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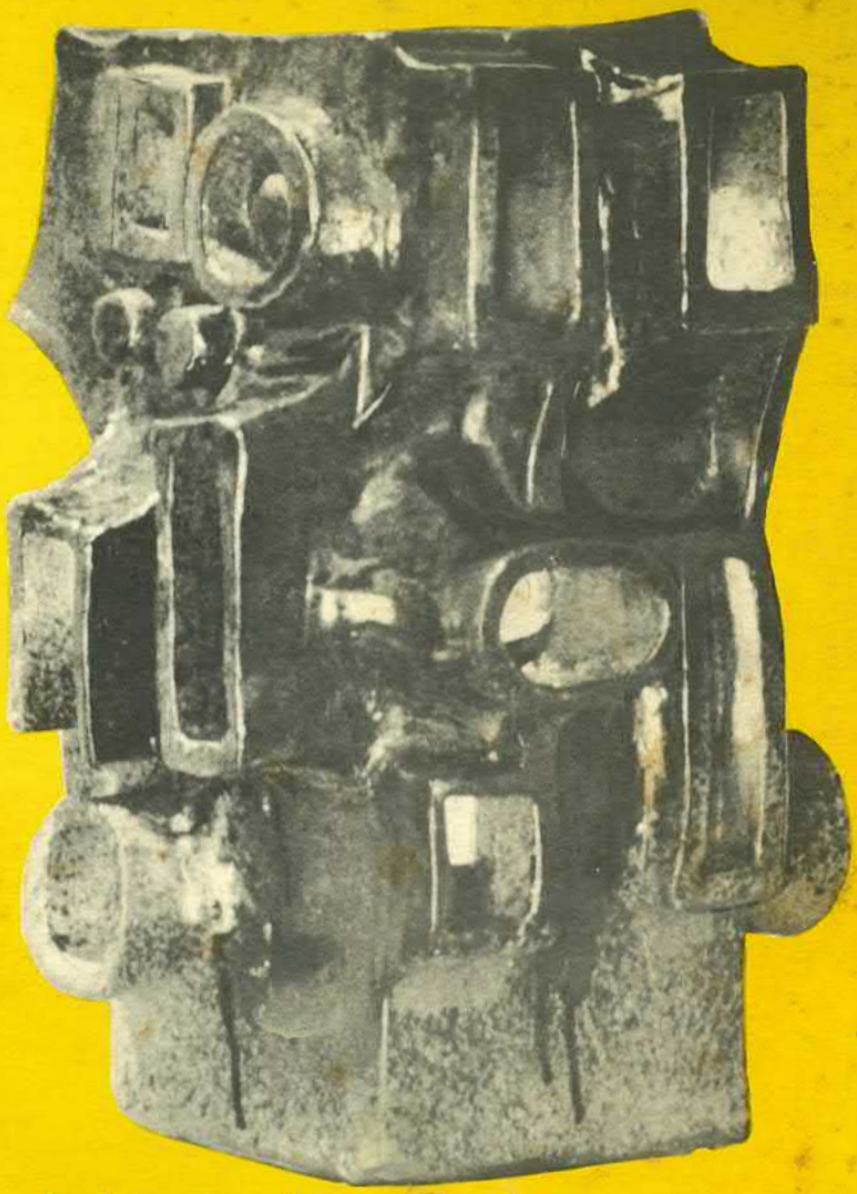
FIVE SHILLINGS



New Zealand POTTER

M. SMÍŠEK
TE HORO

NEW ZEALAND POTTER

VOL. 7 NO. 2

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EXHIBITIONS ISSUE

EDITORIAL

Now that the constitution of the New Zealand Society of Potters is formally passed we have a sound basis of organisation, one which has evolved naturally out of the needs of potters and their local societies. In the process we have all learnt a great deal about the workings of democracy and of politics and should be better citizens as a result.

The Society will ensure that matters of national importance are given a fair hearing, and also provide a measure of protection for those taking the responsibility of administration and for the Selection Committees of future national exhibitions. It should also, at the Annual General Meetings, provide a venue for the discussion of controversial matters and for the airing of criticism. A lively Annual General Meeting denotes a lively Society, and this is what we hope the New Zealand Society of Potters will be. In the endeavour to be fair to all those interested in pottery, however, we hope that the interests of the serious potters will not be overlooked. The viewpoint of the committed potter is different from that of the casual potter and we feel that a distinction must be kept in mind.

This magazine, during most of the seven years of its existence, has acted as a contact point for potters and has been the means of keeping the Annual Exhibition together. At times we have been nearly swamped by the burden of administration, simply because there was no one else to do it. The initiative for forming the Society came from us: it was the logical stage of development to safeguard the common interest. However we have kept our independence because we believe in the flexibility that comes with freedom and the individual effort. It is with great relief that we can now get on with our function of publishing useful information, and observing, recording and commenting on potters and their pots.

Cover Photo:

Lantern by Roy Cowan,

18" high:

photo Brian Moss

PHOTO CREDITS

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EXHIBITIONS

NEW ZEALAND SCULPTURE, POTTERY AND GRAPHIC ART
New Zealand Academy of Fine Arts,
August 22 to September 13, 1964.

New Zealand Academy of Fine Arts Exhibition of New Zealand Sculpture, Pottery and Graphic Art, August 22 to September 13, 1964. This is now established as an annual show well worthy of support by potters. The three media offset each other in a manner much appreciated by the public. In her review of the Arts in Wellington in the November issue of Home and Building, Dr. G.E. Bell says:

The exhibitions of the New Zealand Academy of Fine Arts are a happy hunting ground for the art critic and they could also prove useful to the sociologist. As far as I know not much has been done on these lines but such a study would be well worth-while (beginning with the full dress ceremonial and the presence of V.I.P's on opening night).

These reflections are prompted by the Academy's recent "Exhibition of New Zealand Sculpture, Pottery and Graphic Art", which, generally speaking, reached a higher standard than the usual shows of paintings. The bulk of the 350 exhibits were pottery. There seem to be two reasons why this craft is so fashionable not only with the buying public but also with the producing craftsmen. One is utilitarian: ceramics are "useful" as far as the people at the receiving end are concerned; for the purpose of "applied art" is obvious even to the most obtuse. Secondly, from the artist's point of view, it is a disciplined, strictly regulated craft to which he returns after the flights of fancy and the doodling of abstract art. Pottery is the exact opposite of unplanned "free creation".

If modern painting has dissolved completely the human shape as well as the "real" landscape, so that except for the explanatory but often misleading titles, they are no longer recognisable, in the field of ceramics this disappearance of form is impossible. A coffee pot, a flower vase, a bowl, however imaginatively executed (and in this show not all of them were), will still remain identifiable objects.

CANTERBURY POTTERS' ASSOCIATION
FIRST EXHIBITION

From 15th-25th September the Canterbury Potters' Association held their first Exhibition sponsored by Hays Ltd., Christchurch, and mounted in their Gallery. The work of Canterbury Potters was shown together with that of 17 Guest Exhibitors. Juliet Peter selected the work of the local potters while the guests set their own standard.

The invitation to Guest Potters to contribute was a valuable one. In this case it helped the local showing very considerably but it also presented an opportunity for guests to exhibit "Off Beat" pots without arousing the ire of a selector. Apart from a few isolated examples it was a pity that advantage wasn't taken of this opportunity. Amongst the Guest Potters the exhibition attracted good examples from work by Carl Vendelbosch, Roy Cowan, Juliet Peter, Doreen Blumhardt, Lee Thomson and Peter Stichbury.

The most serious criticism is that stoneware pots were shown and earthenware pots trying as hard as dismally possible to look like stoneware. As a local potter said, "We are earthenware potters with stoneware outlooks!" This really is as damning as it could possibly be. I'd

like to refer all potters back to that excellent article on Earthenware by John Wood in New Zealand Potter Vol.5, No.1, and insist that all potters working in earthenware take Kenneth Clark's "Practical Pottery & Ceramics" as required reading.

Apart from a few quiet pots in earthenware (Judy Hewett and Rachael Rose, who both had some delightful pieces), I ached to see some flamboyant colours and bold decoration.

Paradoxically it was three stoneware pots of Graeme Storm which scored with their incredibly purple glaze. They acted as a grand foil to the more subtle delights of the rest of his pots. I was grateful for the light touch of whimsy in Patricia Perrin's "Jar with Bamboo Spoon" and heart-warming fullness of her "Inflated Grass Vase".

Both of Christchurch's full time potters, Michael Trumic and Warren Tippett, have been dogged by accidents and kiln failures and neither was seen at his best. The work of two other Christchurch potters, Nola Barron and Roie Thorpe, was well worth looking at.

Helen Mason showed a grand collection of "fired clay". Basic shapes, adventuresome glazing and fundamental thoughts about clay in use were boldly evident. It was good to see Mirek Smisek's pots after his year at St. Ives. At first glance the same as before, then the startling realisation that these pots have gained in vitality and seem to express a quality of soul not previously evident.

The offering from Crewenna Pottery was tremendously valuable - an object lesson in control, precision of finish and in some pieces the particular joy of delicacy. Scale in pots is a difficulty with many. Small pots are scaled down from large ones and large ones overscaled from a small idea. The four pots of Jim Palmer's were excellent in that the scale was just right for each of them from the miniature bottle to the textures on the twig jar and the large bottle.

Roger Ewer's fountain, rather shamelessly used as a grand focal point in the Exhibition, was an interesting piece but I personally feel that the remainder of his pots wear their apparent brutality as a cloak to a nature essentially gentle.

The Exhibition was staged using the natural textures of stone paving, dressed pinus boarding, piers of concrete blockwork, timber logs and sea worn stones to contrast with the pots.

In general I'd like to have seen a more adventurous spirit in both earthenware and stoneware. There seems to be no one working in sculpture or large architectural slabs or terracottas. Overall I think that a fair standard of pottery was achieved despite the lack of any major masterworks. It was an interesting show, one which was well patronised and which created a remarkable amount of public interest.

David Brokenshire

Exhibitions

Mirek Smisek, since his return from the Leach Pottery, England, has had several one man shows in different parts of the country and has taught at some weekend schools, thus passing on some of the knowledge gained from his Arts Advisory Council bursary.

Adrian Cotter, Potter and Arnaud Barraud, Painter at the Uptown Gallery, Auckland, December 7 to 24. Of this exhibition B.B. in the "Evening Star" said: "There is nothing insubstantial about Adrian Cotter's pots. These are all rugged in shape and robust in body. Cotter offers little refinement in decoration, depending for his effects on the honest reaction of fired glazes and oxides ....

It would be interesting to see him extend his range and try his hand at three dimensional ceramic sculpture."

AUCKLAND STUDIO POTTERS' FOURTH ANNUAL EXHIBITION

Auckland Museum October 1964

In general, the Auckland potters seemed to have climbed on to a reasonably high, but rather drab, plateau. This particular showing offered no surprises and very little promise. This is, perhaps, not a bad thing, particularly in view of the level of accomplishment; apart from a few lapses in taste and sensibility, nothing was particularly offensive. By the same token, however, it was impossible to feel much joy in the presence of these round brown pots.

A notable exception to the prevailing dreariness was Graeme Storm's purple stoneware bottle and blue-white stoneware bowl, both of which offered some promise of a new direction. The decoration of the bowl was not completely successful, the motif seldom worked as such and tended to distract from the form. These two pots sang out like canaries among a cage full of sparrows, and if Storm can improve the surface qualities of his new glazes, he should produce some exciting results.

The ceramic sculpture in the show was almost a total failure, having neither ceramic nor sculptural virtues. Two bulls in particular looked rather more like Pukekohe potatoes than bulls, and this failure in form was fairly constant.

H.K.

June Black, Centre Gallery November 9 - 20. Paintings and Ceramics. This exhibition did not have the unifying theme as in the past but it contained some very interesting work. Mr.Jocelyn Beere, in opening the show, said: "We are not disappointed, for the long bods are here - they are becoming familiar characters in Wellington. They are becoming richer in colour and more mature in person .... I sat in this room for an hour contemplating them and each is a different character, but I found them very easy to get along with."

Harry and May Davis had a very well received exhibition in the spring at the Rosslyn Gallery, Dunedin. Everything sold on the first day.

Pottery by Martin Beck, Barry Brickell, Doreen Blumhardt, Len Castle, Patricia Perrin and Graeme Storm, together with etchings by Kees Hos, were shown in an exhibition at Aladdin's Gallery, 45A Elizabeth Bay Road, King's Cross, Sydney, and were well received. This Gallery, which is run by New Zealanders, sells our magazine and is providing a link between our two countries.

New Zealand Contemporary Paintings and Ceramics, an exhibition organised by the Queen Elizabeth II Arts Council to tour Japan, Malaysia and India 1964-65: The three potters in this exhibition were Barry Brickell, Len Castle and Helen Mason, each contributing three pots. John Stackhouse saw the show in Tokyo and reported: "Surprisingly enough, my first impression was one of relief .... Since the selection of pictures and pots was predominantly the work of one mind, the show had an unusual clarity .... The best things in the show were the nine pots, for our potters are better than our painters. This with good reason since it is harder to fool yourself when you work with kilns, and wheels and glazes .... They (the Japanese people) liked our pictures, but they loved our pots."

The Exhibition of Australian and New Zealand Pottery organised by the National Gallery of Victoria for circulation in the Australian State Galleries 1963-64 is about to return to New Zealand, and in due course will be distributed to the contributors. Owing to Customs regulations no pots were sold from this exhibition and they must be returned to this country under bond. A few catalogues of the show are still on hand and may be obtained from the Editor for 2/6d post free.

THE SUNG KILNS OF CHUN AND JU IN HONAN

Rewi Alley

In 1963, I had the opportunity of seeing the old T'ang kiln sites in Hopei province. In 1964, during the late spring, I was able to visit two more fascinating kiln sites, those of Chun and Ju, both in Honan.

During the period of Northern Sung when Kaifeng was the capital, both of these sites were in the then Kaifeng prefecture and their products were sometimes called "Kaifeng Fu" wares. Today the old Chun site is in Hsuchang and the Ju in Loyang prefectures respectively. To get to the Chun site at Shen Ho, a hill village in the Sung Shan mountain chain, one now goes by highway to Yu Hsien, once Chun Chou. Then on from there and up a valley, where all around are kilns still working. Most of the output today is household pottery, but there is also a section of the big state kiln there, which does research work on bringing back old Chun glazes to life again.

Chun shards, with their brilliant red and purple flash on a light blue glaze background, have been prized for centuries. Many homes have had such mounted in blackwood frames. Others have had gold or silver backing made for them, being used as hat or dress ornaments. Collectors have been keen to add good pieces of chun to their store, so that prices in the antique shops were high. Many of the old Chun potters went south with the Sung court when the latter retreated south of the Yangtsze, but the Yuan or Mongol period was more successful in reviving the glaze than it was with other Sung wares. So most authentic historical pieces of Chun are of one of those two periods.

The pottery town of Shen Ho has around thirteen thousand people. All have to do with the business of pottery making. Chun ware takes its name from Chun Chou, a name which had to be dropped in the Ming period, as it was part of an Emperor's personal one. It then reverted to Yu Hsien, thus taking the name of the early Emperor, Yu the Great, the engineer king, who is said in popular legend to have received his appointment as Emperor in this place. But as that was somewhere about 2033 B.C., the details are a little uncertain.

To get to the Ju pronounced "Ru" kilns, one goes out from Loyang up the Yin River and then strikes inland into hilly country, until one comes to Lin-Ru city. Then one crosses the Ru river which further down flows not so far away from the Chuin kilns. I was surprised while in Lin Ru city in looking at an exhibition of Ju ware both modern and ancient, to find that green glaze incised body ware was the most common amongst ancient shards. Perhaps most of the fine blue shards have been taken away by collectors through the ages. There is the story that during the Japanese invasion, a Japanese army officer came and took away four big truck loads of shards, using local labour to excavate for him. In the museum, however, there are a few pieces of the fine blue which are excellent. The research workers who work at the modern kiln site have not yet been able to reproduce it, though they have had some fair success with the green glazes.

There are some 200 Ju Sung and Yuan kiln sites around Lin Ru, in twelve areas. Most are along a tributary of the Ju River at Yen Ho Dien, a village we had some trouble getting to on account of the weather and the rise in the Ju River we had to cross. The place is one of great scenic beauty - hill and stream blending perfectly. Many of the ancient Ju kilns were quite small, two or three feet in diameter, being evidently used to produce just a few fine pieces for sale to the official world who could well pay for them. None were as big as the modern kilns used for turning out household pottery. Experimental work on reproducing ancient Ju ware had not been started so long and so was not so highly developed as was the case in Shen Ho, the home of Chun ware. Yen Ho Dien, of course, is much more inaccessible.

CABBAGE AND BEANCURD

Rewi Alley

Kwangtung and lichee trees
beside quiet waters, through
which silvery fish glide,
and all around fields, sun
glinting on the light green
of newly planted rice.

At Shihwan kilns
a shaft of sunlight lights up
the rich colour of the back
of a young potter at his
bench; under his bed
a red box full of clothes,
though with his clean mind,
his urge to work, he wears
as little as he can as
he kneads clay, looking like
a splendid piece of statuary
in action.

Nearby, Liu Ou-seng,
just fourteen, son and
grandson of potters, whose
name means "born of the root
of the lotus", sits on his bench,
boyish face intent on
bringing to gay life
the tiny pottery toy his hands
strongly and yet tenderly
fashion; for him it is not
what is worn that matters
but what is created.

All stop for a midday meal
trooping into the kitchen
where cabbage soup, with
white beancurd is out
along with white rice
in blue patterned bowls
so appetisingly .....

.....it might have been red
tomato, cucumber, fish
or chicken, but today
it was cabbage with
beancurd .....

Chopsticks flashing as
they ate, the two laughed
at each other's quips

just two young potters
down at Shihwan, in
Kwangtung.

Canton
August 1963.

THE GLAZING OF EARTHENWARE

O.C. Stephens

Second Article

The following series of glazes mature at 960°C (Seger cone 07A). They are to be used only on earthenware biscuit that has been fired at least to 1100°C (Seger cone IA) or, preferably, higher. The biscuit should be so hard that it is non-scratchable with a file, should be almost non-porous, and the body must have at least 75% SiO_2. (See first article in Vol.7 No.1.)

With this biscuit it is difficult to put on a coating of glaze of sufficient thickness by pouring or by dipping, as too much of the glaze runs off, unless the glaze suspension is very thick, in which case it takes a little time to learn the twist of the wrist that throws off the excess glaze, and leaves an even coat. If the glaze is very uneven, grubbing, i.e. the glaze receding from patches, or blistering may take place. For the beginner the surest way is to have the pot hot, from a heating cupboard, and to spray the glaze on. For this a good spray booth with an exhaust fan is essential and it is also necessary to wear a good mask. The best type of Spray gun is an 'Aerograph' type M.P.S. with an adjustable nozzle giving a horizontal fan spray, a vertical fan spray, or a cone spray. It is used with a compressor. The best spraying pressure is about 20 lbs. per sq.in. If the pressure is above 25 lbs. the glaze suspension is delivered in too fine a spray, and floats in the air too much, rather than depositing on the biscuit in granular state.

A good base glaze for 960°C (Seger cone 07A) which is viscous enough not to run and also free from blistering and grubbing, is -

White lead	350
Feldspar	50
Whiting	20
Ball Clay	20
Flint	100.

This corresponds to a molecular formula of -

PbO 0.82

K_2O 0.055 Al_2O_3 0.102 SiO_2 1.46

CaO 0.12

The feldspar should be a good quality Potash feldspar, the clay should be a white burning ball clay, to give a good adherence of the glaze when raw on the biscuit, and the flint should be ground to pass a 200's mesh lawn.

Generally it is not wise to use raw lead compounds in glazes because of the danger of lead poisoning. So usually a fritted lead is used in the form of lead mono-silicate, or lead bi-silicate. The above glaze using lead mono-silicate would be -

Lead mono-silicate	383
Feldspar	50
Whiting	20
Ball Clay	20
Flint	20.

The lead mono-silicate may not correspond exactly to the molecular formula $PbO.SiO_2$ and therefore some experimentation and small modifications may be necessary in this glaze. Note that it is no use trying lead bi-silicate, as the higher amount of silica would give immature matt glazes.

To the base glaze can be added various colouring oxides (copper, cobalt, chrome etc.), and also various modifying oxides (zinc oxide, tin oxide, titanium oxide etc.). These modifying oxides affect the texture of the glaze, and also modify and soften the colour. Cobalt oxide alone is a harsh unlovely colour, but when modified with zinc, or tin, or titanium, or with a mixture of two of these, or all three, some very beautiful glazes can be made. When these oxides are added to the base glaze they may harden or soften the glaze and then some modification of the formulae may be

necessary. For instance, a good semi-matt beige glaze is -

White lead	400
Feldspar	50
Whiting	20
Ball Clay	20
Flint	100

with addition of Rutile .. 20.

This, using Lead mono-silicate, is:-

Lead mono-silicate	438
Feldspar	50
Whiting	20
Ball Clay	20
Flint	7
Rutile	20.

The extra lead is necessary as a flux.

A good green turquoise glaze:-

White lead	350
Feldspar	50
Whiting	20
Ball Clay	20
Flint	120
Copper oxide	5
Tin oxide	20
Zinc oxide	25.

The extra flint is necessary to stop bubbling of the glaze and the tin oxide and zinc oxide soften the green colour.

Using lead mono-silicate this would be:-

Lead mono-silicate	383
Feldspar	50
Whiting	20
Ball Clay	20
Flint	40
Copper oxide	5
Tin oxide	20
Zinc oxide	25

NOTE: The zinc oxide, on standing dry, is inclined to granulate and may need grinding, otherwise the larger granules do not dissolve in the glaze and an unpleasant sand-paper effect is obtained. It is better to grind 500 grams of zinc oxide in a ballgrinder with 3000 c.cs of water. Grind for an hour, put it through a 200s lawn and store in a winchester bottle or large glass jar. Put a mark at 3000 c.c. Allow to settle. Siphon off any water above the 3000 c.c. mark. 30 c.c. of this suspension (after a good shaking) gives 5 grams of zinc oxide.

Blisters in the glaze

Where the bubbles which form in the glaze as it matures do not flatten out, they remain as blisters on the surface. This is caused by an incorrect acid/base ratio in the glaze (or too low a firing temperature); that is, the ratio between the basic oxides (K_2O, PbO, CaO, etc.), and the acid oxide SiO_2. Blisters are more likely to occur -

1) where the glaze is matured (heated) too quickly - the time for a glaze firing should be a minimum of 5 hours, and
2) where a very heavy coat of glaze has been applied.

Blistering can be cured -

1) by increasing the acid, i.e. the Silica content of the glaze,
2) by adding zinc oxide,
3) by raising the firing temperature of the glaze.

One or all of these remedies may be necessary and, with some oxides (e.g. Antimony), blistering cannot be stopped except by incorporating the oxide in a frit, and grinding the frit before adding it to the glaze.

For certain effects it is necessary to use glaze frits and glaze stains. These are frits (as mentioned above) in which the colouring oxides have been incorporated in a melted glass and then finely ground, to pass at least a 120s lawn, and better, a 200s.

It is a long and tedious job making these frits, even if a frit kiln and a suitable grinder are available. But they are available from the ceramic supply firms, and I shall be mentioning some of them in succeeding glaze formulae. Recently I have tried to buy Lead mono-silicate in New Zealand without success, and I will have to try to obtain some from overseas, or will have to build a small frit kiln to make some.

A very good Black Glaze, which must not be fired higher than Seger Cone 07A, or it tends to a gun-metal sheen, and may run a little!, is:-

White lead	350
Feldspar	50
Whiting	20
Ball Clay	20
Flint	100
Cobalt oxide	20
Manganese di-oxide	45
Iron oxide	25
Copper oxide	10

Use a medium-heavy coat.

A further note on crazing

The order of the oxides in their effect on the coefficient of expansion of glazes is:-

SiO_2	0.05
ZnO	0.07
Al_2O_3	0.17
MgO	0.45
B_2O_3	0.66
PbO	1.06
CaO	1.63
BaO	1.73
K_2O	3.90
Na_2O	4.32.

So the coefficient of expansion of a high soda potash glass might be 0.1581×10^{-4} while a high Magnesium zinc glass might be 0.0456×10^{-4}. So if a glaze is crazing, change an oxide of a high coefficient of expansion with the molecular equivalent of an oxide with a low coefficient of expansion, e.g. replace CaO with MgO or ZnO, or increase the SiO_2.

The difficulty here is that the fluxing powers of these oxides may not be equal and after the change the glaze may not mature at the original temperature. In that case of course the obvious remedy is to increase the glaze-firing temperature.

A good white semi-matt glaze for Cone 07A is:-

White lead	105
Feldspar	15
Whiting	5
Ball Clay	10
Flint	130
Zinc oxide	60
Tin oxide	15
Glaze frit 321 G.	150

This white glaze, using Lead Bi-silicate would be:-

Lead Bi-silicate	140
Feldspar	15
Whiting	5
Ball Clay	10
Flint	81
Zinc oxide	60
Tin oxide	15
Glaze Frit 321 G	150

Weighing out batches of glaze

I usually weigh in grams because 1 gram = 1% of 100 grams and 500 grams of dry weight of glaze is a convenient quantity for a suspension in a quart bottle.

Lapis Blue Glaze

Lead Mono-silicate	383
Feldspar	50
Whiting	20
Ball Clay	20
Flint	20
Tin oxide	20
Zinc oxide	20
Glaze stain 224GS.	15

A softer Lapis Blue

Lead Bi-silicate	298.4
Feldspar	30
Whiting	20
Ball Clay	20
Flint	46
Zinc Oxide	40

Tin oxide	15
321 G	27
224 GS	8

Pale Grey

Lead Mono-silicate	383
Feldspar	50
Whiting	20
Ball Clay	20
Flint	20
Tin oxide	20
641 GS	6

Dark Jade ... with a soft brown fleck

Lead Mono-silicate	383
Feldspar	50
Whiting	20
Ball Clay	20
Flint	20
235 GS	30

Rich Brown Glaze with a fleck

Lead Mono-Silicate	383
Feldspar	50
Whiting	20
Ball Clay	20
Flint	20
Zinc oxide	50
Titanium oxide	30
Crocus Martis	20
Manganese dioxide	1

Dark Red Glaze

For a good red glaze in an oxidising atmosphere at Cone 07A, it is necessary to use a fritted glaze with a red (chrome-tin) glaze stain.

769 G	340
Lead mono-silicate	55
Feldspar	50
Whiting	10
Ball Clay	20
Flint	8
8 GS	15
758 GS	30
Rutile	3

This amount of Rutile which must be weighed accurately, helps to stop the red colour bleaching when it is fired a little too high.

Precipitating a strong colour oxide, like Cobalt, in a very fine state of suspension

If cobalt oxide is added to a glaze without prolonged grinding, the coarser particles even when passed through 120s lawn, cause a darker blue spot in the glaze. Sometimes a spot like this is very beautiful but where a smooth colour is wanted it is easily gained as follows: Dissolve 20 grams of Cobalt oxide in 100 c.c. concentrated Hydrochloric Acid. Add the acid in two lots, warming gently and stirring to avoid frothing. Then evaporate to semi-dryness to remove excess acid. Now dissolve the Cobalt Chloride you have formed in hot water. There should be no black cobalt oxide showing. Add gradually a solution of 80 grams of washing soda dissolved in hot water. Boil for some minutes. Leave to settle. Decant off the clear water. Repeat this washing and decantation until the decanted water is not alkaline. Dilute to 600 c.c. Then 30 c.c. of this suspension of very finely divided cobalt carbonate represents 1 gram of Cobalt oxide.

Wood ash in Glaze.

Although wood ash has a special value in stoneware glazes from Cone 8 upwards, it does have a real modifying effect in earthenware glazes also, although its fluxing effect is not high. I have tried various ashes: willow, gorse, laurestinus, apricot, mint and escallonia. The softest of these are willow, laurestinus and escallonia. About 10% of wood ash is usually enough. In preparing the wood ash for use in a glaze, put the ash in a bucket, add plenty of water and put through a coarse lawn to remove any unburnt carbon and other coarse particles. Then put through a 120s lawn, and allow the fine ash to settle. Then siphon off the clear water on top. Add more water and stir well. Again allow the ash to settle and siphon off the clear water. Repeat this about 10 times. After the last siphoning off of the water dry the ash, and then store in jars. Remember when using ash in a glaze, the ash is bulky and therefore a heavier coat of glaze is necessary.

A good wood ash Jade glaze is:-

769G	150
White Lead	20
Feldspar	20
Whiting	10
Ball Clay	10
Flint	30
Rutile	2
235 GS	20
(Escallonia) wood ash	20

Then the calculation is as below:-

Basic Form of Glaze Formula -

for 1080°C

0.9 PbO 0.3 Al_2O_3 3.0 SiO_2

0.1 K_2 or Na_2O

Sources	PbO	K_2O	Al_2O_3	SiO_2
Lead bisilicate	0.9			1.8
Feldspar		0.1	0.1	0.6
China Clay			0.2	0.4
Flint (SiO_2)				0.2
	0.9	0.1	0.3	3.0

Lead bisilicate	= 0.9x343	= 306.7	72.0%
Potash Feldspar	= 0.1x556	= 55.6	13.0%
China Clay	= 0.2x258	= 51.6	12.0%
Flint	= 0.2x60	= 12.0	2.8%
		425.9	99.8%

Lead Monosilicate -
PbO SiO_2 Molecular Weight 283

Lead Bi-silicate
PbO 2 SiO_2 Molecular Weight 343

(to be continued)

(Note) The glaze frits and glaze stains mentioned in this article were all obtained from Wengers Ltd., Stoke-on-Trent, England.

PRIMITIVE POTTER'S WHEEL

IN NIGERIA

This photograph shows a moment of history that has been congealed for probably a thousand years. The potter moulded the base of her pot on another old pot. Then she set it in some soft earth in a big calabash tray. She put the tray, which is slightly hollow in the centre, on to a small mould of earth, so it was really a wheel on a soft central bearing. Then she went on making a coiled pot, turning the wheel as she moved round the edge, almost, but not quite, achieving the movement of a slow thrower of clay. Just a little more and she would be using this primitive potter's wheel as a wheel to throw on and not merely as a turntable to make coiling easier. I suppose technique in this village of Badegge has remained at this point for many centuries.

A hundred miles away, at Abuja, Ladi of Kwali has a less advanced technique. She walks around her pot and there is no suggestion of a wheel. At the same place, of course, there are plenty of modern wheels introduced by Michael Cardew. So within a hundred miles you have almost the whole history of pot-making exemplified in daily practice.

Ray Chapman-Taylor

NEW ZEALAND CRAFT CONFERENCE

The second study conference on the place of handcraft in the cultural and commercial life of New Zealand was held at the Department of University Extension, 21 Princes Street, Auckland, from 27-29 August, 1964. It was organised by this Department in association with the New Zealand Crafts Conference Standing Committee: Chairman, Gerald Wakely; Secretary, Jack Laird; Member, Terry Bryant. Several excellent papers were delivered and many interesting discussions took place. At the same time an exhibition of New Zealand Crafts was held. Unfortunately, plans for future study-conferences of this nature had to be abandoned, as the Standing Committee found itself unable to carry on owing to the pressure of other work, and no-one could be found to take over this arduous task. This is a pity, for the idea is an excellent one. Perhaps in a few years' time when crafts other than pottery and weaving have gained in strength and adherents, the whole idea could be revived.

THE WORLD CRAFTS COUNCIL:

ITS FOUNDING AND ORGANISATION

New Zealand was represented at the First World Congress of Craftsmen by Nan Berkeley, delegate, and Mary Hardwick-Smith, observer. Nan Berkeley was appointed as a member of the General Assembly of the World Crafts Council representing New Zealand. In order to establish some form of regional organisation Mrs. Berkeley wishes to contact craftsmen other than potters so that New Zealand may be properly represented at the next meeting of the Council which is planned for Geneva next year. Anyone interested please write to her address: Mrs. Nan Berkeley, 21 McFarlane Street, Wellington, C.4.

June 12, from now on, will be known all over the world as World Craft Day for, by noon on Friday, June 12, 1964, the World Crafts Council organisation was ratified by representatives from 46 countries, a General Assembly had been appointed, a Direction of sixteen chosen and officers elected.

This event culminated three long sessions of planning and discussion held during the first week of the First World Congress of Craftsmen sponsored by the American Craftsmen's Council and held on the campus of Columbia University in New York from June 8 through June 19, 1964. Altogether there were, by the second week, 942 conferees from 47 countries. The greatest number, 692, came from the United States as was natural. 250 came from all over the globe, from Asia, Africa, South and North America, Australia, New Zealand and Europe.

These delegates listened to panels on such topics as "The Relation of the Past to the Demands of the Present"; "Production and Marketing in One World"; "Design for Production"; "Education Through International Communication"; "Our Changing Environment" and "Vistas of the Future". Special techniques, demonstrated in person or in movies and slides, were discussed in carefully arranged symposia. Trips to the World's Fair, a boat ride around Manhattan Island, supper at the Metropolitan Museum of Art, evenings of singing and dancing added a light and cheery note.

Such a Council will have far-reaching consequences for the craftsmen of the world. For the first time there will be an organised means of intercommunication on subjects related to crafts by residents of all countries. Problems of standards, design, production, marketing and pricing can be studied and the findings made known to all. The emphasis throughout the Congress was largely on design and education and the need of art content in the work of craftsmen.

The World Crafts Council aspires to ultimate UNESCO membership and is directed more to the art and cultural aspect of craftsmanship than those organisations which also include many other areas of activity.

The orientation towards the art concept in craftsmanship is a result of the belief that as world technology increases there must be an outlet for the creativity of man through which the continuing culture of a nation may flow whether it be through the efforts of painters, sculptors, craftsmen, writers or musicians. The World Crafts Council is concerned with the craftsmen whose work can bring beauty to buildings and gardens, the interior of homes or the apparel of man. Such has always been the role of the crafts and such it will continue to be even in this age of technology, for the output of the machine will always be influenced by the creative ideas of designer-craftsmen. This fact emphasises the need and role to be played by an international craft organisation.

In stressing the creative possibilities in the crafts, the World Crafts Council will always, however, realise the need

for study of the complexities of production and distribution of the work of craftsmen. Its basic thesis is, however, that underlying all sales is the question of good design on which sales depend.

(Report taken from the first Newsletter of the World Crafts Conference.)

Mary Hardwick-Smith.

In the Rio Grande Valley, New Mexico, I drove with Joe Wertz, an ex-architect who has been potting for a number of years, the sixty miles to Sante Fe, just at the time when the sun was going down. Sounds naive, but this first taste of the magic of the desert really affected me - so vast and wide and dry, with wonderful colouring. Joe has built himself an adobe house with one glass wall looking out on to the swimming pool, yet the whole is cool and dark inside - most effective. The outside is designed just as carefully, with pots as part of the landscape and a large sculptured wall panel on the end wall. Lots of unglazed "holey" lights (holes to let the light through!) arranged in groups. Jeanny, Joe's wife, does weaving - a magnificent rug of hers on the living room floor.

Santa Fe is a so-called "Artists' Mecca" and a tourist place - strong Spanish influence. My first introduction to Indian crafts - pots (the traditional low-fired burnished unglazed decorated earthenware); silver and turquoise jewellery; yucca basketwork; fabulous rugs - usually not large, some with too much analine dye and pattern gone astray; but plenty of really lovely work - unfortunately it is very expensive. Mostly homespun wools (some cotton) and often with twigs attached and bits of grit, not too well-washed if at all. Lovely vegetable dyes in soft yellows and greens and natural black, grey, brown and white wool colours. Patterns vary according to the district and are largely the result of influence by individual traders who worked hard to reinstate the native dyes and taste in design after they had largely disappeared.

They put on an evening for local potters to see my slides of New Zealand pots and also slides taken in England and Geneva. We can feel complimented by the number who turned up.

Went to see a large Indian secondary school run with emphasis on all the arts and crafts. Apparently any Indian can go on a scholarship from anywhere in the country - they seem to be on a very different footing from the negroes. Some Indians are not allowed to do pottery because it is against tribal beliefs, but others were doing quite a variety. It was holiday time so some were working on wages to fulfil orders for the Education Department - mostly sculptural. They have the usual gas kiln. The idea of holiday-paid work seems to be to show the Indians how to combine learning with craft training and also the need to complete jobs once started. Really beautiful fabric printing based on Indian designs was being done for wall panels by a method I hadn't seen before.

Since the Spanish arrival, silver jewellery has become a traditional craft and there is also metal-work and sculpture. They had a fine collection in their gallery, mostly pots. These showed the influence of their tutor-potter, a graduate of Alfred Technical College, N.Y. (where Daniel Rhodes is), but there were some pots which were quite individual. The native traditional pottery fetches what seems to me to be very high prices, e.g. $18 (£6.10.0) for a not very big pot - but Indian pots are much sought after.

In Northern Arizona I stayed at the Museum and Research Centre at Flagstaff with my cousin Diony Sutherland (from Christchurch). I was favoured with a summer hut - one of the several provided for summer research-workers - so was able to unpack and breathe again. Flagstaff is 7000 feet up, clear and comparatively

cool, in fact quite chilly at night even in high summer. It's technically desert, but so colourful, yet wide and open. In sheer size the canyons are hard to believe - Grand Canyon in particular is an incredible place with wonderful colour changes and a whole life and history of its own.

I arrived at Flagstaff in time for the Annual Hopi Indian Pow-Wow and Craft Exhibition, so was able to watch the weaving of rugs and belts (the latter by a man) on simple vertical looms, as well as a potter decorating and firing her pots. She made a fire of sheep dung and a little coal, let it burn to red embers, then put on more sheep dung; a layer of sherds, then stacked two or three pots on the sherds. More sherds over the pots and then she built a beehive "kiln" with more dung, enclosing the whole batch. The dung, by the way, is taken from the floor of the sheep corral so is rather like sods of peat. It burns, but not too fast, and leaves quite a residue which protects the pots while hot. The Museum staff put a pyrometer and thermocouple into this particular firing and it registered a heat of 625°C in 1½ hours. The "kiln" was opened in 3¼ hours at 150°C but this was probably rather early on account of the special audience present. The humidity being on an average 7% to 10%, the pots had been thoroughly dried, and because the potter was thoroughly skilled in mixing her body, in handling clay and in making her pots, she was able to fire to 825°C in such a short time without an explosion.

After being exposed to all these crafts I came home determined to try to make silver jewellery, to build a vertical loom, and in the rest of my time (if any) to continue potting!

EXTRACT FROM A TALK ON CRAFTS IN THE U.S.A. by Mary Hardwick-Smith

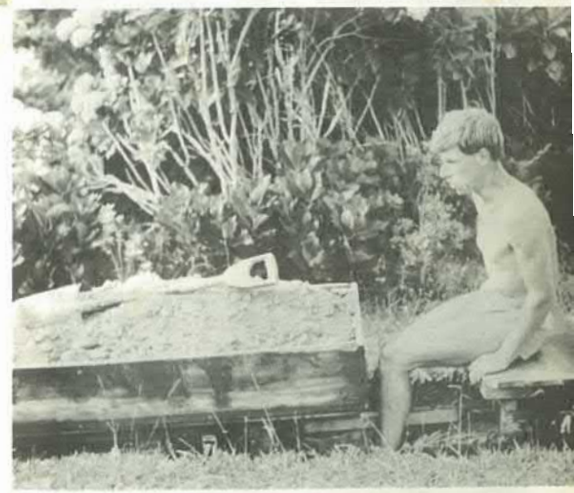
FUNCTION AND FORM — FUTILITY AND FERTILITY

Barry Brickell

The elusiveness of truth constantly amazes me. It lurks behind a barrage of words and is likely to be found supporting a different pillar from the one expected. Even so time alone may prove whether Mr. Truth is really there at all. To take an example, let us look at the worn out old argument of form versus function. Would you ever question the fact that in pottery, function gives rise to form? For example, the form of a jug is decided by its need to contain and pour liquid and be handleable. Is this so? All jugs have to undergo a making process too. Is this also of importance? I suggest that it is, and that upon it hinges the basic motive for this illustrious publication and the craft revival movement, so let us study it in more detail.

With my life in my hands I venture to suggest that the making of a jug is just as important as its usefulness, if not more so. As a further risk I have to add that the sensations of the audience in handling the jug are also of more importance than its usefulness. Without going into lengthy dissertations, I like to make these suggestions with all possible intent for their overlooked truths. Thus I ask, how important is form in pottery really? Does it still arise from function alone?

I would like to diversify our line of thought here, and take one or two other instances of living other than pottery. Let us consider travel, for certain types of travel are one of my weaknesses. Travel is a process which is seldom undergone successfully, especially nowadays with so much speed, comfort and detachment. Increasingly do travellers have to resort to drugs, idle gossip, heavy smoking, newspapers and other forms of escape in order to survive the boredom of the journey. Gradually the



technicians and designers are removing the direct sensations of travelling from us, so as to give greater efficiency speed and safety, it is claimed. If I may be permitted, I would care to give a good illustration of this. The standard older N.Z. Railways passenger carriage had generous lift-up windows and also delightful open verandahs at each end. (Many are now relegated to slow "goods with car attached" trains.) Though speeds were slower, one could really enjoy travelling in them. There was the freedom to enjoy various sensations now impossible in the later type of vehicle which has scarcely-opening windows and closed-in vestibules. Efficiency and safety campaigns are speeding up living, aiming at the future instead of enjoying the present: removing from life those childlike excursions into the world of innocent sensation.

Connected with this train of thought, there is another activity which I cannot let pass without comment. This is the business of money-making, from the human angle. I presume that to make money one has to work. Men are equipped with bone, muscle and nerve which enables them to do this, but they have something else as well. This is the infinite capacity to vary their work and so eliminate boredom and create stimulation. However the price that most men pay to receive their weekly money packet by enduring boredom, is quite remarkable. There is nothing wrong with making money. It is the way in which the money is made that I am considering. The man who is concerned with the intricacies and problems of his work there and then is a much happier character than he who cannot throw his spirit into it. If both men receive the same wages the former man becomes the richer of the two. Why - because he is self-stimulating, thereby exercising and keeping fit his spirit.

Returning to our original train of thought, of what consequence has been the discourse on travel and work for money? I have introduced both to substantiate the idea of working or living for the present. The making, the doing, the action going on at the time; involvement and occupation versus looking to the future. This has an enormous effect on the work of the potter, which we must at last consider. Suppose a potter is turning out work with the idea in mind of sale, exhibition, gift or even strict usage, - beware. His pots are likely to be mere tools - for his own material gain. What then is the alternative? Surely for the potter to be turning out work, yes, but for his own pleasure and interest. Further than that too; for his own stimulation. The potter who extracts the maximum stimulation from travel or work is likely to make much richer pots. I am always on the lookout for the pot which expresses those particular sensations of the potter while making it. I ask to be able to re-live his creative moments. I demand richness - not necessarily of texture, colour, shape (horrible word) or mechanical things - I demand richness of spirit, <u>of</u> the potter, <u>by</u> his pots.

It is all very well for me to demand. Perhaps you yourself, dear reader, have never made pots at all and what's more, don't care to. I am a potter and am versed with the techniques of the game. Some will tell you that my weaknesses on the technical side are abysmal, but do you think that I mind? Somehow I cannot raise the extra energy required to care! Nevertheless the argument now is to prove that you don't need a technical knowledge of pottery making in order to fully appreciate pottery. (Same with painting, sculpture, poetry, etc., otherwise there would be little audience.) Surely as a child you fingered clay, learned about its plasticity. You must have looked at bricks, tiles, pipes and good old bread crocks and made your own discoveries as to what heat can do to clay, and how meltable substances in the heat of the firing can enhance it. You have loved trees, landscapes, water, rocks; felt warmth, cold; sweet, dry; rough, smooth and become ecstatic about simple things. Perhaps you have read Kipling and loved the "Just So" stories. You might even have got excruciating delight from poking your finger through the icing of a very smarmy wedding cake. These and all the other associated ones, naughty and serious, are your qualifications for being able to appreciate, judge, and admire or loathe pottery, just as you discover about human beings. You don't even have to read about it or swot up the facts.

Be sure, however, at what I am getting at. For example, I can be much moved by the playing of a good cellist; but woe betide the ears of any trained musician who has to endure my efforts. He could only enjoy my efforts if he were not trained or unless he was prepared to face with a vengeance, new sensations. Whatever the choice, however, we end up with pots versus pottery, music versus sounds, painting versus picture and poetry versus rhyme and rhythm. Now is my intention clear? I am forever hunting for the spirit behind the work. Technique and success or spirit are not related.

Unlike the amateur potter, the professional is not in a position to make pots just as the mood suits. Whatever the mood the latter has to turn out a certain number of pots per day for his bread and butter. In our day and age he would almost have to be superhuman to maintain production at a high spiritual level as well as technical. A few overfired pieces, twisted beyond a joke, a few underfired, pallid and gutless, remove that smart, hero-like quality that professional potters are supposed to have. Potters, like other humans, are subject to moods; only in their best moods do they make their best pots. In my own experience, the choice of a suitable or compatible environment has a marked effect on the mood and therefore the pots. The sensible potter will therefore choose an environment, or create one, in which he feels most at ease.

Most amateur potters I have known have

to lead a sort of "double" life. There is the tedium, the chores, the social flitting of their "other" life and the chastened harmony of their "pot" life. Whichever is dearest to them is seen in their pots. Pot making and firing, done under stress or urgency due to nearby, disharmonious environmental circumstances, are likely to be somewhat hazardous processes. Nevertheless this can stimulate some very vital and courageous work. On the other hand, our pottery exhibitions are richly endowed with mechanical hand-made pots, banal in spirit, from the amateur section. I am led to believe then, that there is another type of amateur - comfortably off, no worries, no interests, anxious to make their mark in the social world by dabbling in one or in some cases, several of the arts. If only they knew how they expose their vanity when exhibiting! Nevertheless, thanks to modern democracy, the amateur potter is really in the best position of all - to make what he (mostly she, still) likes, when he likes and how he likes.

I would like now to summarise all that has been chewed, masticated, absorbed and rejected, as follows:

1. Form in pottery is not of so much importance; I mean the mechanical aspect.
2. The sensations and experience of the potter during making of the pot are very important.
3 The process of making the pot is of more importance than the idea of the completed article. (Status symbols, tools.)
4. You neither need to be a potter nor do you require a technical knowledge of pottery in order to appreciate it or have feeling for it. Your feelings are final.
5. Environment has some effect on a potter's work.
6. The professional potter must keep his work "alive" while maintaining his level of production.

The amateur potter can work just as the spirit moves him; one expects to see much clay feeling and less technique.

The outcome of all this is that we are creatures of sensation. We can communicate with each other roughly enough with words, but real communication can only take place when sharing things - not being dogmatised to as I am doing now (to you). The sharing of experiences and sensations is a two-way process, thus communication is giving and taking at once. At best, all I can possibly give in writing this article is to provide you with some amusement - for which you have in any case paid. Returning again to pots, all this means that there can be no such thing as the good and bad pot. The "tight" and the "generous" pot are better terms, but possibly "success" and "failure" are more to the point. Success or failure to communicate. This is why the making process is so important; it is the sole occasion for giving.

Finally there must be a word about self - yourself, myself. As Christians we are taught that the other self is to be considered before one's own self. If this were taken too seriously and without a grain of salt, woe betide the whole world of art. How could it exist? As an artist, as a real Christian or a Buddhist or as a plain human being, you put yourself first. Your own storehouse of experience, sensation, knowledge and wisdom (how many of these are the one word?) has to be stocked first - before you can give. I am forever frustrated when having to put on a throwing demonstration in front of a few people - particularly ladies. Many of them are so intent on receiving, with avidity, that they cannot give, and therefore I have to try to give without receiving. I find a little clay flicked about usually starts the game. Even the meekest of Christians have to defend their souls!

In conclusion I do hope the reader has been a little more than amused. Perhaps I might have succeeded in angering some - well this would be good news. I cannot possibly give vent to all that crosses my mind while writing. My real job is making things, - this seems to work much better. Without being pedagogical, dictatorial or trying to mend the world with missionary zeal, the only pleasure I can get from writing is to drop bricks and clangers and listen for the sound effects.

CHANGING CLIMATE

Bruce Mason, in a letter to the Editor of the "Dominion"

Judges should be impartial and so should reporters. But a critic is hired for his opinion, and the best critic is he who feels the strongest and writes the most vigorously. "It is the capacity for making good or bad art a personal matter that makes a man a critic." Thus Bernard Shaw, in a classic definition that cannot be bettered. Mr.L.D. Austin, with whom I almost invariably disagree on critical matters, seems to me a good critic, strongly opinionated, vigorous in style, and scrupulously courteous to opponents.

My two-year term as a dramatic critic for "The Dominion" revealed to me that what many New Zealanders most dislike is opinion itself. "Who do you think you are?" dropped regularly through my letter-box in anonymous and sometimes vicious letters. It is not necessary to agree with Sam Cree (T.V. critic) for him to be doing his job. In any case, I believe he is; long may he.

Owen Jensen, Music Critic in the "Evening Post", hopes, among other things, that in 1965:

"The Queen Elizabeth Arts Council, which has mostly been treading water in its first eight months, might come to life with new ideas, not waiting for the tide to bring along the flotsam and jetsam of requests but getting out into the stream of music to discover which way it flows.

"First of all the Arts Council must, however, get itself that director and secretary it has talked about, before its already inefficient office machine becomes choked with bureaucracy and grinds to a stop. At the moment, one expert but harassed officer of the Department of Internal Affairs and a typist have to handle all the business.

"Incidentally, have you noticed that, in our happy little democracy where everyone is, so they say, equal, there are no women on the Arts Council? One or two might make all the difference to progress in the arts."

Dr. W.B. Sutch in the Victoria University students' paper "Salient", special issue on "The Arts in New Zealand" 5/10/64.

New Zealanders, because of their humanity, are capable of producing great music, great architecture, or the best pottery. When it is fully realised that aesthetics are not on the periphery of life but are the heart of it, then we are laying the foundations for this greatness.

When they are accepted as full contributing members of society, artists can act as pathfinders to industry and can help instill some of the human attributes of their work into other aspects of the nation's economy. New Zealand designers, architects, town planners, artists and craftsmen will then be the new pioneers in New Zealand's drive for quality in all its aspects.

Bruce Mason, interviewed by the "Dominion"

"When your ancestors and mine put all their chattels on to ships and went halfway across the world to transplant the Scottish and British way of life, they took with them not only pots and pans and thousands of years of history, but also a whole system of totem and taboo and a British and Scottish puritan background, which they unleashed on the unsuspecting population, which died off like flowers as a result", he said.

The resurgence of Maori people, the fastest growing race in the world, meant that New Zealanders with British and Scottish ancestry, were slowly turning Polynesian.

"The effect of this is going to be our special contribution to art and theatre in particular", he said.

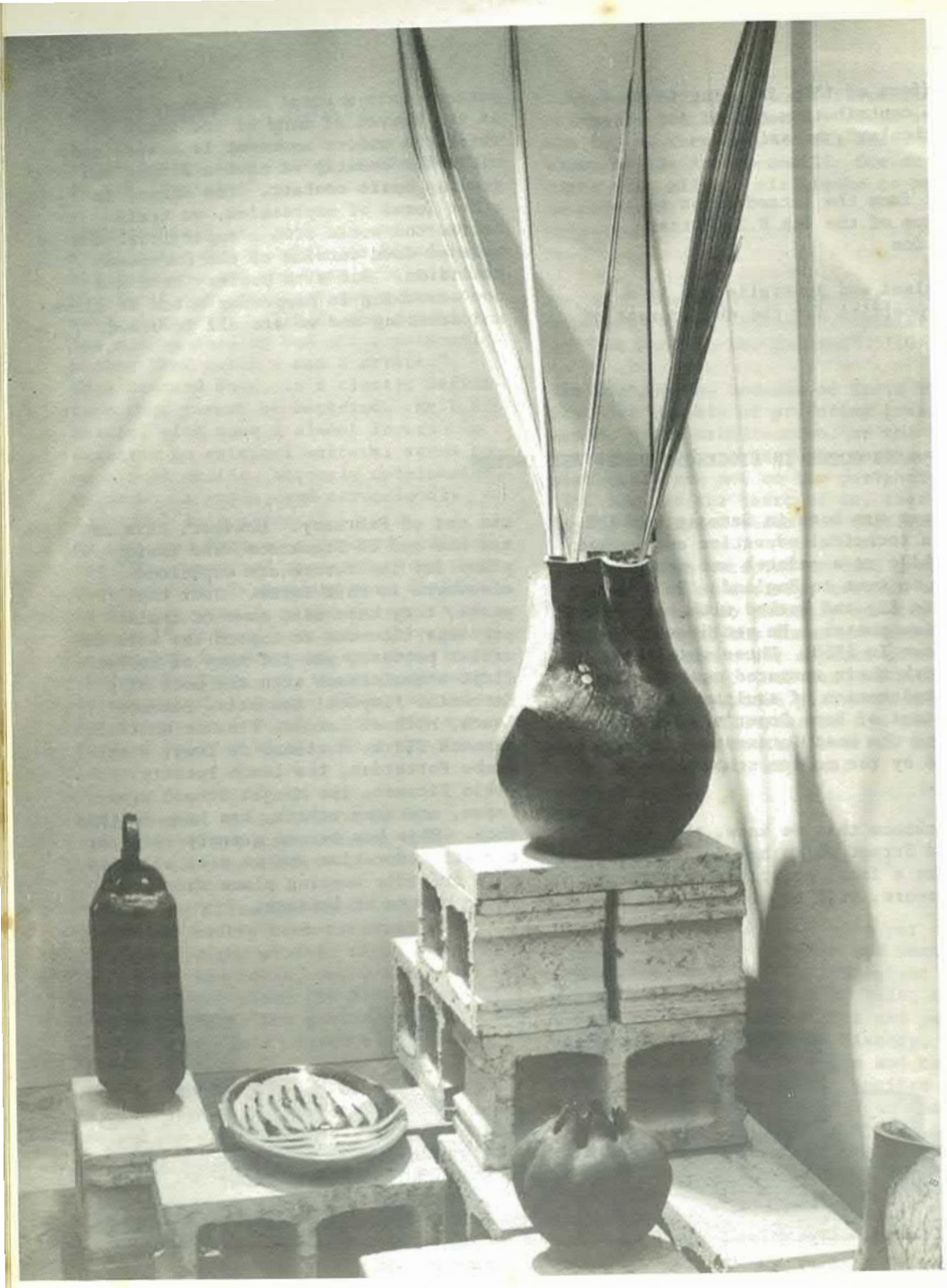
Extract from the introduction to the catalogue of the 8th N.Z. Pottery Exhibition

New Zealand and Australia are in a unique position for the development of pottery into a vital art form. Japan is the source of many of the ideas on which the modern movement is based, and with this country we have a strong and growing basic contact. Too often, in other forms of expression, we trail behind the world with a superficial and watered-down version of the European tradition. But with pottery here and now something is happening which is alive and exciting and we are all involved.

POTS BY HANS COPER IN STOCKTONS SHOP, WELLINGTON

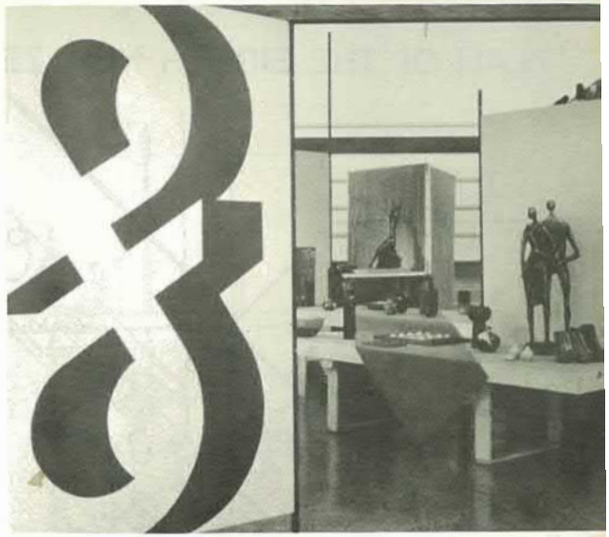
Hans Coper was born in Germany in 1920. He had a technical education and worked for a while as a painter and sculptor. In 1939 he went to England. In 1946 he met Lucie Rie and worked with her as an apprentice potter. He set himself up on his own in 1958. These wheelthrown pots, with their textured surface and their exploration of sculptural form, are typical of Hans Coper's work, and are among the most interesting being produced by the modern school in England.

The Stocktons that we know, the shop in Woodward Street which has for a long time been a focal point for potters and connoisseurs, will be closing down at the end of February. However, this is not the end of Stocktons, and their plans for the future are explained elsewhere in this issue. Over the years, they have used some of their precious licences to import the work of artist potters, and for many of us our first acquaintance with the pots of Katherine Pleydell Bouverie, Bernard Leach, Michael Cardew, Eleanor Whittal, Kenneth Clark, Marianne de Trey, Winchcombe Potteries, the Leach Pottery, Pablo Picasso, the Mingei School from Japan, and many others, has been in this shop. This has helped greatly with our artistic education and we will all miss this friendly meeting place where we could browse at leisure.



NEW ZEALAND ACADEMY
OF FINE ARTS GALLERY

26 NOVEMBER to 6 DECEMBER 1964



NEW ZEALAND SOCIETY OF POTTERS
EIGHTH NEW ZEALAND POTTERS' EXHIBITION 1964

DESIGNING

The Eighth New Zealand Potters' Exhibition was shown in the New Zealand Academy of Fine Arts Gallery, a large, imposing room. To avoid having this vastness swamp the relatively small scale of the pottery, it was important to provide more sympathetic surroundings. This took the form of a screen and beam structure which defined a route, gave a more domestic scale, and provided spaces which encouraged the viewer to linger. Spotlighting brought the duller glazes and the shape of the pottery to life. It was decided not to group the work of each potter together for these reasons:-

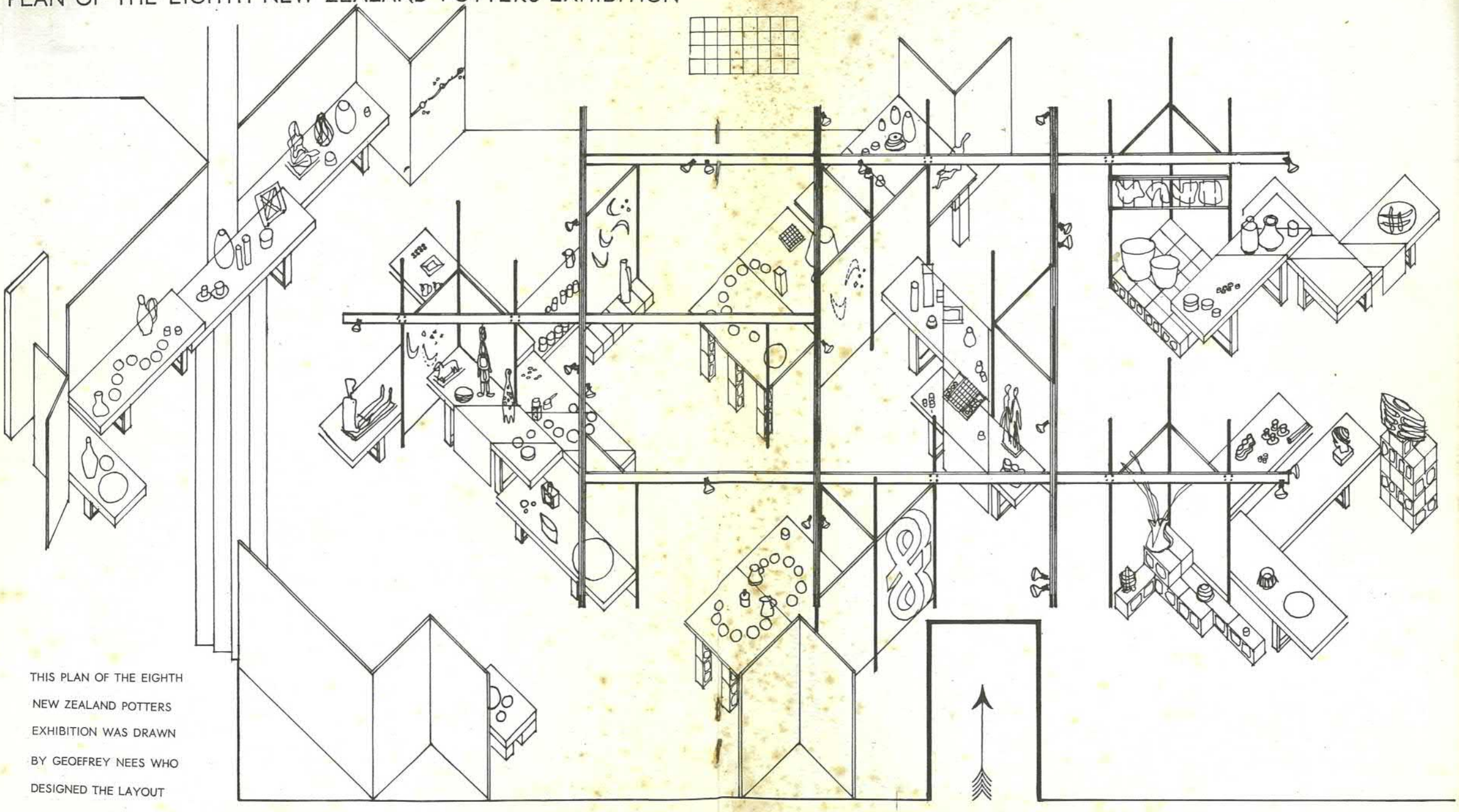
To avoid spottiness and areas of lower interest which are otherwise inevitable.

By grouping the work of different potters together in a complementary way, the buying public would be encouraged to see value in the work of other potters as well as the ones they know.

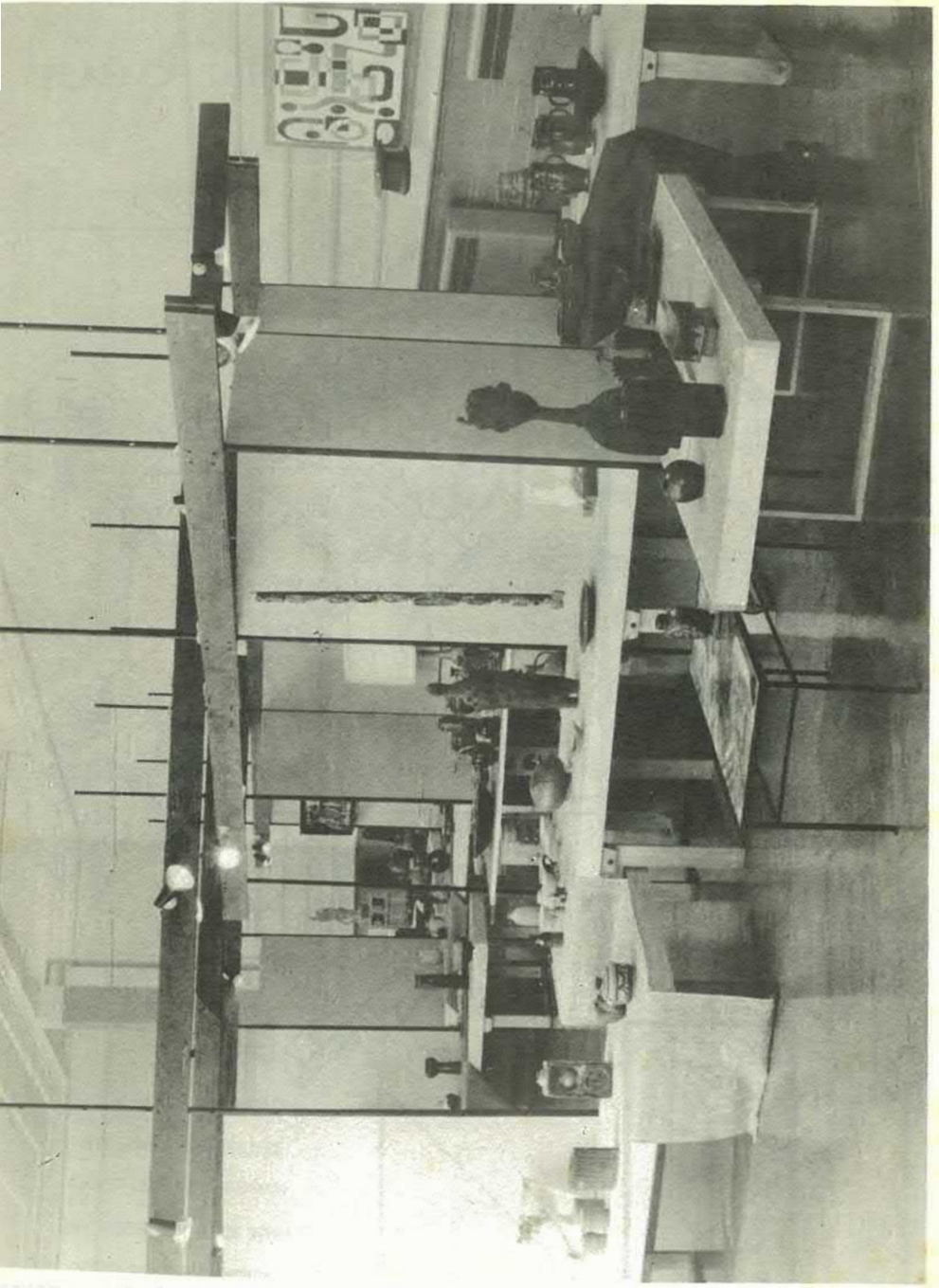
As all exhibitions cannot avoid having both good showing positions and less good ones, it would be unfair for some potters to have their work completely in a less important position. This would disregard the principle that all work which is selected for exhibition, must as a consequence have equal exhibiting value.

Geoffrey Nees, Designer

PLAN OF THE EIGHTH NEW ZEALAND POTTERS EXHIBITION



THIS PLAN OF THE EIGHTH NEW ZEALAND POTTERS EXHIBITION WAS DRAWN BY GEOEFREY NEES WHO DESIGNED THE LAYOUT



EIGHTH NEW ZEALAND
POTTERS EXHIBITION

SELECTING

A recent writer said: "Craftsmen are symbols of honesty, piety, industry and clean living. It is impossible to imagine them oversleeping, blaspheming, kicking a dog, etc., and we all feel - 'if only there were more of them ...'" but after being selectors at the 8th New Zealand Potters' Exhibition, one wonders if this is not so much William Morris fluff ...

After listening to the loud criticism over the selection, we feel it may help those who wish to submit work to the next national exhibition to know something of the attitude of the Executive who appoint the selectors, towards work submitted.

The Annual Exhibitions of the Society are not intended to be jumble sales; they are intended to be a display for public admiration of the best work of our potters produced during the year. In relation to the 8th N.Z. Potters' Exhibition, the selectors were very gratified by the high standard of work produced. It is better than ever before; this is most evident in the stoneware, which makes up the largest part of the show. We were impressed by the high level of technical skill and accomplishment, and by the richness and diversity of expression. In general, simple forms were emphasised, and they succeeded in bringing out the basic quality and character of the material used. This was accompanied by a general restraint and simplicity of design. Some pieces were adventurous and though they showed an active search for new concepts, they were not always good in design. Nevertheless the increased use of experimental form and design is the probable direction we can see developing in New Zealand.

To sum up: potters are now deeply engrossed in the vitally necessary problems of material, form and individual statement in ceramics - though some are still floundering - not a few show an emerging maturity.

It did seem to the selectors, however, that some submissions fell below the standard required; there is no accounting for taste or opinion in art, but if a pot or sculpture falls below a required standard of artistry it should not be included; vice versa, if it meets this requirement but is technically impossible, again it should be rejected. These questions exercised the minds of the selectors greatly, and if the rejected pots are examined carefully by any fair-minded, qualified person, they would be found wanting in some way or other.

The question of appointment of selectors in future received some consideration at the annual meeting. It will be difficult to find a person, whether from New Zealand or outside who has the divine qualities required to meet all needs. In any case he should, like Ned Kelly, appear in public after the selection, only if attired in the kitchen stove. It is always in order to question the result of decisions made, but it is wrong, indeed libellous to question the propriety of the selectors' motives. Comments made by certain persons at the meeting after the Exhibition opened, showed them up in a very poor light indeed. Some speakers seemed to imply that having reached a certain stage of proficiency, real or imaginary, they should not be subjected to the indignity of rejection by selectors. Such a suggestion was emphatically refuted by the meeting.

Many individuals gave selflessly of time and money to make a national undertaking of this kind possible.

Their reward was in the Exhibition and its great success.

JEAN WEIR, MIREK SMISEK, MURIEL MOODY

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3

DIVERSITY AND SIMILARITY. POTS PHOTOGRAPHED IN ISOLATION TO SHOW VARIOUS APPROACHES TO THE MAKING OF A TEAPOT.

Mirek Smisek	1
Doreen Blumhardt	2
Roy Cowan	3
Peter Stichbury	4
Peter Wild	5
Minna Bondy	6
Crewenna	7

EIGHTH NEW ZEALAND POTTERS' EXHIBITION

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OPENING

Extract from the speech of
Her Excellency Lady Fergusson

..... Pottery of all arts is one which is closely geared to the very art of living.

This leads me to another point which has struck me forcibly, especially in the reading I have attempted to do during these last months about the development of pottery in New Zealand. This is the emphasis given to, and the influence of the Japanese school of thought. No one would question the technical proficiency and the meticulous craftsmanship that the Japanese have mastered through centuries of experience. They have evolved a striking style and form which from my limited knowledge of Japan are the natural expression stemming from their way of life. But it isn't our way of life. To take just one example. To display one precious flower or frond, you need a special narrow-necked jar of complementary elegance and beauty - all right for Japan. But what about the glorious masses of strong vigorous flowers, shrubs, ferns and blossom which grow in such rich profusion here - and with which we love to fill our homes, and decorate our churches and halls. Can't we evolve a container to be a glory in itself - and, oh dear, replace the sawn in half rubber tyres which so often do noble duty for lack of anything else?
.....

It is terribly important at this moment in your history to see - as we can see this evening, the very best. To keep a tremendously critical eye open for anything less than the best. Some of us may be uninitiated and need educating - I for one - in appreciation of the art form. There is always a place for learners and people who are trying their skill and enjoying the 'feel', and that is important - at the heart of the matter. I think most people can tell good craftsmanship from bad.

An exhibition is not a flat dead-pan setting out of a collection of people's work. It's an inspiration, a challenge, an education and a delight.

REACTING

Although it can be said truthfully enough that the Eighth Exhibition of New Zealand studio pottery has been the best yet held, and that our pottery has earned a deserved reputation abroad for its high standard of craftsmanship, it should be realised that in design our potters have still a long way to go. By diversifying the influences that other pottery-producing countries have on our pottery, and by digesting those influences, as well as thinking more consciously about design and function in detail, we will be better equipped to begin making pottery that has a chance of becoming uniquely our own. There are faint glimmerings in this exhibition that this is beginning to happen, and that one particularly strong influence is gradually waning. This should result in a more receptive climate for earthenware of good quality, and in freer experimentation in shape, in clays and in colour glazes for both earthenware and stoneware that reflects the natural qualities that New Zealand possesses - qualities that in return could make their influence felt in the work of the potters of other countries.

Dr. W.B. Sutch
Secretary, Dept. of
Industries & Commerce

The increasingly held notion that New Zealanders are a nation of potential hand-craftsmen may only be a myth, but at least it's an active ... a creative myth. We produce good potters, good printers, good weavers, good folksingers, and so on. We are a practical people. Our latent artistic nature lies buried in our fingertips and in our native clays and timbers. It's all very flattering, and it's not hard to equate such an idea with our own views of what constitutes our national character. But

is there any truth in it? Yes. I think so - though not necessarily for the reasons usually given. We have, for example, no peasant tradition ... and it isn't peasants who make these pots. Our New Zealand potters are largely good solid middle class people with plenty of time, leisure, and - by overseas standards - money. A modern oil burning kiln costs a lot of money; there's not much of the peasant/cottager about our social background. You have to be fairly affluent to enjoy salami and stone beer mugs ... let alone beer. Perhaps it's more of a William Morris revolution occurring here over 100 years later than was the case in England. There's enough latent Victorianism in our make-up and public attitudes to sustain such a view. Industrialisation and urbanisation are only now, in New Zealand, reaching something like the stage reached over 100 years ago in the old country.

Far fetched? Perhaps. But no more so than the usual reasons given for our recent return to individual craftsmanship. Pottery is a social activity. It cuts across the boredom and isolation of N.Z. suburban living. It offers - thank goodness - a creative, communal sharing. This is the reason why it's taken such a big hold in N.Z. It's a small scale social revolution that's grown out of a sensible resentment against the human and aesthetic sterility of the quarter acre. It is not, however, a completely satisfactory artistic alternative to the traditional "pottery" schools of Europe and Japan. Not yet, anyway .....

Obviously many of the exhibitors didn't have the consistency of the bigger names - nor probably did they have the technical equipment - but a lot of them hit off good pots. It's no wonder that, even with with limited equipment, our home potters find this an exciting business. We may even - in time - produce a major artist potter - as it is we have a small but important social revolution on our hands plus a growing aesthetic, as well as functional awareness of both food and vessels in a large number of suburban kitchens.

Peter Bland
Poet, Actor and Editor of "Education"

CARPING

Competent people have already assessed the merit of the pottery shown at the Eighth Annual Exhibition of the New Zealand Society of Potters. As a lover of pots and - in a platonic sense - of potters, I enjoyedthe work on view when I could view it under, around, or over the huddled masses allowed into the Academy of Fine Arts Gallery. As an amateur my judgment of the work is of no interest. As a lover of pots and potters I do claim the right to comment on the exhibition qua exhibition.

Anyone who paid the not inconsiderable sum of 10/- for what my ticket described as a 'private view' might well have been extremely annoyed at the appalling conditions. Although I was able to hear Vice-Regal views on the ceramic art and might have partaken of a scrumptious supper, the object of the exercise was to see - even to buy the pottery exhibited. The absurd crush of humanity made this virtually impossible and the misinformation on the ticket compounded the difficulties. When I arrived at the stipulated time of 8 p.m., the gallery was already crammed to its neo-classical gills. I was already aware that whatever my ticket conferred on me it was not the privilege of priority since at least one other buyer had been admitted earlier in the day.

Do I appear to carp? I hope so, because I expressly wish to carp. If the Society of Potters wants to join the Academy of Fine Arts at the bottom of the Gadarene Slope of exhibition snobbery then it must improve its organisation considerably merely to give value for money received.

My dearest wish is that the society should not try. The pottery movement in New Zealand has a compelling virtue of friendly sincerity lacking among other artists who may occasionally be sincere but are rarely friendly. This virtue is difficult enough to maintain in places like the Mausoleum of Buckle Street and withers in the atmosphere of fashionable art openings. It is not that only those who wear sandals and folkweave have the right to look at pots. Nor has it anything to do with prices. By and large our potters are too modest. It is simply that pots should be shown in a way which reflects the spirit in which they are created. Potters are not guardians of some arcane mystery. They are, if I can be forgiven an unintended pun, the earthy attendants of a vigorous lively expanding and creative human activity. For this purpose a barn, if it be convenient, may be - is likely to be - better than the Gallery of the Academy of Fine Arts. A barn might have been big enough to allow a view of the pots. A barn * might have discouraged the professional opening-attenders. A barn would certainly have been the place to communicate that peculiar quality of enthusiastic participation which marks the potter in New Zealand. One of the most endearing things about them is their desire not only to find patrons but to make converts. I doubt that many converts left the National Gallery on 27th November last.

Therefore, invited and certainly unwelcomed may I ring a Tocsin for the pottery movement in New Zealand. Keep it simple, unpretentious, and sincere, and the movement will grow as it has done. Ape the Zombies of the official art world and your real strength - the basic tension that makes the movement alive and dynamic - will lie in shards.

J.L. Roberts
Lecturer in Political Science at Victoria University and Chairman of Focus - T.V. production on the arts.

(* The potters tried their hardest to find a barn - unfortunately the only one available had a plaster finish.
- Ed.)

Muriel Mood

1

2

3

SOUP SERVERS

EIGHTH NEW ZEALAND POTTERS EXHIBITION

4

CASSEROLES

SOUP SERVERS AND CASSEROLES.

Different approaches to the problem of designing food containers.

LEE THOMSON	1
ROY COWAN	2
DOREEN BLUMHARDT	3
MIREK SMISEK	4
ROIE THORPE	5
MARJORIE LEIGHTON	6
MARJORIE LEIGHTON	7

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SUMMING UP

New Zealand studio pottery has come a long way since its early annual exhibitions in 1957 and 1958. The number of potters at work and their output have increased roughly four times. And of more significance is the fact that quality has grown to the point where New Zealand potters now have earned an overseas reputation for producing very good pottery. What was once an almost purely Sunday occupation has now spread into work of integrity produced with a high degree of craftsmanship. This growing professional outlook is partly the result of potters taking study trips abroad, and making pottery full time, of potters from other countries coming to settle in New Zealand and influencing us with their professional standards of workmanship. And the potters may well be responding in a qualitative way to the phenomenal interest the New Zealand public is taking in their work.

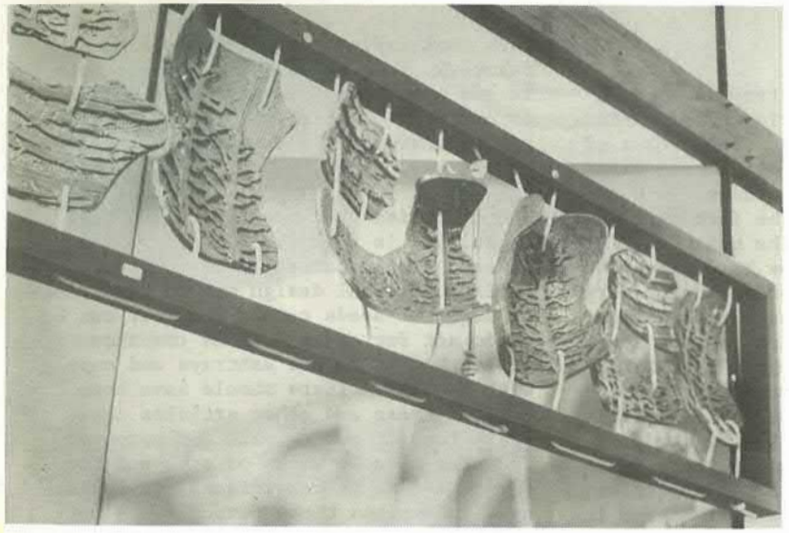
But New Zealand pottery has an enormously long way to go.

Although it can be said that the influence of Japan has been largely responsible for much of the quality our work has, that influence is now becoming a drawback. We must completely assimilate it and grow beyond it into a tradition of our own. It might be to our advantage to assimilate a few other cultures on the way.

One criticism that can be made of this exhibition is that there were too many watered down Japanese or Leach pots, their functional design set to traditional Japanese needs rather than our own - we do not for example drink tea from bowls, but we do use ashtrays and cups with handles. There should have been more of these and other articles carefully thought out to suit our purposes. They can also be works of art, and they don't have to be conventional in appearance to express those purposes. A more adventurous approach would have been welcome.

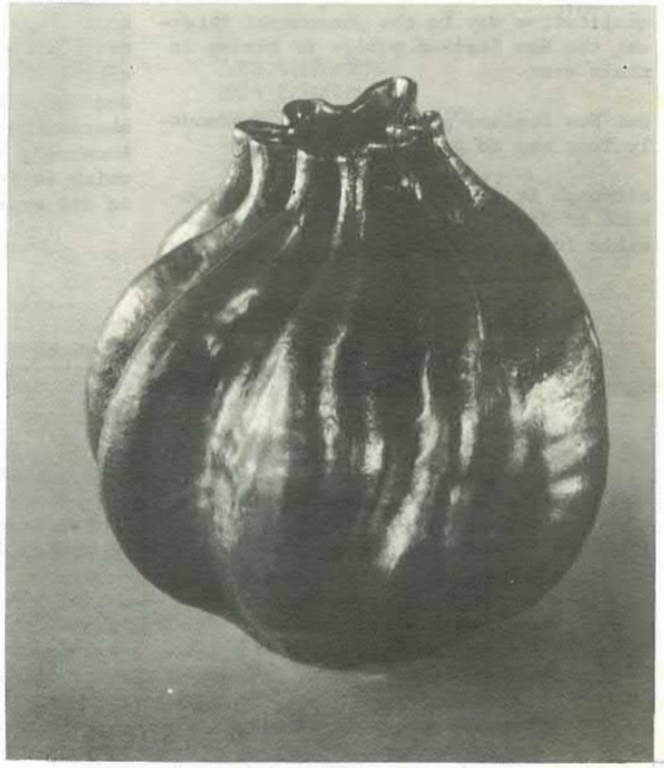
However, by the standards we have so far established, this was probably the best exhibition that has yet been held in New Zealand. It is just that we need to keep sharpening our standards so that we will knowingly arrive at a method of pottery which is indigenous in its purposes and in its expression.

Geoffrey Nees
Exhibitions Officer
Dept. of Industries & Commerce



JIM PALMER
SPACE DIVIDER

THE EIGHTH NEW ZEALAND POTTERS EXHIBITION



DAVID BROKENSHIRE: POT
Reduced iron red glaze Ht. 9"

CHRISTCHURCH PAN PACIFIC ARTS FESTIVAL

22nd February - 6th March, 1965.

VISIT OF SHOJI HAMADA AND HIS SON, ATSUYA

This is an exciting event for pottery lovers in this country and the enterprise shown by the Festival Committee in inviting Mr. Hamada and by the Christchurch potters in seeing the project through and in working out many of the arrangements is highly commendable. Anyone with experience in these matters will know just how much planning committee work goes into making a visit of this kind successful.

The calendar for the demonstrations, seminars and lectures by Mr. Hamada or his son has already been circularised. There have been several minor alterations to this, and the revised version may be obtained from: Mr.S.B. Graham, 141C New Brighton Road, Christchurch 6, or Mrs. E.F. Hill, 7 Bradnor Road, Christchurch 5.

The exhibition of the pots of Shoji Hamada will be showing at the Canterbury Museum for two months and gives a unique opportunity to study the work of this modern master potter.

Showing at the same time, during the Festival period only, will be an exhibition of Decorative Art from Japan, comprising 61 pieces of pottery, 20 pieces of lacquer ware and 17 pieces of metal work. As well, in another exhibition, the work of leading New Zealand potters (their own selection) will be on display.

Other features of the Festival will be: Sir Malcolm Sargent and the Victorian State Symphony Orchestra, NZBC Symphony Orchestra, Southern Hemisphere premier of "Porgy and Bess", the York Cycle of Mystery Plays; Denver University Jazz Band, New Zealand Ballet Trust, and Exhibitions of Australian and New Zealand paintings.

TOUR OF THE NORTH ISLAND

The New Zealand Society of Potters was given a grant of £200 from the Arts Council so that Shoji Hamada might see and be seen by more New Zealanders. A Committee has been set up for this purpose comprising representatives from the New Zealand Society of Potters, the Japan Society and Dr. Terry Barrow, who has recently visited Mr. Hamada in Japan. The tentative programme is for Mr. Hamada and his son to be in Wellington from 7th to 12th March, Napier 13th to 14th March, travelling on to Auckland where they are to depart on 20th March for two weeks in Australia. It is hoped that a public demonstration or lecture may be arranged in these places.

As we hope to give a good coverage to Shoji Hamada in our next issue (Vol.8 No.1 August 1965), we will welcome photographs, comments, reactions from potters and others interested. -Editor.

NOTES ON POTTERY SUPPLIES

Commercial Chemicals Ltd. has been supplying (under its present name and an earlier company name) pottery materials for nearly 15 years. Its Governing Director (by profession head of a management consultancy business), has been deeply involved in pottery since 1939 and was formerly Technical Manager of a big pottery group. Commercial Chemicals Ltd.'s policies are: (a) to provide a reasonable range of supplies despite import licensing problems; (b) to supply colours which can often be used for multiple purposes; (c) to provide clays and glazes which are dependable (within the

limits described in their catalogue); (d) and to help with potters' technical worries or suggest improvisations. All orders are by mail or phone and are sent out - they don't have a shop. Later in 1965 their range of products will widen. They publish a catalogue which contains helpful notes for beginners. Their advertisements in "N.Z. Potter" will, from now on, provide technical information for potters.

With the discovery a few years ago that Silicon Carbide shelves were available from the Nonporite Co.Pty.Ltd., Melbourne, Australia, one of the problems of New Zealand stoneware potters was solved. Indeed, many new kilns have been designed round the 16" x 12" shelf size. The cost of these is approximately £3 each but they are a worthwhile investment. New Zealand Agents for Nonporite are J.H.M. Carpenter Ltd., Auckland. It is necessary for them to make an import licence application for every order and this fact, combined with an approximate three months delivery date from Australia, means that there is a delay of at least four months and often much longer before the shelves arrive. It would simplify this procedure if potters would bulk their orders or else local Associations forward group orders to J.H.M. Carpenter Ltd.

C.G.C. Industries Ltd., Auckland, have a complete range of Seger cones which have just arrived. They also sell nylon mesh for sieves by the yard. Their storerooms are well stocked with oxides and many raw materials for the potter and they welcome sales off the floor from ounce lots upwards. A discount can be arranged on bulk orders. One unusual (for us) oxide of which they hold good stocks is crocus martis, a purple red oxide of iron made by heating ferrous sulphate crystals to dull redness in a current of air. This can be used as an underglaze colour and also in glazes. Oxidised it fires a reddish brown colour. C.G.C. Industries are manufacturing four sizes of electric kilns and prices for these are available on application, as are full catalogues for the other goods.

A letter from Takeichi Kawai to Helen Mason:

Kyoto 8.12.64.

Dear Helen,

Long time has passed since then and now you all enjoy yourselves in beautiful New Zealand. Being away from your country, I always wish that you all have been doing very well.

Meeting with the tragic news of Chappell, I really meant to give up the trip to New Zealand. However, your kind telephone call to me at Garnsey's in Sydney made me move there, leaving all to you.

All the arrangement you made for me was just perfect and left me such wonderful memories of your country and people. As a matter of fact can't know any word to appreciate you for all you did for me.

Long after the trip, I still remember very well all I did and saw in New Zealand. Because of your wonderful arrangement, I could get many good friends in Auckland, Christchurch and Dunedin through pottery making. The potters' gatherings in these places remain so vivid in myself as if they took place yesterday.

I must also thank you very much for that you yourself met me on my arrival at Wellington and extended such a heartfelt welcome to me. Above all, the greatest help of you and the whole city to open my exhibition in your city remains me so strong that I still can't recall it without tears .....

You have such a wonderful country and your people were all so kind to such a stranger as I am. I know all of these good memories were made possible through pots, and I do hope the cultural exchange between us will be further deepened in future. .....

My best wishes to you and all your friends,

Yours sincerely,

T. Kawai.

CORRESPONDENCE

We intend to introduce a Letters to the Editor Column with the next issue. Controversial subjects welcomed. - Editor.

WANTED TO BUY: Second hand POTTER'S WHEEL: May Iremonger, 10 Marlborough Street, Silverstream. Phone: Upper Hutt 4598.

We would like to receive notices of exhibitions and photographs if possible. - Editor.

BOOK REVIEW

THE T'ANG POTTER ..... Mario Prodan

Publishers - Thames and Hudson

Mario Prodan in his book illustrates a full range of Chinese pottery of the T'ang dynasty (A.D.618-906). The rich blossoming of the ceramic art under the impact of Buddhism is shown to be quite spectacular. One can well imagine that the impulsion to self-expression already at work in the creation of domestic vessels was allowed even wider play when man began to reproduce things seen not with the eye but with the imagination.

Many of the examples illustrated in colour are relatively unknown and have been recently discovered. It was during this period that the burying of pottery substitutes for human sacrificial victims to placate the gods, became customary, and it is in the tombs that many of the figurines, horses, camels and court ladies illustrated in Prodan's book were found.

The desire to achieve a satisfying organic form in pottery reached its height during the T'ang dynasty, and ever since the Chinese have looked back and imitated much that was done then.

The photographs in this book are wonderfully reproduced in large format and excellent layout, and come very close to their three-dimensional originals, which consist of earthenware, stoneware and porcelain vessels, and human and animal figures.

This is a fine book to add to a potter's library.

D.B.

A KILN DESIGN

Roy Cowan

The apparatus set out on the following pages can be best described as a little big kiln. It is the smallest example so far set working of a format which lends itself to enlargement, the blower-fired kiln designed to give smokeless firing and suitable for the making of oxydised ware or earthenware to 1150-1200 C. or reduced stoneware or porcelain to a limit of about Cone 12.

The main dimensions are 50 by 80 inches (excluding the chimney block) by about 63 inches high. The kiln is designed round a standard unit of 16 by 12 inch shelves, two to a level, with 3 inches around and between shelves for descending gases and 6 inches on the sides where flames rise, so the glost chamber volume of 20 cubic feet, although seemingly large for a 'small' kiln, actually includes the firemouth and bag wall volumes found in other designs.

The biscuit chamber is of about 15 cubic feet. Although some telescoping of a biscuit pack is possible, especially if it be domestic ware, it is best to make the biscuit chamber of the same capacity as the glost to allow the making of very large pieces or of objects which cannot be piled up.

Quantities

Allowing ten percent over, you will require to build this kiln: 100 side arch Huntly firebricks type HFB S8, or in other words, tapered bricks to form an arch 4½ inches thick and of 2 ft. 3 ins. radius measured to the outside. These bricks will be 2½ inches wide on the inside arch face.

A Kiln Built to this Design

550 Firebricks. The standard Huntly brick (iron speckled) at about £6 per hundred, is quite suitable. There are no local hot spots requiring high grade materials but those who want to can build the kiln in super alumina grade bricks and thus be assured of a mausoleum in perfect condition after a lifetime of firings. Silica refractories recovered from gasworks or foundries should not be used.

800 red bricks, preferably the perforated type. This quantity allows for a chimney of the same height as the kiln only, and for one continuous course under the glost and two under the biscuit. The rest of the volume of the stepped up part under the biscuit may be earth, concrete or blockwork, or if in brick, a quantity additional to the 800.

Allowing 8 ounces per firebrick, 3 cwt. of grogged fireclay, for setting. For the red bricks, the usual mortar may be used, but there are advantages in not having too strong a bond which may cause bricks to break when movement occurs. A suitable blend is one half fireclay and grog; and one half a mix of one of cement to three of sand. If this is used, another 3 cwt. of fireclay.

Two lengths of channel steel 3 by 1½ inches, 55 inches long, or long enough to project 2½ inches on both sides of the kiln width.

Two lengths of 2 by 2 by ¼ inch angle steel about 84 inches long, or long enough to overlap the channels.

Five feet of 1 by ¼ inch flat.

The estimated cost of the materials listed is £80.

Site

As the kiln is low, convenience in working can be secured by terracing a

sloping site. The kiln should be at least three feet from any combustible wall. It can be in a building provided at least three feet all round and four feet above can be obtained, and there must be no combustible material within two feet if the chimney passes through the roof.

The kiln can quite well be in the open if provided with a canopy to prevent entry through the top of prolonged rain.

A neat solution is to attach roofing iron to light angle steel runners set above the kiln. Special hooks are made for attaching the iron. The electrical fan can be installed in a building up to 20 feet away, blowing through 4 inch galvanised downpipe with insignificant pressure loss provided the run is straight.

Noise

The pot burner will operate with a rushing sound for the first three or so hours of firing. Once on to the pressure jets, the kiln is almost silent. High-speed types of fan can be silenced by enclosure indoors and in a cupboard, but care must be taken to allow free circulation of cool air to the motor. A type of low-speed fan can be built which is quiet in operation.

Construction

The plan and elevation are detailed showing actual bricks, the reds being shaded, and the dimensions follow from these.
The kiln may be placed directly on hard well-drained ground, or on concrete as thin as two inches, to level. Any concrete work under the kiln should be split into four panels by a crossing of half inch wood. This system should also be separated from any slab floor by a one inch gap.

In the following notes, the brick course are numbered upward from 1 which is the first course of red bricks on the foundation. Course 1 is laid over the whole area to the step. Course 2 begins the composite structure of fire brick and red brick. For the present no further bricks are laid on the glost chamber floor. Each firebrick grows one-eighth inch longer by 1300 C., so in laying the firebricks, which are done first, allow this gap at each brick. The bricks rest on one eighth of an inch plastic fireclay, not soft enough to squeeze out when the brick is tamped true. All bricks are well damped so that they do not dry the bonding prematurely. Place the reds of course 2 with a gap of about three-eighths to half an inch between reds and fire bricks, inserting a small pad of fireclay behind each firebrick spacing gap to act as a gas seal (see Fig.2). The red bricks will require a thicker mortar to maintain level with the larger fire bricks. Note on the plan and in Fig.4 the openings for burners in course 2, and also that the dividing wall of the two chambers is all firebrick. Continue to course 3.

At courses 4 and 5 the two openings 4½ inches wide by 6 inches deep are left in the dividing wall, and you will be up to the biscuit chamber and chimney base level. Alternative placings of the chimney are shown in the plan. At course 6 the door or wicket openings are left, and at 7 these are bridged with firebricks laid across ('headers').

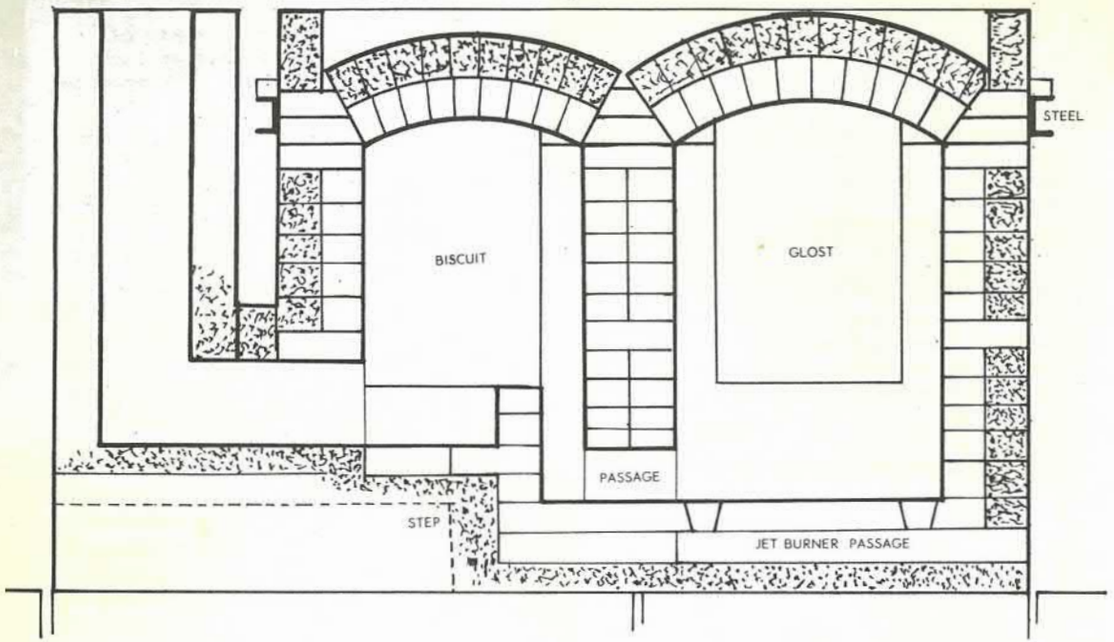
The detailing of subsequent courses is shown in Fig.3. Note that in alternate courses the firebrick lining is turned outwards at the openings. Course 9 is laid in firebrick headers around the glost.

Courses 10 to 14 continue uneventfully, and then the fun begins.

Course 15 is laid in firebrick headers across the transverse walls right from the front (wicket) face, but the rear wall is continued as a composite wall up to course 18.

Arch bricks are taken, and spaced with cardboard strips to simulate the mortar, are set out in arch position on the ground, to a width corresponding to the opening to be bridged. This provides a pattern for an arch centering which can be made from wood and hardboard.

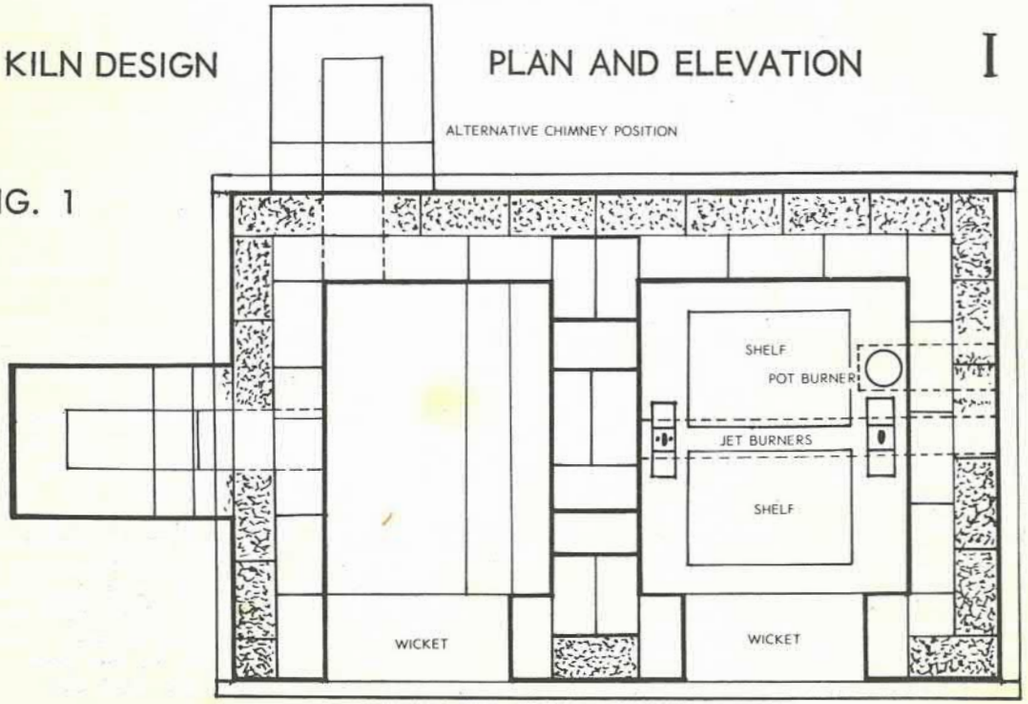
At the same time, a pattern can be taken for the skewbacks, the inclined face bricks which take the thrust of the arches at courses 16 and 17. Armed with this pattern, one may be able to buy suitable bricks, or they may be cut from firebricks. The two rows are laid and



A KILN DESIGN

PLAN AND ELEVATION I

FIG. 1



then the steel bracing is applied by bolting or welding, supported at the correct level by props.

The centerings are now fitted and the arch bricks are placed. Begin from the rear side, butting the bricks against the rear wall, and alternating a whole and a half brick so that joints do not coincide. Adjust the spacing so that the front face over the entries is true. Follow with the outer course of red bricks.

Now continue round the kiln. Courses 18 to 20 are of red brick only, single thickness at the ends, 9 inches at the rear, and shaped over the arches in front so that the top of the kiln is 'tanked'. Fill the tank with pumice or Perlite - if the latter employ a top cover of shards or grog to stop the material floating.

Now lay course 2 inside the kiln leaving the passages for the burners. The bricks are simply placed in the kiln without mortar, and they must be a loose fit. Similarly for course 3, leaving the shaped openings for the flames (Fig. 4). The actual shapes are cut from

FIG. 2 DETAIL OF BRICKWORK

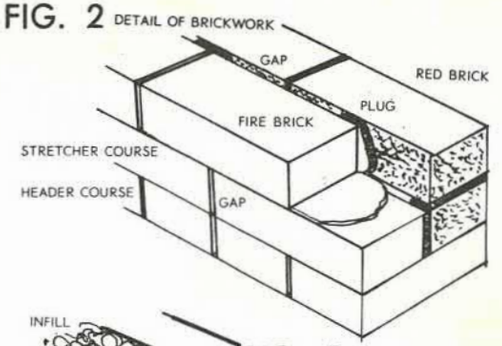


FIG. 3 DETAILS OF CONSTRUCTION

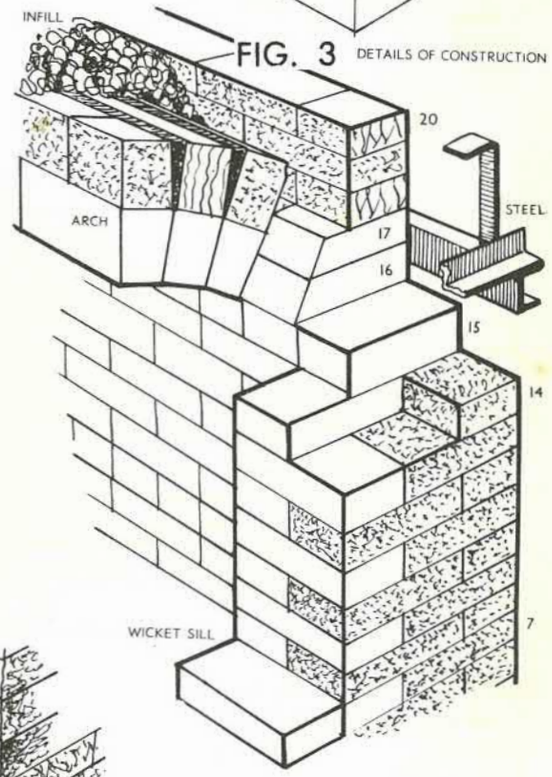
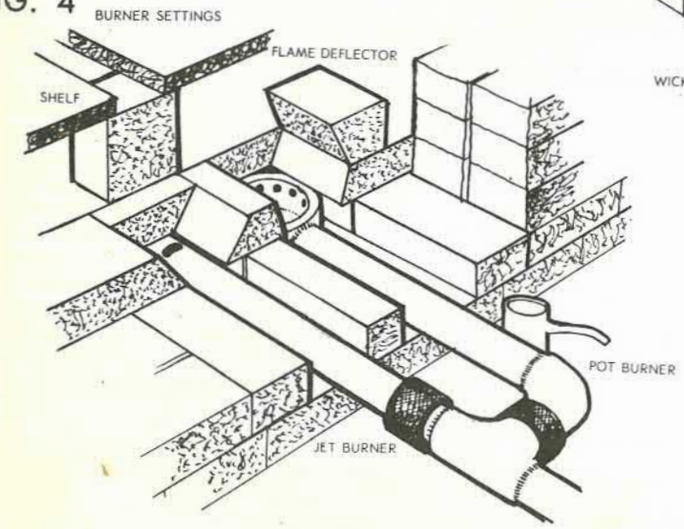


FIG. 4



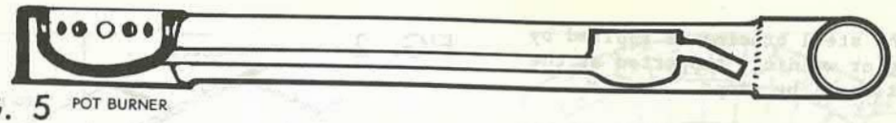


FIG. 5 POT BURNER

brick, or more conveniently, from a refractory insulator such as Morgan's M.I.28 which can be cut with an old hacksaw. The object is to allow the flames of the pot burner or the spray jets to enter without striking the brickwork, but to cover the metalwork below as far as possible. The overhanging shape to the left of the pot burner entry in Fig.4 is a deflector.

Finish the interior of the kiln by brushing off all loose mortar and wash the glost chamber walls with Flint 16 parts, China clay 1 part, thinly applied. This washing is continued during the first few firings.

Firing equipment

The burners are similar to those described in Vol.6 Nos. 1 and 2, with some modifications. The pot burner (Fig.5) is scaled down, the burner cup being a 3" welding type pipe cap with twelve three-eighth holes. A fuel line welded in, and made of three-eighth steam pipe (one eighth bore) provides more lasting oil-tightness than brass fittings. The air enters through a 2" pipe. The outer wall of the burner is a cutting 2½" deep from a 4 inch pipe and the bottom closure is one eighth steel plate. The whole should just slide in through a 3 by 4½ inch aperture.

The jet burner has an additional pair of three-eighth holes drilled near the main outlet on the inner end only, to allow extra air to enter here. In the original description, the fuel tubes were of copper and were clamped, so that they could be adjusted. If the constructor is sure that he can place these jets correctly one eighth bore steam tubing may be welded in place and will be less easily disturbed. The inner fuel line should be placed to avoid exposure to hot radiation from above.

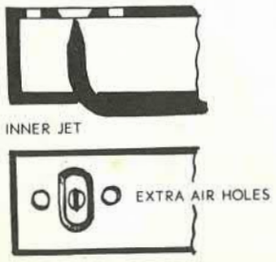


FIG. 6 INNER JET

The fuel tank should be placed at least eight feet above the burners. If less the fuel may not be able to leave the jets under high blower pressure. A simple safety device is shown in Fig.7, a quick action Gate Valve, set to close under the effect of a weight attached to the handle, but held in the open position by a wire connected through two brass tags soldered together to a fixing on the kiln. The tags are placed above the firing point - not too close to the kiln or they may part of their own accord. If fire occurs, the solder melts and the weight closes the valve.

The fuel line from the gate valve divides to two needle valves. From one a line runs to the outer jet and from the other alternative lines to the pot burner and the inner jet, which are changed over at a stage of the firing.

Where high temperature and reduction are intended, the recommended Glost chamber shelf is the Silicon Carbide 16 by 12 by one inch, six being required. Some notes on these costly but very durable shelves will be given in the next issue. 16 by 12 inch Sillimanite of Alumina type shelves may be used in the biscuit or for oxidising firings in the Glost.

Air Supply

This is the main single item of cost. Second hand equipment may be found but

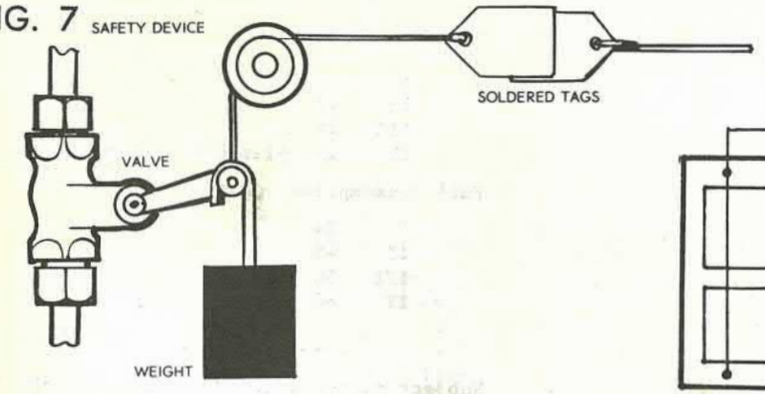


FIG. 7 SAFETY DEVICE

in relation to electric motors there must be certainty that the machine has not been overheated.

The motor should be of one H.P. Although the claimed power demands of small fans delivering the needed air are much less than one H.P., this value should be maintained having regard to absorption of the belt drive and the protracted running at steady load. The motor should be of industrial type with thermal overload cut-out. The pulley and belt system should be duplex. Proprietary fans of suitable type are:

Richardson Multi Fan No.0 for running at about 3600 r.p.m., or 2½ times standard motor speed of 1400 r.p.m.

Blackman type M.P.2 at similar speed.

These will yield 3 to 3½ inches water gauge. Some details of a fan constructed directly on a motor will be published later, together with remarks on the firing of the kiln.

Fig.8 shows extensions of the design, all based on 16 by 12 inch shelf units set at 3" spacing with 6" gases rise. Air pipes are shown by ruled lines, jets dots, pot burners by a disc and outlets to the biscuit chamber by arrows. All these kilns fire at the same rate, and the fuel consumptions given in the table below are for a cycle of 12-13 hours to Cone 10 with one hour's soak.

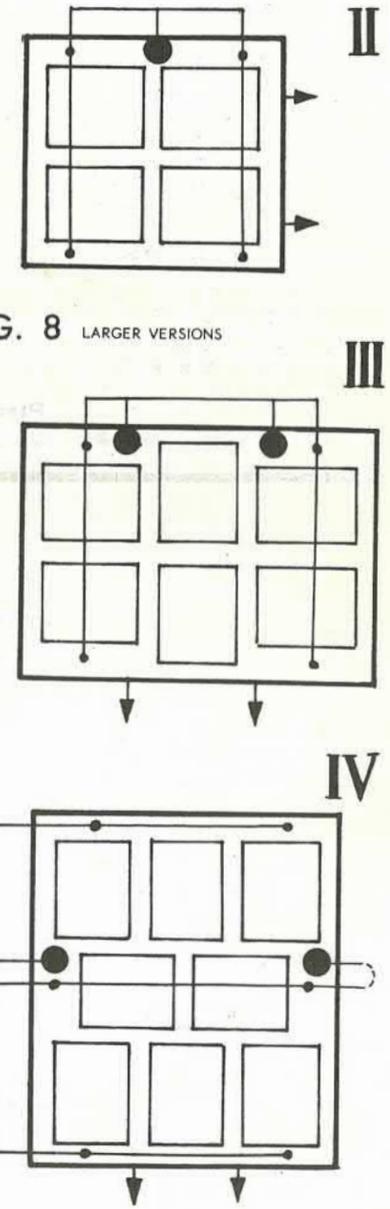


FIG. 8 LARGER VERSIONS

KILNS COMPARED

Glost chamber, cu.ft.

I	20
II	35-40
III	50-60
IV	80

Passages to biscuit

I	Two, 6 x 4½
II	Two, 6 x 9
III	Two, 7½ x 9
IV	Two, 9 x 9

Chimney, inside min.

I	6 x 9
II	6 x 9
III	9 x 9
IV	9 x 9

Chimney, height, ft.

I	7
II	12
III	14
IV	12, plus 8 ft. of 9" metal

Fuel consumption, gals.

I	24
II	45
III	50 - 55
IV	60

Subject to satisfactory completion of tests a design for a very small natural draught kiln will be published in the forthcoming issue.

Publications of interest to Potters:

POTTERY IN AUSTRALIA, a magazine published by the Editorial Committee of the Potters' Society of New South Wales Obtainable from the Editor, 30 Turramurra Avenue, Turramurra, Sydney. 6/6d.A. per copy.

POTTERY QUARTERLY. An English journal edited by Murray Fieldhouse. Rather irregular in production, it is nevertheless very interesting when it does appear. Subscription £1.6.0 U.K. for four issues to Pottery Quarterly, Northfields Studio, Northfields, Tring, Herts.

Craftsmen Potters' Association NEWSLETTER, published by the Craftsmen Potters' Association of Lowndes Court, Carnaby Street, London, W.1. Associate membership subscription of £1.1.0 brings this journal, which is full of information, once a year, or in special cases, half-yearly. It is particularly recommended that any potters visiting England should join up as the Association runs an active shop in London which is a centre of information for potters' affairs and provides most useful contacts.

CRAFT HORIZONS. Subscription of $8 annually to the American Craftsmen's Council, 44 West 53rd Street, New York 10019, gives membership of the American Craftsmen's Council as well as the magazine, which is published bi-monthly.

CERAMICS MONTHLY, 4175 N/High Street, Columbus, Ohio, U.S.A. Subscriptions: 1 year $7, 2 years $12.

NEW ZEALAND SOCIETY OF POTTERS

The New Zealand Society of Potters is now an incorporated body. The Council elected for 1965 is as follows:-

President - Muriel Moody, Wellington.

Vice-Presidents - Mary Hardwick-Smith, Auckland.
David Carson Parker, Wellington.

Secretary-Treasurer - Noel M. Macken, Public Accountant, P.O. Box 3294, Wellington.

and four representatives from each of the main centres:-

Nan Berkeley, Wellington,
Peter Stichbury, Auckland,
David Brokenshire, Christchurch,
Oswold Stephens, Dunedin.

At the Annual General Meeting held during the 8th New Zealand Potters' Exhibition, the following pioneer potters were elected life members:-

Oswold Stephens, Dunedin,
Elizabeth Matheson, Wellington,
Oline Jones, Auckland.

A deep debt of gratitude and appreciation is due to these pioneer potters.

A newsletter will be published at regular intervals, which will be sent to all members to keep them aware of impending events. All interested groups may arrange to have copies of the newsletter for a small fee.

Membership to the Society is open to all potters who have their work accepted at the National Exhibitions, which are held in each of the four main centres, Auckland, Wellington, Christchurch, Dunedin, in rotation. The 9th N.Z. Potters' Exhibition will be held in Auckland this year.

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We have supplies of most potters' requirements - a range of prepared clays, raw materials, glazes, oxides, colours, etc. But please order early if you need materials for special exhibitions and classes, because of occasional shortages. All supplies are sent out by post, carrier or rail - without exception.

And now, a Technical Topic. In each issue of N.Z. Potter our advertisement will contain notes on technical and practical problems.

No.1: Crazing: Crazing results from what is known as poor "glaze-fit". It consists of fine cracks in the surface of the glaze and is often attributed to differences in contraction of glaze and body. But there is much confusion on this point, because the contraction which produces crazing is not the normal permanent contraction of the body (or of glaze) which occurs on drying and firing - that has nothing to do with crazing. The fired glaze and the fired body are virtually different substances after firing - new mineral compositions. All materials contract on cooling and expand on heating. The extent of this varies with different materials and is known as the Coefficient of Expansion of that material; it is also in a sense the "coefficient of contraction" because the expansion and contraction are usually reversible. After the glaze has softened and smoothed out in the firing, it cools and becomes virtually rigid - a coating of hard glaze on a hard body. Every glaze and every body has a particular coefficient of expansion which depends upon its composition and firing treatment. Remember that we said the Coefficient of Expansion (the extent of expansion of the rigid solid on heating) is reversible and is also a measure of its contraction on cooling. If the Coefficient of Expansion (and contraction) of the glaze is greater than that of the body the hard solidified glaze contracts more in the cooling than does the body and will tend to tear, in much the same way that a garment will burst at the seams if it shrinks and the wearer doesn't! This tearing - because the highly contracting glaze has shrunk more in cooling than the body has - is crazing. Often it is delayed - the glaze is under strain and ultimately, but not immediately, gives way and this is called delayed crazing. This is one of the potter's greatest plagues.

There are other factors: We said a glaze, once it solidifies in cooling, is rigid - this is a relative term and some glazes have more "give" than others and can stand the strain of poor glaze-fit better. Again, a glaze forms an inter-face between body and glaze by "eating into" the body, and this inter-face seems to act as a buffer between the differences in contraction of body and glaze.

The reverse of crazing is a phenomenon known as chittering, peeling, shattering - and a number of other colloquial names are given to it - when the glaze flakes off sharp edges. It isn't so common.

How to test for glaze-fit? There are complicated laboratory tests beyond the reach of the studio potter but here are a few useful practical measures:

1. Have a reserve supply of your standard batch of body and your standard glaze - those with a known glaze-fit relationship. Make some small tiles of your standard body, say 2" x 1" x ½", in a mould which gives a cylindrical depression in the middle of the tile. Bake a hundred of these at your standard temperature. Now fill the hole with glaze so that you have a "glaze-pool" of about ⅛" depth. The edges of the depression in the clay tile should be sharp and you should also serrate the surface of the tile with a hack-saw blade or comb. Now re-fire to your usual glaze temperature. If you normally once-fire, just fill the clay tile with the glaze without prior biscuiting and bake it. If a glaze is prone to crazing, it will craze most where the glaze is thick - in the glaze-pool. If it is prone to chittering it will tend to flake off the serrated edges. Use a magnifying glaze to observe the result.

Having established a standard, you can make "glaze-pool tiles" of other bodies to see whether these bodies fit your glaze; or use other glazes in the pool to see whether they fit your standard clay body.

2. Placing in an autoclave at 40 or 50 lb. per sq. in. soon shows up any tendency to delayed crazing, but as potters don't have such autoclaves they can adopt the slower method of boiling test pirces for 12-24 hrs. on a Simmerstat element. This is a reasonable test.

3. Combining the boiling test and the glaze-pool test is effective - i.e. putting the fired glaze-pool tile into water and boiling for a few hours; this will accelerate any development of crazing in the glaze pool.

Extra copies of this advertisement are available at 1/6 posted, from:

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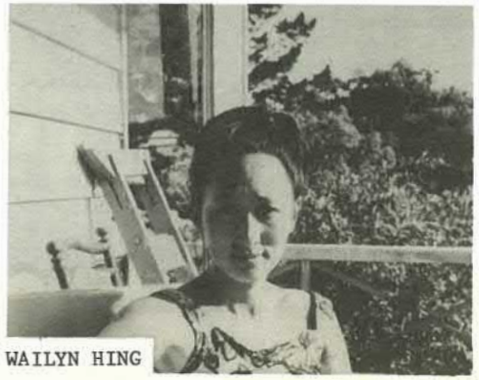
POTTERS

The Queen Elizabeth II Arts Council Visual Arts Committee made awards to three potters for 1965. They are Graeme Storm, Jeff Scholes and Wailyn Hing, all of whom wish to use their awards in New Zealand.

Graeme Storm was born in Auckland in 1936. Educated in this city he trained as an Art and Craft specialist in Dunedin for the Department of Education. In 1959, after two years teaching, he went to England where he taught for a while and attended the Central School of Arts and Crafts in London. After this he travelled round Europe for several months, spending much of this time in Scandinavia, in which he is particularly interested as his father comes from Finland. During 1960-61 he spent a year in Canada, mostly in Montreal, working at the Studio Gallery run by Wanda and Stanley Rozynski. In 1962 he returned to New Zealand for about nine months, teaching,and building a kiln at his home in Orakei. But there was still more he wanted to find out overseas so at the end of August 1962 he returned to London, where he worked for a day or two each week at three or four potteries, mainly with Kenneth Clark, Gwyn and Louis Hanssen and Briglin Potteries. Then he went back to Canada and worked again with the Rozynskis for four months. In September 1963 Graeme Storm returned to New Zealand where he has been working on his own as a potter at Orakei ever since. He has built a new kiln and a pottery and has been making mainly domestic ware. The award will give him the freedom to experiment more with decorative pieces, with wall plaques and ceramics, and with the use of colour in stoneware, but he intends to keep on with his range of mugs and casseroles and the usual utility ware. Graeme leans more to the Scandinavian way of thinking and his broad range of experience gives a finish and maturity to his work.

JEFF SCHOLES

GRAEME STORM



WAILYN HING

Jeff Scholes was born in 1942 at Derby, England. In 1948 the family moved to New Zealand where his father started the Eric Scholes Gallery at Rotorua. For a year, after leaving school in 1959, Jeff worked as an insurance clerk. This was not the life for him, however, and the next two years were spent partly as an art student at Elam, and partly helping his father with the Gallery. In May 1963 he went to work as an apprentice with Barry Brickell at Coromandel. After a year's training he left and started on his own in Auckland, building a kiln at Halsey Drive and making mainly domestic ware in the Driving Creek style, content to let his own style emerge in the course of time. The award should give him theopportunity to consolidate and to find out what he wants to do without being driven too much by economic necessity. He has just leased Greer Twiss's house on Mt. Wellington Highway and is building a new kiln.

Wailyn Hing was born in New Zealand of Chinese parents. For about six years she has been earning her living as a shorthand typist, making pots in her spare time. These pots are nearly all made by the slab and coil method and are quite distinctive in style and sensitivity. She plans to use the bursary to consolidate her own ideas on pottery.

Maxwell Gimblett is an Aucklander who has been working at Ceramics in Toronto, Canada, for the past two years. The first was spent as a production thrower apprentice, the second studying with Merton Chamber, A.O.C.A., in his studio.

Jack Laird has set up a large new pottery at Richmond, Nelson, sponsored by the Nelson Industrial Promotion Co. Ltd. He plans to set up a small industrial unit, employing eventually six people.

Frank Finan of Kerikeri, left this country in December en route to Mexico where he intends to spend a year working in the villages with as many potters as he can establish contact. After that, he hopes to go to Italy for a while before returning to New Zealand.

Rewi Alley

Rewi Alley of Pekin, China, recently paid a short visit to his homeland, New Zealand. He was most interested in our kilns and particularly our glazes, which he thought were becoming quite distinctive. The builder of many kilns, he said he used pottery making as a means of building character in the boys he taught at Sandan, at the Baillie Industrial School. He has collected pots and shards for many years and has a rich collection at his home in Pekin where he spends most of his time writing and is working on histories of China's provinces. We are indeed fortunate that, as a contributor to this magazine, he is passing on some of his unique discoveries of old Chinese kilns.

Cecily Gibson, who worked as a potter in Japan for nearly four years, returned to her native Canberra about a year ago. She is building a small house and workshop there and meanwhile has been working in a friend's garage. The Arts Council, Australia, are putting on her first Australian Exhibition this year.

John Lawrence, an English potter, has contracted to teach as Art Specialist at Tararua College, Pahiatua, for two years, this teaching will include pottery. With him are his sculptor wife, Ann Verdcourt, and two young children, Matthew and Kathryn. Their household chattels include two electric kilns, two kick wheels and a lifetime's supply of oxides and carbonates, cones and brushes. John Lawrence was born in London in 1929. Trained as a studio potter, he worked in France and Finland. He makes large pots and wheel-thrown forms, hollow tile and mosaic panels. His wife, Ann Verdcourt, was born at Luton in 1934. Sculptural training has given her a preference for modelled asymmetric forms. She also makes two dimensional panels for very young people. In the school holidays they hope to travel round the country and to meet as many New Zealanders as possible.

Peter Stichbury is still teaching at Ardmore Teachers' College, but has bought his own house at Manurewa with plenty of space for his two young daughters to play. He has spent the holidays building a kiln shed and intends to build a new kiln as soon as possible.

Warren Tippett, awarded an Arts Advisory Council grant in 1963, spent part of the spring working with Len Castle at Titirangi and Barry Brickell at Coromandel. He is putting the knowledge thus gained to good use in his rebuilt kiln which Roy Cowan tamed into submission at the first firing. It is significant that several of our young professional potters are finding what they need in their own country instead of rushing overseas for tuition.

Michael Trumic has been working lately with Mirek Smisek. As his partner, Mrs. Brinkers, has had to resign from Several Arts, he is taking over the business himself, and hopes that potters will support him in the effort he is making to provide them with outlet.

Harry and May Davis, of Crewenna Pottery, Nelson, have found that the best way of coping with the constant stream of visitors, particularly in the holiday season, is to have conducted tours, for which a small charge is made, at fixed times. This reduces disturbance to a definite period, and enables the work to be organised so that visitors can see as many processes as possible, i.e. throwing, turning, handling, glazing, decorating, and be given an outline of firing and the nature and uses of the various raw materials. One afternoon a week is reserved in this way for visitors who, however, have to phone in advance to say they wish to come. This enables groups to be kept to workable numbers. The showroom, which is in the house, is open every day.

Barry Brickell, Secretary-Manager of the Driving Creek Pottery and Railway Co.Ltd., held his own Summer School at Coromandel in January, 1965. This was attended by potters from many parts of New Zealand, and the emphasis was on the production of large pots.

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