the Ceramic Arts (NCECA) at Boston University, Massachusetts College of Art and the School of the Museum of Fine Arts, will include panels on "East Coast Clay Evolution," "State School System," "Education as a Ceramic Artist," "Life Before and After Grad School," "Transitions: Co-operatives," "East Coast Summer Programs," "Teaching Through Media," "Museums and Their Contributions," "East Coast Clay Workers," "Stu-dio Potters' Influence on Clay," "Clay and Archidio Potters' Influence on Clay," "Clay and Archi-tecture," "The Industrial Connection," "Space Age Materials," "Ceramic Colorists," "Depleted Raw Materials," "American Art Pottery," "Folk Pottery Tradition," "Clay and the Critic," "Art as a Po-litical Device," "Humor in Clay," "The Canadian Connection," "International Ceramic Profiles" and "Doublemic International Ceramic Profiles" and "Developing International Symposia"; plus exhibitions at local museums and galleries, film festival, student work portfolio, commercial exhibitors' booths and displays, meetings, raffle and giveaways, dancing and carrying on. Contact: David Davison, Federal Furnace Pottery, Hardy Street, Dunstable, Massachusetts 01827. Members interested in showing work on the triple-screen projection during the conference should send 5 or 6 slides plus one with title before February 1 to: Gene Kleinsmith, 13925 Kiowa Rd., Apple Valley, California 92307.

Pennsylvania, Pittsburgh April 30-May 1 The American Ceramic Society's annual meeting will focus on "History and Prehistory of Ceramic Art, Science and Technology." Registration fee: \$30. Contact: American Ceramic Society, 65 Ceramic Dr., Columbus, Ohio 43214; or call: (614) 268-8645.

Solo Exhibitions

Arizona, Scottsdale through January 7 Theresa Bayer, miniature porcelain sculpture; at the Hand and the Spirit Crafts Gallery, 4222 N. Marshall Way.

Colorado, Golden *through January 18* Cheryl Lenz, "Excerpts from a Family Album in Clay"; at the Foothills Art Center, 809 Fifteenth St. **Georgia, Atlanta** *January 15-February 25* Don Reitz, "Celebration in Clay and Color," wall pieces and vessels; at Great American Gallery, 1925 Peachtree Rd., NE.

January 20-February 26 Richard DeVore; at High Museum of Art, 1280 Peachtree St., NE. Missouri, Kansas City through January 6 Jim Leedy, sculpture; at Morgan Gallery, 1616 Westport Rd.

Nebraska, Omaha through January 15 Jun Kaneko, large-scale sculpture; at Ree Schonlau Gallery, Alternative Space, Tenth and Howard. New York, New York through January 9 Lucie Rie, porcelain and stoneware pottery; at the main floor, Graham Gallery, 1014 Madison Ave. January 5-20 Raul Acero, sculpture and thrown

earthenware, in the main gallery. Ann Weber, painted functional porcelain, in the Little Gallery; at Greenwich House Pottery, 16 Jones St.

New York, Syracuse through January 8 "Beatrice Wood Retrospective"; at Everson Museum of Art, 401 Harrison St.

Continued



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*With every purchase I hereby authorize you to cut out and paste in a photo of yourself right next to me -- then bring to a photo lab and have them blow it up to 3 foot by four foot, have matted and suitably framed and hang where appropriate for years of viewing pleasure. (Cost of blow-up, mat, and frame not covered by us.)

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Sample Kit. Samples may be requested for any color for \$1.00 per color. Minimum order for this sale is \$25.00 including samples.



Mason Stain Sale

(thru February 15)

No.	Color	Composition	1/4#	1# Ref.
6001	Alpine rose	Cr Sn	3.60	10.80 3 5
6003	Crimson	Cr Sn	3.60	10.80 3 5
6006	Deep crimson	Cr Sn	3.60	10.80 3 5
6007	Peach	Cr Sn V	4.20	12.60 3 5
6009	Coral	Cr Sn V	3.60	10.80 3 5
6020	Pink	Mn Al	2.60	7.50 1,3
	Persimmon	Cr Sn Fe Zn	3.10	9.30
6029		Cr Sn V Zr	3.10	9.30 3 5
6098	Flesh			
6100	Woodland brown	Cr Fe Zn Al Si	1.60	4.80 3,6,7
6101	Chesnut brown o	lkCr Fe Zn Mn	1.60	4.80 3,6,7
6107	Dark golden brown		1.60	4.80 3,6,7
6121	Saturn orange	Cr Fe Zn Al Mn	1.60	4.80 3,6,7
6124	Chocolate brown	Cr Fe Zn Al	1.80	5.40 3,6,7
6126	Hazelnut brown	Cr Fe Zn Al	1.75	5.25 1,3,7
6128	Camel brown	Cr Fe Zn Al	1.60	4.80 3,6,7
6129	Golden ambrosia	Cr Fe Zn Al	1.60	4.80 3,6,7
6134	Red brown	Cr Fe Zn	1.80	5.401,3,6,7
6153	Seal brown	Cr Fe Zn Mn	1.60	4.80 3,6,7
(000	CI	0.0.0	0.00	7 50 1 2 6 0
6202	Florentine green	Cr Co Si	2.60	7.501,3,6,8
6211	Pea green	Zr V Sn	4.20	12.60 1,3,6,8
6223	Ivy green	Cr Al Si	2.00	6.00 3,5
6225	Victoria green	Cr Ca	1.80	5.40 2,5,6
6226	Dark leaf green	Cr Co Zn Si Fe	1.80	5.401,3,6,8
6236	Chartreuse	Zr V Sn	4.80	14.40 1,3,6
6242	Bermuda green	Zr V Pr	2.25	6.75 1,3,6
6265	Leaf green	Cr Co Zn Ca Si	1.80	5.40 2,5
6266	Peacock	Cr Co	5.10	15.30 1,3,6,8
6280	Avacado	Zr V Cr Fe Co	3.40	13.20
6300	Mazerine blue	Co Si Zn	5.30	15.90 1,3,6
6302	Cadet blue	Cr Co Al Si Sn	3.80	11.40 1,3,6
6305	Teal blue	Cr Co Al Si Zn	2.60	7.80 1,3,6
6308	Delphiumium blue		3.50	10.50 1,3,6
6319	Lavender	Mn Al Co	2.50	7.50
6332	Orchid	Cr Sn Co	3.60	10.80 1,3,6
6363	Sky blue	Co Al Si	1.80	5.40 1,3,6
6364	Turquoise	Zr V	1.80	5.40 1,3,6
6371	Dark teal	Cr Co Al	3.30	9.90 1,3,6
		Zr V	1.80	5.40 1,3,6
6379	Cerulean Blackborn wing	Cr Sn Co	3.90	11.70 3,5,9
6381 6385	Blackberry wine	Cr Sn Co	4.10	
6390	Pansy purple Deep turquoise	Zr V	2.10	12.30 3,5,9 6.30 1,3,6
	- sep talquoise	690 10		1,0,0
6404	Tin vanadium yel	Sn V	5.80	17.40 1,3,6
6464	Zirconium yellow	Zr V	3.00	9.00 1,3,6
6471	Old gold	AlCoCrSnVaZnZr	3.60	10.80 1,3,6
6481	Praseodymium yel	Pr Zr	2.05	6.15 3,6
6485	Titanium yellow	Sn V	1.60	4.80 1a,3
6500	Saga gray grage	Cr Co Ni Si	2.40	7.20 3,6
	Sage grey-green	Cr Fe Al Si Zr		
6503	Taupe grey		1.50	
6530	Silver grey	Cr Fe Co Ni Sn	3.60	10.80 3,6
6540	Blue grey	Cr Fe Co Ni Sn	4.00	12.00 3,6
6600	Black	Cr Fe Co Ni	3.00	9.00 1,3,6
6616	Bk- chrome free	Cu Fe Mn	4.30	12.90 1,3,6
6650	Bk- cobalt free	Cr Fe	1.80	5.40 3,5,9
	anya matana 19668			
6700	White	Zr Al Si	1.40	4.20 3,6,8

Ref. 1. Can be used as body stain in porcelain at high temperatures. 1a. Use only as a body stain. 2. Max. temp. -2156 F. 3. Max. temp. -2390 F. 4. Max temp. -1976 F. 5. Do not use Zinc in glaze. 6. May be used with or without zinc. 7. Zinc not necessary but gives better results. 8. Best results with no Zinc. 9. Glaze must contain 6.7 - 8.4% Calcium oxide.

Above furnished by Mason stains - please test.

Itinerary

North Carolina, Charlotte through April *Is* Oscar Louis Bachelder, pottery produced from 1916 to 1935 in the "Omar Khayyam Pottery"; at the Mint Museum of History, 3500 Shamrock Dr. **Oregon, Salem** January 9-February 20 Chris-tine Pendergrass, "Water Works"; at the Gover-por's Office State Conside nor's Office, State Capitol.

Tennessee, Nashville January 2-31 Mary Ann Fariello, colored porcelain; at the Tennessee Arts Commission Gallery, 505 Deaderick St.

Wisconsin, Sheboygan through January 8 Dick Evans, porcelain vessels; at the John Michael Kohler Arts Center, 608 New York Ave.

Group Exhibitions

Alabama, Birmingham January 22-March 13 "Traditional Pottery of Alabama"; at the Birmingham Museum of Art, 2000 Eighth Ave., N. Arizona, Mesa January 9-25 Les Lawrence and Randall Schmidt, "Over, Under, Around, and Through" installation-in-progress; at Galeria Mesa, 155 N. Center.

Arizona, Phoenix through January 15 The 17th annual "CLAY (Ceramists Living Among You) Exhibit," works by 118 area potters, *through February 15* "Gifts of Mother Earth: Ceramics in the Zuni Tradition"; at the Heard Museum, 22 East Monte Vista Rd.

Arizona, Scottsdale through January 7 "Min-gei-sota," featuring Minnesota potters working in the Japanese folk tradition selected by and including Warren MacKenzie; at the Hand and the Spirit Crafts Gallery, 4222 N. Marshall Way. through January 12 Dora Hernandez and Lynn

Smith, "New Faces, New Spaces"; at Mind's Eye Gallery, 4200 N. Marshall Way.

California, Los Angeles through January 5 Carole Aoki, Curtis and Suzan Benzie, Catharine Hiersoux, Susan Kiok, Sema Kamrass, Susan Sapareto and Linda Spiegal; at the Rodell/Retreat Gallery, 11717 San Vicente Blvd. through January 22 "German Expressionist Sculpture." through February 26 "The Shogun

300 Japanese artworks from the mid-14th Age," 300 Japanese artworks from the mid-14th to 19th centuries; at the Los Angeles County Museum of Art, 1905 Wilshire Blvd.

California, Los Gatos *January* 7-31 Juried exhibition of works related to the preparation and consumption of tea and coffee; at L'Heure Du Cafe, Group 21 Gallery, 100 W. Main St. **California, Newport Beach** *through January*

25 A group exhibition with Gary Crabb, lowfired sculpture; at the Newport Beach City Hall Gallery.

Pomona Januarv 16-Februarv 10 "Ink and Clay XI," juried exhibition; at Cal-ifornia State Polytechnic University, 3801 W. Temple Ave.

California, Santa Barbara through February 12 "From Avery to Zurbaran," an exhibition of historical and contemporary work from the permanent collection; at the Santa Barbara Museum of Art. 1130 State St.

California, Westlake Village through January 7 "The Great American Tea Party"; at the Re-treat Gallery, 3865 E. Thousand Oaks Blvd. Colorado, Denver *through January 8* "The Heritage of Tlanuwa: Prehistoric Arts from the Southeast"; at the Denver Art Museum, 100 W. 14 Ave. Pkwy

Colorado, Golden January 22-February 22 Annual juried membership exhibition; at the Foothills Art Center, 809 Fifteenth St.

Connecticut, New Haven *through January* 9 "Holiday," includes works by 30 American art-ists; at Endleman-Kraus Galleries, 981 State St. D. C., Washington through January 8 "Art of Aztec Mexico: Treasures of Tenochtitlan"; at the National Gallery of Art, Fourth St. at Constitution Ave., NW

through January 31 "Ban Chiang: Discovery of a Lost Bronze Age"; at National Museum of Natural History, Tenth St. and Constitution Ave., NW.

through February 26 "Contemporary Australian Ceramics." through June 17 "Clay for Walls": at the Renwick Gallery, Pennsylvania Ave. at Seventeenth St., NW

Idaho, Boise through January 15 "Selections from Boise Corporate Collections"; at the Boise Gallery of Art, 670 S. Julia Davis Dr.

Illinois, Chicago through January 29 "The Pennsylvania Germans: A Celebration of Their Arts 1683-1850"; at the Art Institute of Chicago, Michigan Ave. at Adams St. *through February 14* "Treasures from the

through February 14 "Treasures from the Shanghai Museum, 6,000 Years of Chinese Art"; at the Field Museum of Natural History, Roosevelt Rd. at Lake Shore Dr.

January 20-February 24 Rob Barnard, Richard Bresnahan, Chuck Hindes, Karen Karnes, Linda Kitchen, George Lowe, Rankin and Ruggles, Mary

Roehm and Ann Stannard, "Wood/Fire"; at Lill Street Gallery, 1021 W. Lill St.

Evanston Illinois. January 8-February 12 Robert Behr, Glenn Dair, Christine LaPage, Alan Lerner, Susan Loftin and Neil Tetkowski, "How Low Can You Go?" invitational exhibition of low-fire ceramics; at Evanston Art Center, 2603 Sheridan Rd

Illinois, Highland Park through January 12 "Happy Holidays" show; at Martha Schnei-der Gallery, 124 South Deere Park Dr.

Illinois, Naperville through January 6 Marcy Glick, pastel-colored vessels and wall forms; Sue Potts, fantasy sculpture; Hugh Spector, architectural constructions; Doug Stock, assemblages; at Ariel Gallery, 15 W. Jefferson Ave.

Indiana, Indianapolis through January 27 Continued

Carol Jeanne Abraham does not compromise.



"I bought my first Crusader kiln in 1969. When I taught at Southern Utah State ('75-'76) I used it in classes where it took a lot of abuse. My second (1976) has moved with me five times! I fire almost continually and my Crusaders have held up beautifully. So when I decided to get another kiln, I wasn't going to settle for anything less. In 1982 I got my third Crusader and it's firing better than my older ones! That's why I'm staying with Crusader."





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'Can't see the forest for the trees $(4' \times 3 \ 1/2', \text{ thixotropic porcelain})$



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Thanks to you, AMACO is celebrating 65 years in clay. Since 1919, AMACO has grown to serve the needs of potters and teachers for quality ceramic supplies and equipment. Today we make and offer over 2400 items for use in ceramics, pottery, enameling, and crafts. And all within the framework of a family-owned business that is dedicated to those who work in clay.

American Art Clay Company, Inc., is a company built on quality. From the tradition of AMACO supplies and equipment to Crusader kilns, Brent wheels, and Reward's total hobby ceramic program, our commitment to quality continues. We have grown through the years in order to provide you with what you need in the art of ceramics. And we will continue to do so.

Clay has centuries of history behind it - so for us, 65 years is only the beginning.

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4717 W. Sixteenth Street, Indianapolis, IN 46222

Itinerary

"Eighteenth-Century English Porcelain"; at In-

dianapolis Museum of Art, 1200 W. 38 St. **Iowa, Ames** *through January 29* "Clay/Fiber/Paper-as-Medium '84"; at the Octagon Center for the Arts, 427 Douglas.

Iowa, Mason City through January 8 "Iowa Crafts: 16" competition exhibition; at Charles H. MacNider Museum, 303 Second St., SE

Massachusetts, Lexington January 29-September 9 "Unearthing New England's Past: The Ce-ramic Evidence," shards and whole objects from the 17th to 19th centuries found in archaeological excavations; at the Museum of Our National Heritage, 33 Marret Rd.

Massachusetts, Northampton through January Fourth annual "A Tea Party"; at Craftsmarket Gallery, 150 Main St.

Michigan, Detroit through January 8 "Annual Christmas Invitational Exhibit of Ceramic Art";

at Pewabic Pottery, 10125 E. Jefferson Ave. through February 19 "Design in America: The Cranbrook Vision 1925-1950"; at the Detroit Institute of Arts, 5200 Woodward Ave. January 14-February 28 "1984: Ceramic Vi-

January 14-February 28 sions"; at the Detroit Gallery of Contemporary Crafts, 301 Fisher Bldg.

Mississippi, Jackson January 20-March 11 "Ancient Inspirations/Contemporary Interpretations"; at the Mississippi Museum of Art, Pascogoula at Lamar.

Missouri, Saint Louis January 1-31 "The Teabowl," juried exhibition of functional and nonfunctional work by approximately 300 artists; at Craft Alliance, 6640 Delmar Blvd.

New Jersey, Newark through January 20 "Tem-pered by Time: 800 Years of Southwest Indian Pottery." through January 23 "Japan: The En-during Heritage"; at the Newark Museum, 49 Washington St.

New Mexico, Taos through January 14 A dual exhibition with Ginger Mongiello, painted porcelain vessels; at Clay and Fiber Gallery, N. Pueblo Road.

New York, Brooklyn through January 12 Kathryn Berd, Joanne Rae Davis, Lewis and Risa Dimm, Sally Ann Endelman, Deborah Mona-ghan, Mara Superior, Brad Wiseman, Sandra Wyner, Christine Demeter Zimmerman and Shellie Zimmerman; at the Clay Pot, 162 Seventh Ave. New York, Katonah January 21-March 4 "Forms that Function"; at the Katonah Gallery, 28 Bedford Rd.

New York, New York through January 22 "Auspicious Spirits," Korean folk objects; at Asia Society Gallery, 725 Park Ave. New York, Rochester through February 24 "The Arts and Crafts Movement in New York State (1800a 1020); at the Margaret Woodhury

State (1800s-1920s); at the Margaret Woodbury Strong Museum, 1 Manhattan Square.

New York, Scarsdale through January 7 "Craftworks Celebration 1983"; at the Crafts-January 7

man's Gallery, 16 Chase **Rd. New York, White Plains** *through January 6* "Holiday Show"; at the Westchester Art Workshop Gallery, Westchester County Center Building. Ohio, Cleveland through February 26 "Highlights of the Rococo: Norweb Ceramics and Re-lated Arts"; at the Cleveland Museum of Art, 11150 East Blvd.

Ohio, Findlay January 16-February 17 A group exhibition with Gregg Luginbuhl; at Findlay College, Egner Fine Arts Center.

Ohio, Parma January 9-February 2 "City Images," an exhibition including Mary Jo Bole; at Gallery West, 11000 Pleasant Valley. Oklahoma, Oklahoma City January 8-11 A

dual exhibition with Lynn N. Smith, platters and cups; at Artsplace II, 115 Park Ave.

Pennsylvania, Erie January 15-March 4 "Soup Soup Beautiful Soup," soup tureens juried exhi-bition; at the Erie Art Center, 338 W. Sixth. Pennsylvania, Harrisburg through January 13 Carl Beamer, Ann Hettmansperger, Lynette King, pottery, and Henry Casilli, sculpture; at DOSHI

Center for Contemporary Art, 1435 N. Second St. Pennsylvania, Philadelphia through January 29 "Contemporary Artifacts 1983," third annual invitational exhibition of Judaic crafts; at the Museum of American Jewish History, 55 N. Fifth St., Independence Mall.

Tennessee, Gatlinburg through January 7 "The Figure: New Form, New Function" national juried exhibition; at the Arrowmont School of Arts and Crafts.

Texas, San Antonio January 20-February 22 A dual exhibition with Carl Culbreth, sculpture; at Objects Gallery, 4010 Broadway.

Vermont, Middlebury January 7-February 11 A dual exhibition with Judith Bryant, pottery; at Wisconsin, Sheboygan through February 12 "The Alternative Image II"; at the John Michael 12

Kohler Arts Center, 608 New York Avenue,

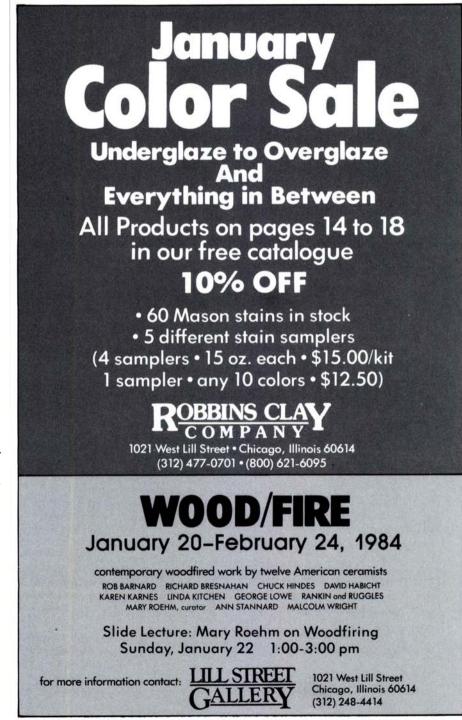
Fairs. Festivals and Sales

D.C., Washington January 11-15 "1984 Washington Antiques Show," featuring 18th-century European porcelain; at Shoreham Hotel, 2500 Calvert St., NW.

New York, New York January 20, February 10, March 9, April 6 and 27 "The Fourth Inter-national Clay Film Festival"; at the Greenwich House Pottery, 16 Jones Street.

Workshops

California, Mendocino February 25-26 Richard Notkin, "Ceramic Sculpture Techniques. Please Turn to Page 66



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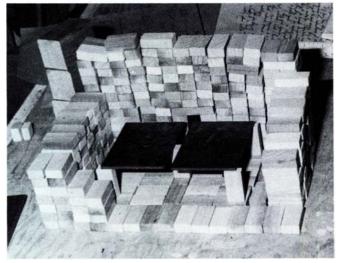
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Suggestions

from our readers

Model Kilns

Use miniature "bricks" to help visualize a proposed kiln. Cut small blocks of wood to a reduced scale, such as 2 inches equals 1 foot. Each model of a $9x4^{1}/2X2^{1}/2$ -inch brick will actually measure $1^{1}/2X^{3}/4X7/16$ inches (the smallest dimension is not exact but close enough). Cut a few modules to represent half bricks, etc. For arches,



hold a "brick" against a belt sander and taper one face until it's a bit less than $\frac{3}{4}$ inch. All these bricks are easily cut from lx 2-inch stock, which in reality is $V^{\Lambda}xWi$ inches. Most brick models then will require only one cut from a 1x2. Remember to cut only one brick at a time and have your saw blade cut up to, but not into, the measured space. —*Richard Csavoy, Waukesha, Wis.*

Strong Attachments

Add nylon fibers to the slip used for attaching handles, spouts, and other thrown or handbuilt parts. It helps additions dry without cracking. —Bob Nothhouse, Savannah, Mo.

Wooden Dowel Stamps

Decorative stamps can be easily made by carving or grinding designs into the ends of wooden dowels cut to the desired length. Store them (with the design up) in a cup for easy selection. Dowels have the advantage of not being as fragile as clay stamps, nor do they quickly become sticky in use. —*Bill Robbins, Fairbury, Neb.*

Drying Screen

An old fireplace screen works great as a handy drying rack for waxed pot bottoms. —*Marilyn P. Dale, Roscommon, Mich.*

Brush Renewal

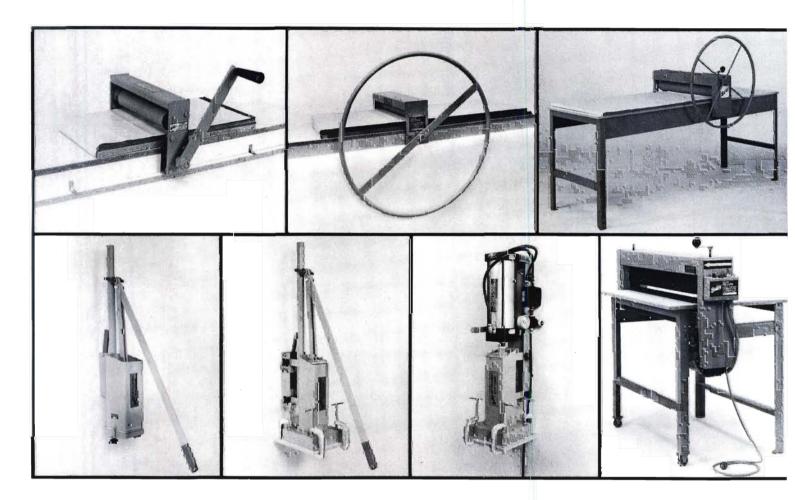
Brushes which have become tired, bent and frayed may be easily revived by dipping the bristles in raw egg white. Work the egg white into the hairs and retrain them from base to tip until the brush is its ideal shape again. Allow the brush to harden. When you wish to use it, the egg white will easily dissolve in warm water before dipping in glaze or slip, and thereafter the brush will keep its newly trained shape. —*Carol Julianna, De Bolt, Alberta*

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Ceramics Monthly pays \$10 for each suggestion published; submissions are welcome individually or in quantity. Include an illustration or photo to accompany your suggestion and we will pay \$10 more if we use it. Send your ideas to CM, Box 12448, Columbus, Ohio 43212. Sorry, but we can't acknowledge or return unused items.



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Comment

Fair It Isn't by Ersatz Soubriquet

AS I FOLLOWED the traffic into town, I knew that somewhere ahead was a mass of pedestrian humanity attending an arts and crafts fair. So I watched for the signs indicating "the fair this way." It seemed at several points there was some indecision on the part of the drivers in line, for the signs routed me straight while most of the others were making a left turn.

Nevertheless, I obeyed, coming to the end of a dead-end road where I found myself along with some other bewildered fair goers in front of three booths: one selling fruit; the second displayed walnut factory seconds; and the last had jewelry and knickknacks from Hong Kong. Across the top of the booths was a sign announcing the "Alternate Space Real People's Fair."

I ventured to the first cubical which looked like a dime store with trinkets in bins and on pegboard racks, and asked the proprietor if the fair was over vesterday. She replied that she was willing to give me a great deal on a pair of earrings handcrafted by almost native Americans from a friendly country. I rephrased my question: "Where is the 'Greater East Jackson Arts and Crafts Fair?' " She said she would give me an even better price since I knew quality when I saw it. "Besides," she added, "that fair only has handmade stuff which a man of your taste would not want anyway." I paid for the glow-in-the-dark earrings as she gave me directions to the fair.

I realized the fair was near when people appeared ahead in church parking lots waving red bandannas and holding signs with prices for parking. As the posted cost increased I assumed I was close. It cost only \$5 to park by the East Jackson Church of Scientology. The man who took my money told me that if I joined the church I could park at any of their church lots free. Since I had just come from an EST overnight, I could do without more ways to find myself. It felt quite lucky just to find the fair.

I walked in with the crowd, sure that by standing still one could see every kind of person in this extravaganza. Instead, I was immediately brushed aside by an overweight man wearing black leather straps, wristlets and a collar with sharp chromed studs. Continuing on, I was bounced about by strollers and ladies trying to manage the bookshelves they'd just bought. It probably would have been easier to maneuver had they not also purchased items to put on the shelves. And each time I passed a food concession area the air was punctuated by smells and cries. The cries were from children either wanting or not wanting something-always the opposite of what their parents wanted them to have.

The crowd forced its way along the street lined with 6X 12-foot spaces. There was a jam in front of one booth. To my surprise it was that of Mark Ululate, a regular at the fairs who had endeared himself to other potters by always coming to their booths to whine about how bad his sales were going. He was also known for forcing his way into any busy potter's space, thus crowding out paying customers. It got so bad last year that the other potters conspired to give him a cock-and-bull story, in strict confidence, that carved trivets for melted butter were going to be big and that they were going to sell best packaged in shrinkwrap plastic. Mark couldn't resist the temptation to copy the idea. His shrinkwrapped hot butter trivets were selling like hotcakes.

I paid for a trivet, put it in my pocket and trudged on. Passing by Horoshi Yukida's booth, I waved to his computer. Horoshi was proud that one of the three \$1000 sculptures he had on display had won the top prize for the show. (Called hurricane pots, each had a dot-matrixprinted replacement guarantee in case it was ever blown over.) Though his work was not selling, he felt that the fair was *Continued*

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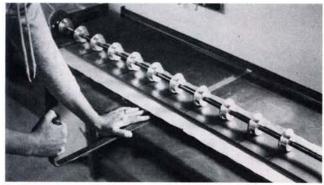
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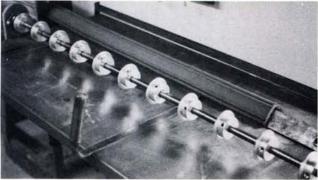
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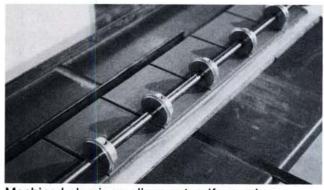




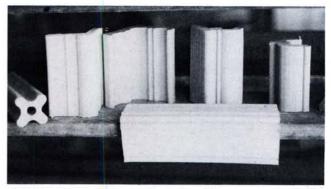
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going great since he was able to sit around and discuss the true meaning of the art and craft he produced.

In the distance I saw George and Christine Canard, two potters who had been selling at fairs for some time; their booth was a friendly spot to stop and talk. Among other things George is one of the greatest gossips of all time. To visit their booth is like sitting down to an afternoon soap opera. I could almost hear the organ music start as a voice brought me up to date: "When we last saw Harriette, she had just told Joe that he would have to leave since the boarder they had taken in to help defray studio expenses had taken Joe's place in other areas of their relationship. Furthermore, a new apprentice was moving in, and three was plenty of company. Meanwhile, over at the Contra/Bonos/Mores Pottery, Sam's incurable hangnail was ruining his ability to throw heavily grogged clay, and this was disrupting his relationship with the man from the grog company. He now sees his life flash before him like a thermal crack. Will Sam make it through

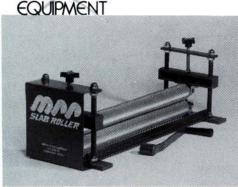
the operation to give him a new life? Join us now for the continuing story of 'As the Wheel Turns.'"

After the gossip preliminaries, I got down to serious conversation with Chris. She said the fair had been better before the fire. It seems that one potter, in order to extend sales into the night, filled his ceramic kerosene lamps. That would have been fine, except for the strong gusts of wind which blew over (not out) the lamps. By the time the thunderstorm quenched the flames, three potters had found a new way to get smoked effects on their ware. Everyone else could have done without the rain: As plastic was quickly dropped over their displays, you could not tell the difference between the thunder and the sound of ware crashing to the ground.

At the end of the day some artists, whose sales were not going well, sensed they should do something to encourage buyers. George and Chris started to discount to those who were not convinced. They even came down to SI 5 for the cute mug with a fat torso on it that I liked. I could have had one with a fat man for \$3.50, but George really liked the female version. I paid for it and put it with my hot butter trivet.

The problem with this fair was that the area was not secured at night. That meant that either the work was removed or someone slept in the booth. So each evening, after everyone had closed shop, the belt maker would open his bar. George was ordering when he realized that his money pouch was locked in the trunk of his '67 Chrysler. We would have gone to the car, but he needed to wait till morning since his keys were inside the pouch. I paid for the drinks and walked back to the booth with him. Chris had inflated the air mattress and moved the pots around so that sleeping would be possible, provided no one rolled over and toppled the display. It was all part of this summer rite for the studio potter.

I said good night and made my way back to the church parking lot by midnight. To my dismay, the lot was empty with only a small sign now visible: "Automobiles left after dark will be removed at the owner's expense. EJCofSci and EJPD City Ordinance A&CF 100-302." I then walked to the police station and paid again so I could leave.



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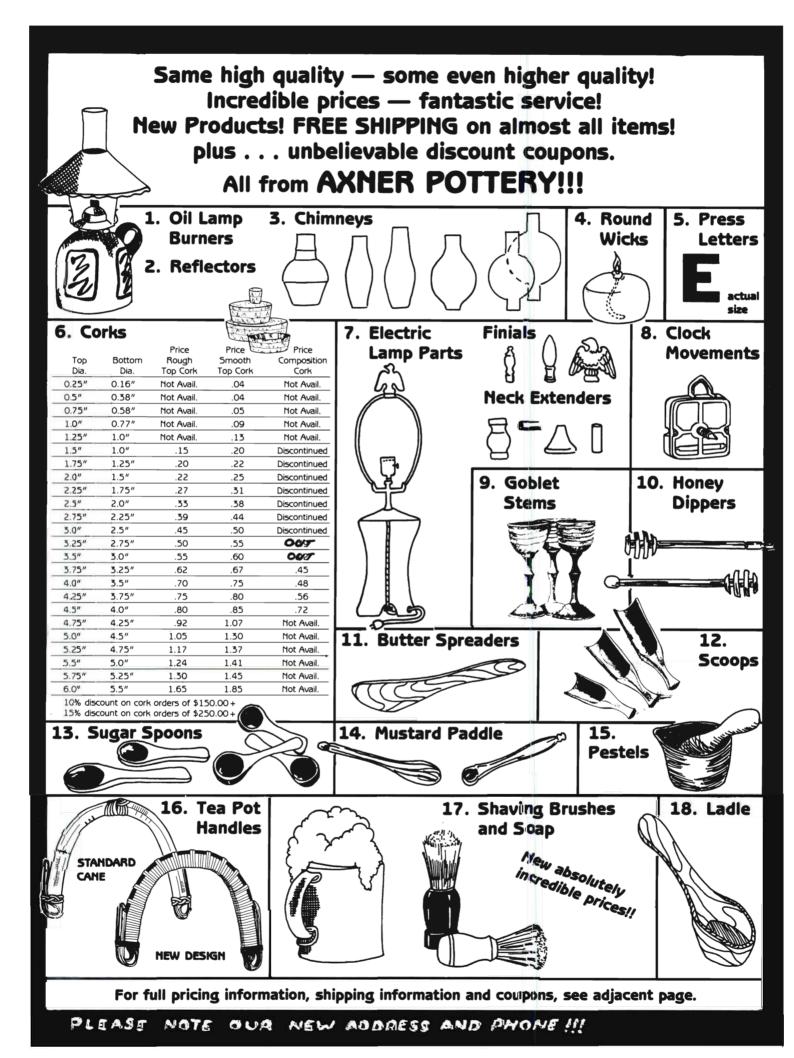
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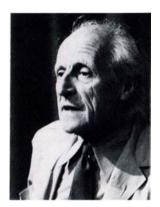
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by MICHAEL CARDEW

Traditions



Michael Cardew (above) and former students (below from left): Ray Finch came to Winchcombe Pottery in 1936, then took over the operation when Cardew left for Africa; Seth Cardew now runs Wenford Bridge Pottery with his son Ara; Clive Bowen helped with firings at Wenford Bridge in 1970 before establishing Shebbear Pottery in North Devon; Sidney Tustin worked at Winchcombe Pottery, first with Michael Cardew, later with Ray Finch; Peter Dick trained at Abuja, Nigeria, with Cardew, later set up Coxwold Pottery in North Yorkshire.

Ray Finch

A traveling exhibition of functional ware by British potter Michael Cardew and his students, whose work reflects the force of his example and philosophy, was presented at the Crafts Council Gallery in London through August 18, 1983. The following related essay was written at Michael Cardew³s Wenford Bridge Pottery in Cornwall shortly before his death last February.—Ed.

"TRADITION" has become a double-edged word. There may be good traditions or bad, living traditions or dead ones. For long periods on end, a tradition may be the natural climate or habitat for every kind of human expression. It is taken for granted and accepted. People are only half conscious of its existence, because being unquestioned, it is unexamined.

Then suddenly, abruptly, there come in history those periods of awakening and self-awareness, a sort of mania for questioning everything. Such was, for example, the great explosion of ideas in the fifth century B.C., when Socrates de-

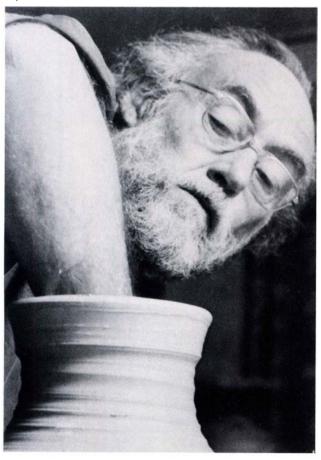
Seth Cardew

clared that an unexamined life was not worth living—and all the conservatives were upset. Another was the French Revolution, a mere 200 years ago. Paris only provided the box of matches and the kindling. The fire of uncompromising rationalism—a destructive force in the eyes of the conservatives, a purifying one in the eyes of the progressives—spread over the whole of Europe. Everything was now put up for questioning. Tradition was accused of being an evil calling out to be overthrown, so that something more rational could be put in its place.

Is tradition really a deadly impediment to the free working of Creativity, Originality, Imagination or whatever name is given to the current idols of the Schools? Or is it, as the retreating conservatives claim, a necessary support for those things, without which they cannot flourish?

When I examine my own attitude, I find, as probably any artist finds if he is engaged in a true struggle to beat out

Clive Bowen





his own style himself, that tradition can be both things at once: an enemy, when he sees how debased it has become; or a friend, if he can see a better tradition beyond the corrupted one.

In 1921, when I first began to make pots, there was the North Devon tradition—what was left of it. Most of what was being made in that tradition seemed bad to me, and most of what was good had died out ten years previously, with the death of Edwin Beer Fishley at Fremington.

My first instructor Willie Holland (E. B. Fishley's grandson) had joined the family pottery at Fremington in 1902 as a boy of 13. "I did not realize then," he wrote 55 years later, "that it was a dying industry." It certainly was. Yet in the middle of the 17th century, Barnstaple and Bideford had been the twin centers of a flourishing industry, exporting most of its wares to the North American colonies. Lucky Colonists! Many examples of those pots have been dug up in America—more than in North Devon itselfbowls, plates, dishes, mugs, pitchers, decorated with lively sgraffito designs, comparable to the sgraffito wares made in the early Middle Ages in the eastern Mediterranean.

By the end of the 19th century, the descendants of those potters were making flowerpots, chimney pots, washing pans, salting pans, pitchers, cloam ovens, fine things in themselves, but limited when compared with the complete range of tableware which had been made there 200 years before.

When modern potters see these pots, we seek to emulate them and feel ourselves to be linked to the last representatives of the great tradition. But in fact we are emulating potters whose life's work was, in effect, a series of protests against the decay and corruption which had attacked the older tradition. Edwin Fishley, Isaac Bulton, George Curtis: all no doubt would have called themselves traditional potters. But when you look at what was going on in England during their lifetime, it seems it would be more true to see them as last-ditch rebels, defying the new directions in which the tradition was moving during that time.

There is also another distinction to be made: between the tradition of art history and the tradition of the workshop. The first is represented by the finished articles: all their perfections and imperfections, their successes and their failures now preserved in the amber of museums. The second can (or could) be seen in action in a workshop where masters instruct apprentices. All the main tendencies of the present age make this kind of practical tradition rare today. The fact that in this pottery at Wenford Bridge there are three generations working together is accidental rather than planneda happy accident but an unusual one. Yet not long ago it was the normal thing.

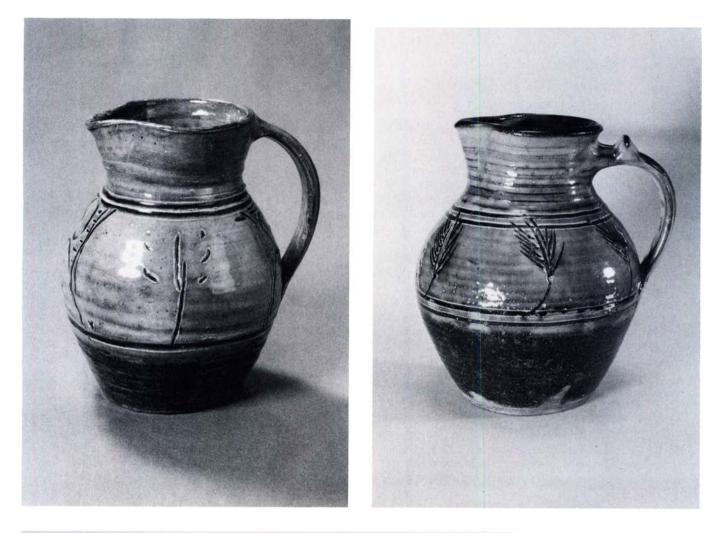
Does it promote the making of good pots? When I remember "all the obstacles which Nature puts in the path of Art" I think it probably does, in the sense that if pots are good to start with, it makes them easier to produce.





Peter Dick



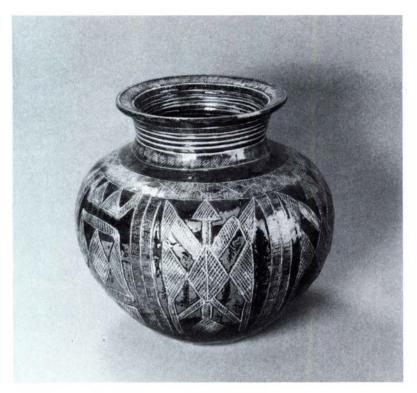




Above left Stoneware pitcher, 7 inches in height, thrown, with incising through white slip, standard Wenford glaze, wood fired, by Michael Car dew, 1982.

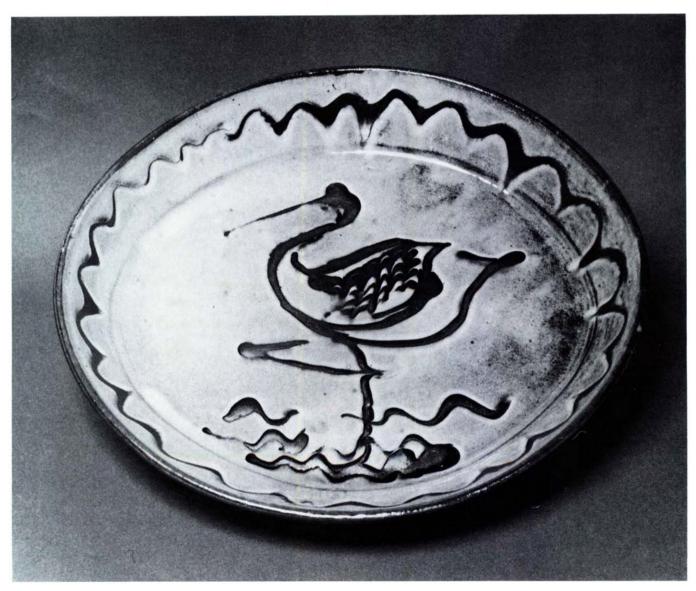
Above Lead-glazed earthenware pitcher, 8 inches in height, thrown, with white slip, sgraffito, wood and coal fired, by Michael Cardew, 1933.

Left Stoneware plate, 11 inches in diameter, finger-combed, line-and-dot basket patterning drawn with a stick through iron slip, green Chun glaze overall, by Seth Cardew, 1979.



Left Water pot, 15 inches in height, handbuilt stoneware, dark green glaze breaking to iron red over white slip with incised Nigerian pattern, by Halima Audu, 1960.

Below Oval baking dish, 14 inches in length, dark slip trailing over white slip coated earthenware, lead glazed, wood and coal fired, by Michael Cardew, 1928.







Above Earthenware planter; 18 inches in height, white slip trailing over black slip, lead-glazed exterior, wood fired, by Clive Bowen, 1982.

Left Oval earthenware baking dish, 12 inches in length, combed white slip, lead glaze, rim and exterior unglazed, wood fired, made at Fremington Pottery around 1900, probably by Edwin Beer Fishley. This pot, which predates Michael Cardew's work at Winchcombe Pottery, illustrates the North Devon tradition that influenced him.

Right Stoneware teapot, 8 inches in height, wheel thrown, combed iron slip under temmoku glaze, heavy ash deposits from wood firing, by Ray Finch, 1982.



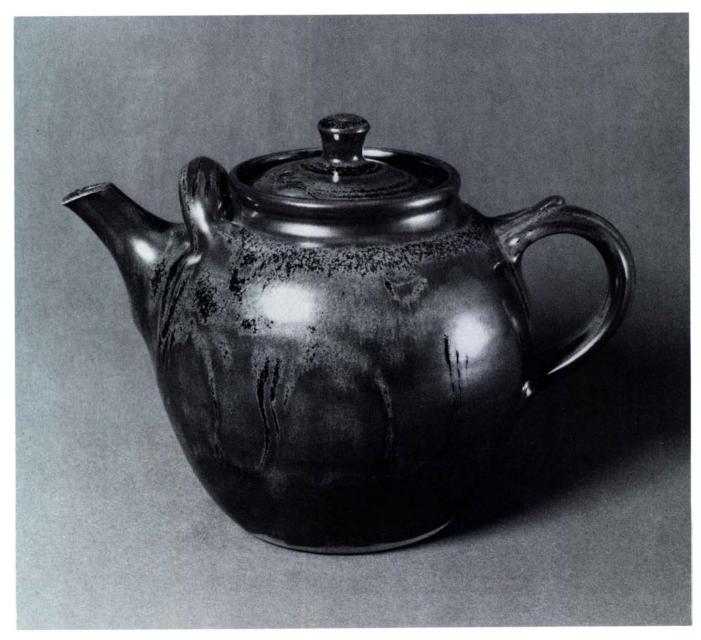
Earthenware jar; 13 inches in height, fts/ute s/z/> trailing, lead glaze, wood and coal fired, by Michael Car dew, 1931.



Storage jar, 10 inches in height, incised wheel-thrown stoneware, screw top, celadon glaze, by Bawa Ushafa, 1962.



Stoneware jar, 7 inches in height, thrown, rolled string decoration, fly ash glaze from wood firing, by Svend Bayer, 1982.



International Raku



Camille Virot, Haute Provence, France, adds fuel for post-firing raku reduction.

Many ceramic techniques have now reached around the world, and raku is one such method/philosophy which has spread widely, particularly through contact with clay publications, and through the international workshops of artists such as Paul Soldner. Often mentioned among the 14 artists whose work was featured recently in the "International Raku Exhibition" at Galerie le Labyrinthe (Uzes, France) was an appreciation for the immediacy of the process—the ability to affect the object at the firing stage as well as in forming.

"I associate raku with fire painting," commented Linda Rosenus, San Jose, California, "a portrayal of the fire, a record of that which no longer exists."

"With smoking and the reduction it is possible to be directly involved, to intervene when matter is being transformed," observed Aline Favre, Geneva.

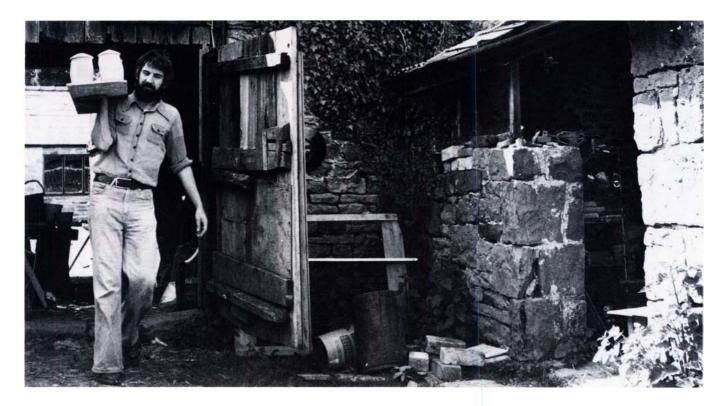
"Besides," remarked Jacques Kaufman (also from Geneva), "something takes place when you open the door of the kiln and take hold of the red-hot object—a phenomenon which requires such intense concentration that the pleasure of this could be sufficient on its own, whatever might be the result."





Above Linda Rosenus constructing a form in her San Jose studio: "My work in clay is increasingly about the elusive, about what is not there, the hollow areas inside a piece that define a shape"

Left Aline Favre, Geneva.







Top Walter Keeler at his studio in southeastern Wales: "The brittle softness of raku, the glassy glaze over a porous body, is an alluring contrast to the density and fusion of salt-glazed stoneware—the main body of my work. The process feels like a holiday after the persistent demands of salt *

Above left Jacques Kaufman's studio in Geneva.

Above Jacques decorating concave square forms: "Raku enables me to follow more closely the process from soft to fired clay. I appreciate the way different steps and stages are not discontinuous."



Slab form, approximately 15 inches in height, with faint photographic image of the Mona Lisa, by Setsuko Nagasawa, Geneva.

Right Paul Soldner with Setsuko Nagasawa.

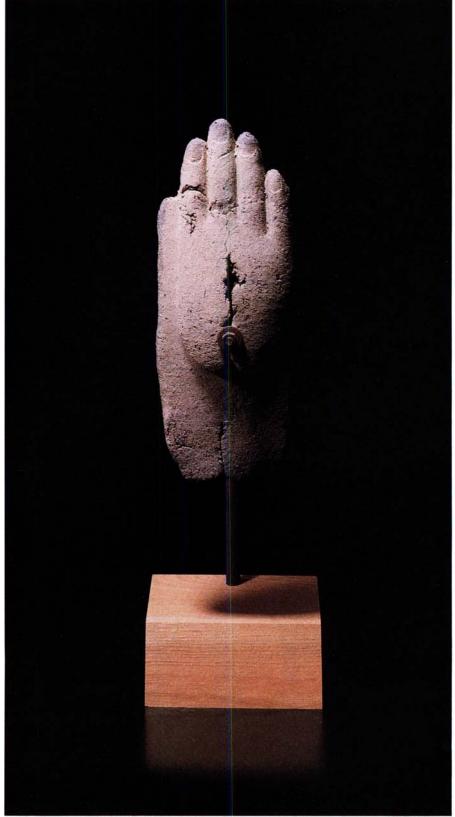


Keiji Ito



Minimal sculpture by Japanese ceramist Keiji Ito (presented recently at Togakudo Gallery in Kyoto and at Braunstein Gallery in San Francisco) evokes "the naive faith of ancient people." According to Kota Shino, who reviewed the exhibition in Japan, clay is "talkative," but Keiji Ito "hardly lets the clay speak at all. Practically none of Ito's pieces advertise themselves, in shapes anyone can understand. The present group includes such abstract forms as square columns, stones, halved stones and cylinders; and such representational forms as the human hand, the foot, the sword and architectural structures."

Some works "consist of a stone graven with white lines. Ito uses a steel stylus to incise a line slowly in the dry, hardened clay, then fills the line with white glaze. His lines evoke rich images with absolutely minimum means. Therein lies the vigor of this laconic artist's work."



Below "The Footsteps of the Gods," multipart sculpture, 40 inches in length, cast and altered stoneware.





"A New Race Moves In," 13 inches in length, handbuilt stoneware sculpture, by Japanese artist Keiji Ito.



Multipart stoneware sculpture, on fabric, each cast clay foot approximately 13 inches in length.

Left "The History of a Battle Between Gods," stoneware, 18 inches in height. The artist's current work includes representational forms such as the human hand, the foot, the sword and architectural structures, as well as more abstract forms: stones, squared columns, halved stones and cylinders.

British Lusterware



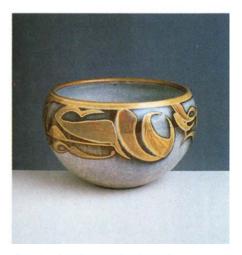
Wheel-thrown earthenware vase, 12 inches in height, with sprayed combinations of lusters, by Tobias Harrison.

To ILLUSTRATE the variety of modern lustering techniques for surface effects ranging from intricate iridescent patterns to overall metallic sheen, an exhibition of works by Alan Caiger-Smith, Bernard Forrester, Tobias Harrison, David Howard Jones, Dave Roberts and Sutton Taylor was displayed at the British Crafts Centre in London through September 10, 1983.

Sutton Taylor and Alan Caiger-Smith (see "England's Alan Caiger-Smith" in the January 1980 CM) are particularly concerned with exploring the technique of pigment lustering: fusing metal oxides onto the surface of a previously fired glaze in a lower temperature reduction atmosphere. Each prepares his own luster pigments from powdered gold, silver and copper. The temperature at which the fine films of metal fuse onto the glaze surface is crucial but, despite the failure rate (20-80%), both feel the process is worthwhile for the quality of the successful objects.

Other studio potters, such as David Howard Jones and Dave Roberts, use luster produced by post-firing reduction to dramatize and accentuate raku bowls and vases. Metal oxides in the glaze cause a flash of gold or red, or sometimes even purple against a black surface, when the red-hot pot is plunged into sawdust or straw.

Alternatively, a high gloss finish overall can be achieved with lusters. Tobias Harrison sprays combinations of 16 variations of luster, as well as gold and platinum, on his earthenware.



Tin-glazed earthenware bowl, 6 inches in diameter, with reduced/carbonized luster, by Alan Caiger-Smith.

Matthias Ostermann

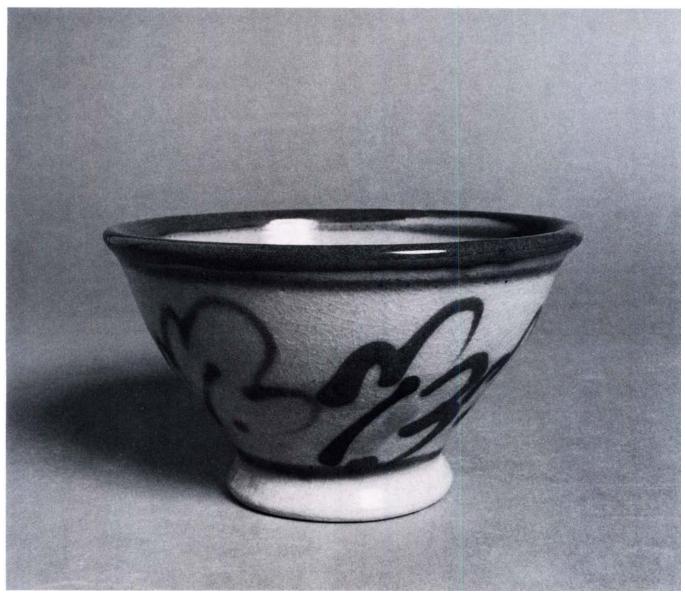
GLAZE-TRAILED STONEWARE and majolica-decorated earthenware by Ontario potter Matthias Ostermann were presented in a recent one-man show at Prime Canadian Crafts in Toronto. Influenced by folk art of various cultures, Matthias initially trained as a production thrower, then found his "love of drawing asserted itself more and more, and now all my work is decorated. On a trip to China and Japan, I saw oxidation firing as a medium for exploring warm pastels and soft colors with traditional carving, trailing and brushwork. And a recent trip to Italy has led me to ply my brushes in the bright colors of earthenware majolica, a wonderful decorator's (or painter's) medium."



Left "Garden Scene," majolica wall plate, 6V2 inches in height, sgraffito through polychrome stains over white glaze, fired to Cone 04 in an electric kiln.

Below Matthias Ostermann in his Toronto studio, a converted garage in a busy Italian section of the city.





Stoneware bowl, approximately 6 inches in diameter; with glaze trailing over feldspathic glaze, fired to Cone 8 in oxidation.



"Wall Platter with Antelope," 15 inches in length, cobalt oxide and stains over majolica glaze, with sgraffito drawing.



Interior " earthenware tile, 6V2 inches square, majolica decoration with sgraffito, by Matthias Ostermann.

Functional Ideas

While making pottery for daily living, I am concerned with balancing function and aesthetics. Function is first: if it is a pitcher, it must pour; then the aesthetic can be manipulated. The form must display and define the internal volume, and the surface and glaze must support the whole, visually and in a tactile manner.

I like to establish an intuitive relationship with the medium, achieved through a familiarity with materials and techniques. Working guidelines are set on techniques, glazes, firings, etc., but these flex and change with my concerns and stimuli.

Some forms and glazes are fired at Cone 9, others at Cone 10-11. This gives me glaze control along with eliminating the possibility of slumping through over-firing. I will not allow the fire or any other elements to take control.

The following recipes produce consistent results:



James Flanagan

Porcelain Body (Cone 10)

Cornwall Stone	12.5%
G-200 Feldspar	12.5
Kaolin (6 Tile Clay)	25.0
Tennessee Ball Clay (9)	25.0
Flint	<u>25.0</u>
	100.0%

Stoneware Body (Cone 9-11)

G-200 Feldspar	12.0 parts
A. P. Green Fireclay	32.0
Cedar Heights Goldart	-
Clay	25.0
Cedar Heights Redart	8.0
Kentucky Ball Clay	
(OM 4)	15.0
Flint	8.0
Fine Grog	3.5
Medium Grog	3.5

107.0 parts

Carbon Trap Glaze (Cone 11, reduction)

Soda Ash	7.8%
Spodumene	29.0
Kona F-4 Feldspar	34.0
Nepheline Syenite	14.6
Edgar Plastic Kaolin	9.7
Kentucky Ball Clay (OM 4).	. 4.9
	100.0%

Casserole, 9 inches in diameter, wheel-thrown porcelain, wood-ash glaze, iron oxide sprayed over wax resist.





Above Porcelain pitcher, 9 inches in height, and tumblers, with rasped surface, Albany slip glaze, fired to Cone 10.

Below Covered Jar, 13 inches in height, wheel-thrown stoneware, with Cone 11 carbon trap glaze, by James Flanagan.

Clear Glaze (Cone 10, reduction)

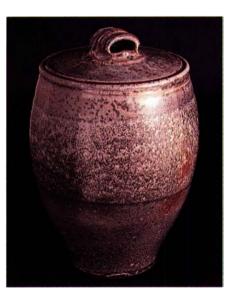
Whiting	
G-200 Feldspar	25
Edgar Plastic Kaolin	18
Flint	<u>32</u>
	100%
Add: Tin Oxide	1%
For celadon, add 2% red iron oxide.	

P.V. Gray Glaze (Cone 9-11, reduction)

Colemanite	45%
Plastic Vitrox Clay	<u>55</u>
	100%
Add: Zircopax	10%
This recipe can be applied to either or bisqueware.	green

Albany Slip Glaze (Cone 10, reduction)

Barium Carbonate	5.2%
Whiting	10.5
Cornwall Stone	21.1
Albany Slip Clay	<u>63.2</u>
	100.0%
Add: Red Iron Oxide	3.1%



Wood Ash Glaze (Cone 10, reduction)

Dolomite	24.3%
Magnesium Carbonate	2.9
Wood Ash	48.5
Edgar Plastic Kaolin	14.6
Flint	9.7
	100.0%

Ocher Fake Ash Glaze (Cone 10, reduction)

Barium Carbonate	10%
Whiting	30
Albany Slip Clay	<u>60</u>
	100%
Add: Yellow Ocher	

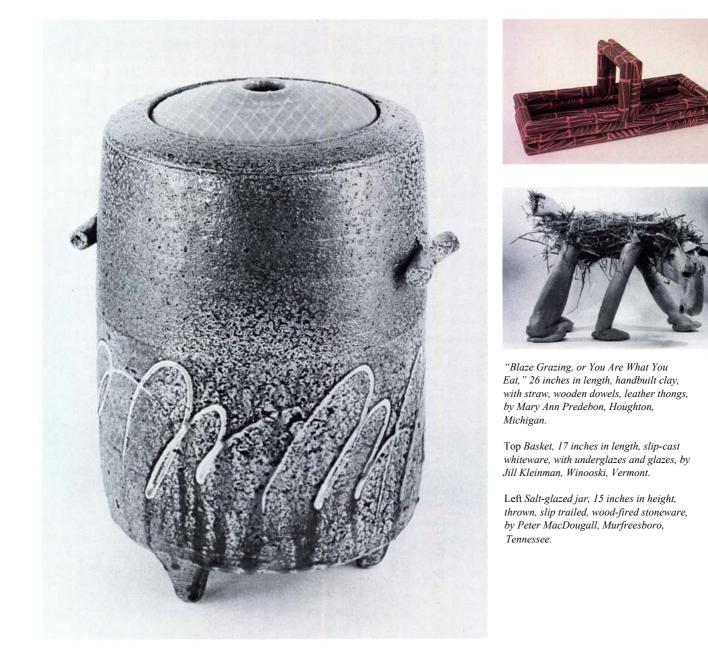
Yellow Matt Glaze (Cone 10-11, reduction)

Dolomite	31.0%
Whiting	4.0
G-200 Feldspar	26.0
Grolleg Kaolin	32.0
Flint	7.0
	100.0%
Add: Red Iron Oxide	0.5%

Thrown on the wheel and reduction fired, my pots display a contemporary aesthetic, while not denying their folk origin. I work within a competitive visual market—a market I address with full forms, a warm glaze palette and objects which serve intended function. The greatest enjoyment comes when a customer puts my pottery to use.

The American Ceramic National

The first "American Ceramic National Exhibition" (successor to the "Westwood Clay National") was presented recently at the Downey Museum of Art in California. Juror Eudorah Moore, formerly crafts coordinator for the National Endowment for the Arts, commented: "If one believes, as I do, that there is not a single aesthetic, and that, indeed, one of the important things the new craft movement has brought to the language of art is a kind of visual pluralism, then the challenge of facing 700 objects from which 9 out of 10 must be eliminated is a formidable one. When many aesthetic avenues are explored, and when both functional and sculptural works are included, the selector must, in a sense, choose from the whole spectrum of what is happening in ceramics today. With the exception of works of architectural use or of monumental scale, submissions did cover the range of contemporary clay attitudes, and choices were tough. I tended to select the piece which seemed to reflect the greatest freshness, feeling of the times and contemporary aesthetic."



Once described as "the dean of art dealers." Leo Castelli is "one whose eve [is] appreciatively attuned to the new and unexpected. No wonder he has formed his circle of some of the best and the brightest," wrote Meryle Secrest in ARTnews. This flare for discovering artists and their work has kept Castelli at the forefront of modern movements. While he has recently shown interest in clay work by artists of the New York mainstream (see "Robert Rauschenberg's Ceramics" in the May 1983 CM), there have been no previous exhibitions at Castelli's for anyone committed to ceramics exclusively. In fact, few such shows have been held anywhere among the top galleries in New York.

Thus it has come as some of the biggest news of the clay world that Castelli's 420 West Broadway gallery has featured an exhibition of ceramic sculpture by New Mexico ceramist Ken Price, through October 15, 1983. Although not as sweet a victory as an exhibition of pottery, the Price show is bound to develop some serious thought among top galleries about acquiring rights to the output of a variety of contemporary ceramists who would like nothing better than making it in this hub of the art world. What's more, owners of "craft galleries," who have previously had their pick of the best ceramists, may be contemplating bleaker times if top ceramists begin to bail out into New York's elite commercial exhibition spaces.

At any rate, Ken Price (the only ceramic sculptor among the Whitney six who received a clean bill of artistic health from critics) has added to his resume another major accomplishment—pioneering for himself and for the rest of the field a path to greater recognition of ceramics.

Since the early sixties, Price has been a force in redefining aesthetic possibilities within the medium. Both formal and conceptual issues have been addressed in his work with clay as sculptural, nonutilitarian objects. Recent forms incorporate elements of his small-scale, brightly colored, geometric constructions of intersecting planes from the late '70s (which in turn were derived from explorations of the cup shape).

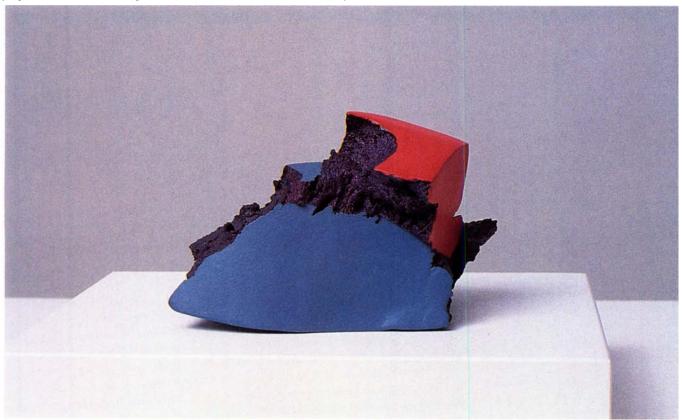
In the 16 small sculptures exhibited at Leo Castelli, the surfaces resemble crystallized rock formations (Ken ripped away portions of clay at various drying stages). Transformation from the raw areas to the geometric planes contrasts the organic with the manmade. When fired, the forms were painted with rich reds and purples, metallic blues and greens.

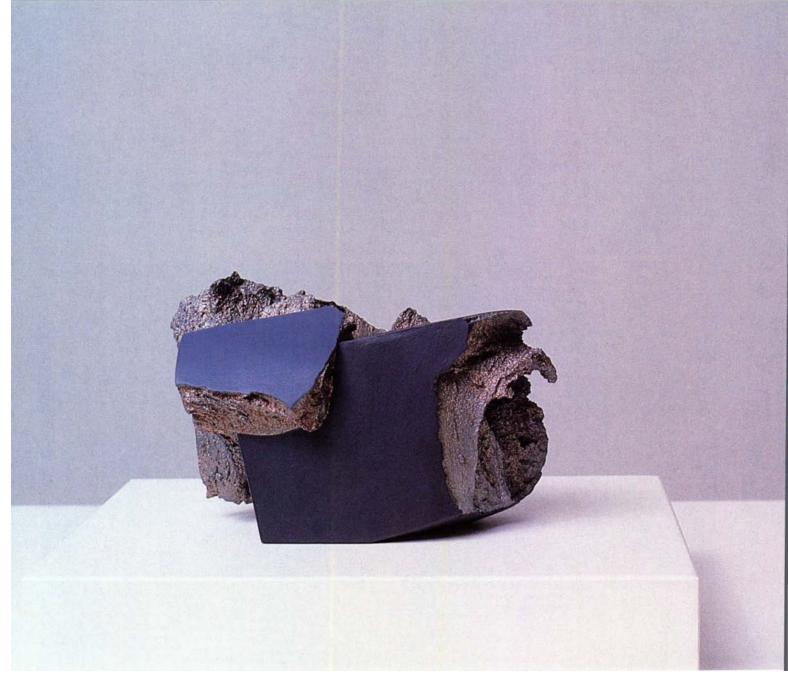
"The oddity of the works," said the *New York Times*, "lies in their being shapes that more macho sculptors would have blown up to room size."

How did the first all-clay show at Castelli's fare? Thirteen of Ken's sculptures sold at \$8500 each; one slightly larger form (approximately 20 inches in height) went for \$17,500.

Things have to be looking better for ceramics after this show. There must inevitably be fewer barriers for ceramists seeking quality exhibition space. And the Leo Castelli tradition continues to prove that "art is whatever it is."

"Dobos" handbuilt clay sculpture, $4^{1}A$ inches in length, with painted surfaces. Those looking for stunning ceramic technique won't find it here, but these works do have a clear, color field/expressionist identity in a style which obviously appeals to the collector with an affinity for paint on canvas. These sculptures have as much relation to Mondrian as they do to Peter Voulkos.





"Ultramarine," painted handbuilt clay sculpture, 4V2 inches in length.



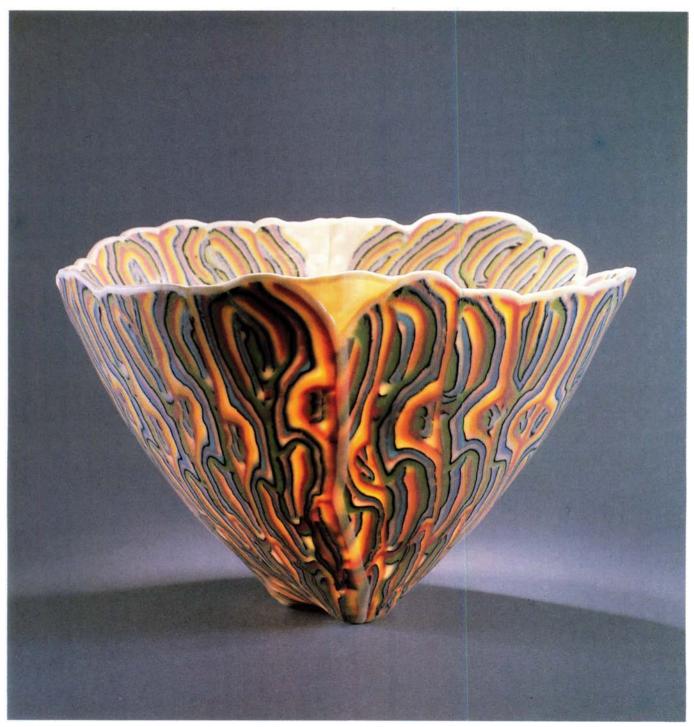


Far left "Egyptian," handbuilt clay sculpture, approximately 8 inches in height. Thirteen of Ken's sculptures sold at Leo Castelli gallery for \$8500 each; one slightly larger form went for \$ 17,500; total sales of \$128,000.

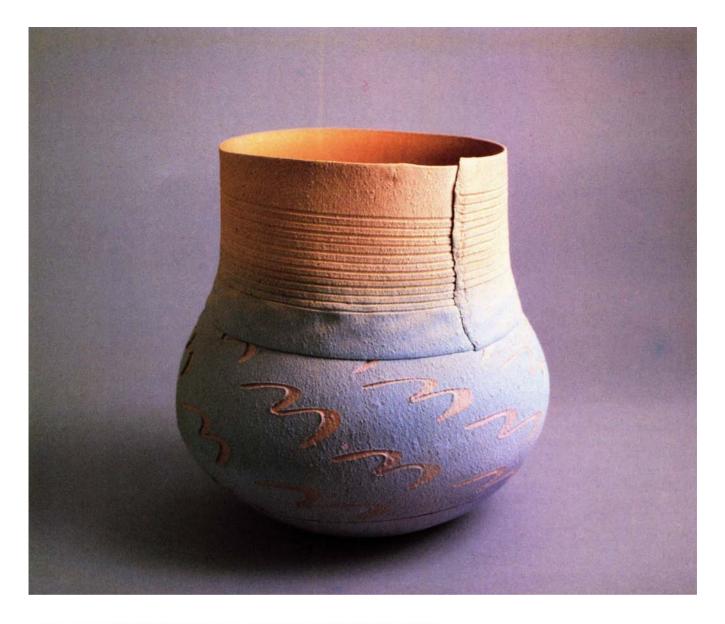
Left "Block," handbuilt clay, approximately 4 inches in length, by Ken Price. For rough surfaces on his sculptures, the artist ripped away clay at various stages of drying.

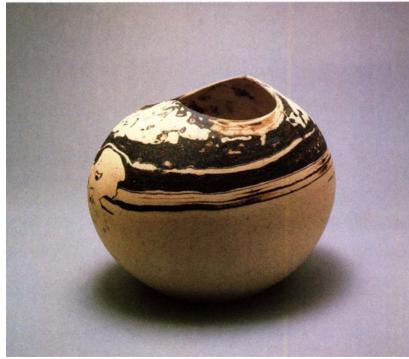
Clay Color

Clay COLOR is an important consideration in the work of 25 American potters featured in a recent invitational at the Brookfield Craft Center in Connecticut. Curated by Pittsfield, Massachusetts, studio artist Tom Hoadley, "Color/Clay" included some forms decorated by inlaying or adding pigmented clay elements. Others began with two or more partially combined colored bodies for throwing at the wheel (neriage) or handbuilding (nerikomi) techniques, "thus impregnating the structure of the object," commented Columbus ceramist Ban Kajitani. By employing translucent colored clay construction, Curt and Suzan Benzie, also from Columbus, observed that they "can generate an integrated relationship between the interior, exterior, and the transition of color moving and changing through the vessel wall."



"Redbank" 5 inches in height, inlaid translucent porcelain bowl by Curt and Suzan Benzie, Columbus.





Above Handbuilt vase, approximately 8 inches in height, incising through colored slip, by Jamie Fine, Ann Arbor; Michigan.

Left "Blue Meanders" $10^{1}A$ inches in width, thrown and altered neriage form, oxidation fired stoneware, by Ban Kajitani, Columbus.

Treasures from Shanghai

"In ancient China people used to say, 'Taste one slice of meat from the caldron to know the flavor within,' " notes Zheng Wei, vice-director of exhibition research at the Shanghai Museum. "Therefore, when viewing 'Treasures from the Shanghai Museum: 6000 Years of Chinese Art' at the Asian Art Museum of San Francisco through September 30, 1983, it is not hard to imagine the history and culture of the nation that produced these works."

The Chinese are known worldwide for ceramics innovations in history. During the Neolithic period, they produced red, cord-marked pottery, slowly bettering techniques until in the fourth millennium B.C. they began experimenting with the potter's wheel, slip coating and burnishing ware and varying the firing atmosphere to achieve various colors. By the time of the Shang dynasty (1523-1028 B.C.) glazed proto-porcelain vessels were already in use.

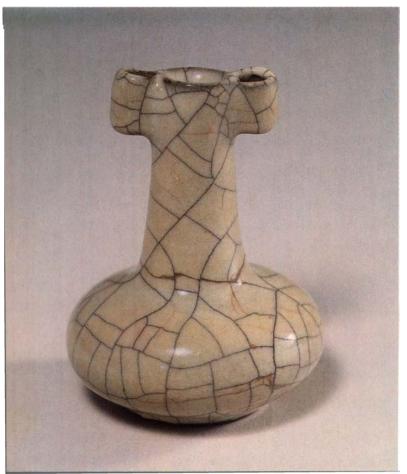
"The firing of ceramics gradually improved through the Warring States, Qin (Ch'in) and Han periods," Zheng Wei explains. "The Eastern Han kiln site discovered at Shangyu, Zhejiang (Chekiang), yielded ceramic shards fired at approximately 2390° F (1310° C), with a water absorption rate of 0.28%, and ferric and titanic oxide content of 1.64%, which meet the requirements for standard celadons.

"The Three Kingdoms, Eastern and Western Jin (Chin) and Northern and Southern dynasties correspond to a period of great upheaval in Chinese feudal society. A large number of refugees migrated south [and] the advanced technology and labor force of the central plain went with them. One result is that celadons which had originally developed in the Jiangsu (Chiangsu) and Zhejiang region made further progress, and the appearance of the 'dragon kiln' [a multichambered climbing kiln] caused the firing of these wares to reach a new level of quality. Celadon glazes of the time look grassy green with bluish green highlights, and major shapes include bowls, jars, vases, basins, washbasins, tiger cubs and granary-shaped jars inscribed with the character for 'granary.' Before the Eastern Jin, the decoration consisted essentially of net, pearl and water chestnut patterns, as well as applied rows of animal heads, birds, immortals and Buddhas. After the Eastern Jin, such ornamental schemes as rows of lotus petals appeared, and the decoration of the green-glazed surface with spots of dark brown became popular.

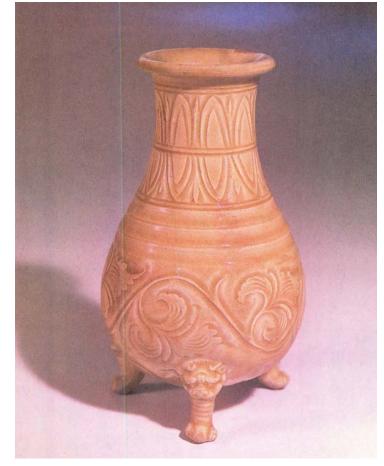
"The Sui and Tang dynasties marked the first major period of unity in the Chinese feudal society since the Qin and Han dynasties. In the south, ceramics included the famous Yue celadons with warm, smooth, jadelike glazes and refined shapes. In the north, black and white glazed wares also developed.

"During the Tang dynasty new achievements took place in polychromeglazed wares. Minerals containing copper oxide, iron oxide and cobalt oxide were added to the transparent lead and quartz glazes, which were painted onto the same vessel to produce such colors as green, yellowish green and blue. Due to its low firing temperature, porous body

Porcelaneous stoneware vase, 5V2 inches in height, Southern Song dynasty Guan Ware (A.D. 1127-1279).

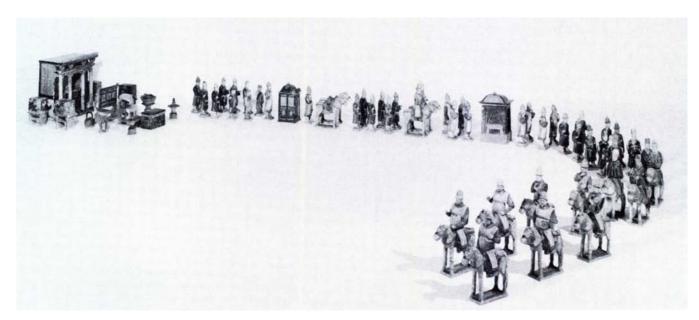


Thrown vase, 8 inches in height, with applied feet, carved decoration, celadon glaze, Northern Song dynasty (A.D. 960-1127)





Detail, "Honor Guard Figurines * (see below) Ming dynasty (A.D. 1368-1644).



"Honor Guard Figurines," approximately 10 inches in height, polychrome-glazed clay. Figurines in procession were burial objects symbolizing the ceremonies in which the deceased took part during their lifetimes. This group of 66 figurines was excavated from a Ming tomb in the vicinity of Beijing.



and high rate of water absorption, Tang three-color ware was rarely for objects of daily use. The bulk consists of toys and sculpture used in burials and, of these, the figurines reflect with particular vividness the various aspects of society as it existed at the time.

"Chinese ceramics entered their prime in the Song (Sung) dynasty when there were kilns practically all over the country. At this time, due to a better understanding of the ingredients capable of matching bodies and glazes and proper firing control, glaze colors could be changed from a grayish brown and a grayish green to a bright, limpid, warm and smooth jadelike green.

"The most famous white porcelains are those made at the Ding (Ting) kiln in Hubei (Hupei), which was built in the Tang and flourished during the Five Dynasties and Northern Song. The bodies of Ding wares are generally very thin, and the color of their glazes tends toward a luminous and smooth ivory yellow. Their decoration consists of incised, carved and molded designs. Ding wares were generally fired upside down so that their rims are left unglazed and display a 'hairy' edge. All the tribute wares were fitted with copper mouth rims.

"Since the Song and Yuan dynasties, Jingdezhen (Ching-te-chen) in Jiangxi (Kiangsi) has occupied a decisive position in the production of Chinese porcelains. Since the clay there has a high iron content, the white in the glaze is not pure and, after firing, takes on a bluish tint. However, the glaze is as clear as glass and is commonly called 'shadowy blue,' a term reflecting the high esteem in which people hold this kind of porcelain.

"The major distinguishing features of the Jingdezhen production are definitely the underglaze blue and the Ming and Qing (Ch'ing) polychrome porcelains. It is precisely due to the rather high iron content of Jingdezhen glazes and to the



Ding (tripod cooking vessel), 14 inches in diameter, clay with fine sand, Neolithic age, approximately 5000 years ago.

bluish tint which they emit after firing that underglaze blue patterns create a complementary effect.

"Yuan was a period of improvement for Jingdezhen blue-and-white. Yuan glazes were generally thicker than those of the Ming and Qing. Once fired, the pieces displayed varying colors and lusters. The complex ornamental schemes are mostly based on motifs such as palms, bamboos, chrysanthemums, sea waves and peony scrolls. In the blue-and-white porcelain, the source for cobalt differed with time, and the color of the blue varied accordingly.

"Underglaze painting at Jingdezhen also used copper for red decoration. As during the Yuan dynasty the use of pigments and temperature control were not adequate, and the copper often turned reddish brown. It was not until the Ming dynasty that copper red was produced successfully. The glazes were all applied in two or three separate layers, and the metallic content of each layer differed. Copper resided in the lower layer, while such reducing agents as tin salts were added to the upper layer. When exposed to high-temperature firing, the copper in the lower layer penetrated the upper layer of the glazes, where it was affected by the reducing agent and turned red. Therefore, the red glazes of the Xuande (Hsuante) period present irregular red dots and streaks which are scattered throughout the glaze layers and are not on one single plane.

"In addition to monochromes and underglaze painting, at the beginning of the middle Ming, Jingdezhen porcelain makers developed doucai (contrasted colors), tiancai (filled-in colors) and wucai (five colors) techniques. These types of polychrome techniques reached a climax during the Kangxi (K'anghsi) and Qianlong (Ch'ienlung) periods of the Oing dynasty. At that time, there was not only single-lined, flat painting in hard, transparent, high-fired colors usually known as gucai (ancient colors), but also an opaque white enamel which increased the varieties of color schemes. Such lowfired soft colors are usually known as fencai (famille rose enamels).

"For the past hundred years, Chinese applied and decorative arts and crafts have suffered from languishing and bleak conditions, and many techniques were lost with the death of craftsmen. However, after the establishment of New China, the nation placed great emphasis on applied arts with national characteristics and on folk art, supported their revival and production, and organized various specialized research institutions to elevate the level of creativity in this domain. As a result, many arts and crafts that had reached an impasse were reawakened and crafts already lost revived."

This exhibition of examples from the Shanghai Museum's collection of significant Chinese art from prehistoric to modern times is also scheduled for presentation at the Field Museum of Natural History in Chicago through February 14; at the Museum of Fine Arts in Houston, March 19 through July 9; and at the Smithsonian Institution National Museum of History/National Museum of Man in Washington, D.C., August 30 through November 30.



Jin dynasty (A.D. 1115-1234) stoneware pillow, 15 inches in length, handbuilt, in the shape of a reclining baby, with a poem on its back: "Leaves are falling, apes howling, and frost fills the sky. On the other side of the river, an old fisherman closes his weary eyes."

Improving Plasticity

A TON of the perfect porcelain is delivered to your studio. It's the best money can buy, a real Rolls Royce of a body made with Grolleg kaolin. You wedge up a nice handful, and it seems to get a bit soft. But with great enthusiasm you go to your wheel and start throwing. It feels like you're back in Ceramics 101. You can't throw worth beans, and the more you try to raise a cylinder the shorter it becomes. The clay twists, wobbles, then collapses, and you're ready to look for a job mining coal. Don't. What you probably have is a batch of porcelain with soluble alkalis in it, giving the clay a high pH.* The presence of soluble alkalis can wreak havoc on clay's plastic properties. I have found that porcelain with a pH over 6.5 is flabby, has almost no wet strength and in general acts weird.

While the term "deflocculation" is usually applied to casting slip, it is useful in explaining what happens to plastic clays with a high pH. Alkalis, such as certain sodium compounds, give the clay particles a similar electrostatic charge, inducing them to repel one another. This force acts almost like a lubricant; the particles slide past each other with no adhesion. Deflocculated clay, therefore, responds to gravity and will slump of its own weight. It appears soft and is easily moved, but has none of the strong, springy plasticity of good throwing clay.

Alkalis in the clay also cause thixotropy. This, too, is a term usually used in slip casting, and it refers to slip which becomes thicker when left undisturbed, and more fluid when stirred. Applied to plastic clay, thixotropy means that the clay resists initial pressure, but becomes softer when it is moved around as in wedging or even being bounced around in the back of a delivery truck.

The result is floppy, wobbly, sticky porcelain. But how did it get that way, and what can be done to prevent or correct it? Several of the materials regularly used in porcelain can be alkaline, but one often overlooked culprit may be sodium hydroxide (NaOH) in your water. NaOH is a very effective deflocculant, which is just what potters don't need. Your friendly neighborhood waterworks will tell you if they are adding sodium hydroxide to keep the pipes cleaner.

To check the pH of my clay body's ingredients, I stirred equal weights of dry material and distilled water together, then let the covered mixture stand for a week, shaking it now and then. The pH of the water was then measured as 5.6. To determine this, I used two brands of litmus paper (available at scientific supply houses and some drugstores) to



get as accurate a reading as possible. It takes only a minute or two for paper stuck to moist clay to absorb enough moisture to give a reading.

Feldspars are, of course, alkaline by composition, but some seem more soluble than others. My tests showed that Cornwall stone was the least alkaline, with G-200 the second best, Custer third, and nepheline syenite the most alkaline.

One bag of 325-mesh Supersil silica had an unusually high pH of 7.5. A helpful salesman at Pennsylvania Glass Sand Corporation explained that occasionally the same silica is put through the mill several times and this raises its pH. Another bag of silica tested at pH 6.2.

A sample of Montana bentonite had a pH of 8, which is very alkaline; but Bentolite tested at pH 6.5. Macaloid; a plasticizer, is so alkaline it is practically off the scale. In my opinion these expensive plasticizers are overrated, and probably act to deflocculate the clay slightly. They have a high viscosity, but the manufacturers warn that they break down in the presence of molds and bacteria. This suggests that bentonite may be more useful, especially if you age your clay.

I have tested only porcelain for the relationship of pH to plasticity and strength, but the same principles ought to apply to any clay body. For my purposes, porcelain with a pH of 5.4 to 5.8 seems to work best. Clay that is more

alkaline may have advantages when handbuilding, using an extruder or slab roller. Each potter has different needs in clay and should determine what pH range works best personally.

The way to get clay properties you want is to mix it right in the first place. Use the least alkaline materials and the most acidic water, then add vinegar to correct the pH of the mix. Unfortunately, some alkalis leach into solution over time, so it may take some fine tuning to get clay with the right pH after aging.

What can be done to lower the pH of already mixed clay? Earlier this year I had a 3000-pound problem. The porcelain had been professionally mixed to my recipe, but this batch was extremely alkaline (pH 8). It wasn't possible to add enough vinegar (pH 3.1) to the moist clay to lower the pH without making it too wet. I needed a much stronger acid. Boric acid couldn't be used as it would add the strong flux boron; and sulfuric acid would add sulfur. So I wedged in crystalline vitamin C (ascorbic acid- $C_6H_80_6$). The effect was dramatic. Flabby clay became firm and springy right in my hands. I could throw tall cylinders with a single pull. I could facet them wet, and they would stand right there and take it. Four teaspoons of vitamin C per 25 pounds of moist clay brought the pH down to 5.5, but it would have cost me \$200 to reclaim a ton and a half of clay.

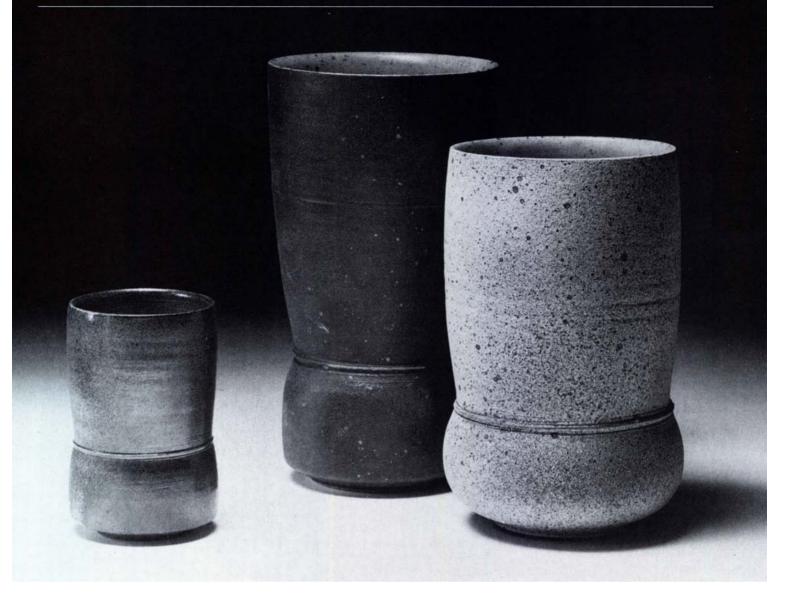
Instead, I tried adding full-strength acetic acid (CH₃COOH)—the "stop bath" used in photography and the chief acid of vinegar. It is one-tenth the price of ascorbic acid, but much more dangerous. It can burn, and the fumes are harmful too. When using acetic acid, I have a strong exhaust fan right on the wedging board, wear goggles and rubber gloves. Wedging in 3 teaspoons per 25 **pounds of clay works perfectly. Once the** acid is dispersed and partly neutralized in the clav, it is no longer harmful.

I hope that every clay manufacturer in the country will read this article and run right out to buy a box of litmus paper and a case of vinegar. Potters buying premixed clay, especially porcelain, should insist on the proper pH.

The author Angela Fina is a studio potter in Amherst, Massachusetts.

^{*}The pH scale ranges from 0 to 14, where 7 is neutral (pure water at 25°C). Numbers less than 7 represent increasing amounts of acidity, while those more than 7 represent increasing alkalinity.

West German Ceramics



West At Kiel College of Arts in where ceramist Johannes Germany. Gebhardt teaches, "the means of artistic expression are based on craftsmanship and technology. The wider the range of ability and experience, the greater the response to impressions and inspirations. On the other hand," he admonishes, "mere virtuosity in manipulating physical or chemical processes, or the clever exploitation of accidental results never can substitute for creativity."

To Gebhardt, work at the potter's wheel is essential. "To be thoroughly engaged in studying a shape, spinning around one axis, helps to achieve sensitivity for formal details. Moreover, it's a valuable exercise for the development of creative discipline.

"I consider the thorough investigation

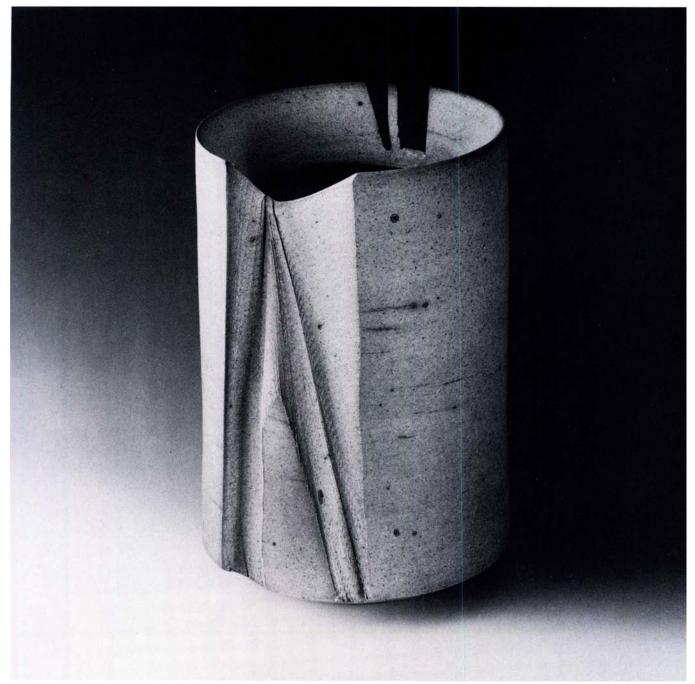


"Fruit (Capsule)-Shaped Vessel," 10 inches in height, handbuilt, stained porcelain, by Johannes Gebhardt.

of one problem and the step-by-step approach to accomplishment to be more essential for artistic development than hasty work in pursuit of quickly changing ideas and aims."

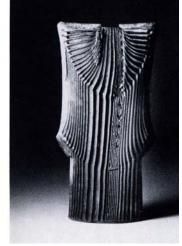
As a teacher, Gebhardt tries to discern "the personal inclinations and potential of students. Thereafter, I support them in achieving technical and artistic means of realization."

An exhibition featuring works by Johannes Gebhardt plus former and advanced students was presented recently at the Gallery Dr. Paul Koster in Monchengladbach, West Germany. Koster has been a central figure in the European gallery marketplace, developing and creating collectors and collectors' groups which have begun to change the face of contemporary European ceramics.









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Opposite page

Above Stoneware vessel, 8 inches in height, thrown, altered, reduction fired to Cone 9, by Michael Kramer, Austerlitz.

Below left "Textured Vessel," 7 inches in height, porcelain, grayish pink glazed interior, slip-coated exterior, reduction fired, by Susanne Kallenbach, Emkendorf.

Below center Stoneware bowl, 7 inches in diameter, reduction-fired celadon glaze, by Karl-Friedrich Korden, Kiel.

Below right "Figurine," 18 inches in height, slab-built stoneware with relief-cut pattern, slip under thin matt glaze, reduction fired, by Christa Gebhardt, Falkendorf/Preetz. Above Stoneware vases, to 11 inches in height, and bowl, with reduction-fired feldspathic glazes, by Carina Brugmann, Tetenhusen.

Left Salt-glazed bottles, the taller 14 inches in height, thrown stoneware, by Michael Schdning, Kiel.

Kiln Wall Heat Loss

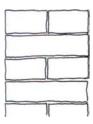
During the firing of a kiln, heat is conducted through the wall and radiates off the surface. This heat loss is further increased by holes or cracks in the kiln and the velocity of outside air. Therefore, if your kiln is old, with a lot of deterioration, or is outside and unprotected from the wind, even more heat will be lost.

For many years, potters were not concerned with this loss because fuel was inexpensive. Today, however, with fuel costs continuing to rise, we need to look at ways to economize.

Heat loss is determined with a mathematical formula that considers the inside wall temperature (hot face), the outside temperature (cold face), the thickness of the walls and the thermal conductivity of materials used to build the kiln. The answer is measured in Btu's (British Thermal Units: each Btu equals the amount of heat required to raise the temperature of 1 pound of water 1°F). But this formula is complicated and takes a great deal of time to work out, so I developed a computer program to quickly solve these kiln design problems.

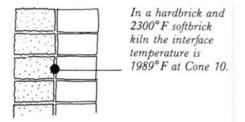
In the following examples of heat loss through various kiln constructions, overall size will remain a constant 3 feet square and the hot face temperature will be 2400 °F. While the calculated temperatures in these tests may not be exact to the degree, they represent an accurate system of comparative measurement.

For the first example, the kiln wall is 9-inch-thick, high-heat-duty hardbrick. Not many potters today would build this way, but it serves as a standard to test other walls. The heat loss is 1702 Btu's



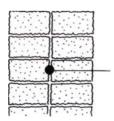
A hardbrick kiln wall. All illustrations in this article show the hot face (kiln interior) on the right, and the cold face (outside of the kiln) on the left. per square foot per hour (Btu's/sq.ft./ hr.) and the cold face would read 520°F. If the kiln were 3 feet square, it would have 45 square feet of surface. This would mean a total heat loss of 76,590 Btu's/ hr. when the inside of the kiln is at 2400 °F. As seen in the remaining examples, a little insulation will go a long way in reducing the fuel bill.

In the second kiln, the liner is $4\frac{1}{2}$ inches of high-heat-duty hardbrick backed up with $4\frac{1}{2}$ inches of 2300°F insulating



firebrick. The interface (the area where the two layers of brick meet) will have a temperature of 1989°F and the outside wall will be 340°F. The heat loss will be 797 Btu's/sq.ft./hr. The total loss would be 35,865 Btu's, or a savings of 40,725 Btu's/hr. over the first example.

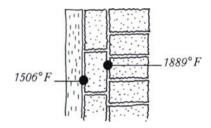
The example below shows the hardbrick replaced with $4\frac{1}{2}$ inches of 2600°F



In an all-softbrick kiln the interface temperature between an outside layer of 2300°F brick and an interior of 2600°F brick is 1573°F at Cone 10.

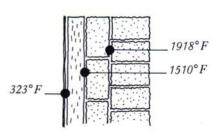
insulating firebrick backed up with $4\frac{1}{2}$ inches of 2300°F insulating brick. The interface temperature is down to 1573°F, and the outside temperature is 290 °F. The heat loss would be 570 Btu's/sq.ft./ hr. Here the interface temperature indicates that a lower temperature brick could be used on the outside. I would suggest 2000°F insulating firebrick. (The lower the temperature designation of the brick, the greater the insulating ability.) Interface temperature must remain below the working temperature of the brick, which is 100°F below the number indicated. With 2000°F brick, it would still be well below this point.

Example 4 has a three-component wall. The liner is $4\frac{1}{2}$ inches of 2600° F insulating firebrick backed up with $2\frac{1}{2}$ inches of 2300° F insulating firebrick and 2 inches of block insulation. The first interface is at 1889° F and the second is 1506° F; the outside of the kiln is 225° F.



Heat loss would be 410 Btu's/sq.ft./hr. In this case, the more complex wall structure gives even greater savings. A look at the interface temperature between the 2600°F brick and the 2300°F brick shows that a lower temperature brick may be chosen. The substitution of 2000°F brick for the 2300°F brick would reduce the heat loss to 400 Btu's/ sq.ft./hr.

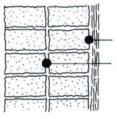
The last example examines the possibility of overinsulating. When an outside layer of Transite is added to a liner of $4\frac{1}{2}$ inches of 2600°F insulating firebrick backed by 2000 °F insulating brick and block insulation, the Transite layer raises the temperature of the first interface to 1918°F, which is close to the maximum temperature of the insulating



brick and above its working temperature. This could cause excessive shrinkage of the refractory, and thereafter the insulating value of the 2000 °F brick would be reduced and heat loss increased. This in turn would cause greater heat in the interface area.

From the preceding examples, one can conclude that *the more complex the wall construction, the greater its insulating ability*. The higher the insulating ability is, the less heat loss. And that means less fuel is necessary for firing. Also, *such a kiln may be less expensive to build—the lower the temperature designation of the insulating material, the less it costs.*

All this information is nice if you are going to build a new kiln, but what if you already have a kiln and just want to improve its performance? Adding 1inch-thick fiber blanket to the interior





All-softbrick kiln with added interior fiber insulation.

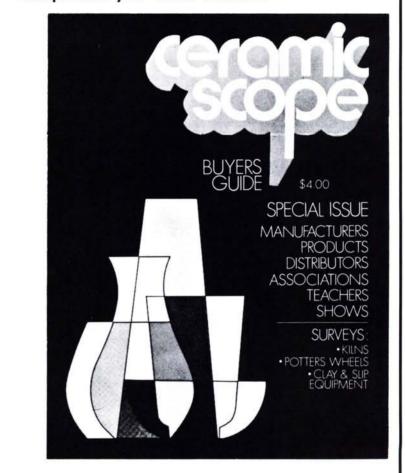
of the third kiln example produced a better than 15% drop in heat loss. Before the fiber blanket, the loss was 579 Btu's/ sq.ft./hr. After the blanket was added, the heat loss measured 490 Btu's/sq.ft./hr. (using Fiberfrax CH Blanket, 8 pounds per cubic foot density).

An addition of refractory fiber blanket should lower the amount of heat loss, and thus produce a substantial savings in firing costs. Results will vary with specific kiln construction and firing practices; however, the way to more economical firing seems clear.

The author Robert Schmitz teaches ceramics at the School for American Craftsmen, Rochester Institute of Technology, in Rochester; New York.

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News & Retrospect

Free Workshop Listings

The 1984 Summer Workshops listing will be published in the April issue of Ceramics Monthly. Summer schools, colleges, universities, craft institutions and workshops not already contacted are invited to furnish information by February 13 about their programs in ceramics. Please include the workshop name, level of instruction, location, opening and closing dates of sessions, course descriptions, names of instructors, availability of live-in accommodations or camping, fees and where to write and call for details. Captioned photographs from last year's workshops are welcome and will be considered for publication. Send to: Summer Workshops, Ceramics Monthly, Box 12448, Columbus, Ohio 43212; or call: (614) 488-8236.

Patrick Siler

Twenty-three textured, "platform-shaped" wall pieces, thrown plates and sculptural forms by *Patrick Siler* (Pullman, Washington) were featured in a one-man show at Quay Gallery in San Francisco through October 1, 1983.



19-inch "Throwing on the Electric Wheel"

Each object was decorated with thick, lumpy slip stenciled over a darker slip underneath. Many of these shadow images, such as on "Throwing on the Electric Wheel," are related to Patrick's daywork experience. *Text: Junko Iwabuchi.*

Clay Illustration

A solo exhibition of ceramic sculpture by faculty artist Christopher Bartlett, Baltimore, was presented recently at Towson State University in Maryland.—Ed.

This series of works was begun with clay portraits of famous potters like *Bernard Leach* and *Michael Cardew*, where the initial concern was for a realistic likeness combined with a textural or gestural form. It also occurred to me that there was an unintended pun in the sense that these potters were "clay people," and so I developed the visual puns or metaphors on artists and their concerns.

The nontraditional bust, cut off at the chest

or above the knees, is an interesting graphic shape and allows for the use of symbolic costuming to identify the character as well as



"Art Student," 18 inches in height

provide a decorative resource. I like to think that the final form is a fun, dramatic, provocative or memorable image with narrative content.

The bodies are slab built, beginning with the torso and adding arms as cylindrical shapes. The clothing or uniform is modeled by carving and adding fresh clay to the leather-hard, headless bust. Separately, the head is coil built from the neck up, indicating broad masses of hair or directly forming head gear. Details are modeled by pushing or pinching the walls and adding soft clay for lips, nose, eyebrows and so on.

Joined together and dried, the sculpture is fired to Cone 4 in oxidation. Since it is difficult to achieve realistic, consistent colors with glazes, and acrylics give a "painted over" look, the fired form is painted with watercolors, which soak into the body, and then sprayed with a light matt fixative. *Text: Christopher Bartlett.*

Texas Clay

Danville Chadbourne and Steve Reynolds, San Antonio; Piero Fenci, Nacogdoches; Claudia Reese, Austin; Barbara Frey, Commerce; John Fleming, Fort Worth; and Nicholas Wood, Arlington, recently presented new works in "Texas Clay," an exhibition at

You are invited to send news and photographs about people, places or events of interest. We will be pleased to consider them for publication in this column. Mail submissions to: News and Retrospect, Ceramics Monthly, Box 12448, Columbus, Ohio 43212. Southwest Texas State University in San Marcos and at the University of Texas in San Antonio.

"My [vessel-oriented bisqued porcelain sculpture] is governed by two attitudes," commented Piero Fenci. "I have tried to invent



7 7-inch-diameter "Sysko III" by Piero Fenci

forms of containment which are delicate, fantastic and esoteric in their logic. However, I am also intent on pushing the clay to its



Bisqued porcelain "Sysko IV" 16 inches in height

physical limits. The objects embody a compromise and a balance between these aesthetic and structural considerations."

Nicholas Wood's terra-cotta wall forms, with slips and glazes, involve "the use of narrative, architectural and language referents. Because I install the work on the wall, the shadows cast by a controlled light source allow me to extend, contradict, intensify and/ or add shapes. The effect of the cuts and carved shapes, the shadows they both cast

Continued

Where to Show

Continued from Page 9

Craft Center, 25 Sagamore Rd., Worcester 01605; or call: (617) 753-8183.

Center Hall, Pennsylvania "First Annual American Designer Craftsmen Festival at the Fairgrounds" (May 18-20) is juried from 5 slides. Fee: \$130. Send self-addressed, stamped envelope to: American Designer Craftsmen, Marvin Cohen/Michael Strailey, 5704 Dimes Rd., Rockville, Maryland 20855; or call (814) 238-5715.

February 18 entry deadline

Columbus, Ohio "Greater Columbus Arts Fes-tival" (June 2-3) is juried from 3 slides. Entry fee: \$8 Booth fee: \$80 for a 10x10-foot space Contact: R. B. Wildman, Street Fair, Greater Columbus Arts Council, 33 N. Third St., Columbus 43215; or call: (614) 224-2606.

March 1 entry deadline

Denver, Colorado "The Art of Crafts-Festival '84" (August 24-26) is juried from 5 slides. Jurors: Garth Clark, Carol Maree Hoffman and Dianne Vanderlip. \$1500 in awards. Entry fee: \$10. Booth fee: \$150. Contact: The Art of Crafts, Box 38233, Denver 80238; or call: (303) 771-0042 or 771-4544

Minneapolis, Minnesota The 12th annual "Minnesota Crafts Festival" (June 23-24) is juried from 4 slides. Entry fee: \$7.50; booth fee: \$50 for members of the Minnesota Crafts Council, \$70 for nonmembers, for a 12x 12-foot space. Send selfaddressed, stamped envelope to: MCC-Festival, 528 Hennepin Ave., Room 210, Minneapolis 55403; or call: (612) 333-7789.

Charlotte, North Carolina "Third Annual Springfest" (April 27-29) is juried from 4 slides of work and 1 of display. \$10,000 in cash and purchase awards. Fee: \$35 for a 12x12-foot space.

Send self-addressed, stamped, legal size envelope to: Springfest, 110 É. Seventh St., #210, Charlotte 28202; or call: (704) 332-0126.

Cincinnati, Ohio "Summerfair '84" (June 16-17) is juried from 5 slides. Entry fee: \$10; booth fee: \$50 for a 10x10-foot space. No commission. Awards. Contact: Summerfair, Box 3277, Cincinnati 45201; or call: (513) 421-3535.

March 9 entry deadline

State College, Pennsylvania "The 18th Annual Central Pennsylvania Festival of the Arts"(July 12-15) is juried from 4 slides, 1 of display. Entry fee: \$10. Booth fee: \$140. Send self-addressed, stamped envelope to: Lurene Frantz, Box 1023, State College 16804; or call: (814) 237-3682.

March 10 entry deadline

San Francisco, California "ACC Craftfair at San Francisco" (August 8-12) is juried from 5 slides. Entry fee: \$10. Booth fees: \$300-\$650. For further information contact: American Craft Enterprises, Box 10, New Paltz, New York 12561; or call: (914) 255-0039.

March 15 entry deadline

Madison, Wisconsin The Madison Art Center's 26th annual "Art Fair on the Square" (July 7-8) is juried from 4 slides. Entry fee: \$5; booth fee: \$150. No commission. Contact: Art Fair on the Square, Madison Art Center, 211 State St., Madison 53703.

March 17 entry deadline

Pittsburgh, Pennsylvania The 25th annual "Three Rivers Arts Festival" (June 8-24) is open to artists in Washington, D.C., Maryland, New York, Ohio, Pennsylvania and West Virginia. Send self-addressed, stamped envelope to: Three Rivers Arts Festival, 4400 Forbes Ave., Pittsburgh 15213. March 30 entry deadline

Mountain View, Arkansas "The Ozark Foot-hills Craft Guild 22nd Annual Spring Show and Sale" (April 20-22) is juried from 5 slides. AppHcation fee: \$5; booth fee: \$20. Commission 15% retail, 5% wholesale. Contact: Ozark Foothills Craft Guild, Box 800, Mountain View 72360; or call: (501) 269-3896.

White Plains, New York "Westchester Art Workshop 6th Annual Craft Fair" (April 28-29) is juried from 5 slides. Booth fee: \$70. Contact: Wayne Kartzinel or Rose Petersons, Westchester County Center Building, White Plains 10607; or call: (914) 683-3986.

April 1 entry deadline

Dayton, Ohio The 17th annual "Art in the Park" (May 26-27) is juried from 3 slides. Contact: Sharon Partlow, Art in the Park, Riverbend Art Center, 142 Riverbend Dr., Dayton 45405; or call: DeEarnest McLemore, (513) 228-1115. April 13 entry deadline

Evanston, Illinois "Fountain Square Arts Festival" (June 30-July 1) is juried from slides. Contact: Evanston Chamber of Commerce, 807 Davis St., Evanston 60201; or call: (312) 328-1500.

April 28 entry deadline

Saratoga Springs, New York Fifth annual "Craft Fair at the Kool Jazz Festival" (June 30-July 1) is juried from slides. Entry fee: \$5. Booth fee: \$150 for an 8x 10-foot space. Contact: Charles Dooley, Craftproducers Markets, R.D. 1, Box 323, Grand Isle, Vermont 05458; or call: (802) 372-4747

Burlington, Vermont Third annual "Church Street Festival of the Arts" (July 20-23) is juried from slides. Entry fee: \$5. Booth fee: \$175 for an 8x 10-foot space. Contact: Charles Dooley, Craftproducers Markets, R.D. 1, Box 323, Grand Isle, Vermont 05458; or call: (802) 372-4747

Manchester, Vermont Fifth annual "Southern Vermont Craft Fair" (August 4-6) is juried from slides. Entry fee: \$5. Booth fee: \$175 for an 8x 10foot space. Contact: Charles Dooley, Craftpro-ducers Markets, R.D. 1, Box 323, Grand Isle, Vermont 05458; or call: (802) 372-4747.



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64 CERAMICS MONTHLY

News & Retrospect

and the spaces between these parts create a visual language, which initially would be read from left to right. However, many times this



Nicholas Wood's 60-inch "3 Positions for Alteration"

'linear legibility' is intentionally counterbalanced by the nonsequential arrangement of the parts to encourage one to leapfrog from one form to any other."

Wisconsin Invitational

The "Fourteenth Annual Ceramics Invitational" recently presented at the University of Wisconsin-Whitewater featured functional pottery by *Wayne Branum*, Milaca, Min-



Wayne Branum's stoneware saucer

nesota; *Tim Crane*, Brownsville, Minnesota; *Barbara Diduk*, Carlisle, Pennsylvania; *Randy Johnston*, River Falls, Wisconsin; *Warren MacKenzie*, Stillwater, Minnesota; *JeffOestreich*, Taylors Falls, Minnesota; *Mark Pharis*, Houston, Minnesota; and *Sandy Simon*, Crockett, California. Among the stoneware



Warren MacKenzie's fluted bowl

vessels shown were Wayne Branum's 8-inch saucer (center), thrown, with trailed decoration; and Warren MacKenzie's bowl, $5\frac{1}{2}$ inches in diameter, above, thrown and fluted.

Angelo Garzio

Thrown stoneware by Angelo Garzio (faculty artist at Kansas State University in Manhattan) was exhibited recently at Em-Continued



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Itinerary

Continued from Page 19

Moldmaking, Slipcasting, Handbuilding," includes demonstration, slide lecture and exhibition. Fee: \$45. Contact: Tony Marsh, Mendocino Art Center Ceramics, Box 765, Mendocino 95460; or call: (707) 937-5818 or 937-0946.

California, San Jose February 4 Tom and Elaine Coleman, a session at San Jose City College. Fee: S15 for members of the Association of San Francisco Potters, and students; \$20 for nonmembers. Contact: Barbara Brown, 1225 Manzano Way, Sunnyvale, California 94089; or call: (408) 736-3889.

California, Santa Ana February 25 Bill Davis, demonstration and slide lecture on neriage and nerikomi techniques. Fee: \$25. Contact: Patrick Crabb, Art Department, Santa Ana College, Seventeenth and Bristol Sts., Santa Ana 92706; or call: (714) 667-3195.

Connecticut, Middletown January 9-13 Maishe Dickman, "Pottery Design," for intermediate and advanced potters. Fee: \$ 110. February 5 Bob Parrot, "Slab Construction and the Extruder." Fee: \$25. February 25-26 Mary Barringer, "Working off the Wheel: A New Direction." Fee: \$40. Contact: The Wesleyan Potters, 350 S. Main St., Middletown 06457; or call: (203) 347-5925.

Connecticut, New Haven *February 4* Mary Barringer, "Handbuilding: A Way of Finding a New Way," participatory workshop, demonstrations and slide lecture. Fee: \$23. Contact: Creative Arts Workshop, 80 Audubon St., New Haven 06511; or call: (203) 562-4927.

Georgia, Atlanta *fanuary* 14 Don Reitz, slide lecture and demonstration. Fee: \$25. For further information contact: Glenn Dair, Callanwolde Art

Center, 980 Briarcliff Rd., NE, Atlanta 30306; or call: (404) 874-9351.

Illinois, Chicago January 22 Mary Roehm, slide lecture on history, aesthetics and techniques of wood firing. Fee: \$4. Contact: Lisa Youngner, Lill Street Gallery, 1021 W. Lill, Chicago 60614; or call: (312) 248-4414.

Massachusetts, Boston February 22 Chris Gustin, "The Vessel Form," a slide lecture. February 29 Warren MacKenzie, "Pots for Use," a slide lecture. For further information contact: Program in Artisanry, Boston University, 620 Commonwealth Ave., Boston 02215; or call: (617) 353-2022.

Missouri, Saint Louis February 25 Linda Christianson, demonstration, discussion and slide lecture on wheel-altered forms. Fee: \$15. Contact: Craft Alliance, 6640 Delmar Blvd., Saint Louis 63130; or call: (314) 725-1177.

New York, Albany January 16 and 23 Jayne Shatz, "Architectural Ceramic Sculpture: Building a Mural," a two-part session on planning, drying, firing and installing. Fee: \$15. Contact: Albany Ceramic Institute, 305 Hamilton St., Albany 12210; or call: (518) 463-2946.

New York, New York February 1-6 Don Reitz, a hands-on session. February 12 and 26 Barbara Beck, "Porcelain and Paper." Contact: Janet Bryant, 92nd Street Y, 1395 Lexington Ave., New York 10128; or call: (212) 427-6000, ext. 172.

Pennsylvania, Pittsburgh *February 12-18* Howard Shapiro, one week as artist-in-residence, will demonstrate and lecture. Contact: Carnegie-Mellon University, Art Department, 5017 Forbes Ave., Pittsburgh 15213; or call: (412) 578-2409.

Texas, Dallas January 27-29 John Glick, "Ten Years Later" at Eastfield College, will include demonstrations on production techniques, assembling and decorating, plus slide lecture. Fee: \$75 includes Saturday night dinner. Contact: Clay Suppliers, 102 N. Windemere, Dallas 75208.

International Events

Belgium, Mariemont through February 12 "One Hundred Years of Porcelain from Tournai"; at the Mariemont Museum.

Canada, Alberta, Banff January 9-20 "Function and Form Workshop" with Tom and Ginny Marsh. Fee: \$240. Contact: The Banff Centre, School of Fine Arts, Box 1020, Banff, Alberta TOL OCO.

Canada, Ontario, Burlington January 15-February 26 "Raku," works by 18 Ontario potters; at Burlington Cultural Centre, 425 Brock Ave.

Canada, Ontario, Toronto *through January* 8 "Silk Roads/China Ships," approximately 300 objects pertaining to trade with the East from the first to the 19th centuries; at the Royal Ontario Museum, 100 Queens Park.

England, London January 18-March 18 "The Omega Workshops, 1913-19," includes ceramics by Quentin Bell, Angelica Bell and Phyllis Keyes; at Crafts Council Galleries, 12 Waterloo Place.

England, Nottinghamshire through January 8 Bill Brown, John Gibson, John Pollex and Robin Welch, "Plates"; at Rufford Craft Centre, Rufford Country Park, Ollerton, Near Newark. France, Nan9ay through January 16 A dual exhibition with Anita Tullio, sculpture; at Grenier de Villatre.

France, Paris through February 13 "De la terre et du feu" (Of Earth and Fire), works by Pierre Bayle, Rene Ben Lisa, Claude Champy, Jean Girel and Daniel de Montmollin; at the Musee National de Sevres, 5 Grande-Rue.

Spain, Madrid through March 21 "II Competition of Ceramic Art"; at the Casa Municipal de la Cultura, C/San Antonio, num. 2, Mostoles.



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News & Retrospect

poria State University in Emporia, Kansas. Characteristic of the work shown, this bottle



Mishima-decorated bottle

with cork, 11 inches in height, was decorated with mishima inlay, glazed rust-tan overall and fired in reduction to Cone 10.

"Since my first exposure to pots with *Glenn C. Nelson*, the importance of tradition, of continuity—the passing on of knowledge and skills from one generation to the next—has been of utmost importance in my teaching as well as in my pottery," Angelo commented. "As a student and afterwards, going on to other sources of inspiration and ideas, trying out one's fledgling wings in unexplored areas



Stoneware pinch pot, 5 inches in height

of working clay, the sense of lineage always made itself apparent. No matter how innovative or novel a form I came up with, I somehow always discovered later that what I thought was new turned out to be merely an adaptation of an older idea.

> "After more than a quarter century of potting, the realization has finally sunk in that *Continued*



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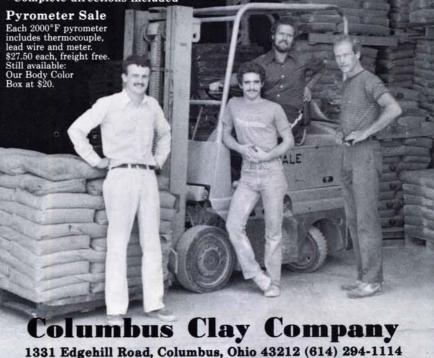
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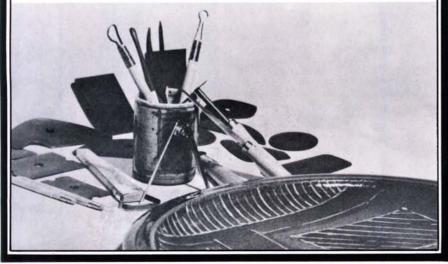
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News & Retrospect

what I have been doing all along has been to restate those basic ideals and social aspi-



12-inch salt-glazed jar with wood lid

rations of all honest pottery since it was first made."

The following recipes are for engobes and glazes Angelo applied on many of the forms exhibited at Emporia.

White Engobe (Cone 8-10, reduction) Custer Feldspar..... 14.3 Kentucky BallClay (OM 4)..... 28.6 100.0% Color variations are possible with these additions. 1.5% Black Cobalt Oxide..... Blue 7% Red Iron Oxide..... Red 2% Black Cobalt Oxide, 5% Red Iron Oxide and 6% Manganese Dioxide.....Black Ringel's Rust-Red Matt Glaze (Cone 9-10, reduction) Mixed Wood Ash (unwashed)...... 40% Whiting...... 10 100% Apply thinly. Lime Matt Glaze (Cone 8-10, reduction) Kona F-4 Feldspar 53.0 100.0%

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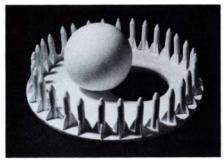
Spodumene Matt Glaze (Cone 9-10 reduction)

(Conc 9-10, reduction)				
Dolomite		17.4%		
Spodumene		17.4		
Whiting		4.3		
Custer Feldspar		43.5		
Kaolin		17.4		
		100.0%		
Add:	Tin Oxide	4.3%		
	Bentonite	2.6%		

"My pots are not such as to make the viewer stand up and shout in excitement because of their novelty or aberration from the norm," Angelo concluded. "But **I** cannot imagine a greater delight and sense of accomplishment than to have someone use one of my pots."

Bonnie Collier

Voicing her concern about the nuclear arms race, porcelain sculpture by *Bonnie Collier*, Boyds, Maryland, was shown recently at the Foundry Gallery in Washington, D.C.



15-inch "Waiting"

"Waiting," 15 inches in diameter, represents the artist's efforts "to spark or renew awareness of this nightmare that haunts our world."

Juta Savage

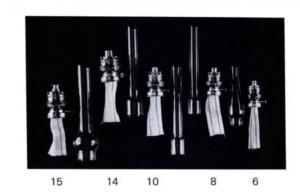
A solo exhibition of painterly porcelain and mixed-media work by Californian *Juta Savage* was shown at Meyer Breier Weiss in San Francisco late last year. The artist's new



38-inch-high mixed-media sculpture

constructions, referring to and incorporating pottery, shards, furniture and walls, were also *Continued*

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included in the concurrent invitational, "On and Off the Wall: Shaped and Colored," at the Oakland Museum.

NEA Deadline Reminder

Applications for National Endowment for the Arts Visual Arts fellowships must be submitted by February 15 for the sculpture category, by March 15 for crafts. Awarded by a panel of experts from various parts of the country, the 1984-85 grants will be either \$5000, \$15,000 or \$25,000 each. (The 1982-83 fellowships included six \$25,000 and sixteen \$5000 awards to ceramists.)

An individual is permitted to apply only once and in only one fellowship area; those whose work involves more than one area should select the one most relevant to their overall concerns.

For guidelines and application forms write to: the Visual Arts Program, National Endowment for the Arts, Washington, D.C. 20506; or call: (202) 682-5448.

The San Marcos Project

A boy and his mother stepped closer to the seated woman hunched over a palmetto mat. They could see her slapping her hand into a ball of gritty clay and quickly flattening it into a thick, curved disk. From a small mound next to the boy's feet, she dug out a second fistful, rolling the clay a few times between her palms until it emerged as a short, fat coil. She laid the coil on the upper edges of the disk and pinched the two together with her thumb and forefinger. With the heel of one hand pressed against the inner wall, the woman grabbed a small wood paddle and struck the outer surface repeatedly in a slight downward motion; then exchanging the paddle for a carved block, she impressed alternating parallel lines into the soft clay exterior. The whole process was repeated a dozen times before she finally raised her head. There, balanced on her lap, was a deep, round-bottomed pot.

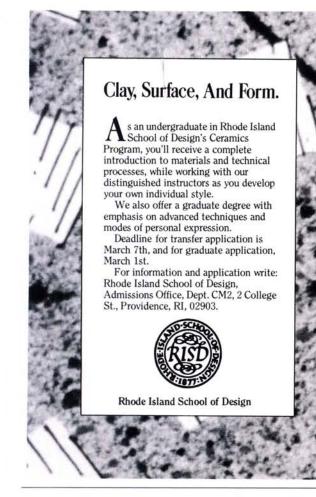
"What're you making?" asked the boy.

"This is going to be one of my cooking pots," the woman answered with ease from repetition. "First it has to sit in the sun for a while to get the moisture out; then I'll put it in that pit behind you and fire it with about 25 others." She paused long enough to point out a small depression, darkened by fire, about 30 feet away. "Making these cooking pots is one of the tasks that many women of Indian blood have to do in this Spanish settlement."

The potter is *Gayle Prevatt*. It has taken her a year to develop the technical ability to make that cooking pot; she has no studio, no bags of clay, no shelves of glazes, no wheel, no kiln. She is the primary figure in an experimental project aimed at reviving a part of the living environment of Saint Augustine, Florida's Spanish colonial period. Her role,

Continued





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as a member of the professional staff of the San Agustin Antiguo Museum, centers on



Gayle Prevatt removing vessels from a pit kiln

recreating the lifestyle of a *mestiza* (mixed Indian and Spanish) woman in Saint Augustine during the 1700s. And the making of these pots was a natural extension of a mestiza woman's other food-related tasks: planting seeds, tending fields, harvesting crops, gathering wild plants, preparing food.

What we know about this pottery, made about 200 years ago, comes entirely from examples excavated in northeast Florida. It wasn't until the 1940s that archaeologist *Hale Smith* identified the ware as a distinct ceramic type. He named the pottery San Marcos after the site on which he was then working (Castillo de San Marcos, a National Park Service monument). Today it is defined as a fairly large group of coarse, low-fired earthenwares associated with the Spanish occupation of Saint Augustine. Its presence is directly linked to the movement of Guale Indians from coastal Georgia into northern Florida during the mid 1600s.

Indian, Black, mestizo and Spaniard all utilized the ware for everyday cooking and storage needs. But in 1763 its importance ended rather abruptly; Spanish Florida became English Florida and was not returned to Spain until 1784. The first months of British rule broke apart the cultural framework that had fostered the production of San Marcos earthenware. By the middle of the 1760s the pottery was little more than a memory.

The excavated fragments, which number well over 50,000, display remarkably little variation in their physical characteristics. The ware was coil built with a coarse, sandy clay body, tempered with large quantities of either quartz, oyster shell or crushed limestone. Simple, linear, stamped impressions tend to be the typical decorative treatment, followed to a much smaller degree by smooth, often burnished surfaces. The shapes cover a wide range, though the most common are the deep, rounded cooking and storage pots. Some shallow bowls and a few pseudo-European forms (jar, plate and pitcher) have been found, but in extremely small numbers. The exact kiln type has been more difficult to pin down. Based on the amount of carbon absorbed by the clay body, along with some exterior flashing and oxidation, the ware appears to have

been fired either uncontrolled, in an open hearth or in a shallow pit.

When the museum decided to incorporate San Marcos as part of its living history program, Gayle took on the responsibility of developing the skills and acquiring the proper materials with which the pottery could be authentically reproduced. She could not deviate from her 18th-century mestiza character; all the materials, including the clay, had to come from local natural sources. Her tool kit was limited to a wood paddle, a few shell and gourd rind scrapers, a burnishing stone and a handful of carved wooden stamps. And with the exception of digging the clay and acquiring the temper, the making process had to be performed in full view of the museum's visiting public.

Whatever the visitors' backgrounds may be, to see a pot being shaped, fired and used, has provided them with a more intimate avenue toward understanding life in Saint Augustine during the 1700s. To the public, a mestiza woman is again making coarse, earthenware pots for everyday needs. *Text: James M. Smith; photo: Bob Steinbach.*

In Paris

"Art Objet 83," a December sale at the Grand Palais in Paris, was designed to promote "a new type of object which transgresses the frontiers between art and functionalism." Among the works shown by approximately



Bottagisio/Decoux porcelain sculpture

100 European artists was "Theorie d'Angelots Porcelaine," a surrealistic sculpture, approximately 12 inches in length, by *Serge Bottagisio* and *Agnes Decoux*.

Sara Radstone

"Very much put to the test during the making," coil-built stoneware vessels by British ceramist *Sara Radstone* were exhibited recently at the Victoria and Albert Museum in London. The forms are beaten, incised, scraped and painted with underglazes or slips "from start to finish, even when the clay is bone dry," Sara explained. "Cracks and splits often happen naturally, and are left, encouraged or partially filled in. These let light inside, and add to the sense of the piece being stretched to the limits and on the brink of pulling itself apart.

"The results of stress are obvious in the finished object: this ties in with ideas sparked *Continued*



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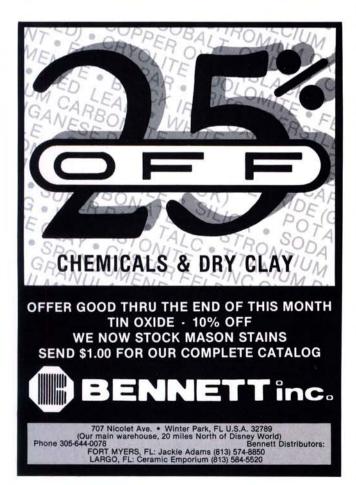
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News & Retrospect

by derelict areas of the city, discarded objects and signs of reaction to urban stress as in the



12-inch coiled stoneware pot, with layered glazes

part of London where I live. This is an area which is rich in life, color and extremes of decay; these interreact to produce an electric atmosphere, often with the sense of being on the edge of some kind of explosion. All spare surfaces have graffiti, and marks, words and drawings take on the character of rock paintings.

"I don't attempt to reproduce these surfaces as such, but allow elements to seep through by looking, drawing and photographing. I'd like to retain the feeling of an accidentally discovered object having nothing to do with accepted 'taste.'

"Glazes often incorporate varying quantities of lithium carbonate for its 'sugar cube' effect. These are applied unsieved to produce greater variation and depth of texture, each piece having four or five glazes brushed in layers. Fired to Cone 7, different glazes show through each other so that the clay/glaze surface gains a dimension of its own." *Photo: David Ward.*

Ehmann/Robrecht

Earthenware collaborations by Christine Ehmann and Joseph Robrecht (Floyd, Virginia) were among the ceramic objects featured in "Collector's Choice" at America House Gallery in Tenafly, New Jersey,



9-inch-high mixing bowl

through December 30, 1983. Together with their individual work, Joseph often throws Continued ONLY – Pacifica

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News & Retrospect

large functional forms for Christine to decorate with underglaze pencil drawings and brushed underglazes over white slip.

The Gallery as Studio

"Convergent Territories" at the Walter Phillips Gallery of the Banff Centre School of Fine Arts (Alberta, Canada), was meant to provide an opportunity for Tony Hepburn (Alfred, New York), Jun Kaneko (Cranbrook, Michigan) and Fave Munroe (Banff) to experiment and work for three weeks in an open-ended, fully supportive, gallery environment. At the same time, it was meant to question the viability of converting the gallery from a formal showroom to an informal workspace-a situation in which the words "experiment" and "exhibition" become synonymous and interchangeable. Considering these intentions, it is not surprising that the outcome of Convergent Territories rested not so much with the work that was made, as with the actions of the artists and the reactions of the visiting public.

The first significant action occurred even before the lines demarcating the three workspaces had been laid. Tony, who occupied the middle space, located the exact center of the gallery and used a suspended plumb bob to define a starting point for the first sculpture

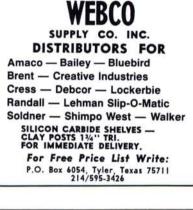


Tony Hepburn building sculpture in the gallery

he made. Measurements taken from the studio environment itself are often the starting point for work Tony executes, and in part his objects are the articulation of specific locations that interest him.

Jun observed Tony's activity and decided to respond to it in the first work he made. Jun was interested in altering the way people typically enter the gallery and he wanted to control their access. To accomplish this, he created a barrier across the gallery's entrance by constructing a pool of water with a wooden ramp providing the only entry. Instead of constructing the pool at right angles to the gallery walls, Jun skewed the rectangle so that it was aligned to Tony's plumb bobthe center of access (the bridge) was precisely aligned to the center of the gallery. People had to enter the gallery by this bridge: in a specific direction, for a specific distance, at a specific ascending height, before descending three steps into the gallery, toward Tony's vertical sculpture acting like a beacon for











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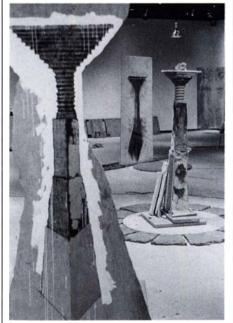
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Duralite, Inc. 9 School Street, Riverton, Ct. 06065 203-379-3113 Quality resistance elements since 1946 everything else in the gallery. This first act of collaboration, however subtle it was, began to break down the idea of individual workspaces or territories functioning independently.

By contrast, Faye Munroe chose to respond deliberately to her workspace. She laid torn pieces of tracing paper over the intersection of the plywood sheets in her floor, then used a graphite stick to trace the staples and joints of each intersection. She then painted a red line across each drawing, overlapping the line onto the plywood floor. When the drawings were removed, red marks remained on the floor to identify the location of each drawing. The drawings were then tacked from one corner onto the walls in her space. In effect, she put the floor on the wall.

Like Tony and Jun, Faye used aspects of her workspace as a raw material in her first work to become quickly familiar with this new studio environment. Unlike the others, her first work was not interactive, but decidedly territorial.

Having achieved some sense of the spaces they were to work in, each artist moved on to more personal projects. However, the directions and tensions implied by their first actions persisted. It was clear that Tony intended to work aggressively, challenging the notion of territorial limits. He asserted this interest by producing a number of two-sided works, which he positioned in free space pre-

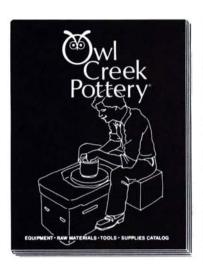


Tony's xuork challenged territorial limits

cisely on the boundaries between his "studio" and the other two. Jun and Faye were continually confronted with the presence of Tony's work, which intruded into their space visually and physically because anyone who wanted to look at Tony's drawings and sculpture had to stand in their studios. Clearly Tony was suggesting that a collaboration among all three artists be considered.

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After completing his pool installation, Jun worked on a series of brightly colored paintings and small sculptures. This was primar-



Jun Kaneko -working on painting series

ily in response to the outside mountain en vironment, and elements of rock and clay matter such as weight, stratification and geo-



Raw clay painted with purple acrylic, and drawings

logical energies became elements within his drawings and sculpture. In many ways, Jun was least affected by the idea of territory or the idea of the gallery as artist's studio, because this situation was so similar to the way he always works. On the other hand, his openness to spontaneous interaction made it possible for him to respond to Tony's overtures with equal aggressiveness. After working independently for one week, Jun suggested to Tony that they switch studios. Tony agreed. Each artist was free to alter and manipulate the other's existing work, and they did. Each was free to produce new work that responded directly to the other's ideas, and they did this too.

Prior to the exchange, Jun had made a series of small sculptures that were derived from drawings he had made first. Tony decided to work directly from this series, making his own interpretations. Then Tony installed his work side by side with Jun's so that comparisons could be readily made.

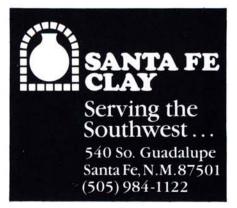
With all this interaction taking place, it seemed impossible for Faye not to become involved, but she did resist. Faye persisted in working with territorial ideas that defined different aspects of her studio, keeping them visually minimal for the most part. By using her studio and the idea of the gallery as artist's studio as her raw materials, and by critically dissecting these elements rather than constructing with them, Faye reinforced the growing polarity between herself and the other



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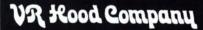


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Literature on request 1420 S. Alamo San Antonio, Texas 78210 (512) 222-1331 two artists. As a final statement of her position, she installed a red snow fence around the entire perimeter of her workspace. If peo-



Faye Munroe in the gallery

pie wanted to enter her studio, they had to climb over the fence.

The dynamics of interacting personalities and motives surely affected the work that was made. It also radically altered the gallery context for art, confusing the audience's expectations by sublimating the work itself to this dominant activity.

Disorientation was a recurring problem for visitors. Two, who had spent several minutes walking about, asked, "When will the installation be finished?" More revealing yet was this question posed by two people, who only stuck their heads in the door: "Is there anything to see?" Clearly these people were accustomed to seeing conventional installations of art. On the other hand, other visitors were able to reorient their expectations immediately. Their reactions were characterized by delight and curiosity. Such visitors tended to come back to the gallery to see the progression of the work and to speak with the artists about what was going on. There is no question, however, that the public's interest, or lack of it, was most often motivated by the actions and processes that were taking place than by the work that was visible.

Jun remarked that this experience was immensely valuable to him because it provided an intense, concentrated period of time to devote to his work. He also said that the idea of the gallery as artist's studio was the curator's problem, not his; and he chose not to concern himself with it at all.

Faye, who actually used the idea as raw material for her work, felt that the gallery could be used successfully as a workspace; but she was equally certain that the gallery can never be a studio, so long as it remains a public environment too. She also felt that, in this exhibition, the artist, gallery and audience were all let off the hook because there seemed to be no responsibility or commitment to the resolution of artwork.

This comment is as important as it is true. In any studio, there is no obligation to make every work of art successful; artists recognize that problems and failures are essential to growth. So if, in this exhibition, the gallery (curator) was not obliged to make a definitive statement about works of art and the audi-



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News & Retrospect

ence was not presented with a display of art objects that had been clearly articulated, it was because the whole point of the experiment was to create a studio context and reveal its processes. Text: Lome Falk.

Robert Sperry

Washington ceramist Robert Sperry presented recent work in a one-man show at Gordon Woodside/John Braseth Galleries in Seattle late last year. Shown were five wall pieces, ranging from 64 to 96 inches across,



64-inch tile mural

three large round plates and 20 square slab plates. A 16-inch-square tile is used in combination to make the large wall pieces, or singly for the slab plates. Slip decoration



Slab plate with crackled slip

is applied with a variety of tools (brooms, rakes, squeegees, brushes) to yield specific results, crackles and blisters during firing.

"My main visual interest is the interaction of energy and material," Bob commented. "The force of a natural process like gravity or the force of a human gesture or even the force of an idea on materials produces a record of the moment of creation." Photos: Johsel Namkung.

Sleppe

In a recent exhibition at the ADG Gallery in Ghent, Belgian ceramist Sleppe concentrated on only one subject: the Symplegades, or mythological moving cliffs that almost killed Jason and the Argonauts on their journey to



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Colchis in quest of the Golden Fleece. When Sleppe shows a porcelain structure with a large wedge driven into it, the implication is



Porcelain sculpture, approximately 12 inches high

brute force. The cliffs can be held apart for a while, but Nature's eternal patience is so overwhelming that no mortal can ever prove equal to it. *Text: F. De Vogelaere*.

Phyllis Baker Hammond

"Excavations," an exhibition of tripartite columns and wall sculpture with classical faces in relief by *Phyllis Baker Hammond*, Briarcliff Manor, New York, was displayed at Pindar Gallery in New York City through



24-inch reduction-fired sculpture

November 28, 1983. Handbuilt from stoneware with emphasis on architectonic values, the forms were fired in reduction for body colors ranging from orange to gray.

Wayne Ngan Receives Award

The \$15,000 Saidye Bronfman Award for Excellence in Canadian Crafts was presented recently to studio potter *Wayne Ngan*, of Hornby Island, British Columbia. (See "Canada's Wayne Ngan in the September 1979 CM.) Nominated by Ceramists Canada, the

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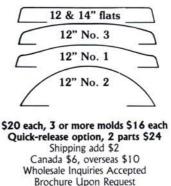
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national ceramists organization, Wayne was selected out of approximately 20 entrants from throughout the country "in acknowledgment of his 25-year career as a potter in raku, stoneware and porcelain," for his "commitment to and achievement in the production of finely wrought objects," and "his contribution to crafts in this country." According



Wavne at work in his studio

to Wayne, "When I look at all the nature around me, it becomes my pottery. It is very pleasing. All things become part of you."

Diane Kruer

Cone 10 oxidation-fired porcelain by Diane Kruer was exhibited recently at the Carnegie Arts Center Northlight Gallery in Covington. Kentucky. The corrugated forms were constructed from "large slabs, 1/16 to 1/4 inch thick, cut to size from paper patterns, then draped over cone-shaped molds made with wooden dowels covered in plastic," Diane explained. "When leather hard, the shape is inverted onto a slab bottom, attached, and the top edge cut and finished. The forms vary through size, the placement and sequencing of dowels, and treatment of the rim."

Oxidation Copper Red Glaze I (Cone 10)

Colemanite	3.0%
Talc	5.0
Whiting	20.0
Custer Feldspar	40.0
Edgar Plastic Kaolin	2.0
Flint	<u>30.0</u>
	100.0%
Add: Tin Oxide	1.0%
Copper Carbonate	1.0%
Silicon Carbide	0.5%

Oxidation Copper Red Glaze II (Cone 10)

Borax	4.8%
Whiting	5.7
Zinc Oxide	0.4
Buckingham Feldspar	13.1
Frit 3134 (Ferro)	1.4
Frit 3191 (Ferro)	22.3
Kona F-4 Feldspar	
Edgar Plastic Kaolin	5.0
Flint	<u>31.7</u>
	100.0%
Add: Tin Oxide	2.3%
Copper Carbonate	0.3%
Red Iron Oxide	0.7%
Silicon Carbide	0.8%

These glazes work best when mixed fresh. After reaching temperature the kiln is turned to a medium setting for 1/2 hour, then to low for 2 hours to smooth out the bubbling sometimes caused by silicon carbide.

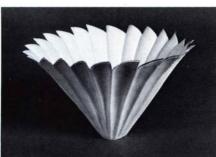
Bentonite.....

1.0%

Currently an artist-in-residence at Seven Hills Schools in Cincinnati, Diane resides in Fort Thomas, Kentucky. Photo: Barry Anderson.

Jim Danisch

> Large earthenware jars and bottles manipulated when damp and textured with glazes, and porcelain bowls with heavy slips and incised images (such as "Crow Lady," 12 inches in diameter) by Ojai, California,



12-inch handbuilt porcelain "Snaggletooth"

Gold luster was applied to the lip of this celadon-glazed, sawtooth-rimmed vessel.

Other works included local reduction copper red glazes. These recipes are fired in oxidation, but are reduced through the chemical action of silicon carbide in the glaze.



Porcelain "Crow Lady" bowl

potter Jim Danisch were featured recently at Elizabeth Fortner Gallery in Santa Barbara. "I shape my large forms by singing into them Please Turn to Page 88



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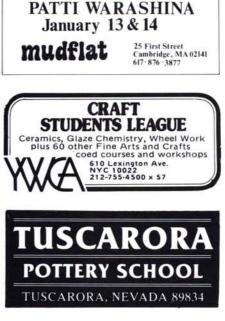
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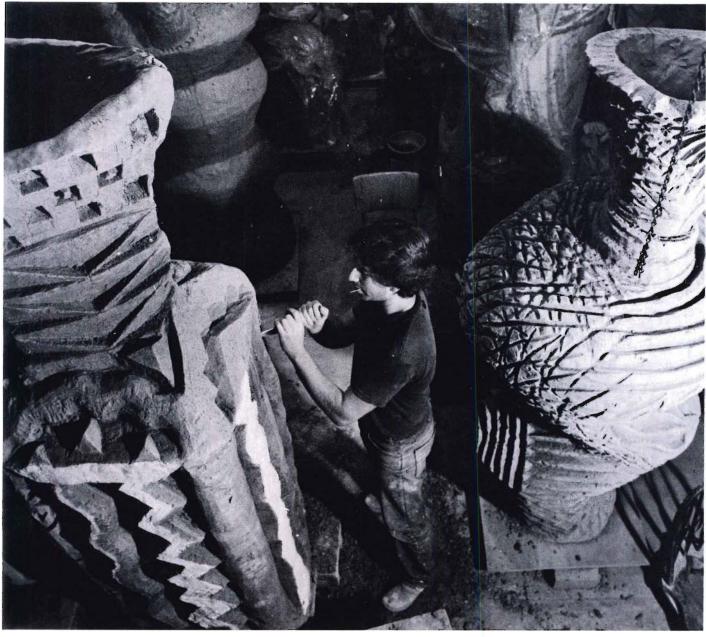
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A M E R I C A N C E R A M I C S



Brash Energy

Arnold Zimmerman builds his massive pots in two long rows in his studio. The pieces are set so close that at times Zimmerman just fits between to carve and mold them. Perhaps that is how he initially sets up the brash energy that carries through to the finished forms.

Our portrait of Arnold Zimmerman reveals a man absorbed by the physical energy of Romanesque architecture, Cubism, and the human figure. Today, such critical insights into ceramic art can only be found in the award-winning quarterly magazine, American Ceramics where each issue brings you interviews, historical articles, incisive commentary on the philosophical and social meanings of art, comprehensive exhibition and book reviews, as well as individual profiles. The twentieth century is witness to an appreciation of ceramic art unlike any other in our history. Now, one of today's most vigorous art forms has its own voice-American Ceramics.

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Technical

A Computer Glaze Calc Program by Tom Kendall

into an empirical or an empirical to batch. The need to keep looking up minerals is eliminated because the program holds the chemical information for 40 of the most common ones. It is also possible to change the memory file by either deleting some minerals in favor of others or by updating the information about any of them. The program can handle a glaze formula with up to 12 ingredients, not counting the colorants, which are not included in the calculation.

When going from empirical to batch the program acts like a work sheet, allowing choices of minerals and giving advice as to the maximum for any particular ingredient. This is how the screen looked after an empirical formula was entered:

KNA $0=0.2/$ LI2 $0=0/$	EMPIRICAL TO BATCH AL203=0.3 /
PB 0 =0 / CA 0 =0.3/ MG 0 =0.3/	SI 02=1.48/
BA 0 =0.2/ ZN 0 =0 / B2 03=0 /	AL:SI = 1:4.93
OK?	

Continued



on the creative instincts of artists. The use of high technology seems to be an affront to direct involvement with the materials of our craft. But I have found a way to utilize a computer for glaze calculation which involves developing an idea and then working out the surfaces to go along with that idea. While doing tests, new ideas can spring from the results so that it is a never-ending process of search and discovery.

To SOME the computer symbolizes an attack

The empirical formula is a very direct and precise way of calculating glazes; through this method I can get the results I am looking for, but it requires lots of mathematical steps. This is where the computer comes in. I thought it would be the perfect tool if it were inexpensive and there was an easy-to-use program available to do all the calculations. Having no experience with computers, I decided to get the least expensive one I could find to see if I could really use it in my studio the Timex/Sinclair 1000 (see "Potters and Computers" in the December 1983 CM). It is very small, only about 7 inches square, and there are no moving parts to jam with clay dust; even the membrane-type keyboard is sealed in plastic.

After learning to communicate in BASIC (the computer language explained in the accompanying manual), I developed a glaze program which translates a batch formula

Technical

After adding 0.2 equivalents of nepheline syenite, the screen looked like this:

	EMPIRICAL TO BATC	CH
$(NA \ 0=0.2)/2 \ D=0 \ 0=0 \$	0 AL203=	0.3 / .08
CA = 0.3 / MG = 0.3 / MG = 0.3 / MG = 0.2 / CA = 0.2	0.3 (.48/).55
32 03=0 /	AL:SI	=1:4.93
	92.4)))	
S THIS THE I	AST INGREDIENT?	

The number to the right of the slash in the flux column and below the slash for the alumina and silica is/he difference between what was added and what the original formula called for. After the last ingredient was added, the screen looked like this:

$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	EMF NA 0=0.21/0 12 0=0 /0	PIRICAL TO BATCH AL203=0.3 /
EPH.SY. 39.8 OLOMITE 23.6 ARIUM CRB 17 ENN.BALL 10.9	$\begin{array}{cccc} B & 0 & = 0 & /0 \\ A & 0 & = 0.3 & /0 \\ IG & 0 & = 0.3 & /0 \end{array}$	SI 02=1.45/
OLOMITE 23.6 ARIUM CRB 17 ENN.BALL 10.9	2 03=0 /0	AL:SI=1:4.87
	OLOMITE 23.6 ARIUM CRB 17 ENN.BALL 10.9	

There is a slight difference now in the original formula which was caused by the KNaO brought in with the Tennessee ball clay. Whenever more of a mineral than was called for is added, the program readjusts the original formula to conform to the increased amounts.

When changing a batch recipe to an empirical formula, it is a simple matter of entering the minerals and their batch weights. The screen will display the empirical formula in unity and the batch in percentage in the same format as before.

At each step along the way there are opportunities to correct information; so if an error is made, it is not necessary to start all over.

Some people have expressed the fear that computers would take away a certain freedom of choice by using predetermined combinations of ingredients. With this program the artist still designs the glazes; the computer simply does all the math.

The author Tom Kendall maintains a studio in Plainwell, Michigan, and teaches ceramics at the Kalamazoo Institute of Arts.

Entering the Program					
The program must be entered <i>exactly</i> as shown in order to operate properly. But, there					
are a few exceptions or items that need clar- ification: Put 18 spaces between the quota- tion marks on line 13; 6 spaces after the ques-					
tion mark and before the end quotation mark					
on line 508; 10 spaces between quotes on line					
515; allow 4 spaces between quotes on lines					
1703, 1708, 1812 and 1817; 28 spaces after					
the question mark and before the end quo-					
tation mark on line 2003; 4 spaces between					
quotes on lines 2302,2305 and 2307; 13 spaces between quotes on line 2401; and 5 spaces					
between quotes on line 2401, and 5 spaces between quotes on line 2508.					
1 REM "GLAZES"					
2 FAST					
3 DIM A(440) 4 DIM A\$(40.10)					
5 DIM C(10) 6 DIM B\$(10.5)					
7 DIM DS(12.10)					
8 DIM E(12) 9 DIM D(10) 10 LET J=0					
11 FT = 0					
12 DIM G(12)					
14 DIM B(10)					
20 LET $A(1) = 015$ 21 LET $A(2) = 1$					
22 LET A(10)=1.05 23 LET A(11)=6.11					
24 LET $A(12) = 413$					
13 LET ES="" 14 DIM B(10) 20 LET A(1)=615 21 LET A(2)=1 22 LET A(10)=1.05 23 LET A(11)=6.11 24 LET A(12)=413 25 LET A(13)=.06 27 LET A(14)=.94 28 LET A(22)=4.37					
28 LET A(21) = 1.06 29 LET A(22) = 4.37					
30 LET A(23)=462 31 LET A(24)=1					
32 LET A(32)=1.11 33 LET A(33)=4.65					
28 LET $A(21) = 1.06$ 29 LET $A(22) = 4.37$ 30 LET $A(23) = 462$ 31 LET $A(24) = 1$ 32 LET $A(32) = 1.11$ 33 LET $A(33) = 4.65$ 34 LET $A(34) = 508$ 35 LET $A(35) = .8$ 36 LET $A(35) = .8$ 37 LET $A(43) = 1.02$ 38 LET $A(44) = 5.6$ 39 LET $A(44) = 5.6$ 39 LET $A(45) = 667$ 40 LET $A(46) = .76$ 41 LET $A(46) = .24$ 42 LET $A(54) = 1.4$					
36 LET A(38) = 2					
37 LET A(43) = 1.02 38 LET A(44) = 5.6					
39 LET A(45)=667 40 LET A(46)=.76					
41 LET A(49) = .24 42 LET A(54) = 1.4					
41 LET A(49) = .24 42 LET A(54) = 1.4 43 LET A(55) = 10 44 LET A(55) = 102 45 LET A(65) = 1 46 LET A(67) = 156 47 LET A(76) = 1 48 LET A(76) = 107					
$\begin{array}{c} 44 \text{ LET } A(56) = 102 \\ 45 \text{ LET } A(65) = 1 \end{array}$					
46 LET A(67)=156 47 LET A(76)=1					
48 LET A(78) = 197 49 LET A(84) = 1					
50 LET A(89) = 103.3 51 LET A(93) = 1					
52 LET A(100)=382					
53 LET A(101)=1 54 LET A(108)=2					
55 LET A(111)=124 56 LET A(119)=1					
57 LET A(122)=412 58 LET A(126)=2					
59 LET A(130)=3					
60 LET A(133)=210 61 LET A(134)=3					
62 LET A(142)=1 63 LET A(144)=184					
64 LET A(148)=1 65 LET A(149)=1					
66 LET A(155)=60					
68 LET A(166) = 775					
69 LET A(169)=3 70 LET A(177)=74					
71 LET A(179)=1 72 LET A(188)=84					
73 LET A(193) = 1 74 LET A(199) = 138					
75 LET A(200) = 1					
77 LET A(219)=1					
79 LET A(221) = 40					
80 LET A(231)=1 81 LET A(232)=106					
82 LET A(233)=1					

83 LET A(243) = 168 84 LET A(244) = 1 85 LET A(254) = 378 86 LET A(259) = 3 87 LET A(264) = 4 88 LET A(265) = 100 89 LET A(269) = 1 89 LET A(269) = 1 90 LET A(276) = 116 91 LET A(280) = 1 92 LET A(286) = 1 93 LET A(287) = 81 94 LET A(294) = 1 95 LET A(294) = 1 96 LET A(299) = .12 97 LET A(307) = 1 98 LET A(308) = 2.8 90 LET A(309) = 266
 35
 LET
 A(294) = 1

 95
 LET
 A(298) = 318

 96
 LET
 A(299) = .12

 97
 LET
 A(307) = 1

 98
 LET
 A(308) = 2.8

 99
 LET
 A(308) = 2.8

 100
 LET
 A(318) = 1

 101
 LET
 A(319) = 2

 102
 LET
 A(329) = 1

 103
 LET
 A(329) = 1

 104
 LET
 A(340) = 1

 105
 LET
 A(340) = 1

 106
 LET
 A(342) = 594

 107
 LET
 A(342) = 594

 108
 LET
 A(342) = .27
 $\begin{array}{c} 106 \quad \text{LET A}(341) = 2 \\ 107 \quad \text{LET A}(342) = 594 \\ 108 \quad \text{LET A}(343) = .27 \\ 109 \quad \text{LET A}(343) = .27 \\ 109 \quad \text{LET A}(346) = .49 \\ 110 \quad \text{LET A}(347) = .41 \\ 111 \quad \text{LET A}(351) = 1 \\ 112 \quad \text{LET A}(352) = .6.23 \\ 113 \quad \text{LET A}(354) = .71 \\ 114 \quad \text{LET A}(354) = .71 \\ 115 \quad \text{LET A}(356) = .24 \\ 115 \quad \text{LET A}(361) = .1 \\ 117 \quad \text{LET A}(362) = .1 \\ 118 \quad \text{LET A}(363) = 3 \\ 119 \quad \text{LET A}(364) = .28 \\ 120 \quad \text{LET A}(366) = .28 \\ 121 \quad \text{LET A}(372) = .48 \\ 122 \quad \text{LET A}(373) = .28 \\ 123 \quad \text{LET A}(373) = .28 \\ \end{array}$ 123 LET A(372) 123 LET A(373) 124 LET A(374) 200 LET A\$(1)= =.28 = 2.64 CUSTER 200 LET A\$(1) = "CUSTER" 201 LET A\$(2) = "SPODUME! 202 LET A\$(3) = "NEPH.SY." 203 LET A\$(4) = "KONA F-4" 204 LET A\$(5) = "CRNISH ST 205 LET A\$(6) = "ALUMINA" 206 LET A\$(7) = "HY.ALUMIN 207 LET A\$(8) = "BARIUM CI 208 LET A\$(9) = "BONE ASH 209 LET A\$(9) = "BONE ASH "SPODUMENE" ="CRNISH STN HY.ALUMINA = "BARIUM CRB = "BONE ASH" 208 LET AS(9)= 209 LET AS(10)= 210 LET AS(11)= 211 LET AS(12)= 213 LET AS(14)= 213 LET AS(14)= 214 LET AS(15)= 215 LET AS(16)= 216 LET AS(16)= 217 LET AS(16)= 218 LET AS(16)= 218 LET AS(16)= 219 LET AS(21)= = "BORAX" = "BORIC ACID" "COLEMANITE" = "CRYOLITE = "DOLOMITE FLINT = "WHITE LEAD" "I ITH CARB MAG.CARB = "PEARL ASH = "PYROPHLIT" LET A\$(21) = LET A\$(22) = LET A\$(23) = = "SIL.CARB." = "SODA ASH" 220 221 222 223 224 225 226 227 228 229 230 231 232 233 381 SODA BICRB LET A\$(24) LET A\$(25) "TALC" "WHITING LET A\$(29) = "WHITING LET A\$(26) = "WOLLAST." LET A\$(27) = "ZINC OX." LET A\$(28) = "TENN. BALL" LET A\$(29) = "E.P.KAOLIN" LET A\$(30) = "CAL KAOLIN" LET A\$(32) = "KAOLINITE" LET A\$(32) = "BENTONITE" LET A\$(32) = "BENTONITE" LET A\$(33) = "3110" LET A\$(34) = "3124" LET A\$(34) LET B\$(1)= "KNA O 382 LET B\$(2) 'LI2 0' 383 384 LET B\$(3) = "PB 0"LET B\$(4) = "CA 0"385 LET B\$(5) = "MG 0 LET B\$(6) = "BA 0" LET B\$(7) = "ZN 0" LET B\$(8) = "B2 03 386 387 388 LET B\$(9) = "AL203" LET B\$(10) = "SI 02" 389 390 391 SLOW 392 PRINT AT 6, 11; "GLAZE CALC", TAB 9; "COPY RIGHT 1983",,,TAB 11; "TOM KENDALL", TAB 9; "OAKLEAF POT-TERY", TAB 8; "10936 3 MILE ROAD", TAB 7; "PLAINWELL MI 40000" MI. 49080 393 PAUSE 300 394 CLS 400 PRINT AT 8, 5; "1)EMPIRICAL TO BATCH", TAB 5; "2)BATCH TOEMPIRICAL" 401 IF INKEYS="" THEN GOTO 401 402 IF INKEYS<>"1" AND INKEYS<>"2" THEN GOTO 401

403 IF INKEY\$="1" THEN GOTO 1000 495 CLS 496 LET A= 497 PRINT TAB 7: "BATCH TO EMPIRICAL",... 498 PRINT AT 21, 0; "MINERAL CODE?" 499 INPUT M 500 IF M <1 OR M>40 THEN GOTO 499 501 IF A\$(M,1)=" " THEN GOTO 503 501 IF A\$(M,1)=" " THEN GUID 503 502 GOT0 507 503 GOSUB 2050 504 GOT0 498 507 PRINT AT A.L: A\$(M) 508 PRINT AT 2.1.0; "BATCH WEIGHT? " 509 LET J=J+1 510 INPUT E(J) 511 PRINT AT A.L+11; E(J) 512 GOSUB 2003 512 GOSUB 2003 513 IF F\$="Y" THEN GOTO 517 514 LET J=J-1 514 LET J=J-1 515 PRINT AT A,L; " " 516 GOTO 498 517 LET A=A+1 518 IF A=9 THEN GOTO 522 519 PAUSE 60 520 GOSUB 2000 521 GOTO 500 The product of the second sec GOSUB 2100 SLOW PAUSE 350 CLS GOSUB 2207 GOSUB 2200 GOSUB 2400 COSUB 2400 616 617 700 701 801 802 804 805 GOSUB 2200 GOSUB 2500 bos GOSUB 2500 805 GOSUB 2500 806 GOTO 1825 1004 LET F = 41005 LET Q = 01006 CLS 1100 GOSUB 2300 1101 PRINT AT 0.7; "EMPIRICAL TO BATCH"... 1200 IF Q = 10 THEN GOTO 1298 1201 PRINT AT 21.6; "EQUIVALENT AMOUNT? 1202 LET Q = Q + 11204 INPUT C(Q) 1205 GOSUB 2300 1206 IF Q < = 8 THEN PRINT AT Q + 1.10; "/" 1208 IF Q > 9 THEN PRINT AT 2.27; "/" 1208 IF Q > 9 THEN PRINT AT 5.27; "/" 1210 PRINT AT 21.0; E\$ 1211 GOTO 1200 1300 GOSUB 2207 1300 GOSUB 2207 1301 GOSUB 2300 1302 GOSUB 2400 1303 FOR Z=1 TO 10 1304 LET B(Z)=C(Z) 1306 NEXT Z 1307 SUGW 1306 NEXT Z 1307 SLOW 1308 GOSUB 2003 1309 IF FS="Y" THEN GOTO 1397 1310 CLS 1311 FOR Z=1 TO 10 1312 LET C(Z)=01313 NEXT Z 1314 GOTO 1000 1315 IF J<12 THEN GOTO 1396 1316 GOSUB 2100 1317 SLOW 1317 SLOW 1318 PAUSE 350 1319 CLS 1320 GOTO 1804 1396 SLOW 1397 PRINT AT 21,0; "MINERAL CODE?" 1398 INPUT M 1398 INPUT M 1399 IF M<1 0R M>40 THEN GOTO 1398 1400 IF A\$(M,1) = " THEN GOTO 1402 1401 GOTO 1404 1402 GOSUB 2050 1403 GOTO 1397 1404 PRINT AT 21,0; E\$ 1405 FAST

1406 LET D=(M-1)*11+1 1407 LET L=D 1408 LET D=D+1 1409 FOR Z=1 TO 10 1409 FOR Z=1 TO 10 1410 LET D(Z)=01411 [F A(D)=0 THEN GOTO 1414 1412 LET D(Z)=INT ((B(Z)/A(D)+.0005)*1000)/10001413 LET H=D(Z)1414 LET D=D+11415 NEXT Z 1416 FOR Z=1 TO 10 1417 IF D(Z) <>0 AND H>=D(Z) THEN GOTO 1420 1418 NEXT Z 1419 GOTO 1424 1419 GOTO 1424 1420 LET H=D(Z) 1421 GOTO 1418 1424 PRINT AT 19.0; H; " IS THE MOST "; A\$(M) 1425 PRINT AT 20.0; "WANT ANOTHER MINERAL?" 1426 SLOW GOSUB 2004 FAST 1427 1428 1430 PRINT AT 20.0; E\$ 1431 IF F\$="N" THEN GOTO 1490 1432 PRINT AT 19.0; E\$ 1433 1499 GOTO 1395 PRINT AT 21,0; "EQUIVALENT AMOUNT?" INPUT X PRINT AT 19.0; E\$ PRINT AT 19.0; X 1500 1501 1502 1503 SLOW 1504 GOSUB 2003 1505 FAST 1506 PRINT AT 19.0; E\$ 1507 PRINT AT 21.0; E\$ 1508 IF F\$="Y" THEN GOTO 1600 1615 GOSUB 2207 1616 FOR Z = 1 TO 10 1617 LET B(Z) = INT ((B(Z)/T + .005)*100)/100 1618 NEXT Z 1709 COSUM 2000 1618 NEXT Z 1700 GOSUB 2300 1702 FOR Z=1 TO 8 1703 PRINT AT Z+1,11; "" 1704 PRINT AT Z+1,11; B(Z) 1704 PRINT AT Z+1,11; B(Z) 1705 NEXT Z 1706 LET I=3 1707 FOR Z=9 TO 10 1708 PRINT AT 1,24; " 1709 PRINT AT 1,24; B(Z) 1710 LET I=6 1711 NEXT Z 1712 LET E(J)=INT ((A(L)*X+.005)*10)/10 1713 LET D\$(J)=A\$(M) 1800 GOSUB 2500 1801 GOSUB 2000 1802 FAST 1819 GOTO 1807 1820 GOSUB 2207 1821 GOSUB 2300 1822 GOSUB 2400 1823 GOSUB 2200 1824 GOSUB 2500 1825 PRINT AT 21,0; "PRESS ENTER TO BEGIN AGAIN" 1826 INPUT F\$ 1830 CLS 1831 RUN 2000 SLOW 2001 PRINT AT 21,0; "LAST INGREDIENT?"

2002 GOTO 2004 2003 PRINT AT 21.0; "0K? " 2004 IF INKEY\$="" THEN GOTO 2004 2005 IF INKEY\$<>"Y" AND INKEY\$<> "N" THEN GOTO 2004 2006 LET F\$=INKEY\$ 2007 PRINT AT 21,0; E\$ 2008 RETURN 2050 PRINT AT 20.0; "THERE IS NO MINERAL", "WITH THAT CODE NUMBER" 2053 PAUSE 240 2054 PRINT AT 20.0; E\$.E\$ 2056 RETURN 2101 PRINT AT 20.0; "NO MORE THAN 12 MINERALS" 2102 RETURN 2200 LET V = J 2201 FAST 2203 FOR Z = 1 TO J 2204 LET G(Z) = E(Z) 2205 NEXT Z 2206 GOTO 2214 2056 RETURN 2203 FOR Z = 1 TO J 2204 LET G(Z) = E(Z) 2205 NEXT Z 2206 GOTO 2214 2207 LET S = 1 2208 FAST 2209 LET W = 10 2210 LET V = 8 2211 FOR Z = 1 TO 10 2212 LET G(Z) = C(Z) 2213 NEXT Z 2214 LET T = 0 2215 FOR Z = 1 TO V 2216 LET T = T + F(GZ) 2217 NEXT Z 2218 IF T = 1 THEN GOTO 2222 2219 FOR Z = 1 TO W 2220 LET G(Z) = G(Z)/T 2221 NEXT Z 2222 IF G(9) < >0 AND G(10) < >0 THEN LET R = INT ((G(10)/G(9) + .005)*100)/100 2223 IF S = 1 THEN GOTO 2228 2224 FOR Z = 1 TO J 2225 LET E(Z) = INT ((G(Z) + .005)*100)/10 2230 NEXT Z 2237 GOTO 2231 2238 FOR Z = 1 TO 10 2230 NEXT Z 2230 NEXT Z 2231 LET S = 0 2330 FAST 2301 FOR Z = 1 TO 8 2302 PRINT AT Z + 1.6; "" 2303 PRINT AT Z + 1.6; "" 2305 PRINT AT Z.23; "" 2304 NEXT 2 2305 PRINT AT 2.23; " " 2306 PRINT AT 2.17; B\$(9); "="; C(9) 2307 PRINT AT 5.23; " " 2308 PRINT AT 5.17; B\$(10); "="; C(10) 2309 RETURN 2309 RETORN 2400 IF C(9)=0 OR C(10)=0 THEN GOTO 2403 2401 PRINT AT 9.20; " " 2402 PRINT AT 9.20; " AL:SI=1:"; R 2403 RETURN 2503 LET S=12 2504 LET H=1 $\begin{array}{c} 2504 \quad \mbox{LET H} = 1 \\ 2505 \quad \mbox{LET P} = 6 \\ 2506 \quad \mbox{LET K} = 0 \\ 2507 \quad \mbox{FOR Z} = H \mbox{TO P} \\ 2508 \quad \mbox{PRINT AT S, K} + 11; " \\ 2509 \quad \mbox{PRINT AT S, K; DS(2); TAB K} + 11; E(Z) \\ 2510 \quad \mbox{LET S} = S + 1 \\ 2511 \quad \mbox{NEXT Z} \\ 2512 \quad \mbox{IF H} = 7 \\ 7 \\ 140 \quad \mbox{HeN GOTO } 2520 \\ 2513 \quad \mbox{IF J} < = 6 \\ 7 \\ 140 \quad \mbox{HeN GOTO } 2520 \\ 2513 \quad \mbox{LET P} = 12 \\ 2516 \quad \mbox{LET P} = 12 \\ 2518 \quad \mbox{GOTO } 2507 \\ \end{array}$ 2518 GOTO 2507 2520 PRINT AT 21,0; E\$ 2521 RETURN 3000 SAVE "GLAZES" 3001 RUN

This program was written in the dialect of BASIC used by the Timex/Sinclair 1000; to adapt it to another computer would require rewriting and reformatting, following that computer's manual instructions on writing program statements.

For an instruction pamphlet and a readyto-run cassette copy of this Glaze Calc program, write: Tom Kendall, 10936 Three Mile Road, Plainwell, Michigan 49080.



Continued from Page 83

on the wheel," Jim says. "When they resonate strongly, there is a corresponding strength in their visual form. Porcelain, in contrast, is a more sensual medium that often has cut 'windows' to emphasize translucency."

Thomas Hoadley

Nerikomi porcelain vessels by *Thomas Hoadley*, Pittsfield, Massachusetts, were featured in a solo exhibition at Venture Gallery in Lathrup Village, Michigan, through Oc-



8-inch bowl, handbuilt from colored porcelain

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2

Big Creek____

Bluebird _____

tober 29, 1983. Patterning is achieved by layering slabs of colored clay to form a block; slices are then taken from the block and pressed into a mold from a thrown pot. The resultant vessel is sanded, bisqued, sanded, high fired and sanded again for smooth, matt interior and exterior surfaces that reveal the coloredclay pattern.



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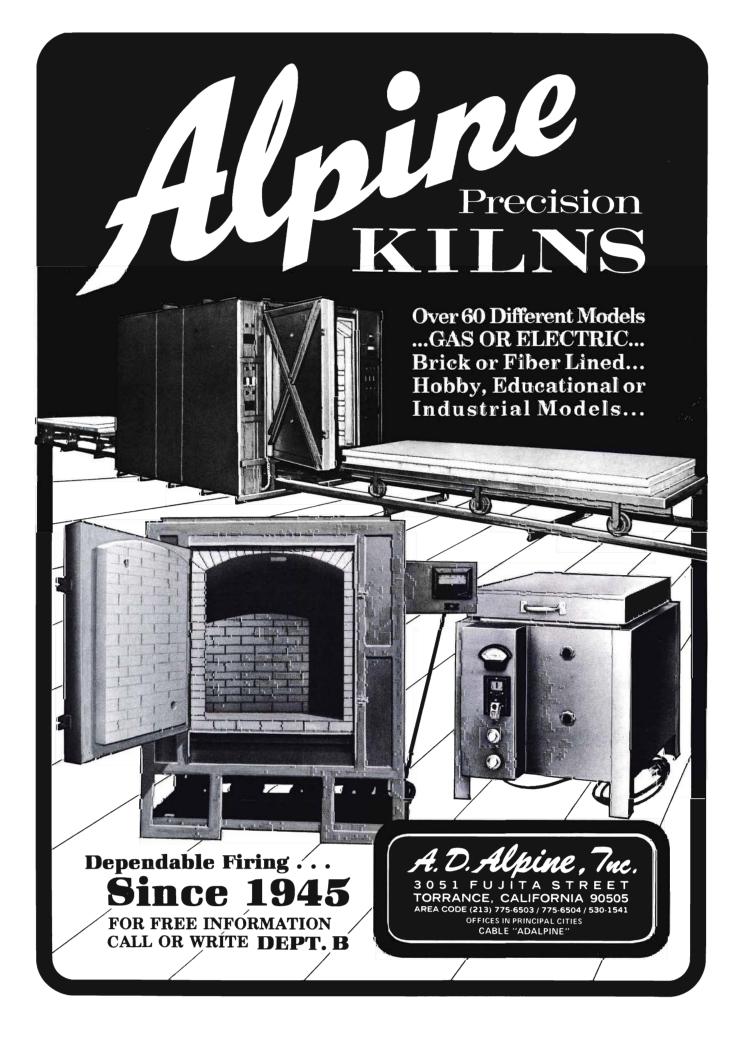
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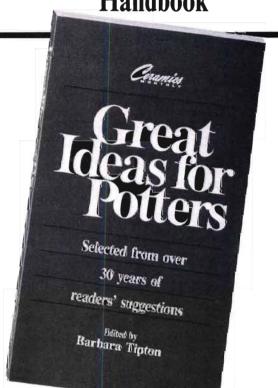
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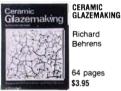


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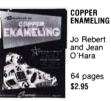
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