

**HILDA DITCHBURN:**  
**A Teacher and Pioneer of Stoneware Ceramics in Southern**  
**Africa**

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of Master of Art in Fine Arts

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**Declaration**

This dissertation is the unaided work of the candidate. It has not been, nor is it submitted before for any degree or examination at any other university.

A handwritten signature in black ink, appearing to read 'Candice Vurovecz', written in a cursive style.

Candice Vurovecz

Pietermaritzburg

January 2008

## **Abstract**

The candidate's investigation of Hilda Ditchburn (née Rose) (1917 – 1986) attempts to historically place the subject as a teacher and pioneer of stoneware ceramics within the context of studio ceramics in South Africa in the second half of the 20<sup>th</sup> Century. Through an analysis, discussion and documentation of Ditchburn's life and works on a personal, technical and professional level, her discoveries and advances in studio ceramics in South Africa in the 1950's and 60's will be determined.

In the light of Ditchburn's ceramic background, I shall discuss the ceramic pieces she made from the 1940's to late 1970's, focusing on selected stoneware pieces, and including examples of her earthenware and porcelain pieces. I shall discuss her experiments and discoveries with glaze chemistry and clay bodies as well as their different firing methods. I shall highlight her achievement in being the first studio potter in South Africa to design and build an oil fired kiln for high fired stoneware. This kiln was successfully fired in 1954, a time when stoneware was not being made in South Africa, thus predating any stoneware kiln made by a studio potter in the country and pioneering the growth of stoneware ceramics in South Africa.

This dissertation is divided into four chapters, each with sub-headings pertaining to the information contained. The first and second chapters give background and foundational information for placing Hilda in context.

The third and fourth chapters map out Hilda's personal, academic and professional information. This includes archival material and Hilda's works of art.

## **Acknowledgements**

My sincere thanks go to my academic supervisor Juliet Armstrong, of the Centre for Visual Art, University of KwaZulu-Natal for her invaluable support and assistance, as well as allowing me access to the archival documents and her private ceramic collection. I also thank her for her assistance through an interview and discussions on Hilda. Her knowledge and experience of Hilda has been of fundamental value to my research.

I wish to thank Ian Calder of the Centre for Visual Art, University of KwaZulu-Natal for his assistance and interview.

I acknowledge the University of KwaZulu-Natal for the additional archival material.

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Thanks to my mom for help with typing the Glossary and Appendix 15. Your help is very much appreciated. A special thanks to my family, colleagues and friends for their encouragement and support during the completion of this dissertation.

Candice Vurovecz

### **Prefatory note**

This research attempts to document Hilda Ditchburn as a teacher and pioneer of Stoneware Ceramics in Southern Africa.

The dissertation was supervised by Professor Juliet Armstrong at the University of KwaZulu-Natal, Pietermaritzburg.

The text style used is the *Harvard method* as stipulated by the Centre for Visual Art at the University of KwaZulu-Natal.

The following reference procedure has been adopted:

1. Reference citations have been used following the *Harvard method*, citing the name of the author, date of publication and page number where the information can be found.
2. A List of References extracted from the reference citations have been arranged in alphabetical order according to author and encompasses full details of all authorities consulted in the text.
3. Illustrations are indicated by numbers which appear in bold letters after the title of each example. The illustrations appear in the text, combined with the text. The list of illustrations appears at the end of the dissertation from page 73.
4. The Appendix comprises archival material from the JY Armstrong archives. This material is unpublished and is the primary source of literature for the dissertation. The Appendix is numbered in bold letters in the text and full reference is made in the Appendix itself under each entry.
5. Artworks used in the discussion are courtesy of Juliet Armstrong from the JY Armstrong private collection. Artworks are signed by scratching or painting on the base of the piece, and/or stamping the base. Hilda Ditchburn signed her work as Hilda Rose, HLR, H. Rose, HR, and the two stamps state HR.

6. A Glossary of words used in the text appears at the end of the dissertation. The glossary is adapted from *The Potter's Dictionary of Materials and Techniques* by Frank and Janet Hamer.(1986)
7. The following images and documents have been scanned in their original state:  
**Figures 1-15, 20, 26, 27, 32, 42 & 43**  
**Appendix 1-14 & 15**  
 For purposes of retaining their authenticity these images and documents have not been edited or enhanced. Thus, the appearance of illegible writing, grainy or blurred images, remains as per the genuine state of the archival or sourced material.
8. It must be noted that Hilda was born Hilda Lutando Rose in 1917. She studied and qualified under this name and was known by many as Miss Rose. Her artworks are signed and stamped using her maiden name. In the late 1960's (approximately 1964-66, exact date unknown) she married Leonard Ditchburn and thus changed her name to Ditchburn. From the 1960's she is referred to as Rose, Rose-Ditchburn and Ditchburn. Her works remain signed as Rose. The students interviewed in this dissertation knew her as Ditchburn. Reference is made in the archives to both her maiden and married names.  
 Considering these factors, to avoid confusion, she is referred to as Hilda in this dissertation; apart from quotations, referencing and other such formalities.
9. The body of text, including figures, is 71 pages. The word count (body of text only) is 21 526 words. The complete document is 147 pages.
10. The following system of research methodology has been used as a basis for this dissertation:

## **RECORDS**

(Intentional transmitters of fact)

### Written

1. Chronicles, annals, biographies, genealogies, archival material  
 (UKZN Archives and archives from Prof. JY Armstrong)
2. Questionnaire to former students

Oral

3. Anecdotes, in-person interviews
4. Recordings in various forms: audio taped interviews, footage from the Dartington Conference exhibition

Works of art

5. Ceramic pieces, any drawings or sketches, glazes used, glaze formulae, designs for thrown work
6. Photographs of Rose's work and plans of her kilns.

**RELICS**

(Unpremeditated transmitters of fact)

7. letters, literature, public documents, journals
8. Language, customs and institutions (Ditchburn was taught ceramics in England and was teaching and making ceramics in Southern Africa. Therefore it has much to do with British customs)
9. Tools and other artifacts, kilns, glazes

(Barzun and Graff 1977:166)

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## **HILDA DITCHBURN: A Teacher and Pioneer of Stoneware Ceramics in Southern Africa**

### **Introduction**

My research paper is a resume, analysis and discussion of the life and works of Hilda Lutando Ditchburn (née Rose) (1917-1986).

Hilda Rose was born in the Orange Free State in 1917 to a British colonial family, and grew up there until she and her family moved to Natal in 1930 when she was thirteen years old. She was one of three children; with a sister Margaret and a brother. There is not much archival information available on Hilda's childhood or her family. According to Juliet Armstrong Hilda's father was a missionary and built a church in Bloemfontein some time before 1930. (Armstrong: 2007) In 1935 after finishing high school at Durban High School she studied for a Bachelor of Arts Fine Arts at the Durban School of Art (1936) under Professor John Oxley (1888-1956). Hilda had been trained in two dimensions, working with painting and printing, yet neither appealed to her. **(Appendix 2)** Her interests lay more in three dimensional work. She had done some woodcarving as a student and became fascinated with the three dimensional forms. This led her to begin experimenting with sculpture and then move on to ceramics which particularly appealed to her tastes. **(Appendix 2)**



**Figure 1.** The Rose Family. C 1920's. Source: JY Armstrong Archives

Hilda was interested in the forms and functions of the pieces and relatively newfound technicalities of glazing and firing as a studio ceramist. **(Appendix 3)**

In 1937 the Fine Arts Department moved from Durban to the Natal University College, N.U.C, in Pietermaritzburg, where Hilda continued to study under Professor Oxley, who had moved from the Technikon in Durban to Pietermaritzburg to head the art school at the University. In 1938 she obtained her B.A. (S.A.) Fine Art Major from Natal University College Pietermaritzburg with 3 B.A.F.A. courses in Modelling and Pottery. **(Appendix 16)** At the time, Pottery was still a minor course at the university and was considered a craft, whereas Painting and Sculpture, which were art majors, were considered to be the Fine Arts.



**Figure 2.** Young Hilda Rose. C 1920's. Source: JY Armstrong Archives

In 1938, after completing her degree, Hilda went on to study education for a year and obtained a University Education Diploma from the Natal University College in Pietermaritzburg, specializing in Art teaching. She taught as an art teacher at the Natal Education Department from January 1940 to June 1941. In August 1941 she was seconded to the N.U.C by the Education Department to teach Modelling, Pottery and History of Art when Professor Oxley joined the Army to run the Occupational Therapy Unit. **(Appendix 16)** She spent 40 years teaching at the University of Natal Pietermaritzburg. She made a sizeable contribution to the department, developing the Ceramics section into South Africa's finest at a Tertiary Educational Institution. She was a master of her discipline with an extraordinary knowledge of clay bodies, glaze chemistry and kilns. (Armstrong: 2007) Hilda's work is mainly functional thrown ceramics and reflects a definite English influence, especially in her approach to decoration.

This was reinforced by her meeting with leading English ceramists such as Bernard Leach and Michael Cardew in 1952 at the Dartington Hall Conference in Devon, England. The conference, which showcased craftsmen from around the world, proved to be of great value to Hilda. The conference comprised of many lectures and demonstrations by craftsmen in various disciplines, including weaving and pottery. Discussions centered on the craftsman and issues they faced such as their experiments, discoveries, and difficulties in their trade. (Dartington Hall Conference Papers 1952: JY Armstrong Archives) Hilda worked in the ceramic medium in her studio at the University in South Africa virtually in isolation. Although there were other active potters and potteries in the country, Hilda had difficulty accessing information and comparative experience from her peers, especially as a studio and not industrial ceramist. Her experience at the Conference exposed her to other potters, and the way they worked and what they were making. This inspired her and gave her new and fresh ideas to work with and take back to South Africa.

Hilda made some important discoveries and advances in studio ceramics in South Africa in the 1950's and 60's. She was known as the first person in South Africa to design and build an oil fired kiln. In 1954 she pioneered the growth of stoneware ceramics in South Africa, by building the first stoneware kiln in the country. The plans for this kiln were later used by Michael Leach (son of Bernard Leach) at St. Ives in Cornwall, England. Her aim in building this kiln was to make ceramics in a high firing range which would add luster and richness to the work made in the studio as well as to enable the ceramics department at the University of Natal, Pietermaritzburg, to do research into local glaze materials, one aspect of ceramics which had not been fully explored in South Africa at the time. This was reported in *The Natal Mercury*, Friday, March 12, 1954: 7. (**Appendix 1**) Hilda successfully fired the first high fired stoneware kiln in South Africa in 1954. This predates any stoneware kiln made by a studio potter in the country.

Of prime importance in this survey is Hilda's collection of work which includes examples of her work and her private ceramic collection. During her studies and travels abroad she collected work from various European ceramists. This collection, which was bequeathed to Juliet Armstrong after Hilda died, consists mainly of pieces which she bought in England and Scandinavia. This includes works from ceramists such as Bernard Leach, Shoji Hamada, Lucie Rie, Katherine Pleydell-Bouverie, David Leach, Stig Lindberg, Edith Elb,

Bernard Friberg, St. Ives Pottery, Harry Davis, 18<sup>th</sup> Century blue and white earthenware and numerous 18<sup>th</sup> Century French and English majolica pieces. Included in this study is an acknowledgement of other items collected by Juliet Armstrong including Esias Bosch, Bryan Hayden, the Ceramic Studio and Marietjie van der Merwe. Hilda collected these pieces, not for their monetary value, but for their technical prowess which she used as a teaching aid. This collection was intended as a teaching reference for ceramics students who had little or no access to studio ceramics in South Africa as in her time ceramics was not housed or collected in Municipal galleries. This was due to galleries collecting ceramics for ethnological purposes, as ceramics was considered a craft and was not categorised as a fine art.

Hilda used her own work as well as a reference for teaching and experimenting. Her greatest concerns were teaching and experimenting with different materials related to the ceramic medium. She seemed less interested in her reputation as an artist. Although she exhibited her work, she did not enter the mainstream ceramic market as her priorities lay in her teaching. Her place was in the studio, and most of her pieces were used as tests for glaze firings and new decorating and glazing techniques. The result of which is the lack of acknowledgement for her discoveries.

Very little has been written on Hilda, and it is imperative that the work of this influential teacher be documented and appraised. This document will historically place her within the history of studio ceramics in South Africa in the second half of the 20<sup>th</sup> Century an attribute which has not been acknowledged to date. Most of the documents I shall work with are stored in a trunk in Professor Juliet Armstrong's office in the CVA at the University of KwaZulu-Natal.

I intend to investigate Hilda's life on a technical, academic and personal level and to put her work into a perspective of South African and European ceramics of that time. The research is not just an historical account of her life and works, but an investigation of her work. I intend to set her genre of making and firing techniques within the context of contemporary studio ceramics. It is important to look at Hilda's ceramic background, including her education, in order to investigate her as a teacher discovering parallels between what she taught and her background and influences, with consideration of what was being made in ceramics in South Africa at the time. This would include a discussion of the work made by the women working at Olifantsfontein/Linnware, between 1926 to 1955, as well as

famous South African ceramist Esias Bosch and a discussion on studio ceramics and the studio potters working in Britain from the 1920's.

To set the parameters for my research I will use the title of my paper as a guide in selecting and dividing the research and the literature into relevant sections. By dividing the research into sections I will select literature that supports the primary research. This is important for the verification and collation of the information. By researching these topics I will be able to select the relevant literature which focuses on specific areas of research pertaining to my subject, as each section will relate to my subject and place her within this context.

I shall use archival material from both the University of KwaZulu Natal archives and those documents in the safekeeping of Professor Juliet Armstrong. I shall construct a questionnaire which I shall use for interviews with people who knew her on a personal and professional level. My research will be conducted through: Historical analysis, Literature study, interviews, Archival study and museological study (works of art).

The archival documents are of fundamental importance to my research as Hilda is no longer alive, and there have been no articles written on her to my knowledge. These documents will aid me in gaining greater insight into Hilda's life and works, as well as act as a guideline as to the supporting literature I will need to consult.

For this study to be comprehensive, various research methods need to be consulted. It is important to consider the pros and cons of using these methods for their suitability and reliability. As a scholar in ceramics I have an historical and technical background on the subject. I understand the terminology and processes which will be discussed and analysed. I have consulted two research methodology texts by Edward S. Balian. 1982. *How to Design, Analyze, and Write Doctoral Research, The Practical Guidebook*, and Jaques Barzun, and Henry F. Graff. 1977. *The Modern Researcher*.

These texts explain the various techniques of research pertinent to my interests and outline the pros and cons of these methods.

The texts deal with the issues of researching and reporting on a subject, such as the shortcomings of bias, subjectivity, othering, history, fact and opinion.

Balian deals with developing research ideas and how best to go about refining these ideas. In this text two very important instruments of research methodology are raised; validity and reliability which I consider to be key elements.

Most of my data will be primary research in the form of archival material. As very few people have access to this information there have been no articles written on Hilda. Consequently there is no primary literature to consult, other than the journals she had written. Placing Hilda historically within a context will be supported by secondary literature of texts from acknowledged authors on the subject. I have chosen two texts which recount the history of women working in the ceramic industry, and acknowledge female ceramists in both Britain and Southern Africa.

The first text, Cheryl Buckley's, 1990, *Potters and Paintresses: Women Designers in The Pottery Industry 1870-1955* discusses the part women played in the design of pottery shapes and decorations in the great pottery studios in Britain in the 19<sup>th</sup> and 20<sup>th</sup> centuries. Buckley discusses the historical, social, cultural, political and economic conditions for women designers, and examines the changes in working conditions for women potters over time. Most women working in the studios 19<sup>th</sup> Century were given the position of unskilled assistants to skilled men, while very few were allowed "skilled" tasks such as painting and designing the wares. The pay and benefits for women differed greatly from that of the men in the potteries, and women were not given apprenticeships, regardless of their skills and the length of time they had worked at the potteries. Skill was gender related and women designers were described within a patriarchal framework. The text follows the changes in pottery according to the "gender specific" abilities women had, and shows how these women challenged and confronted these patriarchal working practices to secure their positions. Included are women potters such as Dora Billington, Hannah and Florence Barlow, Katherine Pleydell-Bouverie, Suzie Cooper and Clarice Cliff.

The second text I have consulted is Melanie Hillebrand's *The Women of Olifantsfontein- South African Studio Ceramics* (1991). This text deals with the working conditions of South African artist potters who lived and worked Olifantsfontein between 1926 and 1955. This text is a catalogue of an exhibition of the works of the women from The Ceramic Studio at Olifantsfontein. It gives an historical account of the working conditions at this time for women and the prejudices and exclusion gender played in their work and skills.

The fact that The Ceramic Studio was run by women also provides much discussion and insight in this text into Southern African ceramic history and the struggles and challenges women potters faced at this time. The parallels between these two texts reflect an international position women had in the history of ceramics, and the changes and advancements that were made by these women in both Southern Africa and abroad.

F.G.E. Nilant's text *Contemporary pottery in South Africa* (1963) is a text I have consulted with relevance to the history of ceramics in South Africa. Nilant outlines the developments made in the pottery trade in South Africa from the early 19<sup>th</sup> Century, relating to what was being made in the country and what was being imported from abroad. He discusses the ceramic factories and studios that were in production and the different ceramic wares that were made. This text includes a discussion on the contemporary fashions that were popular in South Africa and the parallels between the studio potteries and factories producing "art pottery". This text is important as it gives information as a basis to place Hilda in the context of South African ceramics.

I have consulted various texts to support this information which I have gathered from the archival material. This will situate my work in the appropriate historical context. Andries Bosch and J. De Waal. 1988. *Esias Bosch*, gives a general overview of Bosch's life and works. This text deals with the type of work Bosch made in South Africa as well as during his studies and apprenticeship in England in the late 1940's and early 50's. The relevance of this text is that it serves as a background for study and comparison in relation to Hilda and what she and other South African studio ceramists were making.

*The Art of Bernard Leach* (1978) by C. Hogben and Bernard Leach's *Beyond East and West: Memoirs, Portraits and Essays* (1978), are two texts of great importance as they discuss the potter Bernard Leach in great detail and put forward his philosophies and working methods. *Beyond East and West: Memoirs, Portraits and Essays* is a personal recount of Leach's philosophies, his experience as a potter and the state of studio ceramics in Britain. As one of the great influencers to studio pottery in general, and Hilda Rose specifically, these texts validate and reinforce the research.

Other important supportive texts include W.B. Honey's *The Art of The Potter* (1946), Paul Rice and Christopher N. Gowing's *British Studio Ceramics in the 20<sup>th</sup> Century* (1989), Muriel Rose's *Artist Potters in England* (1970) and G. Wingfield Digby's *The Work of The*



*Modern Potter in England* (1952). These texts recount British studio ceramics and the history of ceramics, its origins and influencers. They also include information on the great studio ceramists and their work such as Bernard Leach, Shoji Hamada, Michael Cardew and Katherine Pleydell-Bouverie.

*Stoneware & Porcelain* (1959) by Daniel Rhodes gives an account of the technical and practical aspects of stoneware and porcelain ceramics. This text reveals the history of both mediums and deals with aspects such as the composition of the clay bodies, the glazing and firing methods used for each.

*Kilns. Design, Construction and Operation* (1969) by Daniel Rhodes gives information on different kiln types, kiln construction and use. This text will aid me in understanding the composition and functioning of Hilda's kiln.

I have consulted the text by Frank & Janet Hamer, *The Potter's Dictionary of Materials and Techniques* (1986) for technical reference and used it specifically for my glossary. The text is a detailed ceramic dictionary which offers information on ceramic techniques, methods and terminology.

The information is grounded on the archival collection of Rose's letters and notes. These include Hilda's glaze recipes, newspaper cuttings, letters to her mother, kiln plans and documents from manufacturers, Dartington Hall Conference papers, drawings, photographs and detailed journals she kept which document her thrown and glazed work. Also included in the archives is Hilda's teaching collection of ceramic examples from European artists.

In my research I shall use In-Person Data Collection through interviews. This method has many advantages as it encompasses all the pros of visual contact with the interviewee, collecting oral and written history and interacting with the subjects. I shall interview Juliet Armstrong and Ian Calder, as students who studied under Hilda and whose understanding of her teaching methods and glaze technology is pivotal. Both Armstrong and Calder are professors of ceramics at the University of KwaZulu-Natal, as well as practicing ceramists. Their knowledge and understanding of ceramics and their relation to Hilda gives them authority as credible participants in relaying information. In order to validate this information I will ask the same questions to both Armstrong and Calder and compare their answers. Through this I am able to establish whether the information coincides with or contradicts what each has stated.

In relation to the validity and reliability of the archival documents I have access to, I am aware that these documents are authentic and unpublished. They were left to Juliet Armstrong and apart from them being catalogued into an order; they have never been tampered with and are intact from Hilda's home. I know that she wrote these letters and journals, as documentation of her discoveries and knowledge. She had a great technical and historical background in ceramics and these documents are evidence of this.

I will analyse and catalogue certain ceramic pieces made by Hilda spanning her ceramic career. This involves a description of the pieces such as size, using measurements, shape, patterns used for decorations as well as the glazes used and the way in which they are applied (underglaze etc). I will record any inscriptions or stamps such as her signature or initials on the work. This information is recorded and catalogued in both a written and photographed manner.

The aspects of research methodology I have used for my study support and validate the research. I shall conclude my research by placing Hilda's work within the context of other contemporary potters.



**Figure 3.** Hilda throwing a vessel. C 1960/70's. Source: JY Armstrong Archives

## **Chapter 1**

### **Ceramic Considerations**

To understand the era in which Hilda Rose worked it is necessary to outline the historical and cultural influences that had a bearing on her career. To fully understand the importance of Hilda as a teacher of ceramics and pioneer of stoneware ceramics in South Africa, we must look at what she and other ceramists, both in South Africa and England, were making at the time, exploring the differences and similarities in their styles and concepts, as well as their achievements. One great aspect which is of necessity to set Hilda aside from many of the local ceramists of her time is the difference between Studio Pottery and Art Pottery. These were two predominant genres of the ceramics being made in South Africa and Britain show great differences in the approach she had to ceramics.

As has been discussed, in the 19<sup>th</sup> and early 20<sup>th</sup> Centuries pottery in the western world did not share the prestige of paintings and sculpture. A new perspective emerged with regard to ceramics, where certain attitudes and circumstances came into question. The Industrial Revolution marked a period in the late 18th and early 19th centuries when major progress in manufacture, agriculture and transport resulted in an economic revolution which effected social and cultural conditions in Britain, encompassing almost every aspect of daily life. The Gross Domestic Product before the dominance of steam power and mass production, was considered to be stable. There was an objection to industrialization and the poor working conditions in which the working class laboured. The industrial Revolution marked the dichotomy between the down trodden working class and the entrepreneur who capitalised in the labour of his workers. This marked the emergence of the capitalist economy, precipitating an outcry from the newly formed Socialists who reacted to the poor conditions under which the working class lived and worked.

There was an increased concern for the honour of the craftsperson and their handmade wares, as pottery factories relied greatly on machines and not craftsmen for the mass production of its wares. This raised the concern of machines replacing the skills of the

craftsman and consequently reducing the need for these craftsmen in the factories. With this consideration, the need to cultivate the craftsman's skills in order to keep their craft from being replaced by the industrial advances in machinery became important. The lack of education in the applied arts as well as the poor social conditions for the working class was highlighted. Many of the working class was not able to pursue studies due to working hours and lack of part-time or after hour courses. This brought about the need for evening classes.

These issues were further highlighted and addressed by the Arts and Crafts Movement in England. Taken from the philosophies of John Ruskin (1819-1900) the Arts and Crafts movement began in England in the 1860's as a reform movement led by William Morris (1834-1896). The movement was in opposition to industrialisation and the factory made wares, where the decorative arts were being produced in mass quantity by machines that had no purpose other than to decorate, therefore de-humanising artistic process and degrading human labour.

The socially conscious person considered a major issue of contention was Human Rights especially in the potteries, as the pottery worker's toiled many hours in dangerous conditions for a pittance. This was predominantly shocking with regards to child and female labour in the pottery industry.

In the nineteenth century, women employed in the Potteries were denied apprenticeships and only employed to carry out menial tasks for the male potters to whom they were assistants. Their pay was substantially less than the men and they were subject to much discrimination and abuse. Being married and a housewife was considered to be a woman's true occupation, however, some women had the misfortune of being neither and had to find employment to maintain their self respect. (Buckley 1990: 49) The British factories hired women to carry out painting and tracing, regarding ceramic decoration as a suitable occupation for women. It was the men who ran these factories and studios and supplied work for the women.

However, with the advent of Henry Doulton's commitment to Art Pottery, the employment of women in the potteries began to change. Art Pottery is a term that was used up to the 1930's to describe a wide range of decorative wares that were deliberately made for their decorative 'artistic' qualities. Pottery studios with a large industrial concern – such as

Minton and Doulton, catered for contemporary fashions through art pottery. They produced wares according to requests, fashions and demands.

With art pottery the wares were made by professional throwers and decorators and not by the designer himself. There was a different person assigned to each process of production and the wares therefore did not reflect the individual creation of the original designer. Studio potters became greatly concerned by the loss of the manual skills and techniques in making ceramics, as industry began to mechanise its production. Workers were seen as operators of machines and were separate and alienated from the wares that they made. As apposed to the craftsman who was totally involved in the process, making work from digging clay, fashioning the forms and glazing and firing the work. These craftspeople usually made work for local consumption. However, the irregular hand quality of studio pottery was not acceptable to industrial pottery manufacturers who were primarily concerned with precision and perfection in the forming and glazing of their pottery. Industrialisation insured attractive, well-made wares that were practical and utilitarian, as well as affordable for everyone. The individual pieces made by studio potters were not necessarily always utilitarian and often went for a considerably higher price than factory-made wares as a result of each piece being hand crafted. Studio potters were unable to compete with Industrial demand and marketed their work at higher prices than the mass produced wares in order to survive. It took many years for critics and the general public to understand and appreciate the difference in attitudes of studio potters and art potters, and it was only around the mid 1930's that these differences were acknowledged, separating and placing each term in their own category.

### **Studio and Art Pottery: The Individual versus the Industry**

Studio Pottery began in England in the mid 19<sup>th</sup> Century and was seen as a transition between the decorative pots of the Victorian factories to the modernist works of individual artists. The term 'studio pottery' was used to describe a specific type of ceramic and refers to work produced by a small group of potters or a single potter on a relatively small scale, where the pieces are handmade from conception to completion, and are consciously non-industrial. This was a very important characteristic of studio pottery and became a term used to distinguish this certain kind of pottery from industrial, mass produced 'art pottery'.

Studio Pottery focused on the potter's complete involvement in the process of producing wares. The emphasis was on the artist to be involved in or responsible for the mixing of clay, designing and forming the clay shapes, decorating, glazing and firing the piece, having control over every aspect of their work. This appealed to many potters, especially the women designers and painters who had previously not been involved in the entire process of making and decorating the wares. Studio potters stressed the importance and necessity of the return of "tradition" in work. The actual touch of the artist's hand on a vessel held immense importance and value as part of artistic skill and expression. This amplified an object's uniqueness and worth.

Most noted for their achievements and experiments at this time, which best illustrate this transition are the four Martin Brothers. Robert Wallace, Walter, Edwin and Charles whose influence in studio pottery lay in the individualistic work they made and their innovative studio set up. At a highly industrial period where man was being replaced by machine, these brothers willingly abandoned the prospects of great success in commercial ceramics in order to produce individual works they liked and wanted to make; the result of artists, not factory craftsmen. (Rice & Gowing 1989: 14)

During the second half of the nineteenth century, design schools were established for men and women. In particular were those that offered training for middle-class women who were either unmarried or widowed with artistic ability but without means and in need of skilled employment. Consequently, women were able to use their skills as designers and decorators in the ceramic factories. The Minton and Doulton potteries provided pleasant employment for middle-class women. It is interesting to note that Doulton's commitment to art pottery was apparently an unprofitable enterprise which he personally subsidized.

During the 1920's there was much criticism about women working in the potteries, let alone women running a pottery. The British factories hired women to carry out painting and tracing, regarding ceramic decoration as a suitable occupation for women. It was the men who ran these factories and studios and supplied work for the women. Similarly in South Africa women potters were virtually unknown and women who ran studio potteries were even scarcer. Although attitudes towards women in the pottery industry had greatly changed from the 19<sup>th</sup> and early 20<sup>th</sup> centuries, as had many of their working conditions and educational

opportunities, they were none-the-less subject to criticism and scrutiny by their male counterparts as well as society.

Women designers played an important part in the inter-war pottery industry. As the men went to war the women in the potteries had to take over much of the production. They were involved in discussions and debates on the relationship between art and industry, and responding to the changing theories of design. They contributed to formulating specific design strategies in several different companies.

With the advent of pottery journals and the emergent glaze technology/expertise there was a need to train people in this new found technology. In the late 19<sup>th</sup> C the influence of art colleges in London became increasingly important in achieving a trade in Art Pottery and students took courses at the Royal College of Art (1837), the Camberwell School of Arts and Crafts (1898) and the Central School of Arts and Crafts. (1896)

The Royal College of Art was founded in 1837 and owes its existence to The Great Exhibition of 1851 (<http://www.rca.ac.uk/>). The college began teaching product design and specialized in graphic and industrial design in the mid 20<sup>th</sup> century. It was evident that labour divisions in the British pottery industry strongly influenced the training of potters at the art schools. Consequently, the students at these colleges learnt the design skills as opposed to an apprenticeship in ceramics which was achieved through industry. They were encouraged to pursue design orientated tasks such as painting tiles and vessels which were ready-made blanks. Art students were trained to become designers rather than potters. The students at these institutions spent time at the Victoria and Albert Museum examining and drawing specialized artifacts pertinent to their subject on display. This exposed them to contemplate various prime examples of design in order that they could refine their skills as decorators. (Hillebrand 1991: 10) On completion of their studies, the pottery students would be qualified to work in ceramic factories designing and decorating 'art pottery.' (Hillebrand 1991: 10) This skilled person was a specialised designer and played a different role in the potteries to those who had served an apprenticeship in the factory.

A student who had studied at a tertiary institution under similar conditions as the RCA was Dora Billington (1890 – 1968). She studied at Hanley School of Art in the Potteries and worked as a decorator for Bernard Moore from 1912 –1915. (<http://alcollector.com/b/bi/billington-dora.html>) During the war she studied at the Royal

College of Art, teaching at the college with John Adams, after which she became the Head of Department. In 1926 took the post at the Central School of Arts and Crafts where became Head of the Pottery Department. The Central School of Arts and Crafts was established in London in 1896 by the London City Council. The intention of the school was to provide specialist art teaching for workers in the Craft industries and was a direct result of the Arts and Crafts Movement. Ceramic design became part of the syllabus in 1919 under Dora Billington.

Whilst continuing her teaching duties in the 1920's and 30's, Billington worked with J & G Meakin designing wares for industry on a part time basis. She was, however, opposed to industrially made, mass-produced wares. Her interests here were in the designs of the wares. As will be discussed later, Hilda studied at the Central School of Arts and Crafts under Billington, who had the most significant influence on Hilda's early career as a teacher and ceramist. Billington had an extensive knowledge of glaze technology, ceramic techniques and ceramic history. She encouraged her students to experiment with tin-glaze decoration and stressed the importance of hand-building as the first stage of working with clay. (<http://alcollector.com/b/bi/billington-dora.html>)

### **The Oriental influence**

Concurrently, the turn of the century marked an increased fervor and interest in Oriental ceramics in the Western World. This was particularly pertinent when the new railway line cut through ancient tombs, revealing the works of early potters which had until then been unknown. This stimulated a world wide interest in Chinese high fired wares and Westerners' attitudes towards pottery began to change. (Rose. M 1970:1)

Coupled with this Eastern interest, was the French enthusiasm for Japanese art with particular reference to pottery making. There was little exact knowledge of the chemistry of ceramics, the composition of ceramic bodies and glazes. In the 18<sup>th</sup> and early 19<sup>th</sup> Centuries in Europe all industrial ceramic technology and expertise was a closely guarded secret to prevent other industrial concerns from copying ones wares. It was only at the end of the 19<sup>th</sup> Century that British ceramic enthusiasts shared recipes and published papers on the chemical makeup of clay bodies and glazes. Interest groups were formed and ceramists started experimenting with published information from sources such as journals and books.



Contrary to the Western world the Chinese and Japanese ceramic technology had enjoyed a longstanding reputation for their high-fired wares and enameled porcelain blue and white wares. It was only later towards the end of the nineteenth century when collectors began taking an interest in the earlier oriental pottery and porcelain that attitudes towards different wares began to change.

European artists, inspired by wares from the Far East, started to experiment with oriental pottery-making. After the turn of the 19th Century the discovery of the works of the early Chinese potter's sparked world-wide interest in the craft and thus artist potters began to emerge, working in all parts of the world. (Rose. M 1970: 1) This appreciation led to the discovery of the qualities of pre-industrial wares by contemporary artist potters.

'The early stonewares (of China) ...have caught the imagination of our time as no other wares have done for a century or more. In them an austere beauty of glaze texture and colour is... a sort of pottery that accords peculiarly well with the sparing modern taste in decoration. The wide-spread admiration for early Chinese wares has had its effect in directions that are sometimes overlooked.' (Honey 1946: 94)

The Chinese Ceramics of the Sung Dynasty (960-1279) are characterized by the combination of the essential components fundamental to the art: the shape of the vessel, the technique of potting, glazing, decorating and the firing process. Sung ceramics are generally simple and demure in form, with subtle, monochromatic glazes. The Sung pots that were coming into England in the 1920's appealed to the tastes of a ceramic collector in England by the name of George Eumorfopolous. He had a deep understanding and appreciation of Chinese wares and bought many of these pieces for his now famous collection of Chinese art. The newly emerging studio potters were taken by the qualities of Eastern ceramics and Eumorfopolous supported these potters by buying many of their works at exhibitions; helping them financially but also encouraging recognition by a wider public as well as making his collection available to contemporary potters for study and inspiration (Rose 1970: 8) The ceramic department of the Victoria and Albert Museum, under the keepership of Bernard Rackham, began to concern itself with the contemporary artist-potters in the 1920's. Rackham's successor W.B Honey developed this interest with the purpose of linking the living artists with the work of the past, benefiting both. (Rose 1970: 8)

‘Modern pottery is indisputably linked with Europe’s discovery of the art of the East’. (Wingfield Digby 1952: 24) This is especially true for England, France and the Scandinavian countries. The work that was being made in the studio potteries in Britain from the 1920’s reflected great characteristics of Orientalism, most notably in the works of ceramists such as Bernard Leach, Michael Cardew, Ketherine Pleydell- Bouverie, Norah Braden, Charles and Nell Vyse, William Staite Murray and Reginald Wells (<http://www.aber.ac.uk/ceramics/collection.htm>)

This was evident in many aspects of their wares, from the decorating and brushwork, to the shapes of the wares, to the glazing and firing. Pleydell-Bouverie’s forms and glazes are most reminiscent of Sung Ceramics, with her use of basic ash glazes and strong forms.

Hilda Rose was not concerned with the Oriental influence that was prevalent in British studio ceramics at the time she was working. However, it is imperative to note this important aspect of studio ceramics as it was a primary characteristic of most of the ceramists who were of importance and influence to Hilda’s work.

### **Bernard Leach and William Staite Murray**

Bernard Howell Leach (1887-1979) and William Staite Murray (1881 – 1961) have been noted as two of the most influential and pioneering ceramists in the history of British studio ceramics in the 20<sup>th</sup> century. Murray had trained at the Camberwell School of Arts and Crafts under W.B Dalton, whose ideas about a potter being viewed in the same light as painters and sculptors being fine artists strongly influenced Murray. He was influenced by Oriental ceramics and his early pots show a strong resemblance to the Sung style, especially in the simple forms and glazes, which were monochrome.

Born and raised in the East, and educated in the West, Bernard Leach was exposed to a great mixture of cultures and inspirations. In 1909 he went to Tokyo, Japan, where he established a reputation as an etcher and potter, working in stoneware and in *raku*, taking ideas from the Japanese and reshaping them to make them his own. His pots did not necessarily mimic the ones that inspired him; it was rather the inspiration and spirituality involved in making and admiring the pot that concerned him and reflected the oriental principles of pottery making in his work. He was greatly immersed in the Japanese culture,

having been born and raised in the East, and his work was a reflection of this culture, not a borrowing of it.

In 1920 Leach returned to England bringing with him Shoji Hamada, a Japanese glaze engineer, as pupil and assistant. Together they started a pottery at St. Ives, near Cornwall. He brought with him to St. Ives valuable knowledge and experience of oriental art, as well as practical and technical experience as a potter. To Leach it was important that one understood the process of making a pot, that pottery started from the clay, to the final stage and did not begin the opposite way with the decoration as was being done in industrial ceramics. The difference here is large and quite profound, and leads to very many changes in the way in which a pot is thought out and made by the studio potter. The materials used in the making of a vessel became very important and the glazing and decoration became part of the process of the making of the pot. For him, the process of making a pot was of uttermost importance. Building his own kiln, digging his own clay, making his own wood ash and formulating his own glazes were an essential part of the spirituality of creating pottery and were part of his conception of pottery as 'a completely unified human expression'. (Rice and Gowing 1989: 29) This was very much in line with the oriental philosophies.

At St. Ives Leach began by building a kiln in which he made stoneware and *raku* in the oriental style, and soon produced a wide range including slipware and lead – glazed earthenware. He was an admirer of Thomas Toft's slipware and was interested in seventeenth and eighteenth Century slipware. His own large slipware is made in a similar style to that of Toft and is amongst some of his finest wares. Leach's firing method was an essential part of his philosophy and technique. The kilns at St. Ives were fired with wood; coal was used only for starting the kilns. The direct contact of the flames with the pots, the fragments of falling wood-ash and the variations caused by the natural alternation of oxidization and reduction (characteristic of wood-firing), gave his work much of the quality for which he is so admired. Leach fired his stoneware in the three – chambered kiln because of the high temperatures, but used the traditional English up – draught kiln for the lower temperatures of wares such as *raku*, slipware and biscuit firings. His three-chambered stoneware kiln, which was constructed with the help of Shoji Hamada and Tsuronosuke Matsubayashi, was made in the typical Japanese style Leach had become accustomed to. In the late 1920's Leach gradually made changes to his pottery studio, changing from wood to oil – firing and expressed his desire to

install an electrically-driven potter's wheel when he could find one that was silent and efficient. (Hogben 1978: 30) Bernard Leach's book *A Potters Book* became very popular amongst studio potters as it gives detailed accounts of both his philosophy of pottery making as well as the oriental approach to technique. In his book Leach draws attention to the Oriental values in pottery as well as to stoneware as an ideal material for the studio potter.

In 1921 Murray met Leach at an exhibition and they began to work in collaboration, sharing glaze recipes and firing together. Both were Buddhists and showed a strong sense of Orientalism and spiritualism in their work. However, Murray was mainly concerned with the decoration and artistic qualities of a piece while Leach was concerned with its form and function. Leach was particular about the way a piece of ceramic was made, focusing on the precision of aspects such as the lip, handle and foot-ring, with the idea that form must follow function. The shape and weight of a vessel was also a concern to Leach. A vase should be heavy so as not to tip over, whereas a teapot should be light and easy to lift and pour. Each detail was carefully thought out and revised, such as the nature of the foot – ring and the precision of the seal – mark. Leach made pieces that were simple and functional, pieces that were affordable to all and that could be easily replaced if they broke. Murray on the other hand was concerned with the surface texture of his work, focusing on the decoration of a form and not its function, which is evident in many of his pieces being heavy, non-functional stoneware, with pronounced foot-rings, exaggerated feet and thick lips. (Rice and Gowing 1989: 78) Murray was interested in the art quality of his pieces, seeing his clay forms as canvases on which to paint and of equal monetary value to that of the fine arts such as painting. His work was sold as individual pieces of art and at very high prices. By 1926 Murray was holding yearly exhibitions at Paterson's Gallery and later at the Lefèvre Gallery, where it was evident that he indeed was an accomplished artist making fine pottery. Fortunately Murray's views that great pottery must be regarded as fine art were accepted and appreciated by collectors such as Eric Milner-White and George Eumorfopolous who attended these exhibitions. (Wingfield Digby 1952: 71)

Although their ideas on functionalism and decoration differed both Murray and Leach agreed on one thing in particular which was of fundamental importance to studio ceramics; they were both greatly opposed to the industrialization of ceramics. Leach emphasized the fact that wares were handmade, from conception to completion, by one artist and not by machine

as was industrial ware. Finger marks left on the clay from dipping wares in glazes, hand painted, scratched or resist patterns, throwing lines, the foot ring, glazes and the form of the vessel, were all reflections of the artist's individual touch as opposed to the machine glazed wares which were void of 'imperfections' and human intervention. These human qualities are what were so unique from industrial pottery. One aspect of this that was of great importance was the reflection of the individual touch, the emphasis on the potter being able to proclaim 'I made this; this was made by my hands'. 'Pots, like any forms of art, are human expressions: pleasure, pain, or indifference before them depends upon their nature, and their natures are inevitably projections of their creators', Bernard Leach. (Wingfield Digby 1952: 88) Leach's philosophy was a follow through with the strong opposition to the inhumane circumstances in which the working classes were treated in the industrial world in the 19<sup>th</sup> century. In the 20<sup>th</sup> century Leach's philosophy was much the same as William Morris's Arts and Crafts movement where the handmade wares had preference to the industrially made wares.

Leach, Murray and Morris's concepts and working methods were of great importance and influence to studio potters and non-industrial artists in the 19<sup>th</sup> and 20<sup>th</sup> centuries in both Britain and abroad. Although certain aspects of these methods, such as the oriental aesthetic, were not approved of or adopted by all studio potters, the essence of studio ceramics and the individual potter were evident in potteries globally. The philosophies of Bernard Leach had a distinct influence on Hilda's working methods and teaching of studio ceramics in South Africa.

### **Studio Potters in England**

In the 1920's Studio Pottery grew under the influence, theory and practice of several potters, most noted are Bernard Leach, William Staite Murray (1881-1961), and a few of Leach's apprentices from St. Ives namely Michael Cardew, Katherine Pleydell-Bouverie and Norah Braden. In November 1923 Michael Cardew (b. 1901) one of Leach's first students, took up an apprenticeship at St. Ives. Six months later Norah Braden (b. 1901) joined the pottery. Braden had studied at the Royal College of Art in London under Dora Billington. Leach considered Braden in many ways one of his finest pupils. 'An artist of sensitive ability, a fine draughtsman and possessed of incisive powers of criticism.' (Rose. M 1955: 19)

From 1921 to 1924 Katherine Pleydell-Bouverie (1895 – 1985) had studied under Dora Billington at the Central School of Arts and Crafts in London. Billington had an extensive knowledge of glaze technology and the history of ceramics. At the Central School she encouraged her students to experiment with tin – glaze decoration as well as to make one-off individual pieces as opposed to repetitive work. She was trained as an industrial potter manufacturer, as well as having knowledge of the alternative production methods found in a small art pottery, or studio pottery. This was invaluable experience, especially in the 1930's as the Studio Pottery movement became increasingly popular for those people who were trained as designers and wanted to pursue their own ideology which was contrary to industrially made products. She taught mainly the techniques of hand production. The Central School, however, recognized the needs of the industry and began to establish courses which catered for these needs. The School installed high temperature kilns which made stoneware production possible. Billington was opposed to the oriental aesthetic of Bernard Leach and influenced and encouraged students to make work that was uniquely European in character as opposed to what she considered 'pseudo oriental pottery', westerners copying the oriental style

In 1924 Pleydell-Bouverie joined Leach's Pottery where she studied under Leach, Hamada and Tsuronosuke Matsubayashi on topics such as clay plasticity, glaze chemistry and kiln construction. In 1922 Matsubayashi had come to England to redesign and rebuild a kiln at St. Ives pottery. He was the thirty-ninth generation of a Japanese family of potters and had a great knowledge of glaze chemistry. At St. Ives he held many lectures on topics such as clay plasticity, glaze chemistry and kiln construction. These lectures were of immense interest to Pleydell-Bouverie who took very detailed notes, especially on the subject of glaze chemistry. It is imperative to note here the relevance and importance of these lectures in regard to glaze chemistry. The ceramic potteries and factories made use of ready-mixed glazes and oxide colours for painting and glazing. These were pre-mixed by a glaze technologist and sold in bulk to the factories. The potters and workers in these factories did not mix the glazes themselves and therefore did not experiment with different glaze colouring and composition. Many potters in the private studio potteries were also amongst the buyers of ready-mixed glazes as they did not have the knowledge or expertise regarding glaze chemistry. However, as did the Martin Brothers, there were studio potters who studied glaze chemistry and composition. These potters bought or sourced from nature the raw materials they required to

make glazes specifically suited to their work. Bernard Leach and Katherine Pleydell-Bouverie are good examples of studio potters who methodically and meticulously experimented with glaze chemistry, sourcing materials from various natural fibres and combining them to form glazes to suit their needs.

From 1927 to 1928 Pleydell-Bouverie and Braden set up Cole Pottery at Coleshill where they experimented with wood and plant ash based glazes and used a variety of timbers and vegetation for firing. Much of their work came in the form of flower-vases and pot-plant holders. Pleydell-Bouverie was influenced by the Sung style and this became obvious in her works, through the forms and especially through her ash-glazing. She kept detailed notes on her work and experiments, and her glaze books are kept at the Crafts Study Centre in Bath. Bernard Leach even included detailed accounts of Pleydell-Bouverie's experiments in his book *A Potter's Book*, which also helped her gain larger exposure and a greater audience, as well as alerting potters to the results of these experiments as practical references.

Michael Cardew is of particular interest and importance as one of the main influencers to Hilda Rose. Hilda was a great admirer of Cardew and had a respect for his work, and her own working method closely followed that of Cardew's and his philosophies. **(Appendix 2)** At St. Ives Cardew studied under Leach and Tsurunsoke Matsubayasi, from who he gained great technical knowledge and experience. Cardew learnt mainly by intuition and instinct, by watching and making.

Until 1926 Cardew worked at St. Ives when he left to start his own pottery at Winchcombe in Gloucestershire. Here he made slipware and galena glazed earthenware. Cardew's aim was to revive English slipware. At Winchcombe he produced household earthenware pots including jugs, bowls, casseroles, teapots, baking dishes and many other useful shapes. These were lead glazed and decorated with combed or trailed slip, or a scratched pattern in the glaze and slip. His early works were mostly light golden in colour and showed the rich variations resulting from wood-firing. He later used black slip, which was often decorated with trailed white slip, as well as a copper green slip.

Cardew, much like Bernard Leach, received a reputation for his work which was being produced in repetition and was not expensive. He found a steady market for his work, with much of it being bought locally in England. In 1939 Cardew left Winchcombe pottery, leaving it in the hands of Ray Finch to run, while he went off to set up a pottery at Wenford Bridge in

Cornwall. Here he built a new kiln and experimented with tin-glazed earthenware as well as producing small amounts of slipware.

In 1949 Cardew returned to Wenford Bridge where he began to re-organise the pottery and build a downdraft kiln for stoneware firing. He was so interested in stoneware that he discontinued making pieces that were fired at lower temperatures. He began to take an increasingly scientific approach to his work, as a result of the problems he came across in West Africa and at Wenford Bridge. Here he produced some pieces distinctive in character using mostly light cream or pale blue-grey glaze and brush decoration.

A good potter loves clay disinterestedly, for its own character, not because it is an obedient mirror for his own personal ideas, however interesting they may be. Someone had defined vulgarity in art as the means of expression out running the content to be expressed – technique outrunning inspiration. It seems to me that this state of affairs produces not vulgarity but something far worse, the ‘ghastly good taste’ which is the characteristic product of our education. But the whole antithesis between technique and inspiration ... is an unreal one... They are as much one as the inner and outer faces of a crystal surface.

Michael Cardew, 1950 (Wingfield Digby 1952: 36)

In 1952 Cardew returned to England to attend the International Conference of Craftsmen at Dartington Hall in Devon, where he gave lectures on “The Craftsman’s use of Scientific Developments” and “The Potter in West Africa”.

In this chapter I have outlined important studio potters in England in an effort to set a stage for the work made in South Africa and by Hilda. Some of these artists have been more influential than others on Hilda’s work, however, it is necessary to give this overview in order to understand Hilda’s ethos in teaching, in the work she made and the ceramics she encouraged her students to produce.



## Chapter 2

### Earthenware Ceramics in South Africa

In the 19<sup>th</sup> and early 20<sup>th</sup> centuries most of the industrial ceramic wares available in South Africa were imported from England, China and Delft. (Nilant 1963: 38) Although there was white clay in the Cape (found by Jan Van Riebeeck in 1661), pursuit of the local pottery trade was not officially encouraged. Only a few designs were imported to ensure easy replacement in case of breakage. The general South African public was not really aware of greater design options as it was only really those who could afford to travel abroad who were exposed to better quality earthenware. The rest of the wares available at this time were produced by local potteries. (Nilant 1963: 40)

Although there were locally made ceramic wares the greater public demand was for imported wares as local wares were seen as 'trashy'. The trend and popularity of imported wares stemmed from their availability as well as the variety in decoration, conforming to the fashion of contemporary industrial designs.

After the WW1 there were potters in South Africa who were not interested in industrial ceramics, and were intent on producing fine studio wares in low fired earthenware, for a select market. Such wares included domestic crockery, decorative tiles, garden pots and sculptural pieces. One such example is the work that was made at the Ceramic Studio in Olifantsfontein, Transvaal.

### Stoneware Ceramics in South Africa and England

Stoneware and porcelain was being produced in England in the 18<sup>th</sup> and 19<sup>th</sup> centuries by a few studio potters. Early stonewares were salt-glazed, a technique that was first used in Germany and then in England. Most of the stoneware in England was utilitarian, jugs and crocks, very simply made in buff grey or brown clay and covered with simple glazes, with no surface decoration or over-the-top appendages. However, stoneware proved to be too expensive for the average, ordinary man due to the costs of reaching high temperatures.

Earthenware, which was cheaper and as durable, was being made by the majority of potters instead. In addition to the issue of the affordability of stoneware, many of the studio potters did not have the knowledge for producing high-fired pottery and the kilns that were used for firing stoneware were not commonly available for studio potters. (Rhodes 1959: 37)

By the end of the 19<sup>th</sup> century most of the old potteries in England had died out due to the competition from industrially made work. In the factories moulds and machines were used to mass produce wares and the divisions of labour turned out wares that were cheap, uniform and appealed to a mass market. (Rhodes 1959: 35) The few studio potteries that were still active during this time struggled to find a market for their individually made pieces, which were rather unique in character and form and did not follow the same trends in style and decoration as the factory made wares.

Things were very different in the studio potteries in South Africa at this time. Stoneware was not being made in the country as the studio potters had neither the knowledge nor the facilities for stoneware production. The primary concern with stoneware is that it is harder than earthenware (which can be scratched with a knife), is non-porous (unlike earthenware), and has been vitrified under great heat so that the materials become literally stone-like, a sort of vitreous substance. Stoneware demands more of a potter than tin-glazed majolica or lead-glazed 'slipware' (both earthenwares) on account of the much greater firing temperature involved. Stoneware is much more suited to modern use. It is admirably suited to modern interiors; the beauty of its form, its fine quality of material, its subtle, resonant colours all fit it for modern use. (Wingfield Digby 1952: 12 & 13)

A few of the potters that had studied in England such as the women at the Ceramic Studio, Hilda and Esias Bosch, had been exposed to stoneware and glaze chemistry while in England but had no means of producing stoneware when they returned to South Africa. The kilns that were required for high-firing stoneware were not available in the country. The lack of interest in the market for stoneware proved to be unprofitable and too expensive for studio potters in South Africa as industrial earthenware was of highest priority and popularity in South Africa. Ceramic wares that were available in the country were mainly slip cast earthenware that was being imported from England, as well as the earthenware that was being made in potteries in South Africa such as Globe Potteries and the Ceramic Studio. South

Africa was a colonial adjunct to the British Empire and consequently this had a knock on influence on the tertiary education institutions like the Durban School of Art.

John Adams, a graduate of the Royal College of Art, was appointed head the Durban School of Art where he worked and taught between 1918 and 1921. Before then he had worked with Dora Billington in the ceramic section at the Royal College of Art in England. At the RCA Adams had developed an interest in Italian maiolica plates and Della Robbia ware. His interest in European ceramics had a direct influence on the students at the Durban School of Art. They learned the technical aspects of throwing and turning, modeling, earthenware glazing, and oxide painting. There was no provision to study ceramics at the D.S.A when Adams arrived, so he designed and built a kiln for the Art School which was used by lecturers and students. Elsie Currie was one of the first students to fire her tiles in the newly built kiln in 1917 (An example of this work can be seen in the Tatham Art Gallery). In the convention of his British tertiary education, Adams insisted that his students drew from life as the foundation for all techniques. He broadened the syllabus to include a wide range of subjects other than painting – to include sculpture, stained glass, lace making, embroidery and, in particular, pottery. As far as pottery was concerned, they inherited his love for architectural faience, pictorial oxide painting and lustrous, colourful glazes. (Hillebrand 1991: 6) Adams' students included Joan Methley (b.1898) Gladys Short (b.1892) and Elsie Currie, all of whom later went on to work at the Ceramic Studio in Olifantsfontein in the Transvaal. It is said that Adams's zest and energy inspired intense loyalty amongst his pupils especially all those involved at the Ceramic Studio. (Hillebrand 1991: 6)

Adams pioneered clay research in Natal and experimented with many different samples of local clays. His work included utilitarian and sculptural ware using a local strongly coloured terracotta clay. He and his wife Truda produced a memorial to those parishioners at St Mary's Church, Greyville, who had fallen in WWI. This was designed in collaboration with his colleagues A.R Martin and O.J.P Oxley, and executed by Adams and Truda. This memorial was the first Della Robbia sculptural panel to be produced in South Africa. (Hillebrand 1991: 6) Adams was disillusioned with the education system in South Africa and on his holiday to England in March 1921 he decided to stay. He and Truda joined Harold and Phoebe Stabler at Carter, Stabler & Adams Ltd and worked there until his retirement in 1950.

The Technical Colleges and Art Schools in South Africa, such as the Durban School of Art, although having laid a thorough practical foundation for pottery students, were not academies of art and offered a wide range of courses in many branches of study, therefore limiting the specific attentions required for specializing in a discipline. It therefore became necessary for students from South Africa to further their studies abroad at the specialized institutions for their discipline, where they would receive comprehensive practical and theoretical training as well as gaining superior technical knowledge and experience. (Niland 1963: 92)

Moreover, the museums and collections in Europe, which were in abundance, could provide the craftsman with a vast amount of past and present day examples of his art, which after studying, would provide them with a finesse for their own work which they could not possibly obtain in South Africa. (Niland 1963: 92)

As John Adams had studied abroad and was aware of the need for South African students to broaden their education he insisted that his students from the Durban Art School went on to study in England after the completion of their courses in Durban. Gladys Short (1919-1921), Joan Methley, (1919-1921) and Thelma Newlands-Currie (1925) went to train at the Royal College of Art in London. Marjorie Johnson (b.1904), who had studied at the Durban School of Art after Adams had left, also studied at the Royal College of Art. Audrey Frank, who was not a student of Adams but had studied at the DSA, trained at the Reimann School in London (1938) under Austin Cooper and Eric Fraser.

The methodical emphasis on the graphic arts in British art and design education at these colleges formed a significant part of ceramists' training. This is prevalent in the painted imagery (oxide, maolica and enamel decoration) of ceramic wares. The importance placed on the perception of and application of design refined the ceramist's design abilities which are essential in both the conception and decorating of wares. Design was not limited to decoration but encompassed all the aspects of the process of discerning the shape, texture, decoration and glazing of a ceramic piece.

### **The Ceramic Studio and Linnware: The Women at Olifantsfontein**

As has been mentioned, during the 1920's there had been much criticism about women working in the potteries, let alone women running a pottery. In South Africa women potters were virtually unknown and women who ran studio potteries were even scarcer. Although attitudes towards women in the pottery industry had greatly changed from the 19<sup>th</sup> and early 20<sup>th</sup> centuries, as had many of their working conditions and educational opportunities, they were none-the-less subject to criticism and scrutiny by their male counterparts as well as society.

The Ceramic Studio was exclusively run by women who undertook the throwing, designing, decorating, glazing and firing of the wares. This was a big advance for women potters in South Africa, especially those who worked in the studios and not the factories, however they were greatly criticised, with comparisons being drawn between 'the "little" work of women and the "serious" artifacts of men'. (Hillebrand 1991: 74)

The buildings and kilns were started by Sir Thomas Cullinan of Cullinan Refractories in Olifantsfontein. In 1909, Cullinan's factory he had built a special "potter's village" and factory where he employed trained potters from Stoke-on-Trent in England to make local domestic pottery (Hillebrand 1991: 4). In 1914 due to the war the pottery closed, sending the English potters home and leaving the workshops, kilns and special cottages abandoned. They stood empty until 1925 when Marjorie Johnstone persuaded the Cullinan family to make the premises available for a studio pottery. (Hillebrand 1991: 1) The Ceramic Studio flourished and was one of the first studio potteries in South Africa to make its own non industrial ceramics

Marjorie Johnstone and Gladys Short were the initial women to begin working at the studio. In 1926, a year after the pottery opened, Joan Methley and Audrey Frank, joined the Studio. All these women had initially been trained at the Durban Art School by John Adams or his colleagues such as Professor John Oxley. These were the women who attracted a succession of fellow artists, potters and painters to the Transvaal, who would live and work at Olifantsfontein which operated between 1926 and 1955.

Their work included decorated tiles, modeled faience and colour-glazed garden ornaments. The variety of work expanded as production increased. In Durban, in 1939, an

exhibition of the Ceramic Studio works included tankards, bowls, vases, lamps, book-ends, door-knobs, bird baths, large garden pots and a complete dinner service. Finger bowls, ash trays, cigarette jars and fruit bowls were also included, as well as wrought iron tables with tiles inset into the tops. The Ceramic Studio was, at the time, the only pottery capable of or willing to produce architectural faience in South Africa. The pottery produced tiles and modeled faience for various buildings in Durban, most notably Ritchie McKinlay's *Quadrant House* (1927) and Ing & Jackson's flats, *Esplanade* (1929). (Hillebrand: 1991: 6)



**Figure 4.** Linnware. *Jug*, 1950. Cream glazed earthenware with floral decoration in painted oxide, h. 20.50 cm. Collection: The Women of Olifantsfontein Catalogue, Cat # 67. Source: photograph taken from the book entitled *The Women of Olifantsfontein – South African Studio Ceramics* (Hillebrand 1991: 26)

Initially the women were responsible for most of the throwing, decorating, glazing and firing of the wares. Later, as production increased, Frank Agliotti and James Cromie, both assistants working at the Studio, took over the throwing. Initially a small rectangular kiln was used for firing work at the Studio but was later replaced by large bottle kilns which were coal-fired. These kilns were specifically designed to reach earthenware temperatures and were never used for higher firings. All the pottery was handmade earthenware which had varied glaze tones. The glazes they used were ready mixed and were purchased from Wengers in England. As has been pointed out, glaze technology was a specialized skill. It was only in 1943 when the Ceramic Studio was bought by Con-Rand that they employed a glaze technologist. (The Ceramic Studio was renamed Linnware) At the Ceramic Studio and Linnware they used maiolica painted decoration which is important to remember as Hilda Rose was very interested in this as well. Earthenware pieces were tin glazed with on glaze decoration. That used one glaze over the other in Linnware work, which is another characteristic of Hilda's work. With the glazes they bought from Wengers they simulated a

type of celadon with earthenware colours. The pots Hilda Rose made in 1945 look very like those at Linnware in their glazing, evidence of her use of Wengers glazes at the time.

The distinctive quality of the Ceramic Studio's wares was immediately appreciated by designers and architects. Spanish styles based on the Alhambra were popular during the 1920's and 30's, making way for important commissions for architectural faience and decorative tiles. The Studio's first commission was to decorate the new Addington Children's Hospital in Durban. Following this were projects for numerous pictorial tile panels for the Johannesburg Railway Station, Post Offices, Police stations and Government offices throughout South Africa. The domestic wares were either sold from the studio, through department stores such as Shepherd & Barker and Garlicks & Anstey's, or ordered specially from the studio. (Hillebrand 1991: 6) They sold most of their work in Rhodesia, Cape Town Johannesburg and Durban.



**Figure 5. a.** Thelma Gifford-Gayton (Ceramic Studio). *Plate*, 1930. Glazed earthenware with oxide decoration, d.21. 50cm. Collection: The Women of Olifantsfontein Catalogue, Cat # 41.

Source: photograph taken from the book entitled *The Women of Olifantsfontein – South African Studio Ceramics* (Hillebrand 1991: 32)

**b.** Audrey Frank (Linnware). *Vase*, 1951. Glazed earthenware with oxide decoration, h. 28.30 cm. Collection: The Women of Olifantsfontein Catalogue, Cat # 69. Source: photograph taken from the book entitled *The Women of Olifantsfontein – South African Studio Ceramics*

(Hillebrand 1991: 32)

**c.** Audrey Frank (Ceramic Studio). *Bowl*, 1937. Glazed earthenware with oxide decoration, d.13.50cm. Collection: The Women of Olifantsfontein Catalogue, Cat # 48. Source: photograph taken from the book entitled *The Women of Olifantsfontein – South African Studio Ceramics* (Hillebrand 1991: 32)

**d.** Ceramic Studio. *Vase*, no date. Glazed earthenware with oxide decoration, h. 27 cm. Collection: The Women of Olifantsfontein Catalogue, Cat # 39. Source: photograph taken from the book entitled *The Women of Olifantsfontein – South African Studio Ceramics* (Hillebrand 1991: 32)

The painted Ceramic Studio wares seen in Figure 5 are vastly different to the designs of Hilda's painted wares, in the content of the designs, where Hilda painted repetitive patterns based on organic shapes. Yet the same systematic approach to design and application of the oxides is evident in both the Ceramic Studio & Hilda's wares. This again reiterates the emphasis on design in their training. In the 1940's the most popular pieces were either decorated or glazed in bright colours. Deep-sea green was the most popular glaze used along with a dusty-pink mixed with a rich shade of strawberry which was used extensively on the fine hand-made pottery. Cream fairly tinged with lime green as well as a jacaranda blue and stone grey figured prominently in the exhibits and were successful glaze colours.

During the Second World War South Africa had to rely on its own resources. Suddenly industrialization increased rapidly and the manufacture of local earthenware became profitable. Due to the long distances between major cities in South Africa it was much easier to transport raw clay than fragile crockery, and therefore most of the studios and factories that were established in the first half of the 20<sup>th</sup> century were found in the immediate vicinity of the market – being the more densely populated and industrial areas of the country. Most of the kilns could be found in the Transvaal, in the Pretoria and Witwatersrand areas. (Nilant 1963: 41)



**Figure 6. a.** Linnware. *Vase*, no date. Glazed earthenware, h. 32 cm. Collection: The Women of Olifantsfontein Catalogue, Cat # 123. Source: photograph taken from the book entitled *The Women of Olifantsfontein – South African Studio Ceramics* (Hillebrand 1991: 32)  
**b.** Linnware. *Vase*, no date. Glazed earthenware, h. 36 cm. Collection: The Women of Olifantsfontein Catalogue, Cat # 143. Source: photograph taken from the book entitled *The Women of Olifantsfontein – South African Studio Ceramics* (Hillebrand 1991: 32)  
**c.** Linnware. *Vase*, no date. Glazed earthenware, d. 25.50 cm. Collection: The Women of Olifantsfontein Catalogue, Cat # 146. Source: photograph taken from the book entitled *The Women of Olifantsfontein – South African Studio Ceramics* (Hillebrand 1991: 32)



## Chapter 3

### Hilda Rose: The Early Years

Hilda Rose was British based in her systems of thinking and beliefs. She was a modernist, and quality and real challenge meant ideas and concepts from over there [England]. (Calder: 2007) Her work, mainly functional thrown ceramics, reflects an essentially English influence. She particularly admired Michael Cardew's work, especially his dislike for the Oriental Style which was being adopted by many ceramists at the time. She was inspired by Bernard Leach's style and appreciated his love for the English Medieval vessels, his use of slipware, over-glazing, his designs from natural forms and the functioning of his forms. Like Cardew, Hilda wanted to maintain a tradition and "Englishness" in her work. This became evident in her forms and the designs and patterns she used for decorating them. Her glazes are also very reminiscent of Bernard Leach where painted, scratched and resist patterns were prominent in his pieces and over-glaze was a typical finish

During her studies in Durban and Pietermaritzburg Hilda had worked exclusively in earthenware ceramics and would have learnt techniques of throwing, hand-building, maiolica painting, glazing and decorating.



**Figure 7.** Hilda Rose. C 1940's. Source: JY Armstrong Archives

She was devoted to her interest in ceramics and kept informed about her ceramic interests through articles which she kept as reference material included pages from *The Illustrated London News* and *The Listener*. These articles included references on ancient European and Eastern ceramics, sculpture and painting; and bird and floral illustrations which she used for design material. (JY Armstrong archives)

In the late 1940's, Hilda was working at the University in Pietermaritzburg making and teaching earthenware ceramics. In January 1946 she was appointed a permanent post in the Fine Arts Department to teach Pottery and Modelling. As part of the ceramic course she taught throwing, maiolica painting and earthenware glazing. She became very interested in what was happening in the studio potteries in England and was particularly interested in stoneware ceramics, stoneware glazing and studio ceramists such as Bernard Leach and Michael Cardew. Although studio pottery had begun in England as far back as the mid 19<sup>th</sup> Century, and there were many established studio potters in Britain by the late 1940's, Hilda was only then becoming aware of it. She collected the *Pottery Gazette* a contemporary ceramic journal which documented ceramic techniques, glaze recipes and experiments, and reviewed and showcased potters and their work from England and Europe. It can be assumed that much of the information she received on these aspects of pottery would have been sourced from this material and other literature, such as Bernard Leach's book, *A Potter's Book* (1940). There was much written about industrial pottery but there was little or no information published on studio ceramics for pottery enthusiasts in Southern Africa. It was a relatively new found interest and consequently journals and articles were difficult to come by. Stoneware was not really known in South Africa and was not being made in the country at the time and therefore both practical and literal information locally was extremely limited. Studio potters too were not commonly known in the country as many of those who were making pottery at the time were working in the few small pottery factories. There was also very little local reference in the art galleries and museums in South Africa, and most of the ceramic wares on display were imported.

As has been discussed, earthenware was made by a number of ceramic concerns in South Africa, although these were not of the studio ceramic category, Nilant accepts them as being of a good standard and very popular. However they did not compare to the stoneware ceramics which were being made in the studio potteries in England.

According to Hilda stoneware ceramics was not being made in South Africa at the time (**Appendix 2**) and there is no mention by Nilant of any studio ceramists working in stoneware. Hilda was eager to learn more about studio pottery and especially stoneware ceramics and the techniques that were being used and taught in England. Her aim was to introduce stoneware and glaze chemistry into the course at the University, so as to expand the work of the ceramic department [at the University] into higher temperatures. (**Appendix 2**) Prompted by her ambition Rose went to study at the Central School of Arts and Crafts in London in 1947 during study leave she had taken from the University.

At the Central School of Arts and Crafts Hilda studied under Billington, who gave her an invaluable introduction to glaze chemistry and stoneware medium and techniques. Hilda shared many of Billington's ideas and beliefs on ceramics and rejected the industrial mentality which was prevalent in most of the pottery courses. Under Billington's tuition Hilda made her first stoneware pieces which showed a sound understanding of decoration and glazing, and a strong sense of form. Hilda's working methods and knowledge of the ceramic medium, its history and technical aspects of glazing, was most significantly influenced by Billington who shaped the foundation of Hilda's career. As a ceramist she echoed Billington's forms and took the same methodical approach to the technical aspects of ceramics. As a teacher she too focused on elements of design, meticulous craftsmanship and the essential importance of working with the medium from conception to completion with a thorough understanding of the process of making, decorating, glazing and firing ceramic wares. This included an extensive knowledge of glaze chemistry through constant experimentation. Billington's book *The Art of the Potter* (1937) was the first of its kind to correlate contemporary craft practice to its historical background. (<http://a1collector.com/b/bi/billington-dora.html>) It has become an increasingly important reference for ceramists and teachers of ceramics.

In 1949 Hilda completed her studies at the Central School. Before returning to South Africa she traveled widely in England and Europe, visiting many art exhibitions and galleries, as well as some potteries which further aided her understanding and practical reference of stoneware ceramics as well as studio pottery and the functioning thereof. On her return to South Africa, from 1950 – 1951 she introduced glaze chemistry into the Pottery course at the university. Until this time the students at the University were using ready-made glazes which were imported from Wengers in England and included a limited amount of different glaze

colours. Hilda's desire to introduce stoneware into the course would come later with the advent of her oil-fired kiln; the plans for which she had now begun sourcing information.

### **Hilda Rose's Ceramic Collection**

During her studies and travels in England and Europe from 1947 Rose spent much time visiting pottery studio's and art galleries where she attended many exhibitions. These visits were technically and practically important as she met many ceramists in the studio's who offered direction and advice. Consequently she was made more aware of what was being made in the studios and the developments in ceramics, which was valuable knowledge and experience to have gained, to take back to South Africa. At this time Hilda was also reading ceramic journals such as the *Pottery Quarterly* which was informative and contemporary. (JY Armstrong Archives)

She bought many ceramic pieces mainly from England, Scandinavia, France and various other European countries, which she put into her ceramic collection. The collection includes exceptional pieces by artists such as Bernard Leach, Lucie Rie and Shoji Hamada. In December 1950, Hilda visited two exhibitions in London. The first was that of Vyse, and the second exhibition was that of Lucie Rie's stoneware and porcelain which exhibited beautiful shapes with plain, simple glazes. Hilda bought a few of Rie's pieces to add to her collection. (Letter to Mother, 18<sup>th</sup> December 1950: JY Armstrong Archives)

Important in the collection is the British Studio work which she bought to admire. This includes various pieces made by Bernard Leach, Shoji Hamada, St. Ives pottery, Katherine Pleydell – Bouverie, David Leach, Margaret Leach, Helen Pincombe, Harry Davis, Paul Barron and Ray Finch. She was interested in maiolica wares and collected 18<sup>th</sup> Century Spanish and French pieces. Hilda's intention for the collection was that it be a teaching collection. Thus, students could see actual examples of what she was teaching (contemporary English decoration and form). The collection serves as a relevant reference to the practical, historical and technical aspects of ceramics, such as the different techniques of glazing, throwing & turning, hand – building and decorating amongst others, as well as the different trends and developments evident in the different eras of ceramics.

### **Studio Potters in South Africa**

Hilda was a studio potter. She was greatly opposed to the industrial mass-produced wares and in her own work and students' work. She stressed the importance of the individual potter. She was very deliberate and precise in focusing on every aspect of her work, designing each piece with much thought as to how the shape, decoration and glazing would affect one another, creating a unique individual work of art. Hilda experimented with different local clays and glaze components, and as was characteristic of studio pottery discovered through trial and error her own creations.

As was Hilda Rose, Joan Methley and Gladys Short at the Ceramic Studio were also devoted admirers of Bernard Leach and Shoji Hamada, and were quite aware of what was developing in studio ceramics in Britain. (Hillebrand 1991: 7) Methley had seen an exhibition of Leach's work and developed an admiration for his work which were excellent examples of studio ceramics (Hillebrand 1991: 10). Short and Methley wanted to emulate the studio Pottery, they were not prepared to work in a 'factory' and preferred the studio wares. A number of Methley's and Short's pieces show their attempts to reproduce the subdued earthy colours of the glazes being used in British studio ceramics, as well as painting the simple brush-strokes of Japanese pottery. Although the British Studio potters were making mainly stoneware ceramics in the 1920's and 30's, these pieces which Methley and Short were making would have been made from earthenware as stoneware was not being produced in South Africa (Hillebrand 1991: 7). However, this oriental pottery failed to attract buyers in South Africa as the "fashion" for Leach's ware was not really known in the country and therefore not in demand. This was also due to the local wares being made, which were earthenware as the kilns only went up to earthenware temperatures and therefore could not achieve the same affects and advances as the stonewares made in England.

Public preferences were very much influenced by contemporary industrial "art" ceramics in both South Africa and England. At the Ceramic Studio vessels glazed in the characteristic turquoise (or "deep-sea green") glaze were reminiscent of some of the vases made by Keith Murray (1892- 1981) at Wedgwood in England, whose ceramic decoration is characterized by subtle glaze finishes and parallel horizontal grooves which accentuate the ceramic forms and design, and the glaze colours ranged from matt greens, greys, soft whites

and the characteristic turquoise. Patterns and glazes in bright uniformed colours of the machine made wares were more popular and in greater demand than works from studio potteries, which were hand-thrown and double-glazed, each unique and an expression of the artist potter that made it.

Although there were many ceramists in South Africa at this time, that were trained in the Western techniques of ceramics and making developments in ceramic discoveries producing work of a good standard, none of these have been noted for establishing a tradition that carried on for a significant period of time, as Esias Bosch has. 'Esias Bosch can justly be regarded as the doyen and father of South African creative ceramics ..... Bosch has, even before the end of his career, developed a ceramic tradition that has exerted a great influence on many potters in this country, to the extent that echoes or reminders of his forms and colours are discernable at nearly every exhibition of ceramics' (Bosch A and De Waal. J 1988: 12)

Esias Bosch (1923 - ) had studied in 1950 at the Central School of Arts and Crafts in London. Bosch started at the Central School where he studied ceramics under Dora Billington. Bosch quickly became dissatisfied with the theoretical aspects of the course and wanted to receive more practical training. Billington helped Bosch get in touch with Raymond Finch at Winchcombe Pottery in 1951. Ray Finch (1914 - ) had studied under Dora Billington at the Central School of Arts and Crafts for a year, before joining Winchcombe Pottery in 1936, where he trained under Cardew until 1939.

Bosch was also an admirer of Cardew and became an intimate friend of his. Having worked with him in England and Africa, he followed much of Cardew's methods. By looking at these methods, techniques and philosophies, we can put Hilda and Bosch into perspective as to what they were doing and trying to achieve in South Africa.

Under Finch at Winchcombe, Bosch first began with menial tasks such as packing kilns and preparing clay. He then began throwing on a kick – wheel, making domestic earthenware. After a year at Winchcombe, Bosch moved to Wenford Bridge Pottery in Cornwall in 1952, where Michael Cardew was working. At Winchcombe Bosch had been involved in experimenting with stoneware but it was from Cardew at Wenford Bridge that he learnt the basic techniques of stoneware and wood – fired kilns. During this time Bosch went with Cardew to St. Ives where he met Bernard Leach and Shoji Hamada. Bosch was

impressed with the work that was being made at St. Ives and was inspired by Leach's technique and philosophy, but it was Cardew who was of great influence to him. Bosch admired Cardew's work and his keen sense of form and decoration. Bosch considered working with Cardew to be a "rare privilege". (Bosch. A and De Waal. J 1988: 20)

Bosch was eager to start his own pottery and in September 1952 he returned to South Africa. In 1952 he worked briefly at Globe Potteries in Pretoria where he decorated the earthenware that was produced there. In 1953 he took up the Post to head the ceramics department at the Durban Art School. At this time he rented a backyard in Umbilo Road and built a small electric kiln. Here he made slipware with his friend Fanie Meyer. Bosch tried to sell his slipware in Durban, however, found that there was no market for it as shops and galleries imported pottery from England and had no regard for local hand-made ceramics apart from the 'African' pots with Bushmen motifs such as those he had decorated at Globe Potteries. These designs were fashionable and in demand at the time and could be produced anywhere in the world. (Nilant 1963:55) Bosch did not want to imitate pottery such as this or the imported pottery of Delft and Stoke-on-Trent as he wanted to produce a typical South African product. (Nilant 1963: 55)

In 1955 he moved back to Pretoria where he opened his own studio in Hatfield and began producing domestic earthenware and making a few individual pieces. At this time Bosch had neither the facilities nor the money to produce stoneware. His earthenware was glazed in blue, green, brown and white and quickly became popular; however, he was still unable to find a market for his individual pieces. His domestic ware included teapots, cups and saucers, plates and bowls, and he made a few individual vases, fruit bowls and tiled panels.

It is important to keep in mind what these studio potters in South Africa were making at this time. Both Bosch and the women at the Ceramic Studio had been trained abroad and been exposed to glaze chemistry and stoneware ceramics, yet neither were making stoneware in their country. This is where Hilda's consideration as a pioneer of stoneware ceramics in South Africa comes to light. By the late 1940's and early 1950's Hilda had begun the necessary research she needed to build a high-firing stoneware kiln.



**Figure 8.** Hilda Rose at work. C 1950's. Source: JY Armstrong Archives

### **The International Conference of Craftsmen: Dartington Hall**

Dartington Hall, near Totnes, Devon, England, is a medieval hall built between 1388 and 1400. The hall was mostly derelict by the time it was bought by Leonard and Dorothy Elmhirst in 1925. [rnc.library.cornell.edu/EAD/htmldocs/RMM03782.html](http://rnc.library.cornell.edu/EAD/htmldocs/RMM03782.html). They reconstructed and renovated the buildings and founded a school on the property. The estate has been the site of many events, conferences, and social experiments, since the Elmhirsts renovated it for this purpose, and it has been host to a variety of social and artistic groups to work there.

In the summer of 1952 an International Conference of Craftsmen in Pottery and Textiles was held at Dartington Hall in Totnes, Devon, England. The conference, which was attended by delegates from the Far East, Scandinavia, The United States, Africa and European countries, was the first of its kind. Hosted by the Elmhurst's, the conference included guests such as potters Bernard Leach, Shoji Hamada, Michael Cardew and Soetsu Yanagi and weavers Marianne Straub and Ethel Mariet, amongst others, who gave lectures and



demonstrations on their respective fields of work, on historical, practical and technical aspects of ceramics and other crafts such as weaving.

Hilda was invited by Peter Cox of the Arts Centre at Dartington Hall to be a delegate to the Conference (Dartington Hall Conference Papers 1952: JY Armstrong Archives) (**Appendix 4**), a great honour and opportunity for her. It was here where she met Michael Cardew and once again met with Bernard Leach (whom she had previously met during a visit to St. Ives in 1950). Attending the conference was an invaluable experience for Hilda as both a teacher and a potter; the pertinent issues that were discussed and the demonstrations that were given equipped Hilda in many ways with theoretical, practical and technical knowledge. She took detailed notes in her journals (**Appendix 5**) on the discussions that were to take place at the conference which included:

- 1) The craftsman's function in an industrialized society
- 2) The craftsman of today, as an inheritor of traditions from every culture and age, and the influence of these traditions on his development and outlook
- 3) The craftsman's use of science and industrial techniques
- 4) The relation of the crafts to the fine arts and architecture
- 5) The teaching and preservation of the crafts in non-industrialised societies
- 6) The crafts in education and the training of the professional craftsman
- 7) The appreciation of the crafts by the public and the establishment of higher standards of criticism

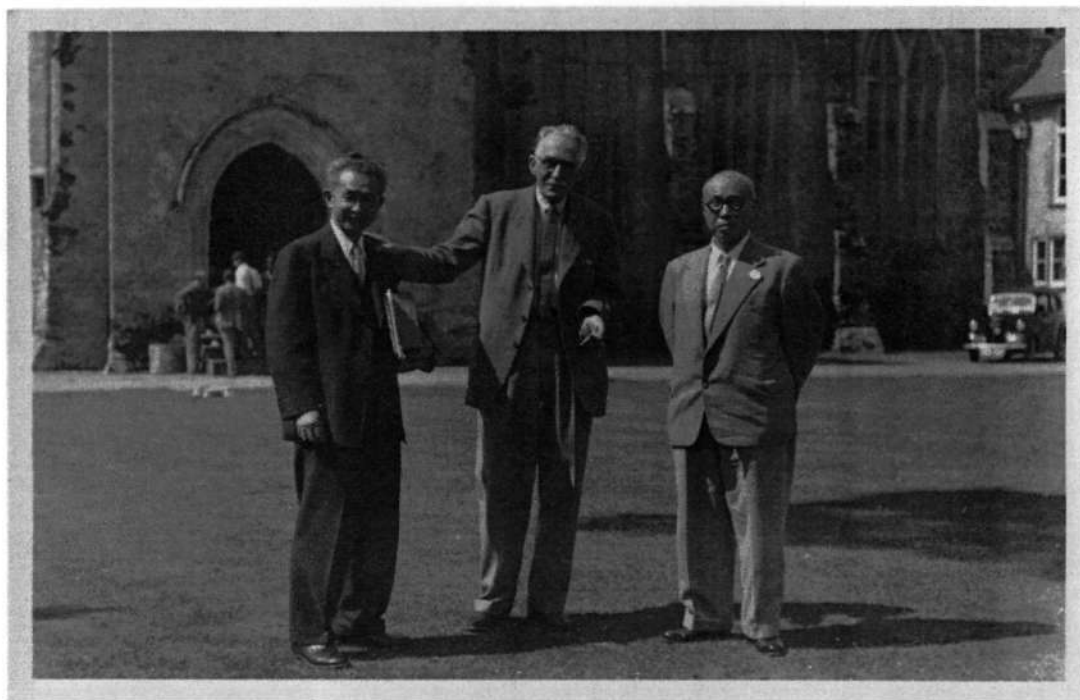
(Dartington Hall Conference Papers 1952: JY Armstrong Archives)

The purpose of the conference was to bring together crafts persons from all over the world to discuss problems they were facing in their fields of work, as well as to bring practical and technical knowledge that could be shared and demonstrated. The conference was held in conjunction with an exhibition of works in pottery, printed and woven textiles, made by Artist-Craftsmen in Britain. The Conference considered that the crafts provided a degree of variety and excellence which the industrial product cannot match. Yet these crafts persons, working in a world that is mainly unsympathetic to them, "with industry providing the main needs of man at a lower price," the crafts person's products command a market as works of art. He must, therefore, be first and foremost an artist. This conference aims to give crafts

person the opportunity to come from many parts of the world to pool experience, to clarify problems and work out a positive approach for the future. (Dartington Hall Conference Papers 1952: JY Armstrong Archives) Bernard Leach, in his book, *Beyond East and West*, (1978), described the atmosphere of the conference as “having well arranged displays of twenty-five years of British hand-made pots and corresponding textiles. There were constant lectures, films and demonstrations of pottery and weaving. It was evident that a need of intercommunication was being filled.” (Leach 1978:242)

In a report on the Conference made by Peter Cox in 1954, Hilda Rose is recorded in one of the discussions giving her thought of her experience at the Conference:

Well, it is very difficult to explain just how much it means to me to be in a group of a large number of people who are interested in pottery and the crafts generally. I work in great isolation and I think I have learned enough here to keep me going for years and years. And I can't wait to get back to start some work. It is very valuable to be able to discuss problems with other potters and to see, particularly, how they are working. It is something that will live in my memory for a very long time and the talk on tradition is something that has interested me particularly, working as a European with European students but with no European tradition, in South Africa, in pottery, and I feel now it is something we have to go build up. Hilda Rose, 1952, (Dartington Hall Conference Papers *Report* 1954: JY Armstrong Archives)



**Figure 9.** Yanagi, Leach and Hamada. *Dartington Hall Conference*, 1952. Source: JY Armstrong Archives



**Figure 10.** Michael Cardew. *Dartington Hall Conference*, 1952. Source: JY Armstrong Archives



**Figure 11.** Delegates. *Dartington Hall Conference*, 1952. Source: JY Armstrong Archives  
Hilda Rose is sitting on the steps in the far right corner below the arch of the doorway.



**Figure 12.** Ceramic wares. *Dartington Hall Conference*, 1952. Source: JY Armstrong Archives



**Figure 13.** Textiles and ceramic wares. *Dartington Hall Conference*, 1952. Source: JY Armstrong Archives

## Chapter 4

### **Kiln Plans and Construction: The advent of stoneware in Natal**

Hilda dedicated much of her time to experimenting with and researching different clays, firing methods and in particular, glazes and glaze technology. Many of her works were used as tests for her many firings and she would often work late into the night in the studio packing kilns and testing glazes. It became clear that Hilda was more concerned with teaching and excited about the results and achievements she was getting with these experiments, than she was about being known as an artist. Since she had studied in England and through sourcing literature and the pieces she had seen in galleries such as the Tate, Victoria and Albert Museum, the Walker Art Gallery amongst others; as well as in studios such as St. Ives, (Letters to Mother: JY Armstrong Archives) Hilda had been keen to begin making stoneware ceramics at the department at the University. She wanted to introduce stoneware ceramics to the pottery course at N.U.C. However, the kilns that were available in the department, although bought from Cromratie in the United Kingdom, were low-firing kilns for earthenware ceramics and were not capable of the high temperatures required for stoneware and the glazes used for these pieces.

Hilda was, however, determined to produce stoneware and to build a stoneware kiln. She began collecting as much information on high-firing kilns as she could. In 1950, during a visit to England; she met with Muriel Rose, the Officer for the Crafts at the British Council. Muriel Rose showed Hilda her collection of contemporary British Pottery and gave Hilda an introduction to Bernard Leach, who Muriel Rose felt would give valuable advice on kiln building and firing. Hilda travelled from London to St. Ives where she met Bernard Leach. She was most impressed with his knowledge of stoneware kilns and their firing and the pieces he had made were an inspiration to her. Leach spoke freely to her giving her much advice and information on kiln building and firing methods. He gave her a letter from B & S Massey Ltd. Openshaw, Manchester, dated 7<sup>th</sup> November 1930, (**Appendix 6**) with information on an oil burner, and a letter from John F Askam, Furnace Designer and manufacturer from Aston, Birmingham, Dated 6<sup>th</sup> November 1930 (**Appendix 7**), regarding the 3 – Chamber Pottery Furnace Leach had in use at his pottery.

In 1951 while in London Hilda contacted Heber Mathews, the advisor to the British Rural Industries for information on kilns. Hilda felt that Mathews' kiln was the most suitable for her needs. In 1952 Hilda met with Mathews at the Dartington Hall Conference when he gave her the Blue Prints and measurements for his kiln. Hilda was able to use these measurements to draw out the plans for her kiln (**Appendix 8**) and acquire the necessary information on kiln-building, such as brick and burner suppliers, and furnace builders.

On her return to South Africa from the Conference at Dartington Hall that Hilda began to put together the plans and information she had gathered over the years to start building her kiln. (**Appendix 11**) In 1953 the plans for her oil fired stoneware kiln were given the go-ahead by the University. The kiln, an up-draught, oil-fired kiln, was built with the help of a Durban firm and the engineering and physics departments at the University. Hilda, who was assisted by two students (Miss Adele Walters and another student), did some of the bricklaying and inside plastering, and cut the bricks for the door (approximately 108 bricks). (**Appendix 9**) The dimensions for the kiln chamber are 32" deep, 27" wide and 33.5" high. This was a reasonable yet relatively small interior. It was constructed with 4.5" Refractory brick and 4.5" Insulating brick. The exterior wall of the kiln was made up of red brick. The front arch would be bricked up when firing and braced with an angle iron and tie rods. (**Appendix 8**) The chimney was made from mild steel and measured 8" in diameter and was 9ft high.

Burning oil requires breaking up the liquid into vapour, small droplets or mist, and bringing air to the oil so that it may ignite and burn. (Rhodes. D 1969: 68) Since oil is fairly cheap and readily available, a great deal of engineering talent has been given to the design of oil burners. An updraft burner feeds the oil by gravity to a valve from which the oil is dripped into a funnel and pipe that leads to a cast iron pan. In the pan it is ignited and the flame is drawn up through a perforated cast iron collar. The air mixes with the volatilized oil and combustion occurs as the oil enters the kiln. (Rhodes 1969: 68) An up-draught kiln is highly advantageous. The fire can be controlled and may vary from a low smouldering fire to a fiercely hot blaze. (Rhodes 1969: 68) The hot gases and flame from the fire circulate the heat directly to the ceramic wares. The kiln walls retain heat and the surfaces of the walls become red hot, reflecting heat back into the kiln. (Rhodes 1969: 68) Hilda's kiln burnt atomised oil,

which produces a large flame which is drawn through the pots. She sometimes started it with a wattle wood before heating it with the oil burner. **(Appendix 10)**

Hilda pioneered the growth of stoneware ceramics in South Africa by building this kiln. (The plans of which through a letter from Leach were later forwarded and used by his son, Michael at St. Ives Pottery in England). Stoneware ceramics was now introduced into the pottery course at N.U.C. On Friday 12<sup>th</sup> March 1954, *The Natal Mercury* newspaper published an article on Hilda and her kiln, reporting the first firing of the stoneware kiln and a 100% successful result. She is pictured with the kiln, the ceramic wares and one of the students who helped build the kiln. **(Appendix 9)** A second article was published in *The Natal Daily News* on Wednesday 22<sup>nd</sup> December 1954, reporting the firing and the successful experiment which proved that Natal clays are entirely suitable for high – fired stoneware pottery. **(Appendix 10)** Clays from Nottingham Road and Pinetown in Natal were used as tests in this first firing and taken to 1250°. The kiln reached temperature in twenty hours without any difficulty, starting at 4a.m. and ending at midnight. **(Appendix 10)** Up to this point there had been no other mention of stoneware ceramics in South Africa. Other noted ceramists working in studio potteries at this time included the women at Linnware, and Esias Bosch, all of whom at that time Hilda achieved her first successful stoneware firing were still producing earthenware. Nilant refers to many potteries that were making good quality earthenware at this time however there was no mention of stoneware production. He mentions Esias Bosch as being the only professional ceramist in South Africa who was making stoneware. (Nilant 1963: 55) However, as will be discussed further, Bosch only began making stoneware in 1960.

The majority of Hilda's firings were oxidized firings as she felt that reduction firings required more skill and she was loathe to ruining students' work. **(Appendix 2)** She had some earthenware experimental pieces glazed in the oil kiln, but the slightest reduction in the kiln gave lead glazes a murky sheen so she stopped using it for earthenware. (Armstrong: 2007) At the University, electric kilns were used to fire earthenware and the oil-fired kiln was used for stoneware. Hilda's stoneware kiln although huge on the outside was very small inside and could only fire a few pieces at a time. This was a disadvantage as it required many firings if she wanted to fire all her students' stoneware pieces, and this was too expensive. Each second and third year student was allowed one stoneware piece to be glazed every year. Hilda was meticulous about packing the kiln to capacity and would line up all the work in a selected



order of height and width so that she could pack each piece to the volume of the kiln. The kiln was therefore only fired a few times a year. It also tended to be very smoky, was considered a fire hazard and in 1969, as the chimney was unstable, Hilda fired her oil-fired kiln for the last time. (Armstrong: 2007) In 1970 Kiln No.1 and No.2 were purchased for the department and from then all work, earthenware and stoneware, was fired electrically.

In order to place Hilda in perspective as a pioneer of stoneware ceramics in South Africa it is important to view other ceramics in South Africa at the time and consider what developments they were making and what methods and mediums they were using in comparison to her. Esias Bosch was not unaware of stoneware. He had also trained under Billington at the Central school (1949) and had worked with Ray Finch at Winchcombe Pottery (1950/1) where they had experimented with stoneware, and how to construct wood-fired kilns. When Bosch returned to South Africa in 1952 he continued making earthenware ceramics until 1960 when he began making stoneware ceramics. This came about some six years after Hilda's first successful stoneware firing.

It is also important to note that the Ceramic Studio/ Linnware also continued to make earthenware in electric kilns up to its closure circa 1954-1962 (the actual date is unknown and these are the approximated dates by Patrick Cullinan and F.G.E Nilant). (Hillebrand 1991: 4) They may have experimented with stoneware but had neither the resources nor the demand from the market to produce such wares. Esias Bosch and Brian Haden (Hilda's student from the 1950's) were the first two people to market stoneware ceramics through Helen de Leeuw's gallery in Johannesburg. They both found the pots difficult to market, and consequently struggled to make a living in the 1960's from this work. (Armstrong: 2007) de Leeuw's gallery was first opened in 1952. It gained popularity in the late 1950's and consequently she opened galleries in Kimberly, Cape Town and Pretoria. (Leeb du Toit: 2008) At this time stoneware ceramics was not known in the country and only became recognised in the late 1960's. Interestingly de Leeuw never opened a gallery in Natal as the public there was less enthused about the local stonewares and preferred the English ceramics that they were familiar with. Andrew Walford, who was a ceramist in Natal, found his market in Johannesburg as it was the less Anglo/English cities such as Johannesburg and Kimberly that accepted the local ceramic wares, which were distinctly South African in their design and motifs. (Leeb du Toit: 2008)

In comparison to Hilda, Bosch became a full-time potter, and gained a reputation selling and exhibiting his work. Hilda continued to teach full-time and would make and experiment with ceramics in her spare time. Although she exhibited her work widely in South Africa, her professional demands did not allow for her to establish herself fully as a potter. The recognition and acknowledgement that is due to her for her discoveries has been grossly overlooked. It is only now when documenting her achievements in comparison with her contemporaries that Hilda's discoveries and developments which are greatly significant in South African ceramic history can be seen as pioneering and yet this has not been acknowledged. However, although she has not been noted as a great South African potter, her influence as a teacher of ceramics has in turn manifested itself in many of her former students who are renowned for their work, both locally and internationally.



**Figure 14.** Hilda Ditchburn. C 1960/70's. Source: JY Armstrong Archives

### **Glaze Chemistry**

As has been mentioned, the glazes that were available in South Africa in the 1930's, 40's & 50's were mainly pre-mixed glazes imported from factories such as Wengers in England. At the Ceramic Studio glazes were mostly from Wengers such as white opaque and transparent glaze used to spray over the painted pots and tiles. Blue and green glazes were these same glazes with variations of copper and cobalt added, and sometimes manganese, to stain them.

They used double glazing, by dipping the pot into an opaque glaze and spraying an oxide stained transparent glaze over.

At the University the glazes were much the same. There was very little knowledge as to glaze technology and glaze experimentation and thus Professor Oxley and Hilda relied greatly on Wenger's pottery supplies regarding oxides and ready-made glazes until the 1950's. From 1950-51 after studying glaze technology at the Central School Hilda introduced Glaze Chemistry into the pottery course at the University. Using raw materials, some locally sourced, but the majority of them being ordered from the pottery supplier, Wengers. She pioneered the mixing and testing of her own glazes which were based on glazes she had acquired at the Central School. **(Appendix 15)** Some of these Central School glazes are presently in use at the Centre for Visual Art, University of KwaZulu-Natal.

Hilda was particular in her glazing of both ceramic test pieces and the works she and her students made. Defective and broken wares were never glazed and many pieces were thrown away. Only good pieces were passed for glazing. She made specific pieces for glaze testing which were all labeled using cobalt oxide to paint the labels. She made extensive tests of earthenware, stoneware, slips, and maiolica painting colours. Most of the glazes were fired at temperatures of 1080° (earthenware) and 1260° (stoneware). Many of these glaze recipes are available in her journals (JY Armstrong Archives) and in the *Ceramics Handbook* (Calder & Armstrong) at the University of KwaZulu-Natal.

Hilda always advocated the pouring of glazes as she claimed this added character to the glaze, where pour marks and slight differences in thickness would enhance the form (Armstrong: 2007) She never advocated dipping glaze (as Leach did) as she said it did not allow for experimentation limiting the use of different glazes, or a limited palette which she did not think was academic. (Armstrong: 2007) She also claimed that most of her students would practice as studio ceramists and felt that the pouring of glazes was the most efficient means for testing and experimenting with glaze effects

She did not allow her students to spray glaze onto a piece as a first layer. She felt that a sprayed glaze lacked nuance and character and always had a 'sprayed look about it'(Armstrong: 2007) They were only allowed to spray glazes if they were spraying a second glaze over the base glaze, as pouring a second glaze is problematic as it is difficult to control the thickness of the second layer.

She was specifically interested in the textures of different glazes and advocated a texture in all the glazes she made. Once she had been liberated in the understanding and forming of glaze technology, Hilda discontinued using the pre-mixed glazes from Wengers. She began devising glazes she felt had more depth and character, and experimented with bought and local raw materials. She advocated that students should be able to mix up their own glazes, from tried and tested recipes or those devised from a chemical makeup ensuring that there was always a balance between the silica, alumina and fluxes. In connection with this is the Seger method, which is a method of describing a glaze by the proportions of the constituent molecules. (Hamer 1986: 280) Hilda would pour over the chemical composition of a glaze and recommend changes and expertise to suit the student's specific needs. (Armstrong: 2007)

Hilda did not advocate or emulate the Leach tradition of expressive decoration although she admired this type of work immensely. All her applied motifs were measured and methodical. She did not work in the Zen tradition as did Leach and many other studio potters where they would use expressive and calligraphic brushwork to apply the designs to the wares.

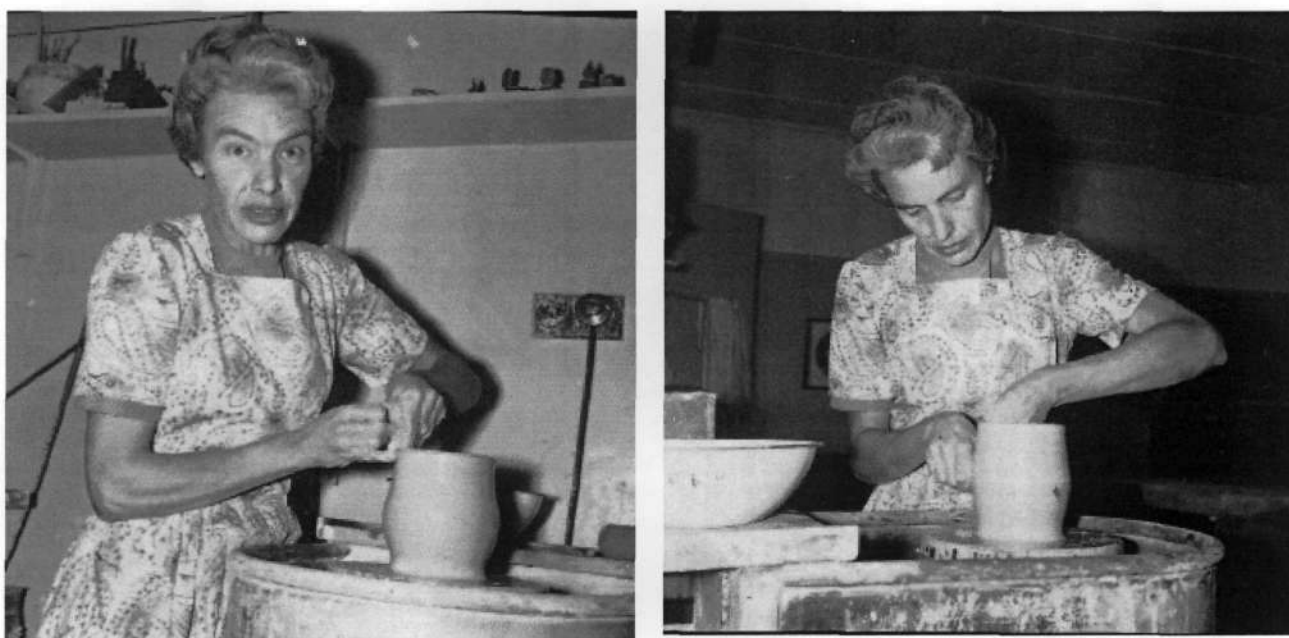
She strove to obtain a depth of design through the application of both the glaze and design so that neither the glaze nor the design appeared flat and an after-thought. She always said that anyone can make a glaze that looks like Duco paint (Armstrong 2007) following this her designs are worked into textured depth, merging a foreground and background with the glaze. Whether they are painted, scratched or wax resist, the patterns and applied designs Hilda used were carefully chosen and refined specifically for the piece as an emphasis and compliment to the three-dimensional form. Hilda's designs were based on organic forms such as shells which she would develop into a stylized pattern which she felt would suit and enhance the ceramic form. This understanding was further emphasized through her glazing – in the choice of glaze colour and application – creating a depth and texture to her forms. She enjoyed glaze effects in the melting of the glaze and softening of lines through this fusion. (Armstrong: 2007) She was generous in her use of glaze, yet double glazing and thick glaze application was a carefully considered technique and never a fault or done through careless application. She knew how glazes would affect each other in the firing process and thus specifically applied certain glazes to achieve a particular effect Her work was precisely

thrown with no hint of being off centre, uneven or imbalanced. She was methodical and ordered in her throwing, always with great precision, yet her work was never presented as sterile. Although each piece was deliberate, there was a sense of expressiveness as she created a balance in her work through her use of glaze and decoration which appeared less calculated. Hilda blurred the lines between systematic and expressive in her work. This was done through her understanding of glazes and basic design in that the shape and design of the form as well as the decoration and glaze colours were all carefully considered and arranged, not clumsily put together, and the final products although calculated were vibrant. Thus, her expressive qualities are present in her experimental glaze application, her layering of different textured glazes and particular use of hard (stable glazes) and soft (runny glazes) to suit her expressive needs. She was a pioneer in both her glazing and firing techniques.

Hilda and Marietjie Van der Merwe experimented with porcelain clay bodies and porcelain glazes. (**Appendix 13**) Hilda was not fond of the stoneware glazes that were being used for porcelain pieces as she felt they were too heavy for the light, translucent qualities of porcelain. Van der Merwe is renowned for her porcelain both locally and internationally. She was a MFA student of Laura Andreson's at the UCLA, USA, in the 1960s. On returning to South Africa after graduating, she started her own ceramics studio in Cape Town. She taught at the University of Natal, Pietermaritzburg, for a year in 1982, and had previously been the External Examiner for the University for many years. She became extremely well-known for her high fired ceramics, and her generous help, encouragement and advice to other ceramists (such as those at Rorke's Drift) was an inspiration. (*Ceramics Handbook*, Calder: 1992)

At this point it is important to consider certain factors that accompany glaze chemistry. Many of the raw materials and chemicals used for mixing glazes and clay bodies, such as silica, Barium and lead, are either poisonous or detrimental to one's health through inhalation or skin absorption. In the 1880's many of the factory workers in England died from silicosis and lead poisoning. Whether by ignorance or lack of protection, many people in ceramic studios and factories expose themselves to these harmful elements by breathing in silica dust and handling the poisons. (Armstrong: 2007) Hilda was aware of the hazards brought about by dusty studios and negligence concerning inhalation of silica dust or the harmful potential of lead oxide, metallic oxides and other poisons in the glaze studio. (Armstrong: 2007) This was of prime importance to her. She was fastidious in keeping the studio clean and dust free. She

kept the surfaces clean, encouraged students to wash their hands after handling materials and to be vigilant in their handling of metallic oxides and breathing in silica dust. She forbade the consumption of foodstuffs in the studio and always warned students of the potential hazards of licking their brushes before they painted their work with oxides. The students would lick their brushes to create a sharper point in the bristles and therefore creating a finer line when painting. (Armstrong: 2007)



**Figure 15.** Hilda Ditchburn. C 1960/70's. Source: JY Armstrong Archives

### **Works of Art**

From the beginning of her career Hilda was captivated by the three-dimensionality of sculpture and ceramics and chose to pursue this branch of the Fine Arts. It was not only the medium and the forms of pottery that appealed to her, but she was also particularly interested in the practical, functional and technical aspects.

Hilda's works are signed with her name or initials on the base of a piece. This is done by painting with an oxide, scratching with a sharpened instrument or being stamped with her personalised stamp. This stamp was made out of clay and biscuit fired. (Figure 16) Around the

1950's Hilda began using this stamp to sign her works. A smaller version of this stamp was also made and used from the late 1960's.

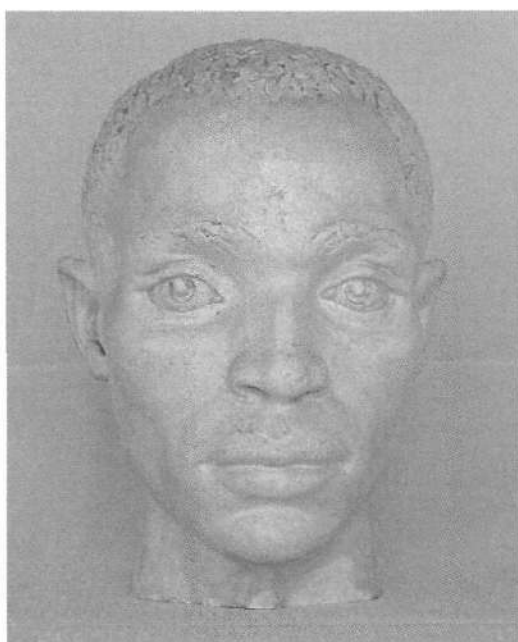


**Figure 16.** Hilda Rose. *Stamp*. C 1950's. Biscuited clay, h. 6.30 cm d. 1.80 cm. Source: JY Armstrong Archives

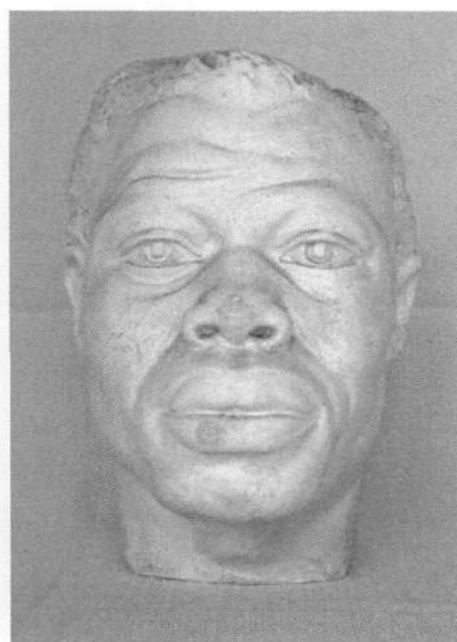
The two busts (Figure 17, Figure 18) are examples of her very early work as a student where she began experimenting with sculpture, carving and modelling. These pieces reflect her approach to organic forms, showing a very strong sense of form and awareness of proportions and dimensions. Hilda's work always showed great precision and attention to detail, where she carefully and precisely considered the practicality and purpose of design. These pieces are fine examples of her understanding of three-dimensional forms and the human face.

At the Durban School of Art she began making earthenware ceramics and learnt throwing, maiolica painting and earthenware glazing. At the DSA she was taught by Professor Oxley who had worked with John Adams and shared in Adams' approach to design. Oxley had trained at the Royal College of Art in London and came to Natal in 1919 to the post of Art Organiser at the Education Department. In 1921 he went to the School of Art (DSA) at the Natal Technical College where he became head of the school. (University of KwaZulu-Natal, Pietermaritzburg Archives: *Daily News* 24/11/52 BIO – 5 297/1/1-Oxley, Prof O John P) Oxley was primarily a painter and like Adams had a love of colour and was a versatile and skillful designer. (University of KwaZulu-Natal, Pietermaritzburg Archives: *Natal Witness* 1/11/50 BIO – 5 297/1/1-Oxley, Prof O John P)

Throughout her career she had always been very fond of throwing and even many of her more sculptural pieces were first thrown and then beaten into shape. She was skilled in this technique, which is evident even in her earlier works.



**Figure 17.** Hilda Rose. *Bust*, c 1936.  
Plaster of Paris, 27 x 20cm.  
Collection: Juliet Armstrong private  
collection. Photograph, Candice Vurovecz,  
2007 (courtesy of Juliet Armstrong).



**Figure 18.** Hilda Rose. *Bust*, c 1936.  
Plaster of Paris, 26 x 20cm.  
Collection: Juliet Armstrong private  
collection. Photograph, Candice Vurovecz,  
2007 (courtesy of Juliet Armstrong).

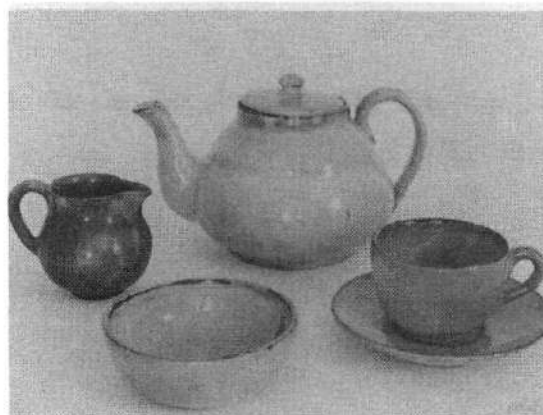
The teacup and saucer set (Figure 19) which she made in 1943 is an example of Hilda's early earthenware ceramics and glazing. The piece reflects great precision in its execution, a very strong characteristic of her work. The teacup and saucer have been very carefully thrown and turned with their shapes relating to one another and their function. Much attention has been paid to the thickness of the forms, the rim and foot-ring of the cup, and careful placing of the handle. It is evident in these pieces Hilda's concern for and understanding of the balance between the functionality of such pieces as well as their aesthetic value. This is apparent in the way she has made and glazed the pieces, where the forms are light and delicate and precisely made, as the forms follow their function; and her choice of glaze colour is an attractive green glaze which is visually appealing. This work is very similar to the pieces that had been made at Linnware in Olifantsfontein (Figure 20). This is seen especially in the glazing and colour, which were characteristic of Ceramic Studio wares (Figure 6: 31). This is also evidence of the types of glazes that were being imported from Wengers in England at this time. She has used an initial white glaze over which has been



sprayed a green glaze. Both glazes were bought from Wengers. This is reminiscent of the type of ceramics made at the Ceramic Studio at the time.



**Figure 19.** Hilda Rose. *Teacup and Saucer*, 1943. Earthenware, teacup 6.30 x 2.40cm; saucer 1.50 x 14.50cm. Signed. Collection: Juliet Armstrong private collection. Photograph, Candice Vurovecz 2007 (courtesy of Juliet Armstrong).



**Figure 20.** Ceramic Studio. *Tea Set*, 1942. Glazed earthenware, h. teapot 13 cm. Collection: The Women of Olifantsfontein Catalogue, Cat # 57. Source: photograph taken from the book entitled *The Women of Olifantsfontein – South African Studio Ceramics* (Hillebrand 1991: 25)

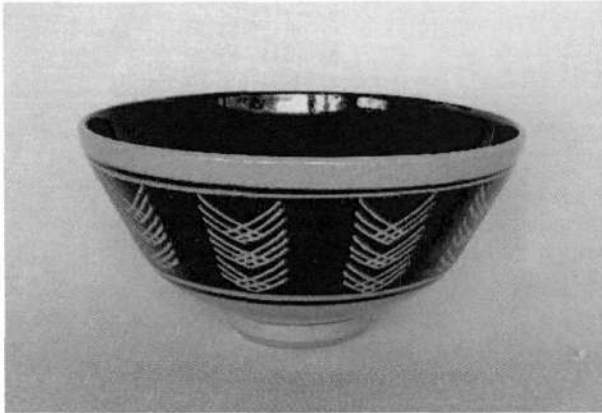
The maiolica painted earthenware mug (Figure 21) made in 1949 and decorated with cobalt, manganese and black iron in a floral pattern, is further example of Hilda's precision throwing and traditional painting techniques. Some of her later earthenware pieces show beginnings of Leach's influence in her work, such as the bowl she made in 1952 (Figure 22). This bowl is in its form and decoration very similar to the bowls Leach had made at St. Ives. (Figure 23) Although not necessarily Oriental in its appearance, the shape of the bowl tends to

reflect a modified take on Leach's Oriental forms. We see this in the shape of the bowl and the foot-ring. This piece also shows Hilda's use of different design and glaze methods, with the design being scratched into the clay through the glaze and then a second glaze colour glazed over. This is also characteristic of Leach's glazing.

The earthenware plate (Figure 24) made in 1966 is similar in its shape and decoration to the stoneware plate (Figure 25) made at the same time, however, the shell motif is more geometric and refined. The plate is thrown and turned. The pattern is painted on a grey slip with red iron and cobalt oxides and glazed over with an iron glaze. In areas where the cobalt oxide is thick it manifests a silvery outline because of the thickness and amount of oxide applied. The glaze used is a transparent Lead Lime Potash glaze which has been pigmented with oxides. This LLP glaze is most suitable for this work as it is a stable glaze for pigment painting.



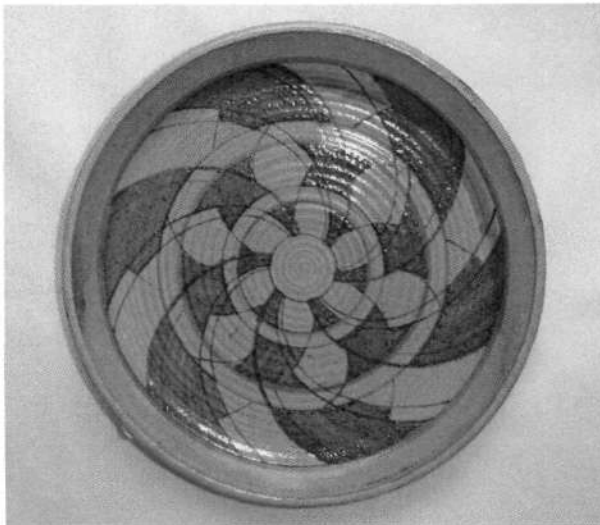
**Figure 21.** Hilda Rose. *Maiolica Earthenware Mug*, 1949. Earthenware, 12.20 x 13cm. Signed. Collection: Juliet Armstrong private collection. Photograph, Candice Vurovecz, 2007 (courtesy of Juliet Armstrong).



**Figure 22.** Hilda Rose. *Bowl*, 1952. Earthenware, 8.90 x 17.70cm. Signed. Collection: Juliet Armstrong private collection. Photograph, Candice Vurovecz, 2007 (courtesy of Juliet Armstrong).



**Figure 23.** St Ives. *Bowl*, no date. Stoneware, 6.80 x 13.40cm. Stamped. Collection: Juliet Armstrong private collection. Photograph, Candice Vurovecz, 2007 (courtesy of Juliet Armstrong).



**Figure 24.** Hilda Rose (Ditchburn). *Plate*, 1966. Earthenware, 1.50 x 24.50cm. Stamped. Collection: Juliet Armstrong private collection. Photograph, Candice Vurovecz, 2007 (courtesy of Juliet Armstrong).

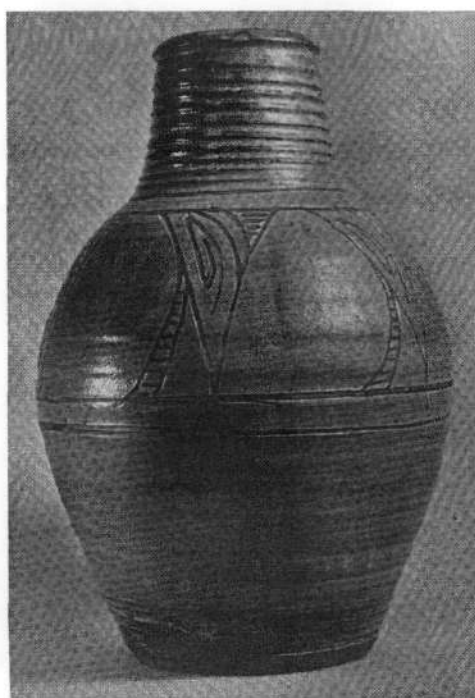


**Figure 25.** Hilda Rose (Ditchburn). *Plate*, 1966. Stoneware, 2 x 24.50cm. Stamped. Collection: Juliet Armstrong private collection. Photograph, Candice Vurovecz, 2007 (courtesy of Juliet Armstrong).

As Hilda became more aware of stoneware ceramics so too did her forms begin to change. Her larger vessels are very similar to Dora Billington's thrown ware in their form and

finish, with similarities in the lip, neck and shoulder of the wares being most pronounced, producing balanced forms. Billington was never enthusiastic about the Orientalism in the studio wares and her wares, like Cardew, were more traditions of English ceramics. The balance between the English vessels of Billington and Cardew (Figure 26) and the Oriental wares of Leach and specifically his glaze techniques come together in Hilda's pieces to show unique individual works, which reflect her great understanding and appreciation of both the functional and decorative purposes of ceramics.

Hilda's stoneware pieces show her experimentation with the different types of glazes and glaze materials, as well as techniques of glazing. Many of her works are decorated with either scratched designs or resist patterns, covered with multiple layers of different glaze colours or slips. These stoneware pieces are of fundamental importance in this discussion as they are a result of the many experiments and the aspirations of Hilda throughout her career.



**Figure 26.** Michael Cardew. *Jar*, 1937. Earthenware, h. 19 inches. Source: photograph taken from the book entitled *Artist Potters in England* (Rose 1970)

The stoneware plate (Figure 25) (d. 24.5 cm) made in 1966 shows Hilda's use of natural forms, more specifically shells, as motifs for decoration. Hilda had a collection of

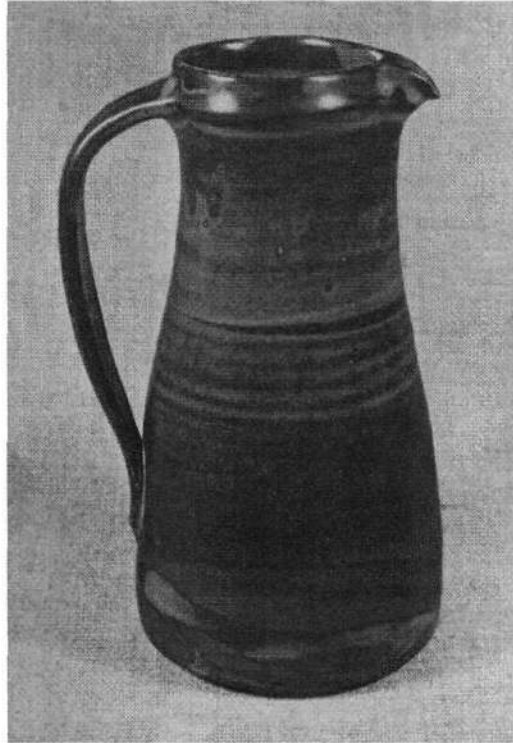
shells which were throwaways she acquired from the Natal Museum. She used these for drawing exercises and refined them to form repetitive decorative patterns for her pieces. The plate is made from presumably Nottingham Road clay which was dug in bulk and processed in the studio at the University by the ceramic technician Eric Mtshatsha (Who retired in 1999). The plate has been thrown and turned, with an on-glaze pattern using two pigments over an ash glaze.

The jar (Figure 28) made in 1960 is a good example of her use of wax resist for patterning and double-glazing effects. On this thrown and turned piece (14.5 x 8.2 cm) the shell motif is once again used in a wax resist design. Brown slip has been painted over the resist pattern. The piece is evenly glazed inside and out with an ash glaze covering the entire surface and revealing the applied slip and decoration. The brown slip is thicker in sgraffitoed areas where it has been brushed on, and the manganese in the slip has caused slight bubbling.

Hilda's big jar (Figure 31) made in 1960 is reminiscent of works made by Bernard Leach and Shoji Hamada in their form and glazing. The form has been thrown and then manipulated by being paddled with a wooden bat at the leather hard stage. Throwing rings are visible on the piece which stands 24.8 cm high. A green Standard Stoneware glaze has been poured on the piece with a wax resist feather design and an iron glaze sprayed over. The iron glaze has run and in places is very thick. This double glazing is similar to the work of Hamada. It was common for Hamada to layer three glazes on top of each other. The shape and decoration of this piece is much like the stoneware bottle (Figure 32) made by Hamada in 1935.

One aspect of Bernard Leach's working method which was greatly important to Hilda, in both making her own work as well as teaching ceramics, was his concern for the *functionality of a piece; whether the form followed its function*. This was stressed in the precision of the foot-ring, the weight of a vessel, the thickness of a rim or lip, the shape and placement of a handle and so on. Her functional pieces, such as her jug (Figure 29) made in 1965, are very thorough in this regard. The jug (17.7 x 18.2 cm, d. 11 cm) is thrown and turned and the handle has been pulled by hand and specifically suited to the form. Evident in this piece is Hilda's concern for functional lip and the softness of the pulled form, as well as the smooth edges leading into the form. The jug is double glazed using a Central School Hard glaze (**Appendix 15**) with a wax resist pattern and an iron bearing glaze sprayed over inside

and out. The pattern used to decorate the piece is again a formalized shell design echoing that of the stoneware plate (Figure 25). This piece is oxidized and would have been fired in the oil-fired kiln.



**Figure 27.** Bernard Leach. Jug, 1948. Stoneware, h. 10. 50 inches. Source: photograph taken from the book entitled *Artist Potters in England* (Rose 1970)

The maiolica jar (Figure 33) made in 1965 is a fine example of Hilda's understanding of decorating a form. In this piece she combines hard and soft lines to create a foreground and background of dimensions on the surface of the form. The origin of the geometric pattern is unknown and is not as obvious as the shell designs in the former pieces. The design painted in red iron, copper, manganese and cobalt oxides. The copper and red iron are fumed which gives it a soft linear design behind the harder, more pronounced manganese and cobalt lines. The piece, whose form echoes that of Dora Billington's forms, is thrown, turned and glazed in Central School Hard stoneware glaze. The decoration enhances the form of the piece, which is a common characteristic of Hilda's decorative appreciation.



**Figure 28.** Hilda Rose. *Jar*, 1960. Stoneware, 14.50 x 8.20cm. Stamped. Collection: Juliet Armstrong private collection. Photograph, Candice Vurovecz, 2007 (courtesy of Juliet Armstrong).



**Figure 29.** Hilda Rose. *Jug*, 1960/1. Stoneware, 17.70 x 18.20cm. Stamped. Collection: Juliet Armstrong private collection. Photograph, Candice Vurovecz, 2007 (courtesy of Juliet Armstrong).



**Figure 30.** St. Ives. *Jug*, no date. Stoneware, 14.80 x 11.50cm. Stamped. Collection: Juliet Armstrong private collection. Photograph, Candice Vurovecz, 2007 (courtesy of Juliet Armstrong).



**Figure 31.** Hilda Rose. *Big Jar*, 1960/1. Stoneware, 24.80 x 15cm. Stamped. Collection: Juliet Armstrong private collection. Photograph, Candice Vurovecz, 2007 (courtesy of Juliet Armstrong).

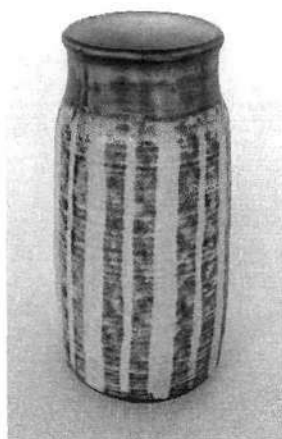


**Figure 32.** Shoji Hamada. *Bottle*, 1935. Stoneware, h. 14 inches. Source: photograph taken from the book entitled *Artist Potters in England* (Rose 1970)





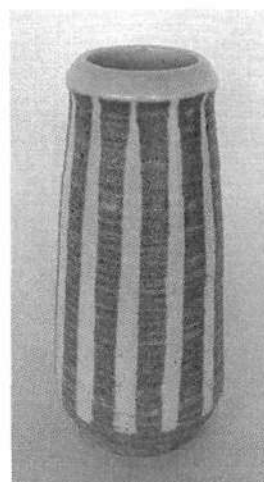
**Figure 33.** Hilda Rose. *Maiolica Jar*, 1965. Stoneware, 20.80 x 10cm. Stamped. Collection: Juliet Armstrong private collection. Photograph, Candice Vurovecz, 2007 (courtesy of Juliet Armstrong).



**Figure 34.** Hilda Rose. *Jar*, 1960. Stoneware, 19.30 x 7.60cm. Stamped. Collection: Juliet Armstrong private collection. Photograph, Candice Vurovecz, 2007 (courtesy of Juliet Armstrong).



**Figure 35.** Hilda Rose. *Jar*, 1960. Stoneware, 20.70 x 10.60cm. Stamped. Collection: Juliet Armstrong private collection. Photograph, Candice Vurovecz, 2007 (courtesy of Juliet Armstrong).

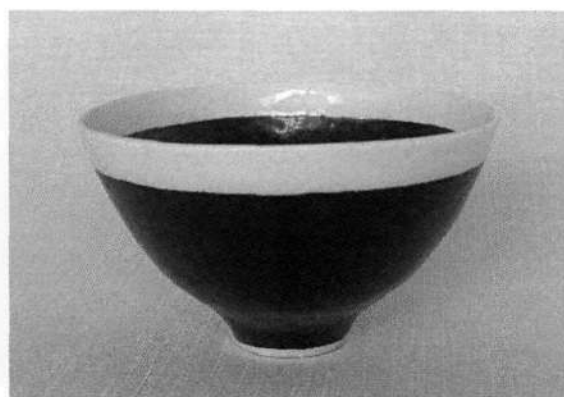


**Figure 36.** Hilda Rose. *Jar*, 1965. Stoneware, 19.80 x 6.40cm. Stamped. Collection: Juliet Armstrong private collection. Photograph, Candice Vurovecz, 2007 (courtesy of Juliet Armstrong).

In her later years around the late 1960's to early 70's she began experimenting with porcelain and porcelain glazes. Much of her inspiration for her work at this time came from British ceramist Mary Roger's work in porcelain. She admired Rogers' pinch pots and thought her to be very skilled in this discipline, as her forms were good and did not have lumpy surfaces, which would be a sign of bad craftsmanship. **(Appendix 2)** Hilda also admired the work of Lucie Rie. Although she thought Rie's early works to be rather soft, she liked her later pieces and the subtle changes in their glazes. **(Appendix 2)** Hilda's porcelain pieces are small and delicate as she wanted to focus on the translucent qualities of the porcelain bodies. Her black and white porcelain piece (Figure 37) (h. 6.7 cm) is reminiscent of the work Lucie Rie (Figure 38) made in its decoration and glazing. A small yet bold piece is thrown and turned to precision and decorated using wax resist and a matt-black glaze.



**Figure 37.** Hilda Ditchburn. *Jar*, c 1970. Porcelain, 6.70 x 6.80cm. Collection: Juliet Armstrong private collection. Photograph, Candice Vurovecz, 2007 (courtesy of Juliet Armstrong).

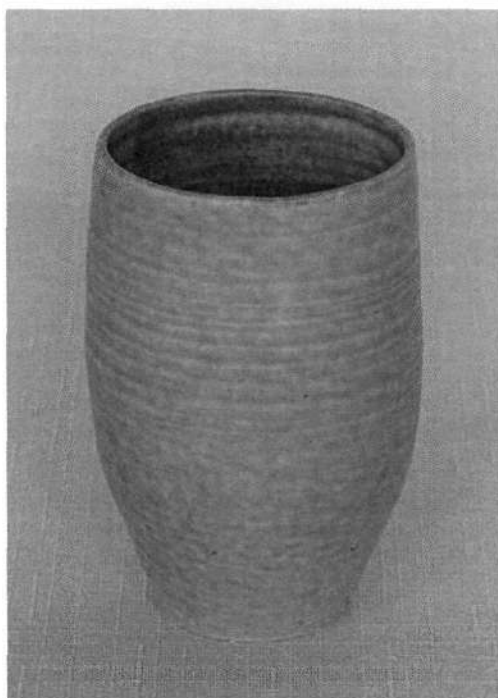


**Figure 38.** Lucie Rie. *Bowl*, no date. Porcelain, 5.60 x 9.70cm. Collection: Juliet Armstrong private collection. Photograph, Candice Vurovecz, 2007 (courtesy of Juliet Armstrong).

Through her friendship with Hilda they worked on glazes together and exchanged ideas and recipes. During the time that Hilda met Marietjie, porcelain had only just been introduced to the ceramic course at UNP, and Hilda was keen to gain as much knowledge and expertise as she could muster so that she could use the medium with ease. Hilda is known countrywide particularly for her glazes and fine porcelain. **(Appendix 1)**

Small portions of Van der Merwe's porcelain recipe were mixed up in the studio with the help of the technician, Eric Mtshatsha, and if a student was interested they were allowed a handful with which to work. Hilda was thrifty and she was loathe to allow students to waste the 'precious material'. (Armstrong: 2007) They were encouraged to work with porcelain on the wheel, as well as coiling and slab built work. The emphasis was always that the work had to be thin enough for it to be translucent as there was no point in using porcelain if this particular quality of the medium was not used.

In her journals on porcelain Hilda frequently makes reference to Van Der Merwe. **(Appendix 13)** Many of Van Der Merwe's glazes were nickel glazes which Hilda loved. (Calder: 2007) The porcelain piece (Figure 39) (h. 8.4 cm) is glazed with a pink-blue nickel glaze which is brown where thinner on the outside. Porcelain was also sparked by the arrival at the University of Adron Duckworth. Duckworth, whose former wife was American ceramist Ruth Duckworth, was a keen supporter of ceramics and assisted in creating pottery as a major subject in 1970. (Armstrong: 2007)



**Figure 39.** Hilda Ditchburn. *Jar*, c 1970 . Porcelain, 8.40 x 5cm. Stamped. Collection Juliet Armstrong private collection. Photograph, Candice Vurovecz, 2007 (courtesy of Juliet Armstrong).



**Figure 40.** Hilda Ditchburn. *Jar*, c 1970. Porcelain, 9.20 x 8.80cm. Stamped. Collection: Juliet Armstrong private collection. Photograph, Candice Vurovecz, 2007 (courtesy of Juliet Armstrong).



**Figure 41.** Hilda Ditchburn. *Jar*, c 1970. Porcelain, 12.90 x 7cm. Stamped. Collection: Juliet Armstrong private collection. Photograph, Candice Vurovecz, 2007 (courtesy of Juliet Armstrong).

### A Teacher & her Students

Hilda has been described as a dedicated and patient teacher who sacrificed many creative years to the well – being of her students and the department she loved. In a dedication to her in the Nu Digest written by Mr. Henry Davies, Davies writes, ‘Under her watchful eye even the most untalented and clumsy student was capable of transforming a formless lump of clay into something closely resembling a pot to be proudly borne off, suitably decorated and glazed, to some doting parent.’ (Davies: 1986) Hilda was described as a sympathetic teacher and many of her former students had commented on how they always found her empathetic, how she took time out to explain difficult situations and how she would go right back to basics and explain until a student understood. **(Appendix 2)**

She was dedicated to her students and the University and although she was progressive in her work, had little time to exhibit her work. Davies explains this, stating that due to her work – load that “she never had time to exhibit widely, so her ceramics still await due recognition – whilst the University was in session she stayed in University hall only returning

to her husband and home in Pinetown over weekends. For many years until the creation of an additional post, Hilda taught all day and would then sit up late into the night packing and firing kilns.” (Davies: 1986)



**Figure 42.** Hilda Rose and students. C 1950's. Source: JY Armstrong Archives



**Figure 43.** Students in the studio at the University. C 1950's. Source: JY Armstrong Archives

She was undoubtedly a true asset to the Fine Arts Department as well as her students. Many of Hilda's former students went on to make a career of ceramics. Bryan Haden, Irene Walker, Bea Jaffray, Peter Schütz, Melanie Hillebrand, David Walters, Katherine Glenday, John Wilhelm, Peter Lee, Jonathan Keep, Ian Calder and Juliet Armstrong are a few of Hilda's former students who have made a success of ceramics and have gained recognition in the history of South African Ceramics. 'Many of her former students are full time practicing ceramicists or potters – evidence of the high quality and thoroughness of the training they received under her supervision.' (Davies: 1986)

From 1868-1972, Juliet Armstrong studied under Hilda at the University of Natal where she took a BAFA Majoring in Sculpture, with a ceramic minor. After studying abroad Armstrong returned to the University to do her MAFA where Hilda was her co-supervisor. From 1973 to 1976 Ian Calder studied under Hilda for an undergraduate degree in ceramics, and then from 1977 to 1979 for his postgraduate degree with her as his practical supervisor. Under Hilda, Calder and Armstrong learnt the skills of throwing, hand-building, earthenware and stoneware, porcelain and glaze chemistry and decorating techniques. She encouraged her students to experiment & take risks with glazing and taught them to use double-glazing.

Both have described Hilda as a methodical and systematic teacher, who had high standards for her students and always pushed them to achieve their full potential. Armstrong describes Hilda as a close friend and mentor, a teacher who was gentle and empathetic, and always present. Although Hilda maintained a business-like manner during working hours, she had a soft side these students were privy to. In Armstrong's opinion Hilda was well informed and a fine glaze technologist. She loved stoneware glazes and especially nickel based glazes which recipes she had acquired at the Central School of Arts and Crafts. She never made work in the studio when her students were present but was always actively involved in the mixing and formulation of new glazes and glaze defects. Armstrong describes her as a studio ceramist, who had a good sense of form and was very precise in her making and decorating of wares. She used shells and natural forms for decorative inspirations transforming her designs to suit the form she decorated. (Armstrong: 2007)

Hilda was a demanding and methodical teacher. She required the same from her students. Just as she did for her own work, she required her students to keep detailed journals of their work. This included a sketch of the work and next to it details of the clays & glazes used, methods of constructing and decorating the work and the results of the glaze firing. Hilda's journals can be found in the archives along with preparatory drawings and sketches. **(Appendix 12, 14)** There was a 'Hilda' way of doing things (Calder: 2007) – there was a certain way of throwing a rim, a certain way of putting a handle on, a certain way to turn a piece. Once these fundamental basics were refined, she encouraged her students to branch out into their specific way. These were sort of stepping stones. You had to be able to do these things in order to progress up some kind of modernist ladder of formalist values. And unless you adhered to that you were not set free to do your own thing. (Calder: 2007) Having said

that, Hilda was always delighted that a student understood the technical cannon insomuch that they could move in a surprising direction. These template forms, canonical forms, are present in all her students, even to the present. (Calder: 2007)

Armstrong, who taught with Hilda for five years, and Calder became lecturers at the University of Natal in the Fine Arts Department teaching ceramics and sculpture. **(Appendix 16)** Their teaching repertoire includes various ceramic techniques, lectures in glaze chemistry, clay bodies, different glazing, decorating and firing techniques. Armstrong continues to use the ceramic collection left to her by Hilda as a teaching reference, incorporating it into her practical and theoretical lectures. One could say these lecturers have upheld Hilda's educational sentiments and maintain a high standard in a department where many students qualify in both undergraduate and postgraduate degrees in ceramics each year. Some of Hilda's former students include:

<b>Juliet Armstrong</b>	(ceramist, lecturer at UKZN, Pietermaritzburg. Keeper of her archives and private ceramic collection)
<b>Ian Calder</b>	(lecturer at UKZN, Pietermaritzburg)
<b>Garth Claassen</b>	(ceramist, Assistant Professor of Art and Gallery Director of Albertson College of Art, Idaho, USA)
<b>Katherine Glenday</b>	(stoneware ceramist in Kalk Bay)
<b>Bryan Haden</b>	(stoneware ceramist in Gordon's bay)
<b>Melanie Hillebrand</b>	(curator of Nelson Mandela Metropolitan Museum, Port Elizabeth.)
<b>Bea Jaffray</b>	(studio ceramist Grahamstown)
<b>Jonathan Keep</b>	(RCA graduate in ceramics, working in the UK)
<b>Peter Lee</b>	studio ceramist in the UK)
<b>Rozamund O'Connor (née Dunn)</b>	(RCA graduate in ceramics, working in Johannesburg)
<b>Peter Schütz</b>	(former sculptor lecturer at University of Witwatersrand, retired)
<b>Irene Walker</b>	
<b>David Walters</b>	(studio potter in Franschoek)
<b>John Wilhelm</b>	(studio potter in Swellendam)

## **Conclusion**

In order to understand Hilda's achievements and importance in South African Ceramic history, and to place her in perspective, it is important to look at the role women played in the pottery industry as one defining characteristic of her trade.

Hilda was a woman working in a predominantly male trade, where historically women were aids to male potters. An article in *The Pottery Gazette and Glass Trade Review* in April 1930 remarked on Susie Cooper, a British ceramist who began working in the 1920's, saying, 'It is only rarely in the history of the Staffordshire Potteries that one comes across an instance of a pottery artist, and particularly a lady, who has the confidence and courage to attempt to carve out a career by laying down a special plant and staff on what must be admitted to be something suggestive of a commercial scale.' (Casey 1992: 23) Although she was working in the industry and not as a studio potter, Susie Cooper's developments and achievements in ceramics are important to be noted as she was a successful female ceramist, who like her British predecessors: Hannah and Florence Barlow, Joan Cowper, Star Wedgewood, Millie Taplin, Freda Beardmore, Jessie Van Hallen, Clarice Cliff and Charlotte Rhead, set a precedent for female ceramists to work professionally in both the studio and factory. The women in England and South Africa who have been mentioned were important in the studios, defying any criticism as to their abilities as potters being constrained by their gender. Ceramists such as Katherine Pleydell-Bouverie and Nora Braden set a precedent for women studio potters in England, as did Methley, Short, Frank and Johnstone at the Ceramic Studio in South Africa, by their total involvement in all stages of production of their wares. They broke away from the gender specific constraints of women's skills and place in the studio and challenged industrial pottery manufacture where shape and decoration were not seen as necessary in being part of each other.

The same can be said for Hilda who, although was not working in a factory or studio as a mainstream artist, and therefore subject to less exposure and less criticism, she was working in a predominantly male industry. She undertook great tasks such as throwing, decorating, designing, glazing, building and packing kilns. She was doing what was generally and traditionally regarded as a man's job in a man's craft, yet she proved to be more than adequate and capable to carry out these tasks to the same ability as her male colleagues. This



aspect of ceramics had already been established by the women of Olifantsfontein and although Hilda was aware of this work, she felt she had pursued a different track by using stoneware, which was unprecedented in Southern Africa. She worked in isolation with little reference from her peers. Much of the reference and knowledge she acquired was from abroad. Throughout her studies and career, Hilda kept informed about current ceramics. This was made possible through the journals, newspapers and literature she acquired. She had a great collection of Journals such as has been mentioned, the *Pottery Gazette* and the *Pottery Quarterly*. From the 1970's she subscribed to the *Ceramics Review* journal. She had also built up a collection of literature including books by Bernard Leach. During her many years as a teacher as well as a ceramist, Hilda involved herself with many ceramists and ceramic committees both locally and abroad which also exposed her to different ceramic wares and put her in contact with other practicing ceramists. She was an active member of the South African Association of Potters and a member of their selection committee in Natal, as well as an Associate member of the Craftsmen Potters Association of Great Britain. **(Appendix 16)**

Hilda's achievements in studio pottery in South Africa were of great significance, especially in her teaching. She introduced skills and techniques to students who would otherwise not have the expertise to assist and master the techniques of high fired ware. She was contemporary in her use and knowledge of stoneware and glazing. This created a liberating atmosphere for her students who were not beholden to the recipes and formulae of an expert, but were equipped with the ability to devise their own recipes and clay bodies to suit their needs. This keen understanding of ceramic materials led her students to experiment with different media: Juliet Armstrong (bone china), Ian Calder (maiolica and stoneware), Bryan Haden (reduction stoneware), John Wilhelm (domestic stoneware), David Walters (domestic porcelain) and Katherine Glenday (porcelain). It is evident from this list of former students that they were able to pursue their interests without being limited to a specific technique or style.

In the early to mid 1970's Hilda was called to act as Head of Department many times. 'While the Department suffered one professional crisis after another. She shouldered the extra load each time as she always did: quietly, efficiently, without complaint and with a minimum of fuss.' (Davies: 1986) 'Throughout the years when Heads of the Department of Fine Arts

have come and gone with regularity, Professor Ditchburn has always been the person responsible to act as Head and keep the Department together. Only because of her outstanding ability for organizing and administration coupled with her teaching ability, has the Department been able to weather the storms.' (Davies: 1986) Hilda was promoted to Associate Professor a few years before her retirement. She retired from the Department of Fine Arts and History of art on 30<sup>th</sup> June 1981. Her plans for retirement were to continue experimenting with porcelain; however, this was short lived due to her husband Leonard's illness. In 1986 Leonard passed away and shortly after Hilda died on the 19<sup>th</sup> February 1986. (University of KwaZulu-Natal, Pietermaritzburg Archives: *In Memoriam*, BIO – 5 225/1/1- Ditchburn, Hilda L Prof)

Although Hilda is known countrywide by her colleagues and former students for her glazes and porcelain, she has not been properly acknowledged for her work and achievements in South African Studio ceramic history. Neither her work nor her achievements have been documented in South African public collections or texts. Many of her former students including Armstrong, Calder, Haden, Walters and Glenday, to name a few, have had their work recounted in texts such as those by G. Clarke and W. Cruise, however, such acknowledgement has regrettably not been given to Hilda and it is really only those who knew her who are aware of her accomplishments. She built up a large body of work and repertoire of glazes which benefited not only her students, many of whom are practicing ceramists, but also students who studied at the at the University after she retired and those who are currently studying there. The legacy she left behind would have been taken for granted had her students such as Armstrong and Calder not accredited her in their own work and with reference to the students they teach. Her private ceramic collection is of enormous value to these students and still used as a teaching reference. Her glazes and glaze test pieces are still in use at the Centre for Visual Art, University of KwaZulu-Natal.

Although the kiln was demolished in 1981, the legacy of her teaching and expertise has been quietly carried on to others. Stoneware has been used in South African studio ceramics since it gained popularity around the 1970's, she really was the pioneer of high fired work in South Africa and in a quiet way her legacy lives on.

## Glossary

A comprehensive Glossary adapted from *The Potter's Dictionary of Materials and Techniques* by Frank and Janet Hamer.

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- Ashes** The non-combustible remains of animal (bone) and vegetable matter used by the potter as a source of body and glaze fluxes. The commonest uses are of bone ash in bone china body and vegetable and wood ashes in stoneware glazes.
- Bisc, bisque** Hard biscuit unglazed fired pottery. The words bisc and bisque are used to imply the industrial method of a high temperature firing of the unglazed ware to be followed by a lower temperature glaze firing.
- Biscuit** The fire ware unglazed in preparation for glazing; also the unglazed fired ware.
- Bottle Kiln** A familiar name for the bottle – shaped, up-draught, brick built kiln which was developed in Stoke-on-Trent. From the late 18<sup>th</sup> century to the mid 20<sup>th</sup> century scores of these kiln structures dominated the skyline in the Stoke Potteries area.
- Celadon** A grey-green Stoneware and Porcelain glaze. The glaze is a feldspathic type using fairly stiff and applied thickly. The colour is derived from iron oxide which in the reduction firing has been turned to black ferrous oxide. Celadon ware was of Chinese origin and covers the Yue, northern Celadon, and Longquan. These are grey – green dark – coloured and thickly-glazed wares.
- Ceramics** (Ceramics) Clay products made permanent by heat (the ceramic change); also the Study of this subject. The word comes from the Greek Keramos meaning potter's clay and the ware made from it but it is used to describe non – clay refractories which are changed or formed by heat and also many silicate products.
- China** British porcelains and white earthenware are often loosely called 'china'. The term comes from the habit of name in imports by their country of origin. Chinese porcelain was 'china' and so were its European imitations and derivatives.

**China Clay** Kaolin. The purest natural clay. Its composition is approximately equal to the mineral kaolinite and it is therefore given the same chemical formula of  $\text{Al}_2\text{O}_3 \cdot 2\text{SiO}_2$ . It is used in bodies to give whiteness, to clarify colours and to control vitrification. In glazes it gives fluidity control at stop stage, viscosity control at the molten stage and adds stability to the final stage.

**Clay** Hydrated silicate of aluminium. A heavy, damp, plastic material that 'sets' upon drying and can be changed by heat into a hard, waterproof mineral. The properties of clay upon which pottery depends are the workability which allows forming and retention of form, and the property of ceramic change to a new material by heat.

**Double dipping** A glazing action whereby the inside and outside of a pot are glazed in one action without glazing the base. A sharp jerk upwards, after dipping the pot, rim first, into the glaze, splashes the inside of the pot provided that the rim does not come out of the glaze.

**Down Draught Kiln** A kiln design in which the flames are deflected downwards throughout the chamber to use heat fully and evenly before the cooled fumes escape at the flue exit to the chimney stack.

**Earthenware** Pottery made of porous body which is waterproofed, if necessary, by a covering glaze. If the fired body has a porosity of more than 5% then it is earthenware.

**Electric Kiln** This is the simplest type of kiln to construct and fire for oxidized firings this is simply an insulated chamber heated by electric elements, with a closable port to allow water and fumes from clay and glaze to escape. The chamber may be constructed from high temperature insulation brick (H.T.I.), or low thermal mass brick, or other structures lined with ceramic fibre in the form of blanket, board or paper.

**Enamel** Overglaze enamel. Metal enamel. Glass enamel. Vitreous enamel. Porcelain enamel. A soft – melting glass used to decorate pottery, metal and glass. The material is similar in all cases and like other ceramic glazes is composed of fluxes and alumina – silicates, soda, potash and boric acid are the main fluxes with some lead oxide in underglazes and overglazes enamels. The colours are the usual metal oxides.

**Faience** Earthenware with colourful decoration or colourful glazes. The name faience is used by archaeologists to describe tin-glazed wares from Egypt and South – West Asia. Also any glazed pottery, pottery ornaments and small beads, as yet unclassified, and which were made throughout Europe during the chrome and iron ages are collectively referred to as faience. The popularity of architectural faience and glazed tiles in the 1930's and 40's originated from a number of stylistic revivals, one being the Spanish Style. The Spanish Style, also called "Spanish Colonial", "Californian" and "Spanish Mission", was essentially a domestic style; however, it was also applied successfully to high-rise flats as well as commercial buildings.

**Firing** The process of conversion from clay to pot. It involves heat of at least 600°C (1112°F). Clay disintegrates in water but is changed by firing into stone – like material, unaffected by water, and in some cases impervious to water. The change is called ceramic change. Other changes occur during the firing, eg. Organic matter is burned away, the colour changes, a layer of glass is fused on the surface.

**Galena** Lead Ore. Lead sulphide. Smithum. Blue Lead. Pbs. The most important ore of lead from which lead is extracted by first roasting to the oxide and then reducing to the metal. Galena was used as a source of lead oxide in glazes.

**Glaze** A layer of glass which is fused into place on a pottery body. The glaze provides a hygienic covering on pottery because it is smoother than the body it covered and it is non – porous. It is also decorative, providing colour, shine and textural contrast with the body, and it increases the strength of the ware by the creation of a body – glaze layer. The glaze is first attached to the pottery body in the form of a layer of powder. This powder is composed of glass forming materials, fluxes and stabilizers. During the firing they all fuse together to form a compact layer of molten material. On cooling, this layer does not separate into its former constituents but remains as the new material, glass.

**High-temperature glaze** One which matures above 1200°C (2192°F). High – temperature glazes are also called stoneware and porcelain glazes. They make use of the alkaline earth oxides for fluxes and since these can be obtained in insoluble form a glaze can be produced without recourse to fitting. The fluxes are magnesia, calcia, zinc oxide and baria.

**Kiln** A structure built to conserve heat. The word kiln is derived from the Latin *culina*, a kitchen, as in *culinary*. The potters' kiln is developed from the open French system of firing by the addition of a dome of shreds to baffle back the heat. Today's structures are more sophisticated but the principle remains the same. Heat is introduced into the chamber where the pots have been placed. The temperature is raised and the amount of oxygen in the atmosphere is controlled according to the needs of the pots and their glazes. The design, construction materials, and insulation used depend upon the fuel to be used and the temperature and atmosphere required by the pots. Electricity is popular as a simple to operate, clean fuel but is usually suitable only for oxidized firing. Reduction atmospheres can be controlled in kilns using oil, gas, wood or coal. The design of flues, tracking of flames, size and height of chimney are determined by the fuel system.

**Low-temperature glaze** One which matures in the range of up to 1050° C (1922°F). Low-temperature glazes make use of the soft fluxes: lead oxide, boric oxide, soda and potash. With the exception of raw lead glazes it is necessary to employ frits in low-temperature glazes because the fluxing oxides are soluble in water.

**Lustres** Metallic surfaces on glazes. The pure metal is deposited on the glaze surface by many different methods but all involve reduction from a compound to pure metal. The metals used are gold, silver, platinum, copper, bismuth and tin, with some experimental work involving ruthenium, rhodium, palladium, osmium and iridium.

**Maiolica** Decorated tin-glazed earthenware. Maiolica is traditionally soft-fired with a lead glaze made opaque by tin oxide.

**Onglaze** O/G. Onglaze colour. Overglaze colour. Onglaze enamel. O/E. Ceramic colours applied on top of the fired glaze surface and given an extra firing. The firing is at a lower temperature than the glaze firing in order that the glaze is undisturbed whilst the onglaze colour fuses itself onto the original glaze surface.

**Oxidation** In pottery this refers to the combination of oxygen with an element or compound. Such an action occurs in the firing at temperatures above red heat and if required is achieved by the introduction of excess air to the fire by allowing pure air

to track through the muffle. Small ports set low and high in electric kilns encourage this movement of air amongst pots.

**Oxide** A chemical combination of oxygen with another element. To a potter there are two types of oxide, the metal oxide and the non-metal oxide. The metal oxides are numerous and form the fluxes, colourings and opacifiers. The non-metal oxides are few and are the glass formers and volatiles.

**Plasticity** The unique property held by clays which combines the strength of a solid with the fluidity of a liquid. Plasticity allows the solid to be reformed without rupturing and allows the new form achieved to remain without any attempt to return to the original form. That is, there is no elasticity involved.

**Porcelain** A vitrified, white and translucent ware. A few wares fit this description. The one usually implied is that fired at 1300°C (2372°F) plus. In this, the body and the glaze mature together to create a very thick body-glaze layer which gives the whole piece an important strength. This ware is sometimes called hard-paste porcelain or grand-feu. There is also soft-paste porcelain or petit-feu porcelain. Here the body and glaze mature together but at a lower temperature. To achieve translucency, the body contains a high proportion of glassy frit which requires very accurate firing.

**Raku** A Japanese word freely interpreted as 'enjoyment'. Raku is a low-fired glazed pottery by a direct process which involves putting the pots into and taking them directly out of the red-hot kiln. The firing takes up to an hour when the glazes have melted and the pots are removed to be replaced by another batch. The process gives the potter control of colourful expressions as he subjects the pot and its glaze to the oxidations and reductions during its cooling.

**Reduction** The action of taking oxygen away from metal oxides. The potter uses reduction to coax different colours from the same metal oxide in his clay or glaze, such as black pots from a red clay or a metallic luster from a white tin glaze. This he achieves by controlling the atmosphere surrounding his pots during the firing and/or cooling. By altering the atmosphere he alters the metal oxide he is using for his colouring.

**Relief decoration** A relief is achieved by modeling the surface of the clay, by

adding pieces of clay (sprigging), by pushing the clay out from the other side (repoussé), and by using relief moulds.

- Resist** The action whereby a coloured decoration as slip or glaze is prevented from adhering to selected parts of the pot. The simplest resist is paper. Newspaper is ideal. This is cut or torn to shape and attached to the pot at leather-hard or earlier stage by slip or wetting with a sponge. As the pot and slip begin to dry the newspaper comes loose and can easily be peeled away leaving a clean decoration.
- Salt glaze** A glaze derived from salt, usually common salt, which is thrown onto the kiln fire. The salt decomposes and volatilizes, the most important product being soda which combines with alumina and silica from the hot pottery body to produce sodium aluminosilicate, i.e. salt glaze.
- Slip** An homogenous mixture of clay and water. Slips are used for coating clays to give colour and a smooth textured surface.
- Slip-casting** A pottery-forming process which uses moulds to give the forms and uses liquid clay (slip). The slip is poured into the porous moulds which absorb some of the water from the slip. A layer of clay thus builds up against the wall of the mould to give a cast. When the excess slip is poured out, the clay forming the cast is left adhering to the mould. The cast is stiffened, removed from the mould, dried, fettled and fired in the usual way.
- Slipware** Earthenware pottery decorated with coloured slips under a transparent lead glaze. Slipware is domestic ware and was largely thrown but large oven plates were pressed. The body was red or buff and slips were made from this clay with added oxides of iron, copper and manganese. White slips were made from ball and china clays or the small deposits of pipeclays and white fireclays. The effect of the mellow shine of a lead glaze coupled with the richness of colour from the slips make slipware a justly popular ware.
- Stoneware** A hard, strong and vitrified ware, usually fired above 1200°C (2192°F), in which the body and the glaze mature at the same time and form an integrated body-glaze layer. The quality of the glaze owes much to the establishment of this layer and it is therefore the glaze quality which determines a wares acceptance as stoneware.



- Terracotta** Earthenware modeling both glazed and unglazed. The word comes from the Italian and means simply fired earth though the word is often used to describe the orange-brown colour of red-burning clays.
- Throwing** The action of making pots on a quickly rotating wheel using only the hands and for lubrication, water.
- Tin-glaze** Tin oxide is added to the glaze in proportions to render the glaze white. This enhances the painted design usually painted on with metallic oxides.
- Underglaze** U/G. Ceramic colours applied usually on biscuit and covered with a transparent glaze. Underglaze colours are modified oxides which gain their full colour with the 'wetting' action of the covering glaze. They usually contain a small amount of glaze, referred to as flux, which binds them to the body and integrates them with the glaze above.
- Up-Draught kiln** A kiln in which the hot gases pass upward through the ware. It is the simplest form of kiln and does not require a chimney. There is sufficient draw in the tall, tapering chamber itself to pull in air at the fire-mouth, through the fire, combustion space, and into the chamber from whence the exit is through holes in the cover.
- Wood ash** The inorganic residue after the combustion of the organic structure of wood. The term is popularly extended to include other vegetable ashes, e.g. grass, reed and straw. Wood ash contains up to 50% alkaline fluxes: potash, magnesia and calcia. The remainder is silica and phosphorus pentoxide which are glass-formers and alumina which is the important amphoteric oxide. A wood ash is therefore similar to a glaze, and could be called a natural glaze frit.
- Wheel** Potter's wheel. A rotating disc on which pots are formed. It is motivated by outside power, electricity, etc, or by foot or hand with the help of a flywheel. Its purpose is to turn the clay while the hands form the pot.

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## APPENDIX

## Appendix 1

(Source: K.I. Mackenzie: University of KwaZulu-Natal, Pietermaritzburg Archives: BIO-5 225/1/1- Ditchburn, Hilda L Prof)



Professor Hilda Ditchburn

BIO-5 225  
 Professor Hilda Ditchburn who retires at the end of June, has given this University for years of loyal and devoted service. A graduate of NUC, she joined the Fine Arts Department in Pietermaritzburg to teach Modelling, Pottery and History of Art in 1941 when Prof. Oxley joined the army to run the Occupational Therapy Unit. After the war she directed her interest and energy towards ceramics, studying stoneware techniques and glazing at the Central School of Arts and Crafts, London and, while travelling in England and Europe investigated oil kiln design and firing.

Her drive and her teaching ability soon made ours one of the best Ceramics Sections in the country but it was not until 1971 that Ceramics was introduced as a major subject in the B.A.F.A., as well as a minor course. Many of her former students are full-time practising potters and Prof. Ditchburn, herself, is known countrywide particularly for her glazes and fine porcelain.

During the comings and goings of heads of the Fine Arts Department she has acted as Head of Department, and undertaken the departmental administration in addition to her heavy teaching load. In addition she was for many years Sub-Warden at University Lodge and Mrs Kirwood's right-hand. In fact those of us who see her coming back from her department at eleven or twelve at night from packing and unpacking a kiln, wonder where this slight even frail-looking woman gets her stamina. We wish her a happy and satisfying retirement.

K.I. Mackenzie

## Appendix 2

(Source: *Ingrid de Haast interview*: JY Armstrong Archives)

### Prof. Hilda Ditchburn

*Ingrid de Haast*

The Professor retires at the end of this semester after 40 years of teaching, but will continue teaching majors part-time till the end of the year.

**IdeH:** How did you get into ceramics?

**HD:** I had never really worked in two dimensions – I had done some woodcarving – right from the start. I had worked three-dimensionally and neither painting or printing appealed to me. So I turned to sculpture and then ceramics.

**IdeH:** Did you always want to be a teacher? Many of your ex-students comment on how they always found you sympathetic – how you took time out to explain difficult situations, how you would go right back to basics and explain until the student understood.

**HD:** Well, I had done Teacher's Training also, and did Teacher's Diploma at the University. We did have a specific teaching subject – mine was art.

**IdeH:** How long was the Art School in Durban before it moved up to PMB?

**HD:** We moved here in 1937. The University Fine Arts Department was founded in 1924. The ceramics department was very small, pottery was considered a craft. Painting and Sculpture were the Fine Arts!

**IdeH:** How did the wide interest in ceramics start?

**HD:** It was a world trend, it really started in America with people like Voulkas who went right away from functional ceramics.

**IdeH:** Do you like his work?

**HD:** Some of it, yes, but I don't like to judge from photographs.

**IdeH:** I believe you went to the Central School of Art in London. What made you go there?

**HD:** I wanted to find out about stoneware: you see stoneware wasn't used in this country, and I wanted to expand the work of the department into higher temperatures, so that was the reason why I went.

**IdeH:** While you were in London did you work with porcelain?

**HD:** The only person who was doing porcelain at that time was Lucie Rie. You see, the porcelain "fashion" had just started then. Her porcelain from that period was rather soft.

**IdeH:** Her style hasn't changed over the years, she still does her little bowls with sgraffiti.

**HD:** Yes, but there are very subtle changes in the forms and the glazes. I like them, but of course one mustn't judge from photographs, the quality of the glaze just doesn't come through.

**IdeH:** Do you think that the finish one gets from reduced stoneware is more effective than oxidised stoneware?

**HD:** You need more skill with an electric kiln. You see, with reduction firing, your firing is doing things for you, you only have to dip your pot into one glaze, and put it into a reduction kiln, whereas with electric firing you really have to be much more skilled in the actual glazing process and you have to know much more about glazes. I have specialised in glazes and because we fire electrically, it has been necessary to build up a repertoire of glazes. Glazes suitable for reduction are not suitable in electric firing. This thing about reduction firing is terribly over-emphasised.

**IdeH:** There seems to be a trend in selecting for exhibitions, that reduced stoneware has more chance than oxidised stoneware, or earthenware.

**HD:** This discouragement of earthenware saddens me. I love earthenware, there again you've got to be very skilled in the glazing. It is no good just dipping pots into the glaze and hoping that you will get something interesting.

**IdeH:** How do you feel about majolica? Not very many people use it here.

**HD:** Yes, I like some of it. In the second year here that students work in it. It is a very demanding medium, it means experience in



*Prof. Ditchburn.*

what the oxides will do. Not many students take to it, they tend to jib at having to work out the design, because it's not something you can just paint straight on. If you make a mistake you can't erase it, you have to start from scratch, removing the glaze, and start the design all over again. We do use some manufactured colours, but on the whole we just use oxides, the colours are much fresher.

**IdeH:** Who are your favourite potters?

**HD:** I think Michael Cardew – I have the greatest respect for his work, I think it is less influenced by the oriental style. I find him very skilled, but what I like about his work is his shapes: I think he is more influenced by the English Mediaeval style.

**IdeH:** Did you meet him?

**HD:** Yes, I was at a conference where the Leaches and Cardew were involved. He is a very outgoing person. I certainly like a lot of Bernard Leach's work. Of course, he is in a rather separate category.

**IdeH:** Whom else do you admire?

**HD:** I like Mary Rogers' work, she is very skilled at her pinch pots.

**IdeH:** One very seldom sees pinch pots on exhibitions.

**HD:** It is acceptable as long as pinch pottery is well done and the form is good. I don't like the lumpy sort of surfaces. As with coiling – that's just bad craftsmanship.

**IdeH:** When you've set up your workshop will you do any teaching?

**HD:** No, I've had enough of teaching, I want to do a lot more work on porcelain. I like porcelain – porcelain needs special glazes developed for it. I find these heavy stoneware glazes rather absurd on a thin porcelain body, you know, looking at exhibitions you see a lot of it. You can use stoneware glaze on porcelain but I think it destroys the character.

**IdeH:** Talking about porcelain, what do you think of Eileen Nesbitt's porcelain forms?

**HD:** I find them too contrived, but again I don't like to make any judgements from a photograph. Juliet Armstrong when in London last, saw them and said they were absolutely beautiful. Photographs also don't give the scale; I believe Juliet said these forms were tiny.

**IdeH:** When working with porcelain, will you be making functional bowls or sculptural pieces.

**HD:** I am not really interested in functional, I would just like to throw – it doesn't matter whether it is functional or not, I like making sculptural pieces from the thrown ware, because I like using the wheel. ●

## Appendix 3

(Source: *Ann Staniland interview: University of KwaZulu-Natal, Pietermaritzburg Archives:*

BIO – 5 225/1/1- Ditchburn, Hilda. L Prof)

### People

# She can be proud of her achievements



Ditchburn is keen to spend time renovating and is interested in doing more work in porcelain.

By Ann Staniland  
CERAMICS were moved up in status from crafts to fine arts during the 1960s in both America and Europe, and this world trend gave Professor Hilda Ditchburn the impetus she needed to press for its inclusion in the same ranks in South Africa.

Until 1970, the study of ceramics was offered as a minor course at Natal University, Pietermaritzburg. Retiring at the end of this month after 40 years lecturing the subject at the University, Prof. Ditchburn can be proud of her achievements.

Pietermaritzburg University is now the only one in South Africa where a student can study for a Bachelor of Arts (Fine Arts) degree in ceramics.

"It has been hard work to keep it progressing and developing. One has to keep up with what is new abroad. It is also difficult for students here to study as there are no museums containing ceramics. In

England there are plenty and courses are so sought after that it is quite difficult to become enrolled," she said.

The Ceramics Department is now fully equipped, and courses in the history of ceramics, backed up with slide shows, have now been introduced to bridge the culture gap. There are also facilities for ceramic printing.

Professor Ditchburn, who was born in the Free State, has lived in Natal since 1930. She studied for her Bachelor of Arts (Fine Arts) degree in Durban, before the department moved to Pietermaritzburg in

1937. After World War 2 she went to London, where she studied at the Central School of Art.

"I had done ceramics as a minor course in Durban. We carried on in a rather untutored way in those early days, but I maintained a constant interest in it. It is three-dimensional, and I am particularly interested in the glazing side," said Prof. Ditchburn.

She will continue lecturing at the University on a part-time basis for a short time before retiring to her Pinetown home, where she hopes to set up her own studio.

"I have had little chance to do my own work because of the teaching load, and I am interested in doing more work in porcelain," she said.

She is also keen to spend time renovating her home, where she lives with her husband, retired businessman Mr Leonard Ditchburn.

She has shared many exhibitions of her work in Cape Town, Durban, Pretoria and other centres.

A valedictory exhibition of her students' work is being held at the Jack Heath Gallery, Fine Arts Building, Natal University until the first week in July, when it will move to Johannesburg, Pretoria, Stellenbosch and other towns.



## Appendix 4

(Source: *The Natal Mercury* 1952: JY Armstrong Archives)

THE NATAL MERCURY, THURSDAY, MARCH 27, 1952.

FROM DAY TO DAY BY NATALIE

*World's Craftsmen To Meet*

MISS HILDA ROSE, of Maritzburg, will attend an International Conference of Craftsmen in England in July. She is a potter at the University of Natal and is well known for her exquisite work. (See story.)

A NATAL woman, Miss Hilda Rose, is among the distinguished craftsmen of the world who will attend an International Conference in England in July.

Potter of the Natal University, Miss Rose will be among delegates from the Far East, Scandinavia, the United States and European countries. Sponsored by the Arts Department of Dartington Hall, Totness, Devon, the conference will allow the world's craftsmen to pool their experience, clarify their problems and work out a positive approach to the future.

An exhibition of pottery and textiles will be organised in conjunction with the conference and will include examples of the best workmanship of British artist-craftsmen during the past 30 years.

**Advisory Panel**

Both the conference and exhibition are being planned with the help of an advisory panel numbering among its members Mr. Phillip James, C.B.E., Director of Art, Arts Council of Great Britain; Lady Semphill, A.R.C.A. member of the Scottish Council of Industrial Design and of the Council of the Royal College of Art; Mr. George W. Digby, Keeper of Textiles at the Victoria and Albert Museum, and Mr. Bernard Leach, the well known potter. Mr. James is chairman of the advisory panel.

**Reasons For It**

The main reasons behind the sponsorship of the Conference are the firm convictions that the craftsman remains an essential member of society in spite of the continued growth of industry; that crafts provide a degree of variety and excellence that industry cannot match; that an increasing number of people are ready to accept a simpler standard of life in order to have the satisfaction of working with their hands; and that the crafts have an essential part to play in education, in therapy and as a form of creative leisure.



Parker Science - hi Potter  
 the only rule for tradition a  
 science -  
 clay  
 kaolinite group - kaolinite - porcelain  
 ball clay - refractory + non plastic  
 illite -  
 montmorillonite (in refractory  
 + very plastic  
 illite group between the two  
 grain size affects working properties  
 - to do with plasticity -  
 Amorphous  
 Mechanical water hygroscopic  
 $H_2O$  + chemically combined  $H_2O$   
 thermal history  
 up to 550 metahealin  
 900 a crystallisation of metahealin  
 as it radiates its own heat  
 Silica  
 Quartz - B quartz  
 Bentonite a very important  
 material for pottery (look up)

Feldspars  
 Feldspars - nepheline or

fluxes  
 Calcite fluxant Potash Boron  
 Lithium (swappa) lightest in melt wt  
 Ambiposite (for melts)

Use of analyses

Grinding

Suspension Langmuir theory

Glaze body interface important

Sc. for the Potter Burke  
 Analyses are only a rough guide  
 but formulae are not really on  
 so basis + be simplified  
 for good analyses useful for  
 possible use of new material +  
 pottery.  
 Thermo couple are useful  
 Physics is useful in study of  
 plasticity  
 Plasticity  
 mouldable without cracking  
 Bentonite is good to use in  
 porcelain body to make it plastic  
 - still not plastic enough +  
 incline to be thin  
 how to prevent absorption of  $H_2O$   
 - certain types of soaps or  
 detergents with do this - bent  
 have Bentonite present 5%  
 for this  
 5% - 10%  
 5% hard soap or soap  
 Even hair shampoo.

Hand soap - cattle soap  
 household soaps as good  
 but etc may be good.

Method of mixing important: -  
 weak powder into plastic clay  
 head + behind.

Green colours  
 Celadon + copper violet

Development of the iron foot.  
 Iron ore in clay between layers  
 of clay - when heated iron goes  
 into solid solution with mullite  
 - yellow to brown in colour -  
 so oxidised iron is yellowish  
 to keep red + colour prevent  
 iron from going into solid  
 solution - reduce the iron  
 foot - follow with oxidising

Precipitation as against solution  
 of iron

Engineering in grinding materials  
 kiln etc.

Low temperature porcelain bodies  
 Cone 5 1350°C. softening  
 773

C Cl 62	Chemical 40
Antibiotic 8	Beet. 10
Talapat 15	Talapat 34
Talapat 7	Corrosalite 6
Whiting 3	
SiO <sub>2</sub> 2	Chemical 40
Ca CO <sub>3</sub> 2	Beet. 10
Corrosalite 1	Talc. 10
Ca	Talapat 5
Chemical 31	Whiting 5
Pearlons 10	SiCO <sub>2</sub> 2
Talapat 20	Al hydroxide 15
Borax ash 49	Quartz 29

not  
 1974 Sun recess  
 C. Clay 53  
 SA Talpat 25  
 Silica 14  
 Sunbath 5

Al hydroxide might be obtained  
 from Al. factories

Stating & purifying due to  
 liberation of gases after vitrification

Geol will enable potter to find  
 materials in his surroundings  
 Must know how to read geol  
 maps & know

Book Geol for beginners  
 Watt

Chemical Analysis of Lignous Rocks (Gott)  
 Geol. Museum - London

Lignous rocks  
 Granites 65-75% Si  
 Quartz  
 Potash  
 Mica

Cornish Stone

Basin rocks (contrasting time)

Basalt low in Si & no quartz  
 contain reduced iron


Rutleys Mineralogy  
 Hand book of " Winfield

Leach - iron foot helped by  
 use of wood in last hour  
 of firing

Function of soap - also absorption  
 of water - very viscous in  
 solution - Sodium soap particularly  
 or sulphated tannin type (better solution  
 Amaran shampoo 3% in water)  
 Potash (soft) soap as good,  
 see later on for chem. of soap.

Chemistry book - Parlington  
 inorganic chemistry  
 Hottelgard's inorganic chem.

Mica liberates gas at high temp.  
 decomposes at 1100°

Hamada.  
throwing - Sea pot - cut sides  
when leather hard handle over  
top thrown + cut.  
Bottle thrown - sides pressed  
beaded to flatten  
Bowl sides beaded with cut pat  
soon after throwing.  
Side  or otherwise

Kakemono decor.

Brush made with dry reeds  
brushed freely  
feather patterns on this with  
wide soft brush dipped in slip.  
(out of dipping)

Slip does with Japanese brush  
consistency that just drips  
off brush

Wax resist  
part painted with black slip



Leads  
Slip dip rim + wipe off top  
& handle.

Leads  
slip dipped wiped off on handle  
& little on rim

Bottle with handle dipped  
& wavy pattern with finger

Bowl slip trailed

Shikawara glazes  
Dip leather hard hard.  
Leccative  
Take use it on a hot pot  
more suitable for lean porcelain  
body.

The more plastic the clay  
the more difficult to run glaze  
impossible to get very thick  
thicker by double dip &  
fire.

Quality of thinness can be  
best -  
must be fired in updraught  
kiln.

1050° -

Galena	2	3	60	3
Clay	}	2	35%	3
Quartz			5%	

Galena 60 hardly glossy  
Clay 40

Clay was yellow sandy  
clay.

Crystallization  
To prevent raise alumina content  
calcium aluminate is the  
crystal matt  
or zirconium zinc silicate.

To form crystal hold at  
temperature when glaze is  
just soft.

Ash Glazes.

Oil spot & can be produced in  
oxidizing atmos. by substituting  
lapis lazuli for feldspar & increase  
iron a bit

The softer woods less siliceous  
cause produce softer ashes  
bracken ash

Rice husk which can be used  
burned on kiln shelves  
& bamboo are siliceous also teak  
Cannell Stem 70 cone 9  
Ash 30

- Make 11 lists  
 1. Pure ash  
 2. 1 ash of connect stone

Japan glaze  
 Rice ash 25%  
 Hard wood ash 15%  
 Connect Stone

Ash varies according to soil  
 season, etc.

Sea weed - in Japan seaweed  
 was used for round pot causing  
 possible pleasant effect.  
 or pot covered with grass dipped  
 in salt water.

If ash glazes are too rough  
 add silica

hrs. high in Mn  
 Phosphoric acids leads towards celadon  
 glaze

Quartz rich high in silica  
 Hard wood high in lime

Some carbon left in ash from  
 burning good as it will help  
 reduction

Seed ash is  
 almost all calcium phosphate  
 being glaze high calcium  
 phosphate - oil seed after  
 extraction of oil was probably  
 what was used.

Phosphate almost also causes  
 crazing.

China glaze

1st. Nepheline syenite? reduced  
 1st red clay produces  
 reddish brick.

The Ceramic Industry Periodical  
 Industrial Publications  
 5 South Wabash Ave  
 Chicago  
 Illinois

Patent Office Library  
 477 Chancery Lane have all  
 publications.

Cost is finer ground than Co. Co.

All grinding equipment  
 Sturtevant Engineering Co. Ltd.  
 Southern House  
 Cannon St  
 E.C. 4.

Lime gives green in celadon  
 Potash gives blue  
 Potash <sup>contaminant</sup> helps to produce blue.

Heavy spar contains barium sulphate  
 with alkali " " " carb.  
 Alkali alone must produce blue  
 celadon

Labor Tests Fabrics Stratford

Green grey Avon A  
 silky + wool thread

Blue with white spot Shaffersbury C.

Natural twinning effect Chelsea B

Books

Inorganic Chemistry  
 Parlington

\* Silica + its Silicates  
 J. A. Rudler

Bailliere Tindall & Co  
 1, Abchurch Lane, London  
 1921

Minerals or Optical Mineralogy  
 Winchell

Part II Description of Minerals  
 John Colley & Sons

Microscopic Characters of Artificial  
 Minerals Winchell  
 Colley

Making True Porcelain Dinnerware  
R.E. Gould  
Industrial Publications Inc  
Chicago 3 Illinois

Rutley's Mineralogy  
Revised by H.H. Read  
B. Murky

Carver's wheel  
W.W.A. Harden  
Engineers  
Redruth  
Cornwall

\$27 with metal stand  
\$15 wheel head + spindle + pedal  
for mounting on wood frame.

Nigerian Traditional Pottery by  
Carson in Oct issue of "Nigeria"  
Magazine from Editor  
Nigeria Office  
Lagos.  
2/- + 2d postage

Sil Keln Plan  
Mr Hower  
Wayside Pottery  
S. Agnes  
Cornwall.

Phyllis M. Shellington } 2 boxes  
Kenna Pottery } papers  
Mr. Kester.

Book (Studio)  
The work of the Modern Potter  
in England  
Gerty Winfield Dingley 16/-  
John Murray.

Jennaker Miss Bourne		Leach 1200-1270	
Felspar	60	Felspar	41.6
Limestone	15	Whiting	10.4
Quartz	15	Quartz	19.1
Red clay	10	Ball Clay	5.2
Red Iron	7	China "	10.4
Mn	6	Red Iron	13
Co	2		10.7

Celadon (dark) Bourne		Leach 1200	
Felspar	45	China Stone	25
Whiting	20	Whiting	25
Quartz	15	Quartz	20
China Cl	10	China Cl	13
Ball Cl	10	Ball Cl	15
Red Iron	4	Red Iron	2 1/2
	100		100 1/2

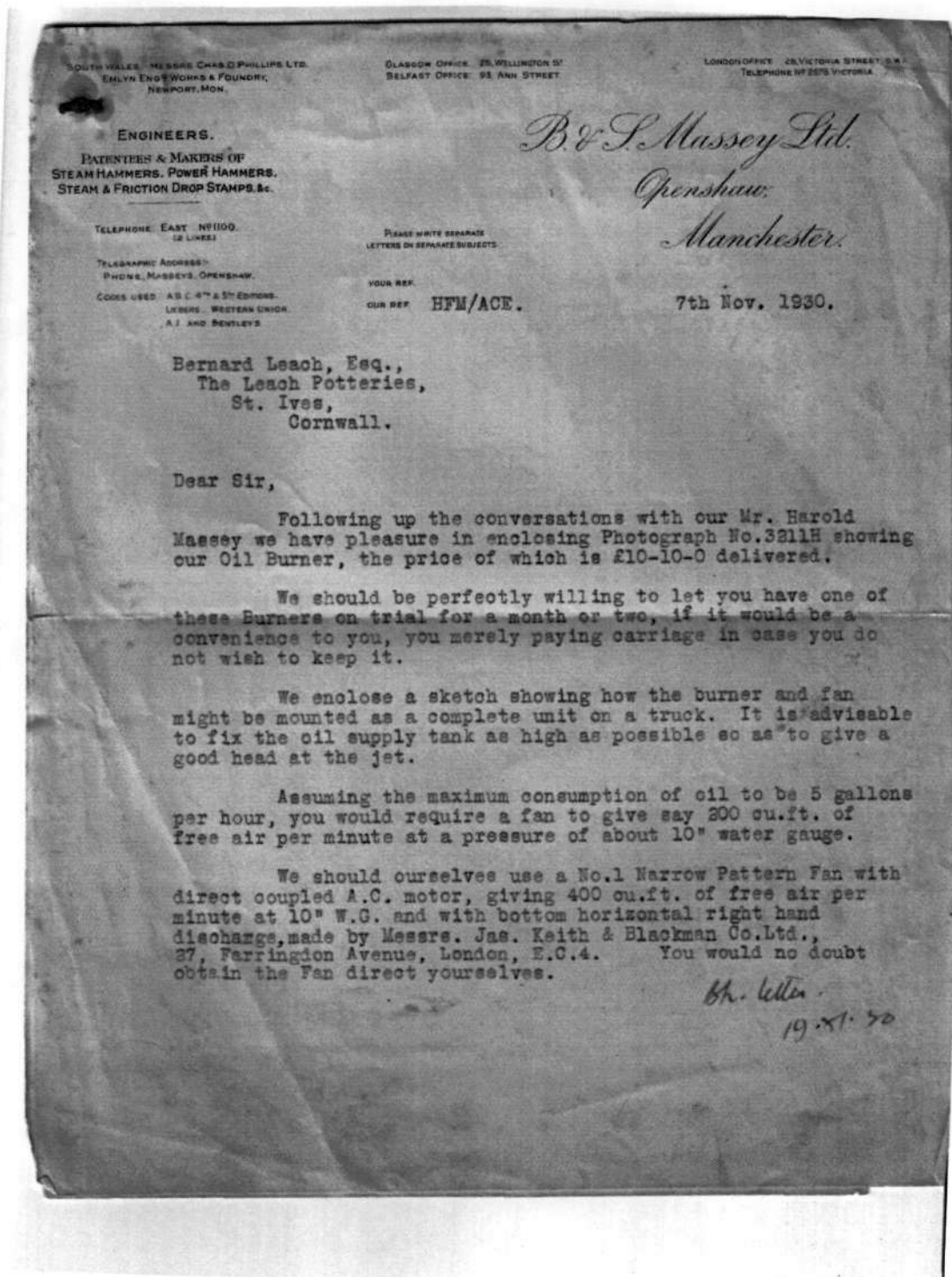
Visit to Leach Pottery 16/1/01  
 Discussion with David Leach  
 on oil-fired kilns.

He has just built a small  
 circular down-draught 40" in  
 diam inside & about 40" in high  
 fired with one oil burner.  
 From the fire mouth the flame  
 circles round under the kiln floor  
 & upwards round the walls  
 (lower shelves protected by a bag  
 wall) to the dome & down the  
 centre to the flue leading to the  
 chimney. At the fire mouth the  
 flames when placed straight play  
 on to a keel shaped refractory  
 wall which divides the flame to  
 each side - the burner is on a  
 swivel so that if one side of  
 the kiln is getting hotter than the  
 other the burner can be deflected  
 slightly to play a greater ~~flow~~  
 heat to the cooler side. In this  
 kiln the bottom becomes much  
 hotter than the top. This has



## Appendix 6

(Source: Kiln Plans, *Massey Letter*: JY Armstrong Archives)



B. & S. MASSEY, LTD., to M Bernard Leach, Esq. *Continued Sheet No. 2.*

We should be much interested to hear what success you have with this, or any other burner you decide to try.

Yours faithfully,

For B. & S. MASSEY, LIMITED.

*Charles G. Hayton*  
DIRECTOR

Enclos. 3211H.  
Sketch. 104449.

**Appendix 7**(Source: Kiln Plans, *Askam Letter*: JY Armstrong Archives)

TELEPHONE: EAST 1179

TELEGRAMS: "ASKFURCE, BIRMINGHAM."  
CODE: A.B.C. 5TH. EDITION.

**JOHN F. ASKAM**  
FURNACE DESIGNER AND MANUFACTURER

ALL TYPES OF  
OVEN, CRUCIBLE, CONVEYOR FURNACE, ETC.

AVENUE ROAD WORKS,  
ASTON,  
BIRMINGHAM.

Nov. 6th 1930.

Our Reference *JFA/MW.*

GAS FIRED FURNACES  
OIL FIRED FURNACES  
COKE FIRED FURNACES  
COAL FIRED FURNACES  
PRODUCER GAS FURNACES

Bernard Leach, Esq.,  
The Leach Pottery,  
St. Ives,  
Cornwall.

Dear Sir,

Referring to your call yesterday, and our discussion regarding the 3 - chamber Pottery Furnace you have in use. I have fully considered the question of applying oil to this particular Furnace with our engineer, and we have come to the conclusion that you would not get very good results. If the Burners were applied to the present firebox we are afraid that the first kiln only would get properly heated. Supposing we were to supply auxiliary burners to the remaining two chambers it is more than likely that there would be local heating.

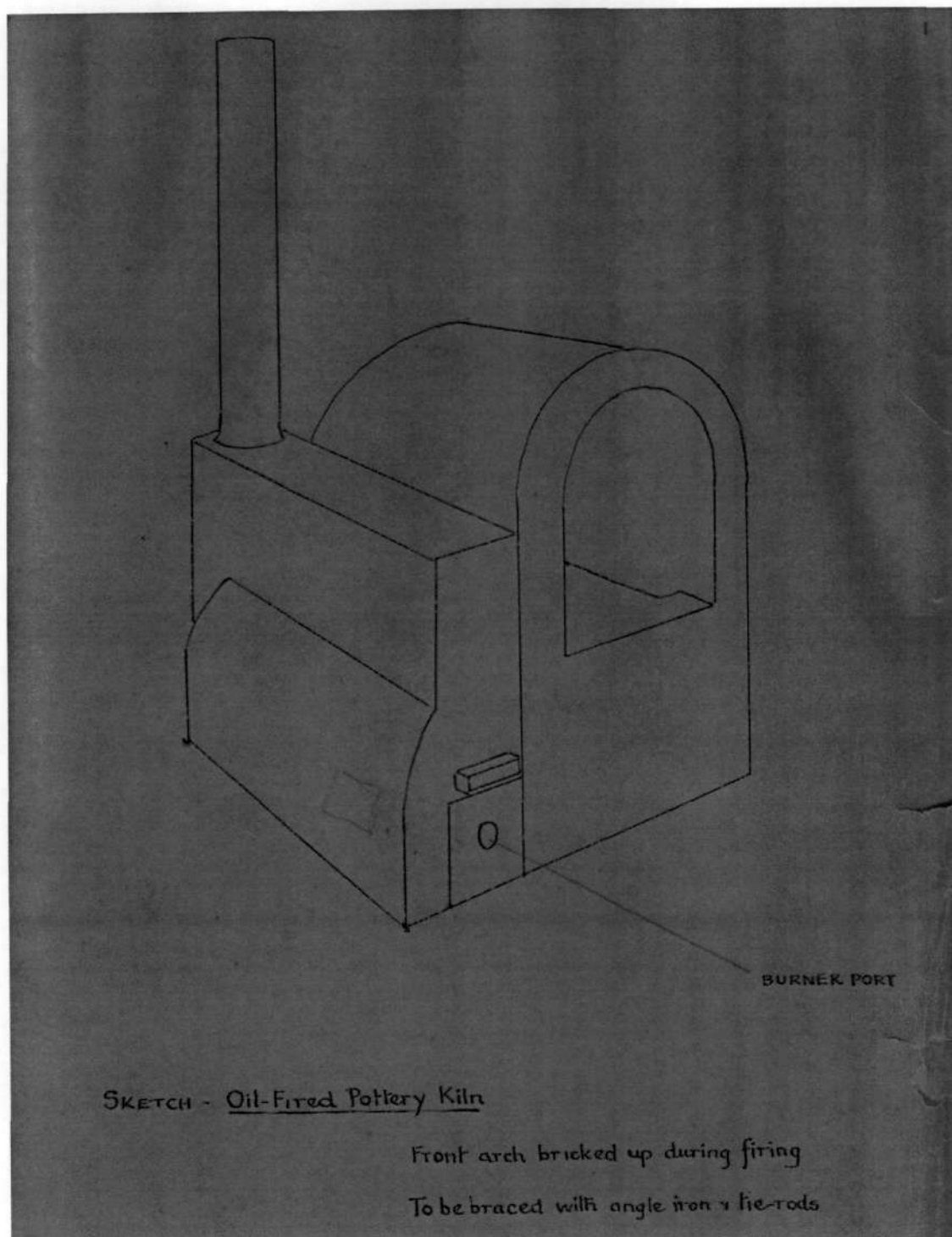
In our opinion, the circular kiln referred to would give much better results.

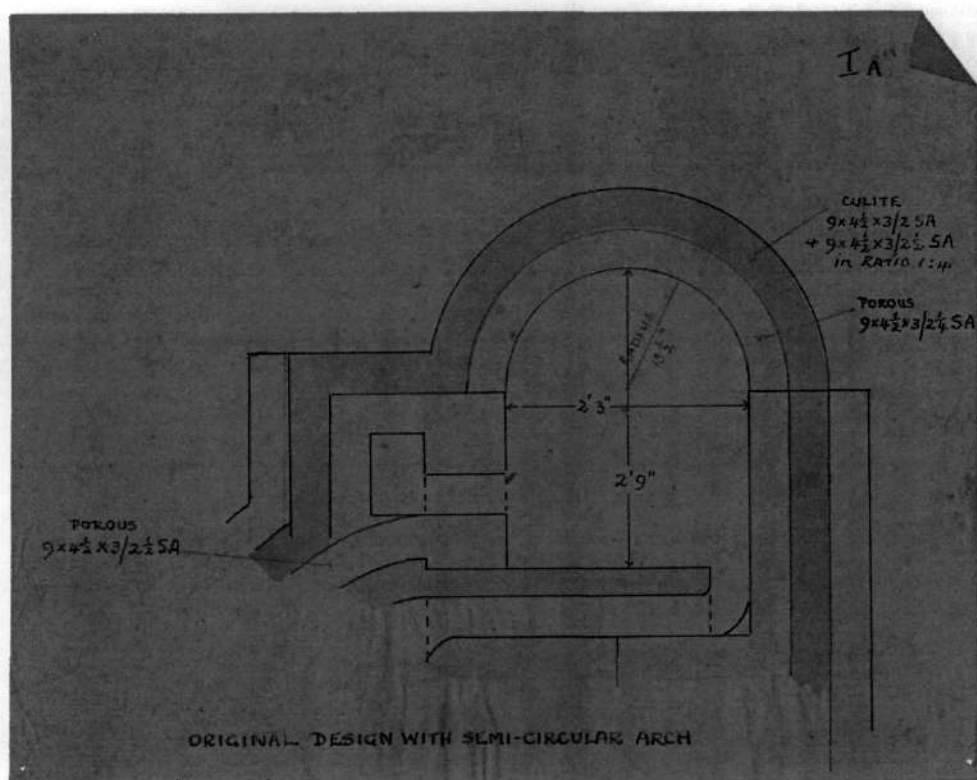
Yours faithfully,  
*John Askam*

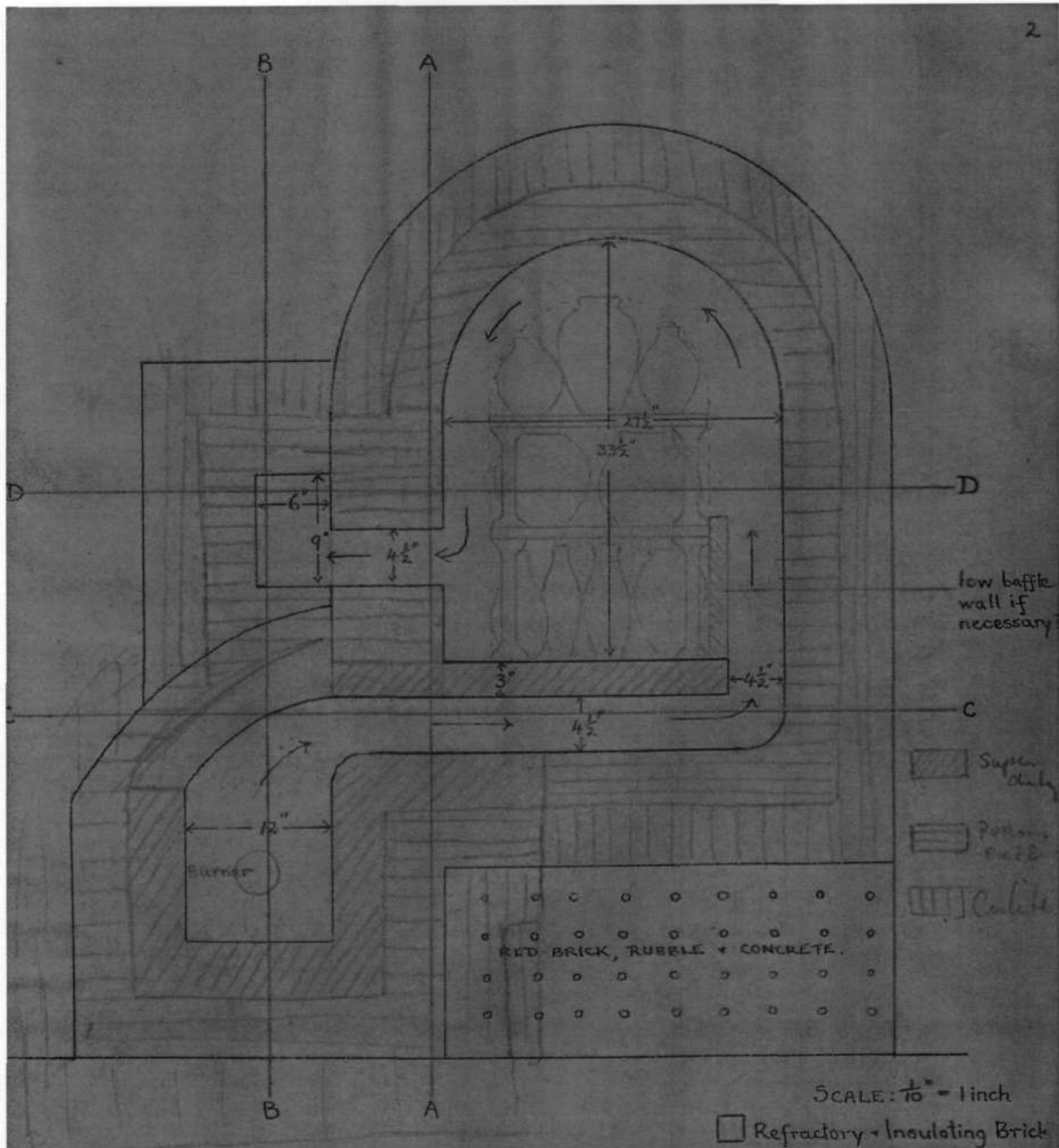
ALWAYS IN STOCK:  
FIRECLAY  
MUFFLES  
CRUCIBLES  
SPECIAL MOULDED BRICKS  
FITTINGS AND BURNERS

**Appendix 8**

(Source: Kiln Plans, *Blue Prints*: JY Armstrong Archives)





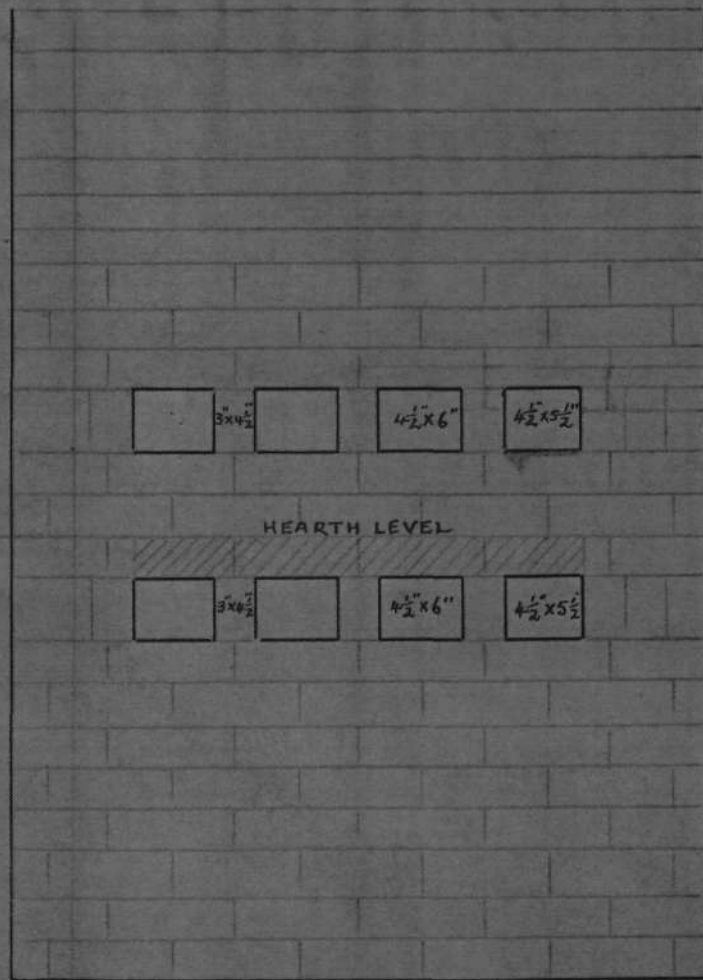


### OIL-FIRED POTTERY KILN

Diagram: Combustion Chamber, Kiln Chamber (open Hewitts) Inlet + Outlet Flue

Kiln Chamber: 32" deep 27 $\frac{1}{2}$ " wide 33 $\frac{1}{2}$ " high

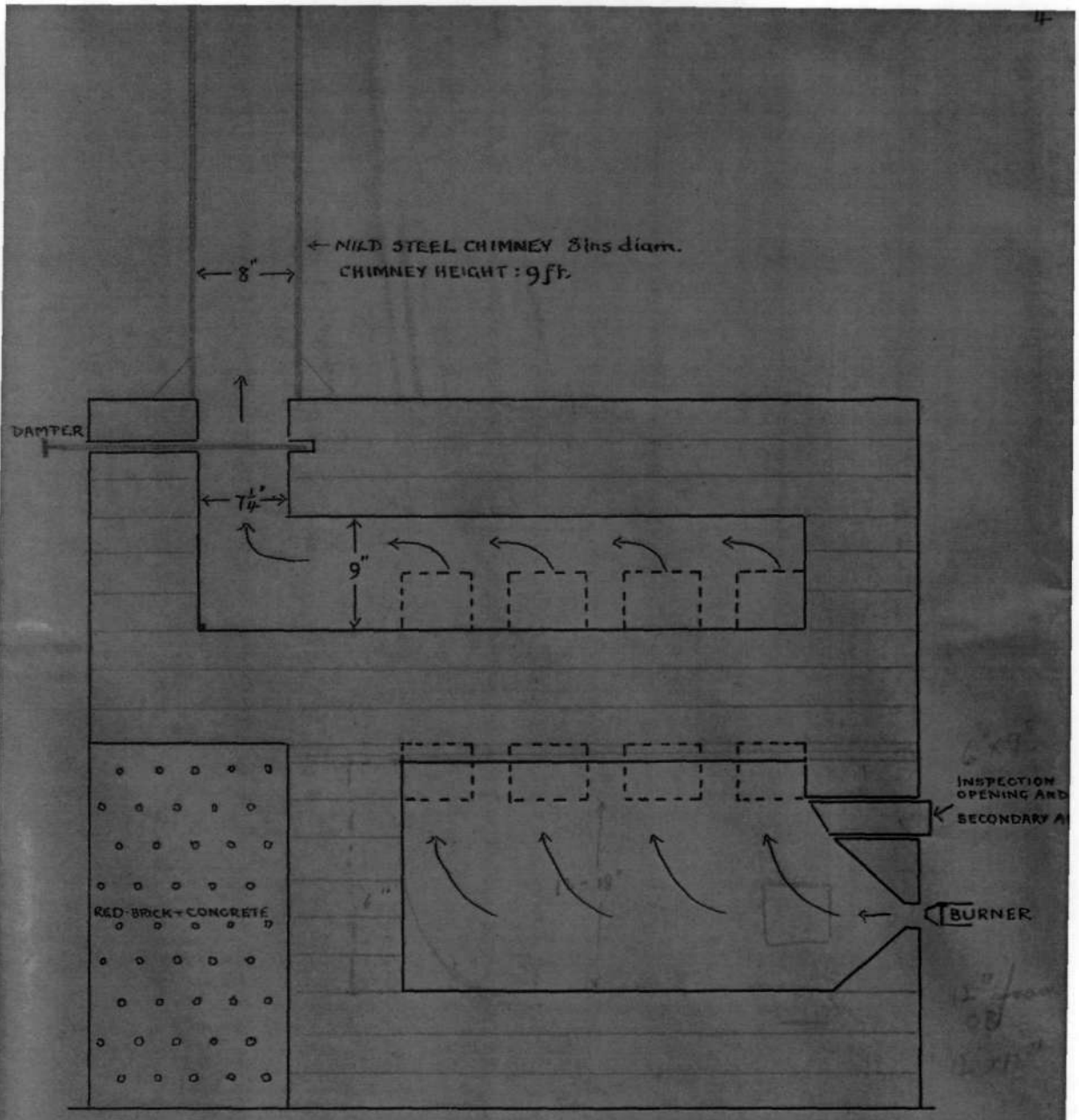
Constructed with 4 $\frac{1}{2}$ " Refractory Brick 4 $\frac{1}{2}$ " Insulating Brick (outer shell of Red Brick) Braced with angle iron + tie-rods.



SCALE:  $\frac{1}{10}'' = 1''$

□ Refractory + Insulating Brick

Section A-A Inlet + Outlet Flues.

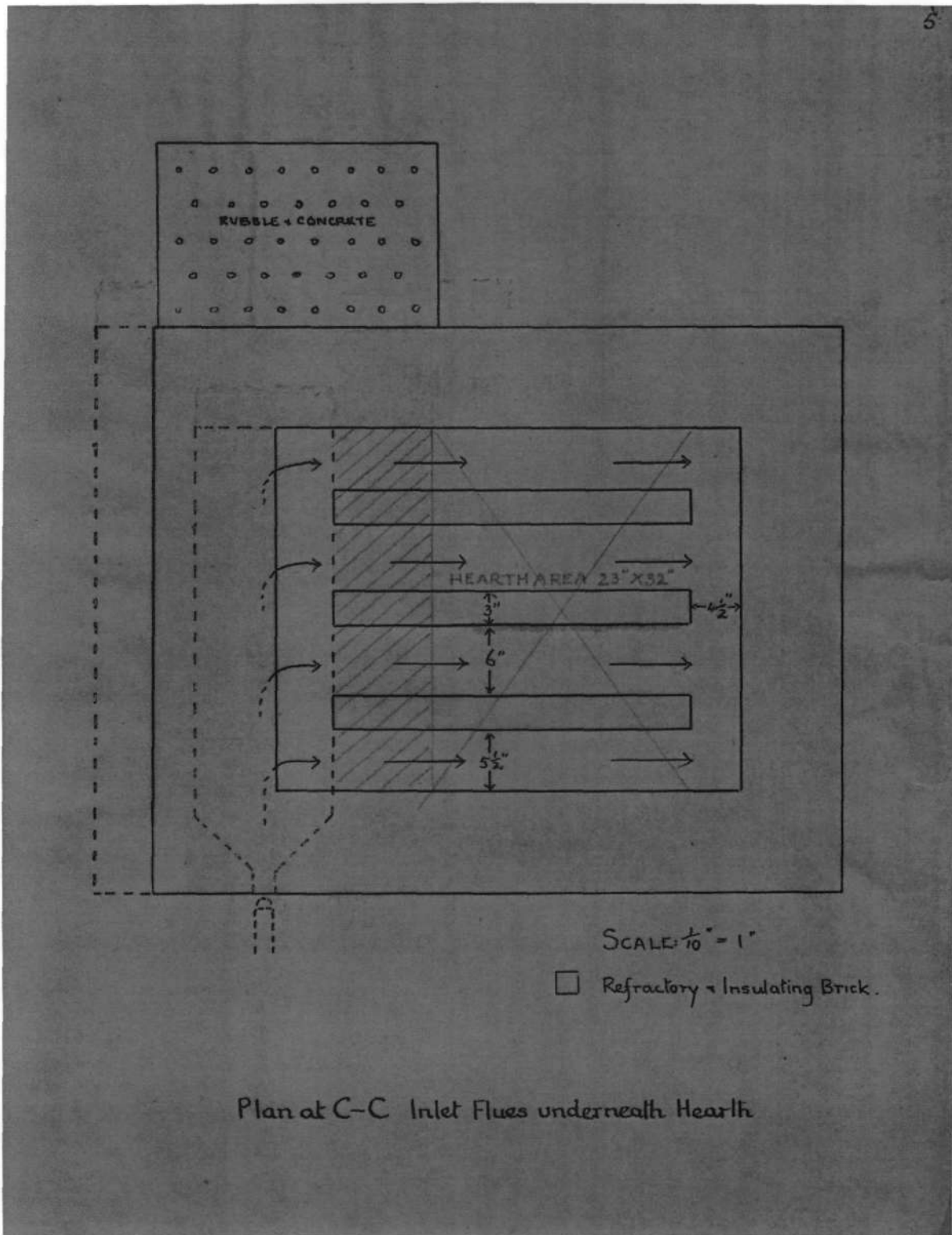


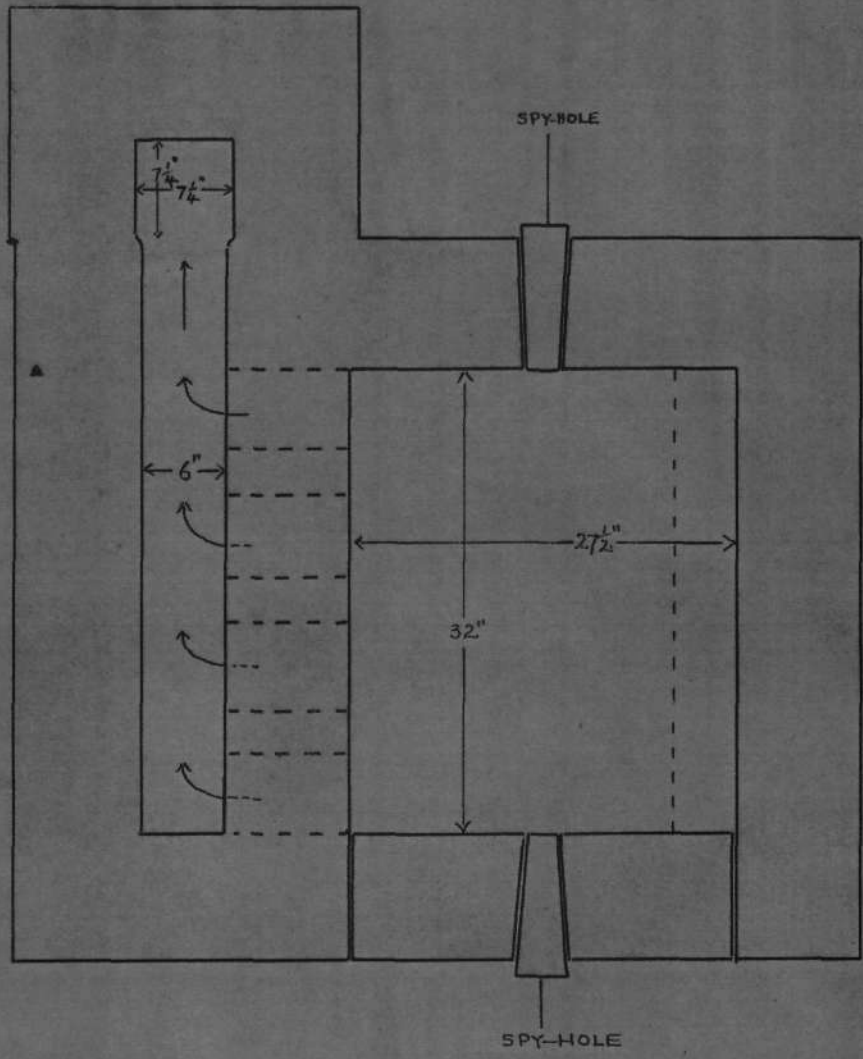
SCALE: 1/16" = 1"

□ Refractory + Insulating Brick.

Section B-B Combustion Chamber, Outlet Flue, Chimney







SCALE:  $\frac{1}{10}'' = 1''$

Refractory - Insulating Brick

Plan at D-D. Outlet Flue, Chimney.

## Appendix 9

(Source: *The Natal Mercury* 1954: JY Armstrong Archives)

THE NATAL MERCURY, FRIDAY, MARCH 12, 1954.

7

## NEW KILN FOR UNIVERSITY

FOUR years ago Miss Hilda Rose, lecturer in pottery at the University of Natal, Maritzburg, started searching for a suitable design for the kind of kiln which she knew would add lustre and richness to the pottery made in the studio—and which would enable her department to do research into local glaze materials, a field of pottery which has not been fully explored in this country.

High-temperature glazes are made from certain types of rock which contain all kinds of lovely colours and Miss Rose hopes to

find and use local minerals for this work.

An electric kiln is much easier to fire but by comparison with a flame the results are more limited and lack the variety which gives character and vitality to an artist's work.

As a potter Miss Rose is a perfectionist and she spared no effort to get the kiln she wanted. She spent a great deal of time while on leave in England looking at kilns, but it was not until she returned later to England to attend the International Conference of Potters that she finally decided that the best design she had seen was one shown her by a delegate—a Scottish potter who had a similar one.

He gave her rough measurements and from these Miss Rose drew out her plans. Then she had to find the right kind of bricks, and a furnace builder was needed.

The building of the kiln was achieved with the help of a Durban firm and the engineering and physics of the University—it took two months to complete.

Miss Rose did some of the bricklaying and inside plastering, assisted by two students, and she cut the bricks for the door—there are about 198 of them.

This is probably the only kiln of its kind in an art school in South Africa. It burns atomised oil, which produces a terrific flame, and this is drawn through the pots.

After the kiln was built the vital question was "Will it be satisfactory?" The answer came this week, when Miss Rose opened it up after the first biscuit firing of raw pots and the result was 100 per cent. successful.



THIS picture, taken when the University of Natal's new kiln was opened after the first firing, shows, from left to right, Miss Adele Walters, one of the students who helped to build the kiln, Mr. J. Cornellison and Miss Hilda Rose. (See story.)

## Appendix 10

(Source: *The Natal Daily News* 1954: JY Armstrong Archives)

THE NATAL DAILY NEWS, WEDNESDAY, DECEMBER 22, 1954

# First stoneware to be made in Natal

At her  
kiln

MISS HILDA ROSE, lecturer in pottery at the University of Natal in Maritzburg, has completed a highly successful experiment which has proved that Natal clays are entirely suitable for high-fired stoneware pottery.

Yesterday Miss Rose unpacked the first kiln full of stoneware that she has made in Natal. She believes that it is the first stoneware ever made in the province.

Miss Rose showed her experiments to a Daily News reporter in Maritzburg to-day. She said: "The whole thing was an experiment. It was a test for the kiln, the clay and the glazes."

Natal clays from Nottingham Road and Pinetown were taken to 1,250 degrees centigrade and they came out of the fire with no warping."

She said that the oil-fired kiln, which is one that was built for her, was raised to 1,250 degrees

in 20 hours of firing with no difficulty. There was enough reserve to take it further. Firing started at 4 a.m. and ended at midnight.

Miss Rose was not entirely satisfied with her glazes, all of which were experimental. She hopes to improve with later firings. One small bowl, pale grey in colour, was glazed with the ash from wattle wood. Ash from wood is a popular glaze for stoneware among some English artist potters. Miss Rose used wattle ash because she had a large quantity on hand. She sometimes starts her kiln with a wattle wood fire before heating it with the oil burner.

Miss Rose leaves for England in January on long leave. There she will visit a number of potteries where friends are working.



Miss Hilda Rose, lecturer in pottery at the University of Natal, in Maritzburg, is seen here with her first kiln load of high fired stoneware. Miss Rose believes that this is the first stoneware ever made in Natal. It was a complete success. The stoneware was fired at 1,250 degrees Centigrade. Ordinary pottery is fired at about 1,000 degrees.

## Appendix 11

(Source: Hilda Ditchburn Journals, *Kilns and Firings*: JY Armstrong Archives)

a Treatise on Ceramic Industries  
Bourne (Hans Searle)

Effect of firing on Bodies  
Hygroscopic water is evaporated slightly above 100°C. At a slightly higher temp. organic matters are deprived of their volatile element & the hydrated silica iron ox & some aluminous silicates such as allephane & collyrite are decomposed. At nearly 400°C pure clay begins to decompose as do halloysite, kungurite, cyrtolite, talc, basalt, magnesite, etc. This proceeds slowly to 600° when carbon in the organic matter begins to burn by combining with the air in the kiln. At about 700° the body consists of an anhydrous mixture of free silica, crystalline silica, alumina, oxides of iron, alkalies, carbonates of lime & magnesia & several silicates such as feldspar & anorthose minerals & glazes.  
Above 700° the alkalies, then the

oxides of iron (if in suffic. proportion & in the presence of alumina) begin to unite with the free silica & form various silicates. Any single one of these bases could not at this temp combine with silica. They can only act when mixed. Hence in bodies which only contain a small amount of fluxes silicates do not begin to form until a higher temp is reached.  
At about 750° the carbonates begin to decompose, carbon dioxide is given off & the bases are set at liberty & with alumina & other fluxes unite with free silica forming new silicates which are more complex so that at a temp of about 700° different bodies show considerable variations in their constitution.

Effect of oxidizing & reduction on colour of iron.  
Whatever the form of the iron in the body, it is changed into red iron ox when in an oxidizing atmosphere. When a body contains lime or magnesia & the temp of firing remains above 800°, the colour due to the iron remains the same as in the absence of lime but if it exceeds this temp a complex silicate is formed which is yellowish. When the proportion of lime or magnesia is double that of the iron, or there two bases neutralise the colouring of an amount of iron or equal to half their wt. Thus a body containing 10% of lime or magnesia & 7% iron has about the same colour when fired as a body free from lime & containing only 2% iron. Under reducing conditions the red iron  $Fe_2O_3$  is changed into monoxide  $FeO$  giving new colours - blue to black. The presence of lime or magnesia does not

after these colours nor have sulphurous fumes any action in a reducing atmos. because they remain in the form of sulphurous acid.

The atmosphere in kilns may be alternately oxidizing & reducing esp. at high temps. the degree of oxidation of the compounds of iron may then be modified several times during the process of firing but the final colour is that which corresponds to the comp. of the atmos. at the commencement of cooling. If this, as nearly always is the case is oxidizing the repeated changes in the kiln atmos. have the effect of diminishing the intensity of the colour which would have been produced if the atmos. had been, wholly oxidizing thro' out.

The oxidation or reduction of the iron oxides can only be produced in a porous body

which allows the combustion gases to penetrate it. If the burning is carried to a temp. high enough to cause vitrification or if the body is covered with a glaze it will retain the colour corresponding to the comp. of the atmos. at the time of its vitrification or of the fusion of the glaze. This fact is of enormous importance in the making of porcelain & stoneware; it allows the burner to give the body the bluish colour of the ferrous silicate by working under reducing conditions during the principal firing, but with an oxidizing atmos. during cooling.

Kiln Construction  
Essential to have good tie rods - avoid leakages of air esp. from one flue to another must be kept dry

#### Atmosphere

The atmos. is oxidizing when the fuel burns in an excess of air, so that the kiln atmos. contains some free O. The normal comp. of air is 21% O + 79% Nitrogen by volume or 20% O + 77% N by wt. Consequently if the gases passing out of the kiln contain 10.5% O by volume or 11% by wt. then the combustion has been carried on with double the amount of air that is strictly necessary. In most cases a large excess of air is employed so as to ensure complete oxidation.

The atmos. is neutral when it contains neither O. nor combustible gases such as carbon monoxide hydrogen or hydrocarbons; with

no free O. & the proportion of carbonic gas is below the limit just mentioned.

The earlier stages of firing are usually affected under oxid. cond.; the reduction being confined to the later stages. This is necessary in order to burn out any combustible matter in the body to secure a better control of the reduction & to lessen the amount of fuel used as firing under reducing cond. is wasteful in fuel.

The comp. of atmos. in kilns depends on the arrangement of the fire, the nature & method of feeding the fuel & on the draught. An oxid. atmos. can easily be obtained by using small amount of fuel & a strong draught then introducing plenty of air.

When the flames are short brilliant with clearly marked edges & when their extremity is clearly recognizable the atmos. is oxidizing. If flames are long

cloudy with uncertain edges  
 their extremities ill-defined & smoky  
 almost in reducing. If the gases  
 passing out of chimneys have a  
 bluish or black colour but only  
 at the time of stoking it is again  
 a sign that the combustion  
 is moderately complete. If the stove  
 is constantly yellow or red with  
 black colouring after the stoking  
 the combustion is incomplete.

to be counteracted partly by  
 allowing secondary air (the cold  
 outside air) to pass through the  
 fire mouth just above the  
 burner. (This cold draught reaches  
 the floor of the kiln & prevents  
 the temperature there becoming greater  
 than the top) partly by  
 extinguishing the burner for a  
 short period to allow the heat  
 at the bottom of the kiln to  
 rise to the top.

The kiln shelves are segmental  
 allowing for the draught down  
 the centre & 3 in space  
 all round the walls for the  
 up draught.

It is packed from the top  
 segments of the stove being removable.



removable segment with  
 metal ring handles.

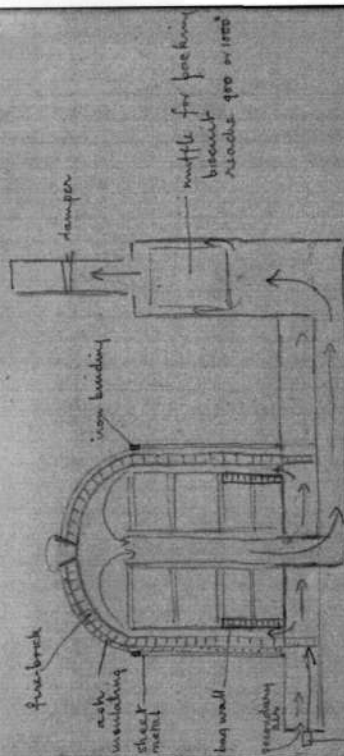
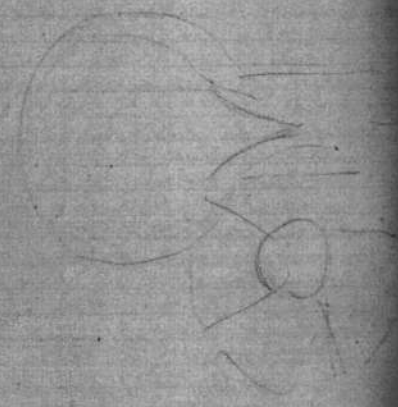
the kiln is constructed with 4 1/2"  
 refractories on the inside surrounded  
 by 3" on wood-ash mixed with  
 water & a little clay slurry packed  
 tightly between the fire bricks &  
 the surroundings outside iron  
 sheeting. The dome is plastered  
 with 3" of ash mixture then  
 fireclay.

This kiln fires in about 10 hours  
 (to reach 1240°). It is fired with  
 wood for the first hour to warm  
 up the fire mouth & box.

Reduction with oil is very simple  
 - increase the flow of oil - this  
 produces incomplete combustion  
 without loss of temperature. If  
 the air was decreased it would  
 slow down the rate of temperature  
 considerably.

Leach fires with oxidizing  
 flame to 900° thereafter with  
 a reducing flame, slightly  
 increasing the reduction as the  
 temperature rises. It is advantageous  
 to give about 1/2 hour oxidizing

flame to end up with. This is especially necessary to produce the rust marks in the heavy brown iron glaze.



limestone or calcite in solution

Miss Bouverie 1950-51  
 slightly blue 92000 shiny glazed  
 Limestone 15 + 5% Feit H<sub>2</sub>O  
 Feldspar 20 down 30°  
 Quartz 25 10% to 125°  
 Marble Clay 20 15% 1200°

on raw body  
 if on bisquit use China clay  
 & body clay instead

China Ash 5 20  
 Feldspar 5 20 1200  
 Quartz 4 20  
 Clay 4 20

Ash 5 1/2  
 Lime 1 1/2 ground from langes  
 Feldspar 8 or lowering  
 Quartz 3  
 China C 2  
 Clay 1

Ash 4  
 F 2  
 CC 1  
 BC 1

walnut pale blue-green shiny  
 A 1  
 F 1  
 G 1  
 BC 1



Hawthorn

A 8  
 Feldspar 8 1260°  
 C Clay 2  
 B Clay 2  
 Quartz 1

Norah B

Thorn Ash 10  
 Limestone 6  
 Feldspar 6  
 Quartz 4  
 C Clay 4  
 B Clay 4  
 Mang 1 1/2



Must a good ash producing  
 matt grey + terracotta

Grass ash needs 1350° like  
 colour oxide well - up painted over

Grass A 8 or Feit A 4  
 Feldspar 12 F 4  
 C Clay 2 CC 1  
 Feit H<sub>2</sub>O 1 BC 1  
 G 1



Stoneware body may have any amount of iron in it providing there's NOT calcium as well. (H.C. Evans)

Rural Industries Bureau  
35 Camp Rd. London S.W. 9  
Small wood burning kiln 748  
Peter Matthews Blackwisch Art School.

724 G Flint 100  
Lime 10  
Titanium 10

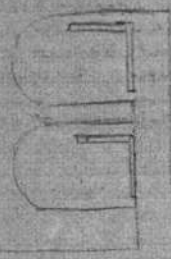
Galena glaze  
Galena 50  
714 Flint 15  
B.C. 10  
Flint 8  
Zinc 4

Lin glaze	%	
Red lead 100	30.769	30.8
Felspar 125	9.615	9.6
Quartz 50	3.846	3.8
Common St. 200	15.384	15.4
Lime 125	9.615	9.6
Zinc 50	3.846	3.8
Borax 150	11.538	11.5
Flint 714 200	15.384	15.4
	99.777	99

Miss Bourvie

Does not consider it necessary to have insulating course used only refractories (doubtful) Suggests Combustion Ltd or Urquhart for oil burners. Mortar  $\frac{1}{2}$  fireclay  $\frac{1}{2}$  grog + Port Sampson cement for cracks & making odd shapes required.

Kiln has a large double chamber oil fired - oil burner plays directly into kiln chamber - this unsatisfactory as the unsupported bag-wall collapsed before end of firing. Bag-wall built of  $4\frac{1}{2}$  in refractory brick



Donald Potter

Down draught 2-chamber wood-fired advises lighting fire in chimney to start the draft through the kiln - stokes very slowly - don't feed too much wood

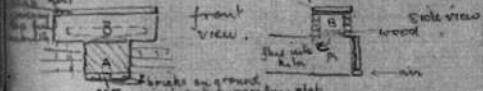
Constructed with  $4\frac{1}{2}$  of Gibbons insulating brick on inside &  $4\frac{1}{2}$  refractory brick on outside. Alumina brick for flues in contact with fire. Flame in fire mouth & flue into first chamber (probably very essential for oil burner). For mortar use cement advised & supplied by Gibbons. Has great length of metal chimney from back chimney which produces longer draft.

Bag walls are constructed of  $4\frac{1}{2}$  refractory bats also floor of each chamber. In packing kiln ware can be put right against back wall of chamber but there must be about 5" clear at front of chamber between ware & the

bricking up of the opening arch.  
 The kiln design was adapted from a single chamber design supplied by the Rural Industries (Helen Matthews). It was found necessary to lengthen the fire box by 1' 6" for their wood fuel. Further a 2<sup>nd</sup> chamber was added for firing biscuit (to save wanting the heat which would otherwise go up the chimney). This 2<sup>nd</sup> chamber is slightly higher in level in relation to the 1<sup>st</sup> chamber. The length of flue between 2<sup>nd</sup> chamber & chimney was designed with a zig-zag construction inside (a tank for drying slip on top of it) only to reduce less heat in the chimney (because of the danger of fire or overheating of the rest of the school building which it goes through) so ordinarily the chimney would be constructed just outside the 2<sup>nd</sup> chamber.  
 When firing fire lighted at base of chimney first then that is closed up. All dampers are

left open & a small space is left at top of door at fire mouth for draft - reduction is controlled by this method only (dampers all shut down after firing) when the 1<sup>st</sup> chamber has reached correct temperature (earthenware) a fire is lit in the fire mouth of the 2<sup>nd</sup> chamber just to reach the correct temperature there. Flues are constructed by corbelling the bricks to support the floor slabs.

Melbourn Carware Pottery  
 North Devon Co. Ltd  
 (Cliffy clay) Melbourn  
 Stoneware body -  $\frac{2}{3}$  ball clay +  $\frac{1}{3}$  quartz or quartz  
 wood fired  
 Kiln - down draught circular with flue to small bottle neck to fire biscuit & act as chimney  
 $\frac{1}{2}$ " refractory +  $\frac{1}{2}$ " ordinary brick - no insulating course.  
 3 fire mouths & continuous bag wall. French fire boxes



Fire lit in A to start with for an hour - when hot & glowing & draught started slab supported on 2 bricks Z with small space between is plastered up against fire-mouth A & fire then stoked from mouth B & covered over with slabs leaving narrow space (about 3") for draught. One slab (or metal



1/1 of foundation cement.  
 cement + red brick  
 3 firebricks otherwise

Dimensions Test Kila Calder

A Kila floor 36.3 sq. ins  
 B Lintel from fire box 14.0 sq. ins  
 C Grate area 16.2 sq. ins  
 D Space around sagger Ch. I 70 sq.  
 E Area to chimney 39 sq.  
 F Chimney at base 150 sq.  
 G Ground saggars in chimney 79 sq.  
 H Chimney top 70 sq.  
 I Dome top to floor 3' 3 1/2"  
 J Chimney ht. 2' 6" - 10' 6"  
 At present 11' 4"

Gilbons & Son for refractories  
 of all sizes & shapes

Adams "Pit" Firebricks Co Ltd.  
 for 7 Scotswood Brickage Works  
 Newcastle on Tyne.

for Port Sampson Cement  
 No 3 Dry Course Grade

Diamond Clay Co for shelves  
 Beattie Hill & sillimite  
 Stoke-on-Trent saggars.

Claw Hammer  
 Bucks & Ryan Ltd  
 310/312 Keston Rd London NW6

Gilbons & Son for refractories  
 Dibdale Works of all size &  
 Dudley shape  
 Works. insulating bricks

Refractory addresses (Miss Bouverie)

Combinations Ltd  
 (Rotary kiln burner)  
 The Southfields Engineering Works  
 Fairfields South Kingston on Thames  
 K1W 6SS

Suggested as most suitable for a small  
 kiln by Miss Bouverie. Miss Krauss  
 Conze Castle uses this in a kiln  
 constructed by Combinations Ltd

Wallsend Shipway Engineering Co  
 Newcastle  
 London agent (Mr Cowper) recommended by  
 R. Mathews

Urquhart Ltd.  
 Chase Rd  
 London NW10.  
 A good helpful firm understanding  
 pottery kilns.

B & S Maxey  
 Openshaw  
 Manchester

John Brew  
Odney Pottery Grove Farm Cookham  
Berks.

Michael Carden } Greenford Bridge  
Evan McBreen } Pottery St Judy Bodmin  
Cornwall

Lake Pottery Luro

John Nash  
Marazion Cornwall

Ludlow  
Lamorna Pottery Lamorna Cove  
Penzance

Hebe Matthews  
home address Richmond House  
95 Ratham Rd  
Lee Green  
London S.E. 12

General Refs. Ltd.

Potters & Potteries

George Cook  
The Potters Wheel Studio The Old Mill  
Amblecote Leicestershire

Grimsby  
Lancaster College of Art Stony East.  
Lancaster Lond. E. 1

Tom Hosgan 37 Fountain Court SW1 50000

Mrs. Seivers  
Old Hampstead Pottery Co 4 Paines Lane NW 3

Lulham Pottery  
210 New Kings Rd SW 6.

Margaret Leach  
Tasma Pottery Aylburton Exeter, Glos.

Ray Finch  
Great Pottery Wincobank Glos

Luis Rc  
18 Albion House Kent W2 (IND 0938)

Rural Industries Bureau (Hebe Matthews)  
35 Camp Rd Wimbledon S.W. 19

Mrs. Ann Hale  
Bartington Hall

Harvey Davis  
Crown Pottery Trage H. Camborne  
Cornwall

ADDRESSES

Ball + China Clay  
English clays Ltd St Austell Cornwall

Blue Ball Clay  
Walls Blake + Bears Clay Mines  
Newton Abbott Devon

Pikes Silicious Ball Clay + Pikes  
clay mine Wareham Dorset.

Buff + Red Bodies  
Pottery Ltd Copeland St. Stoke

Toole Ceramics 72 Charlotte St Lond W. 1

Wheels Potters Equipment Co 75-77  
Burlinnia Rd Lulham S.W. 6. REN 011 13

Louving + Co Miss Bowmer  
St Austell } good for china  
Cornwall } clay + white ball  
clay.

Cardew monolith wheel  
111 Ball wheel W. W. A Hayden Redruth  
Cornwall

H. Davis Friction wheel  
Milling Industries Ltd  
90 Victoria St  
Bristol 1.

Grafton Electric kiln  
Applied Heat Co Leeford Works  
Welford by Rye Welford Leics

Mr. Wilson.

Firing clay.

Several stages in firing.

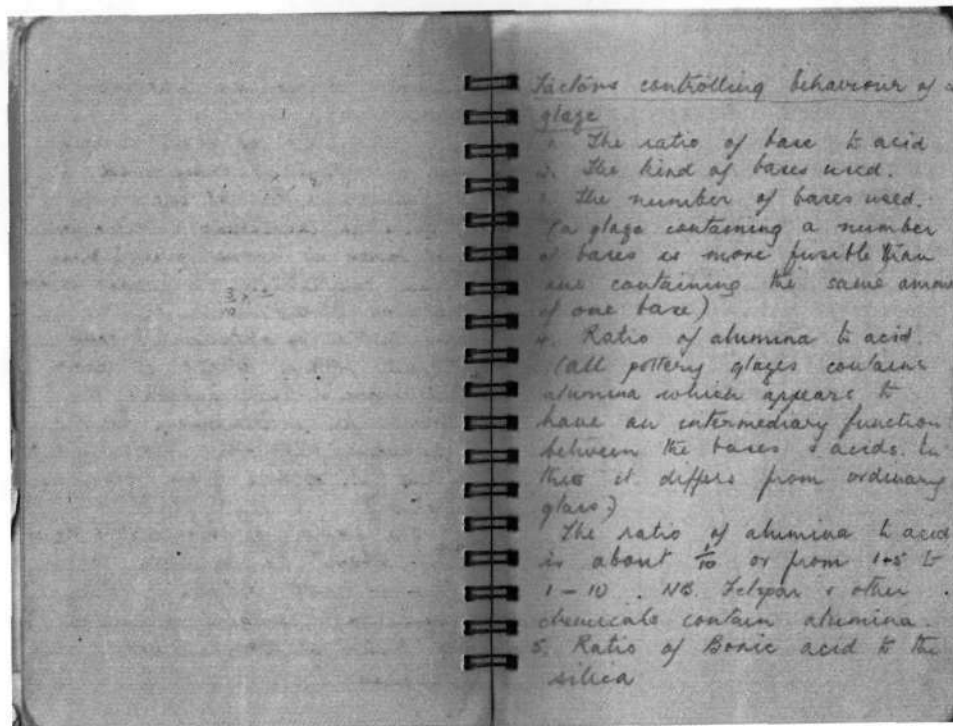
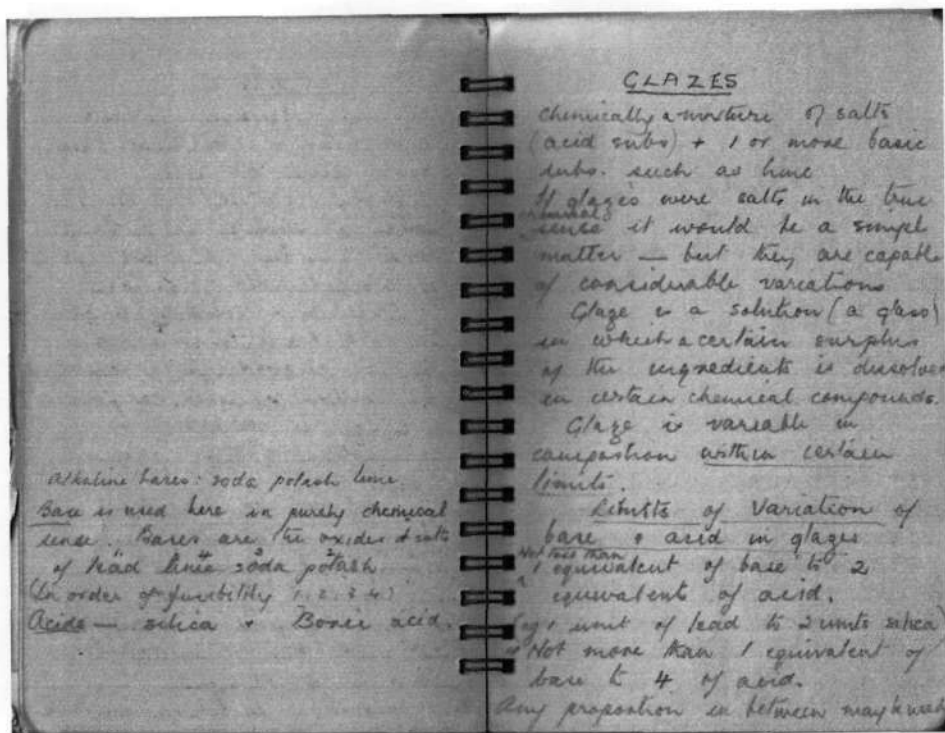
1. Drying out - going on up to  $120^{\circ}$  C. This stage should be taken slowly.
2.  $120^{\circ}$  -  $500^{\circ}$  a few chemical changes sulphur may combine with lime if present, porosity is created, slight increase in hardness, very little colour change  $500$  -  $900$ .
3. Decomposition when molecules are beginning to break up & become pot. (Firing should reach  $1000^{\circ}$ ) During this time colloidal water is dried out - begins to occur about  $500^{\circ}$ . There is also combined water taking place being expelled, important chem changes take place, fluxes start acting.

Same China Body. Soft paste

- 1420 pts. calcined bone Gismet  $1200^{\circ}$
- 216 China Stone stage lower
- 230/14 China Clay
- 6 grains blue
- 20 pt blue ball clay
- 20 - flint

## Appendix 12

(Source: Hilda Ditchburn Journals, *Glazes and Works of Art*: JY Armstrong Archives)







Calcium phosphate (bone ash)  
is very refractory  
produces opacity in ordinary  
glaze

wood ash glaze

difficult to work out from  
formula without accurate  
analyses of wood ash.

100 part wood ash }  
20 part felspar } least  
20 part clay (plastic clay) } about  
1200°

50% wood ash } central 500°  
50% China stone } 1250°

Potash is one of the chief  
ingredients of wood ash  
silica + lime + sometimes  
small amounts of metallic  
oxides iron copper manganese  
chiefly are obtained in  
wood ash.

burn as much as possible

to burn out all that can be  
burnt out + wash as much  
as possible to rid it of  
soluble matter. Much  
of the potash will dissolve  
out - a flux can be  
obtained with another chemical

### Firing of Stoneware

Temps vary from  $1200^{\circ}$  -  $1500^{\circ}$   
 the longer firing you give  
 it the better. Rapid firing  
 not desirable (sohrs).  
 maintain top heat if  
 possible 2-6 hours

Stoneware is really a one  
 fire process - may be  
 finished at a lower heat  
 but its the glaze fire that  
 matters. In stoneware  
 firing the glaze + body  
 fire into each other.

Two ways of firing  
 stoneware

1. Clean or Oxidizing Atmos.
2. Intermittently reduced "

These produce different colour  
 effects + qualities of glaze.

Oxidizing fire means  
 firing in either an enclosed  
 muffle or saggar where  
 combustion is going on  
 outside muffle  
 or in case of open firing  
 requires adequate intake  
 of oxygen

As pots are heated material  
 becomes chemically active +  
 if heated pots come in  
 contact with heated O they  
 take up some of it with  
 certain effect on colour.

You can have a neutral  
 firing - produced in a  
 lightly closed muffle.

### Reduction firing

reduction firing gets under conditions where atmosphere is deficient in O. in fact contains Carbon monoxide (CO) Combustion cannot go on without adequate O & if htn has air supply cut off air in htn is rapidly consumed & CO is turned into htn. CO is a very unstable gas & requires O & will get it from anywhere including from pots or glazes & that has to upset an colour.

This reduction can be achieved in 2 ways:

1. with open firing or saggers not closed - manipulate dampers to smother combustion by shutting down air

in a closed muffle enter combustible material - solid gas burner, or wood chips or city sags or resin

do not reduce all the time. reduce  $\frac{1}{2}$  hr (or hr) at a time.

control  $\frac{1}{2}$  hour reduction at red heat (200° or 900°) at between 1100-1200 another hour & another  $\frac{1}{2}$  hour at end of firing when coals have gone down. finally it must have 10 min h to or hour h clear.

It can be done at a lower temp firing but it must have a good clearing (1 hr)

Over reducing causes pitting & end under effect even of body.

Another technique at very low temp firing — called *luster* — ed in Hispano-Spanish. (13<sup>th</sup> Persian)

Low temp reduction was achieved by use of alkaline glaze & certain metallic salts copper carb silver nitrate painted on or mixed with glaze — intense reduction at red heat.

luster & luster a good medium can be p. on fired glaze & fired very low temp on as underglaze fired & then refired to red heat's reduced.

(continued)

Principal st. fire glazes: March 1951

	Recipe	Temp	Raw or biscuit	Dipping thickness	Notes
TEMPERATURE Black to rust	o.T.S. Ball Clay 5.2 x 10 China Clay 10.4 Whiting 10.4 Zinc Ox 14.1 Fluxes 41.6 Iron Ox. 3.0	1300° 6 1320°	Biscuit	4-3 rust 5 black	Rust when thin. Not black when thick. Needs recontaining body. Tends to red in light temperature reduction
Outmeal	Talc (F.130) 5 Cornish Stone 50 T.S. Ball Clay 22.5 x 10 China Clay 5 Hyaline Oxide 2.5 Whiting 2.5 D.H. Ash 12.5	1280° 6 1320°	Raw or biscuit		Mottled cream to brown external. Particularly good results on black slip. Good for siliceous under on some glaze painting. Does not enamel on craze except over 1200°
Celadon	x 10 China Clay 15 T.S. Ball Clay 15 Whiting 25 Quartz 20 China Stone 25 Red Iron Ox. 2.5	1350° 6 1280°	Biscuit	4-5	For silica stoneware or porcelain. Oxidized — light honey; reduced, greenish. Craze if applied too thick.
Most yellow to broken Gambon	D.H. Ash 50 T.S. Ball Clay 30	1300° 6 1320°	Raw	Thin	Straw coloured raw glaze, applied v. thin, really a glaze wash. Good iron body. Particularly good for incised decoration.
o T.S. Ball Clay = Pklt Beez, Washam x 10 China Clay = English China Clays Ltd, St. Askill = D.H. Ash = Pochington Hill works, could be almost anything, but is usually, usually, stm.					

Stoneware Test

Stoneware Glaze  
Formula .5 K<sub>2</sub>O .6 Al<sub>2</sub>O<sub>3</sub> 3.7 SiO<sub>2</sub>  
.5 CaO

Flux	72	36
Wetting	13	1.2
C. Clay	7	2.2
Flint	8	0

1. Painted Cobalt  
Nickel + Ferric  
under stw. gl + 1%  
Nickel Oxide  
Reduced

2. Ditto painted over glaze  
Reduced.

← .2% Nickel  
soft greenish grey

3. Painted Copper  
Manganese + (Mang. 2  
Nickel 1) under  
stw. gl. + 1% Nickel  
Oxidized

4. Ditto over glaze  
Oxidized


5. Cobalt Ferric Nickel  
Mang. Nickel Copper  
over  
stw gl + 1% Ferric  
Oxidized

6. Ditto over the glaze  
oxidized




Reduced Copper glaze

Soft Stoneware + 10%  
Calcined borax  
+ .5% Copper oxide  
500g




Small reduced  
copper painted  
with pure + mang.




brushed with ferric  
all over - fired  
glazed reduced copper.

ashtray -  
glazed soft stonew  
+ 2% manganese  
painted ferric + Cobalt.  
reduced




salad bowl  
soft stoneware  
1% ferric  
.05% Cobalt.  
reduced



Soft Stoneware  
1% ferric  
.05% Cobalt  
painted ferric  
reduced.

Full jug




NR clay 40 m  
chipped Steads  
clay Black Slip  
{ 10% Mn } 400m  
{ 1% Co }  
Biscuit 1000°

Glaze Litharge No 5.  
Litharge 36 Clay 16 Flint 29  
+ .25% Co. thickly

covered on one side reglaze patch &  
refire shaded in firing


Decorated bowl



Steads clay (80m)  
Painted outside  
with { 10 Mn  
{ 4 Amt of L  
{ 1 Co  
Biscuit 1030°

design over it in Copp BV  
Glaze L. L. + P + 8% tin thickly  
glaze for thick outside

Large bowl




Steads clay +  
25% Feldspar  
(80m)  
Biscuit 1080°

Glaze L. L. + P + 10% tin  
, L + S + 1% Nickel  
over. 1080°

Remit. almost khaki-Nichel & thick

Large vase





NR clay 30 m  
+ sanded  
Biscuit 1000°



glazed 1070  
fairly light  
over fairly  
thickly 1123 5


pale citron  
pale yellow  
reglaze 1123 10  
Copper  
black 1123 5


Fairly yellow 1123 1  
Copper Gr. G. S 8

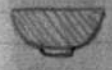
Smaller jug  

 NR clay 100m  
 Biscuit 1100°  
 Black glaze -  
 L+P + 4% Fe  
 2% Mn  
 4% Co


Large flat bowl  

 thrown Steads  
 clay 40m  
 biscuit painted  
 inside & out with 4% Mn  
 lines scratched 1% Co  
 Glaze L+P + 8% tin  
 (Broken in transit)

Ash tray - NR clay 1000°  

 L+P + 8% tin  
 pattern cut thro'  
 & painted Cop Ox  
 sprayed over with  
 L+P + 1% Nickel 1080°  
 Very nice repeat <sup>NR</sup> biscuit a  
 little dark for two techniques  
 Ashtray NR clay 1000°  

 Biscuit on biscuit  
 inside with  
 4% Mn  
 4% Ant of L  
 1% Co  
 Glazed L+P + 10% tin  
 + line painted under in  
 Co.  
 Very nice darkish grey

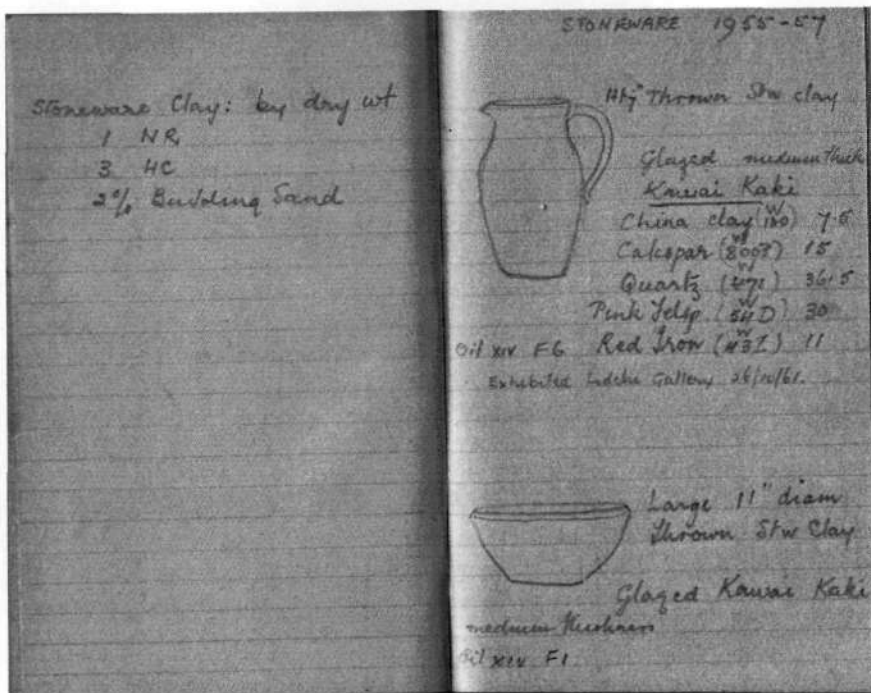
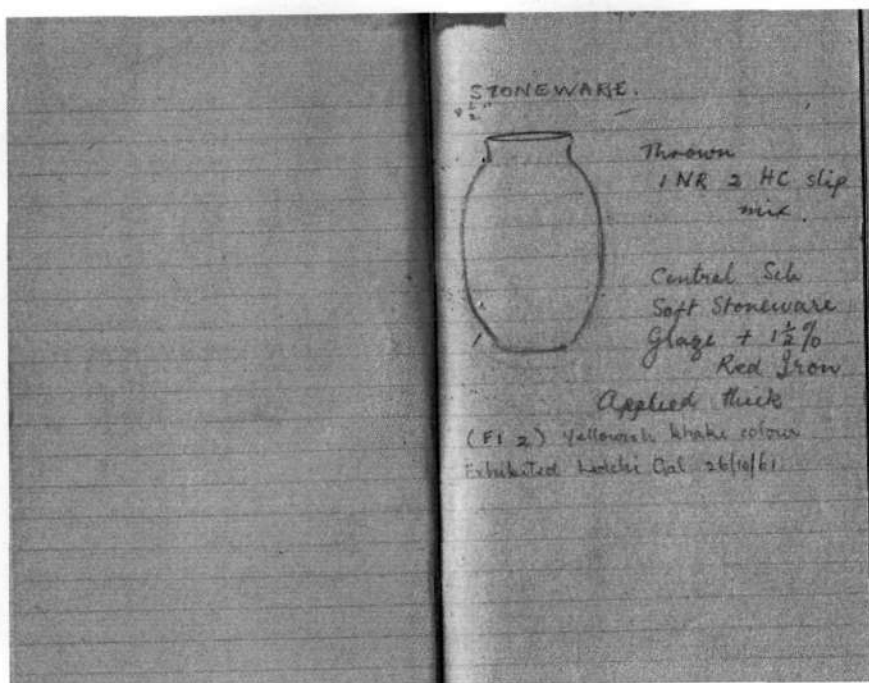
Ashtray  

 NR clay 80m  
 Biscuit 980°  
 Biscuit brushed  
 in centre with 4 Ant of L  
 1% Mn  
 1/2 Co.  
 Glazed L+P + 10% tin  
 Beautiful blue but pale

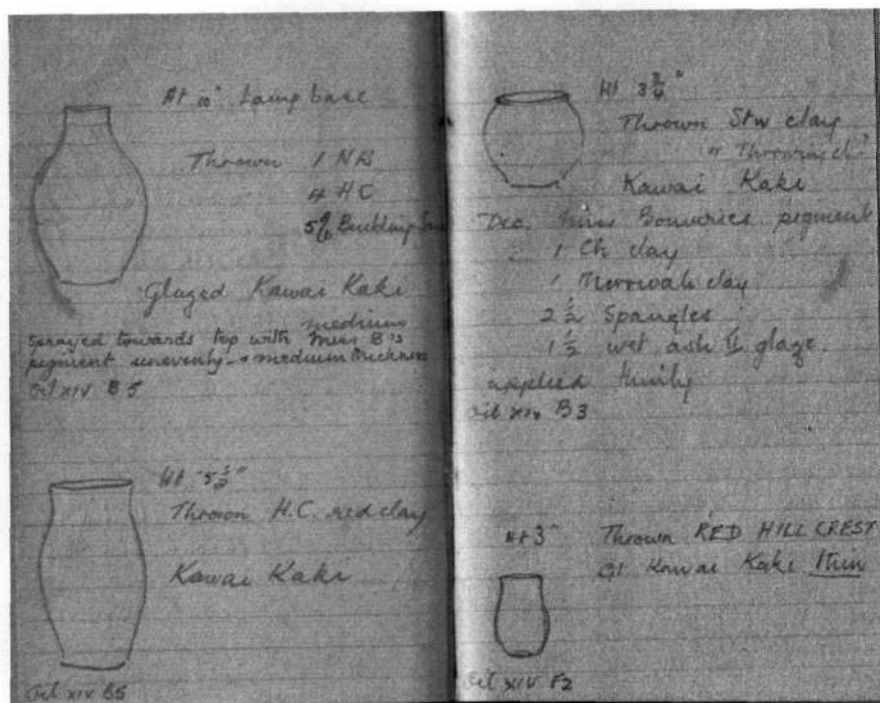
Bowl NR clay 980°  

 L+P + 10% tin  
 very thick  
 in & out +  
 L+P + 1% Nickel very  
 thickly over it.  
 failure glaze too thin

Set of Bowls 2 large 6 small  

 Steads clay 40m  
 painted outside  
 4% Mn  
 4% Ant of L  
 1% Co.  
 Glazed L+P + 10% tin

Decorated bowl  

 Steads clay  
 40m  
 Painted outside  
 4% Mn  
 3% Ant of L  
 1% Co.  
 Pattern in 2 Ni 1 Cu.  
 Glazed L+P + 8% tin







**Appendix 13**

(Source: Hilda Ditchburn Journals, Maritjie Van der Merwe: JY Armstrong Archives)

From Maritjie Nov 179  
(Samples small pore pieces)  
Crystalline Titanium (yellowish?)

Blesberg Felsp	4.7
Calced Zim	7.5
Whiting	3.8
BaCO <sub>3</sub>	19.7
B 13 clay (5g/v)	9.4
TiO <sub>2</sub>	8.1
Bl. Nickel	2.5

Fine meave crystalline nickel

Blesberg Felsp	31.5
Calc Kaolin	6.5
Sereva "	8.5
Whiting	18
Silica (300)	12.5
Calc Zinc	2
BaCO <sub>3</sub>	17.5
Nickel	2
<b>Total</b>	<b>98.5</b>

Hand pore Transp  
Blesberg Fels 20  
Whiting 13  
BaCO<sub>3</sub> 14  
Sereva Kaolin 20  
Flint (300) 33  
100

Van der Merwe  
Tone, clear glaze Cone 9

Felsp.	20
Whiting	18
BaCO <sub>3</sub>	14
Kaolin	20
Silica	33

Continental  
Fels. Kaolin + SiO<sub>2</sub>

Pore matt gl. Cone 9

Felsp.	50
BaCO <sub>3</sub>	20
Kaolin	18
SiO <sub>2</sub>	15
Whiting	10

From Cape Potter No 18  
Nov/Dec 81

Body.  
Kaolin 55 Continental  
etc. materials  
(over)

M. v. d. M. 1982  
STORR (CR) Somitar fubels bk Blue.

Felspar	60
Calc Zim	7
BaCO <sub>3</sub>	21
Whiting	12
Bentolite	3

5% Ni.  
or 6% / row  
for Orange  
or 3 RFe 2 CuCO<sub>3</sub>  
or 4 1/2 " 1 "

SOFT TRANS - Pore takes colours well.

Whiting	21.3
SiO <sub>2</sub>	35.8
Sereva Kaolin	21.7
Blu. Felsp.	30

10.3-2

Slightly Greenish Transp. (Mint)  
Hard Shiny.

Felspar	20
Whiting	13
BaCO <sub>3</sub>	14
Kaolin	20
SiO <sub>2</sub>	33

Maritjie's  
Leach Pot Continental mix  
C Clay 55 40  
Bent 5 2  
Felsp 25 35  
Quartz 15 15  
Cramix Ball 10  
white

Felspar to Blesberg from  
Continental  
C.M. Felspar Cer. Materials  
No good - not white

Suit for Continental or Blesberg 78  
1/2 Kaolin clay Sereva?  
1/4 Felspar Blesberg.

P.T.O.

Maritjie's  
Ball Bar.  
Felspar 50 20  
Ba Carb 20 14  
Kaolin 10 20  
Flint 6 33  
Whiting 10 13

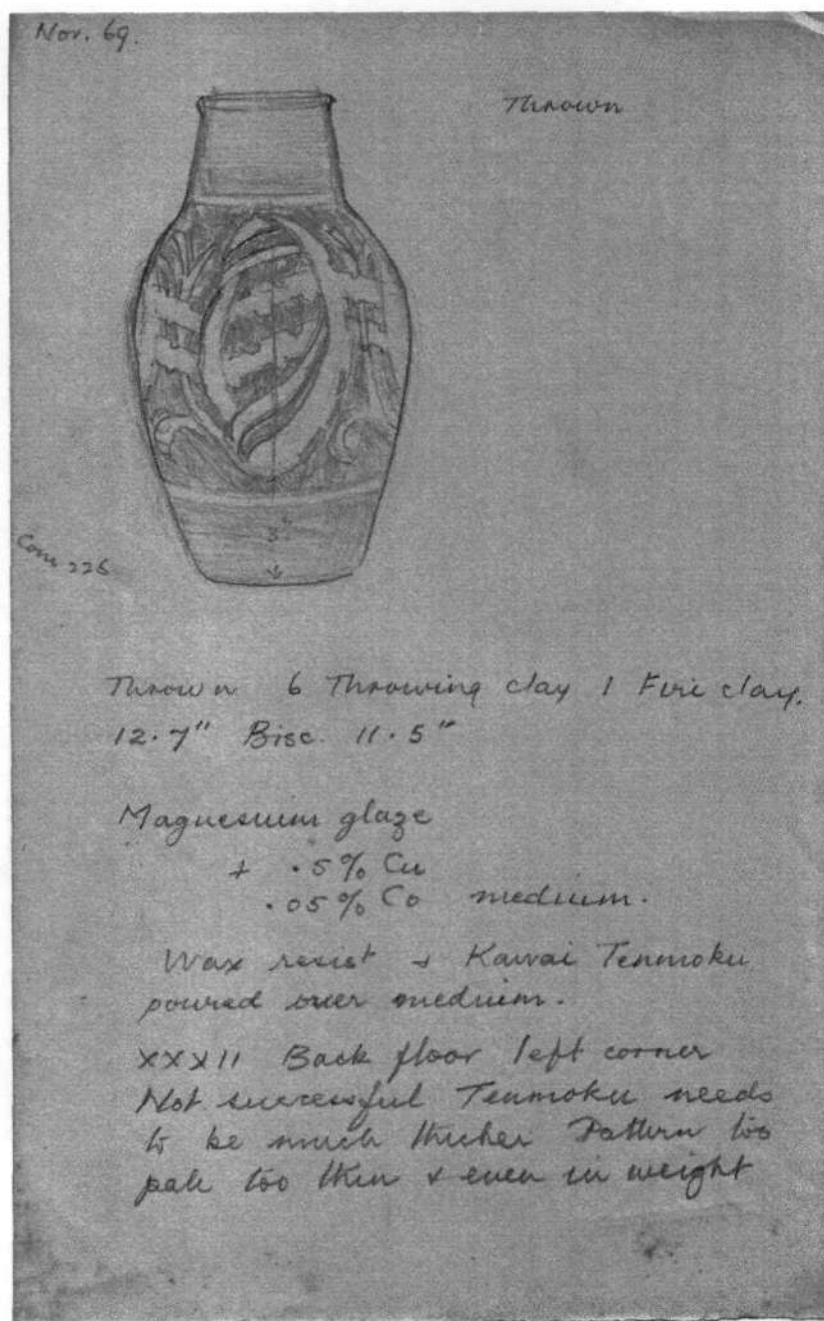
Mottled  
pore  
2 1/2 w

Felsp	48
white	20
Kaolin	22
SiO <sub>2</sub>	10
Flint	5
Zinc	3

This is Billington  
Medium Str.

**Appendix 14**

(Source: Hilda Ditchburn Journals, *Works of Art*: JY Armstrong Archives)





644

645

97

Brown slip  
Brush band ~~with~~ buff  
Scrappels & brown  
Glaze matt calice

10 parts white  
1 part brown  
7 parts water

Jug Pepper + Kaki

inside out - more sprayed on because too thin  
 Pepper scrape out incised lines partially  
 Wax out main pattern

Spray over with Kaki - clear wax with wet  
 brush - spray a little more Kaki + then gum  
 water to produce bigger droplets on wax  
 Incised

Thin Kaki inside + out

~~Wax top + bottom leaving rim inside +  
 pattern area.~~

Spray very thin coat. Ash + Mg Glaze (Rhode)  
 over

Wax out lines + spray another very thin ~~coat~~  
 coat Ash + Mg

Wax out top + bottom + spray ~~vertical~~ <sup>lower W.</sup> Ash 35  
 3rd thin coat over vertical Fels. 35  
 pattern + top edge. Clay 15  
 Steatite 15.

Tall Narrow neck with white slip

Mg + Co Cu to splashed Kaki  
 or Bulwer with non painting

Old Pot

Originally glazed Raw Stw + 10% Bl. Fe  
 Thin Kaki now sprayed over + splashed with  
 Pepper ash.

Shell pattern wax dark grey slip + C Mn.

~~Bulwer Ash~~ Biscuit areas painted  
 with thick Bl Mn brush strokes

Bulwer Wattle ash thin over.

400  
 Bulwer

Tall Narrow (wax + brown slip)

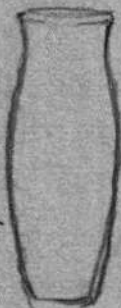
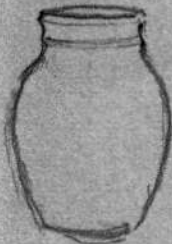
Ash + Mg glaze Thin



Bowls Inside Pepper outside thin Kawak.

Nov. 65 Thrown 8.2" x 5.6"  
Turned 7.7½ x 5.2

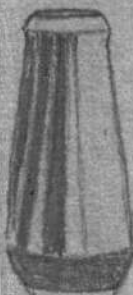
Clay 1 HC  
1 NH Grey clay Good throwing body. Dries well (without cracks) Turns early compared with pure N.H.G. Cracked in drying at base.



x Clay light Thr. Cl 5 Fireclay 1.  
Thrown 9.5 x 4.2½  
Turned 9 x 4.1  
Bisc.

Glaze Pepper Ash.  
Painted with Cu Ox  
R Fe

½ Co 1 Fe ½ Stone  
xxv Back of bottom front next to left centre back



Clay Ditto  
Thrown 9 x 4.2  
Turned 8.5 x 3.7½ Bisc 8.3" str 7.8  
Waxed stripes brushed with Grey Slip 7  
C.M. ½ stirred in.  
Bulmer Wallie Ash. normal thickness (except thinner a bit on slip)  
xxv Bottom left centre near left centre back



x Clay Ditto Thin Kaki  
Thrown 9.7 x 3.9 Wax pattern  
Turned 9 x 3.6  
Bisc.

Pour Ash + Mg over thin.  
+ spray a bit more  
washing off on radial  
lines of shell

xxv Front  
Bottom flame side of cones

June 69

Earthenware



(Concologie p 456)

Light Throwing Clay.

Brown slip inside  
& out.

Light slip

{	10	leaspers	White slip
	1	"	Brown "
	1	"	Terracotta "

brushed over in wide  
band.Pattern scratched thro'  
to Brown slip.

Glazed Cobalt Matt medium  
2 light sprays (each just to cover) of  
Litharge gl.



Norby Test pieces



Thrown 1 fired to 6 Throwing cl.

2.6 Ht x 3

White slip.

Glazed thinly CS Hard SW.

+ .2 Co

Olive .5 Cu

green. 2% R. Fe

Pleasant on white slip.

Body grey.

xxxii F1 centre of shelf.



16 Fireclay. Thrown  $3\frac{1}{2}$  Ht x 3

Compound Ash B Glaze

Very blue harsh + nothing like

Roberts ashtray Glaze a bit thick?

Body green.

xxxii F1 centre back of shelf.



1-6 Fireclay.

Grey slip with CMA  $\frac{1}{4}$  - 7 teaspn

Compound Ash A glaze. medium

Glaze not melted + bubbled

This glaze not as satisfactory as  
Bulmer ash used previously on this  
slip - Compound ash not good on  
slips.

**Appendix 15**

(Source: *Ceramics Handbook*, Compiled by I. Calder, 1992. Supplemented by J. Armstrong, 2002, Centre for Visual Art, University of Natal, Pietermaritzburg)

The *Ceramics Handbook* is a handbook used by staff and students at the Centre for Visual Art, University of Natal, Pietermaritzburg. It has been arranged into sections of firing temperatures. Glazes listed in these sections have been given an identifying prefix: E for earthenware, S for stoneware, P for porcelain, etc. Each glaze recipe is numbered consecutively from the beginning of the section:

Section C- Clays and slips

Section R- Raku 850 C

Section E- Earthenware 1080 C

Section S- Stoneware 1260 C

Section P- Porcelain 1260 C

*Source references for glazes listed have been given along with recipes, together with other useful commentary about the behaviour of the glaze over slips, its uses with colour and so on.*

The following has been extracted in full or in part from the handbook and pertain to Hilda; either as her own glazes or those made by students, colleagues or at the Central School of Arts and Crafts in London.

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**Section C****C2 DITCHBURN STUDIO CLAY**

G & W THROWING CLAY	6PARTS (by wet volume of slip)
SUPERDUTY FIRECLAY	1 PART sieved through 40# to remove coarsest particles
MIDLANDS RED CLAY	1PART sieved as above

Source: Hilda Ditchburn, c1973-1984

**C3 PORCELAIN**

KAOLIN (Super standard)	55%
BLESBERG FELSPAR	25
SILICA	15
WHITE BENTOMITE	5

Source: Marietjie van der Merwe, 1982

**Section E****E16 HILDA DITCHBURN'S ORIGINAL LLP**

LEAD BISILICATE	58%
POTASH FELSPAR	31
WHITING	6
ALUMINA HYDRATE	3
SILICA	2
For maiolica, add TIN	10% <b>OR</b> 5 tin + ZIRCONIUM

Good as a clear, transparent glaze, very suitable for staining with colouring oxides. With the addition of Tin, or Tin + Zirconium, the glaze is an ideal opaque-white, shiny glaze originally formulated as a ground for oxide painting.

This glaze recipe, and E17 to follow, was reworked from the Seger formula of Hilda Ditchburn's L.L.P. + 10% Tin (originally a Dora Billington recipe from the Central School of Art in London).

Source: I. Calder 1988.

**E17 CALDER'S LLP AND MAIOLICA**

LEAD BISILICATE	57%
POTASH FELSPAR	31
WHITING	6
SERINA KAOLIN	7
For maiolica, add TIN	10% <b>OR</b> 5 tin + 5 ZIRCONIUM

Good as a clear, transparent glaze, very suitable for staining with colouring oxides.

**Section S****S1 ASH AND TALC**

WOOD ASH*	35%
POTASH FELSPAR	35
CHINA CLAY	15
TSF TALC	15

A very useful ash-glaze, typical of its kind in its subtle bone-like opaque colour and satin-matt surface. It compares favourably with the ash glazes made famous in England by Katherine Pleydell-Bouverie.

Source: Hilda Ditchburn c 1960

**S2 PEPPER TREE ASH GLAZE**

PEPPER ASH	25%
FELSPAR	25
CHINA CLAY	25
SILICA	25

A clear, shiny glaze: a useful start to making tests of ash glazes: the recipe is easy to adjust by increasing one ingredient at the expense of another.

Source: Hilda Ditchburn, c1960.

**S3 MATT ASH GLAZE**

PEPPER ASH	40%
FELSPAR	40
CHINA CLAY	20
SILICA	20

A hard variation of S2 above.

Source: Hilda Ditchburn, c1960.

**S4 KAWAI TENMOKU**

G & W FELSPAR	27.0%
WHITING	13,5
WATTLE ASH	9,5
CHINA CLAY	7,0
SILICA	33,0
RED IRON OXIDE	10,0

An extremely useful functional glaze: shiny transparent, rich dark-brown in oxidation.

Source: Hilda Ditchburn, c1950.

**S5 KAWAI KAKI**

G & W FELSPAR	30,0%
WHITING	15,0
CHINA CLAY	7,5
SILICA	36,5
RED IRON OXIDE	11,0

An extremely useful functional glaze: shiny transparent, rich dark-brown to black oxidation.

Source: Hilda Ditchburn, c1950s.

**S7 ALUMINA MATT**

DOLOMITE	22%
CHINA STONE	41,5
CHINA CLAY	29
WHITING	4
RED FERRO'S BENTONITE	4
RUTILE	3

A useful matt glaze for sculpture.

Sources: Sr. Alma (Mariannahill), Hilda Ditchburn, Garth Claassen, c1965-1980.

**S8 C.S. (Central School) HARD STONEWARE (Dora Billington)**

FELSPAR	41%
WHITING	18
CHINA CLAY	26
SILICA	15

A hard, opaque-white limestone glaze. Useful as a base glaze in combination with softer, less refractory glazes.

source: Hilda Ditchburn, c1940.

**S10 STANDARD STONEWARE (BILLINGTON)**

FELSPAR	72%
WHITING	13
CHINA CLAY	7
SILICA	8

A standard sort of transparent stoneware glaze, suitable for staining. Crazes.

Source: Hilda Ditchburn, c1940

**S11 MAGNESIUM STONEWARE (Dora Billington)**

FELSPAR	35%
DOLOMITE*	12
WHITING	13
CHINA CLAY	6
SILICA	35

Source: Hilda Ditchburn, c1940.

**Section P****P1 ASH "B"**

COMPOUND ASH*	41.5%
FELSPAR	33.5
SILICA	12.5
CHINA CLAY	12.5

A very shiny, slightly honey-coloured transparent glaze which may be stained with oxides.  
Crazes heavily.

Source: Hilda Ditchburn, c1960s.

**P4 CHOUINARD\* TRANSPARENT**

WHITING	21,3%
SILICA	35,8
SERINA KAOLIN	21,7
FELSPAR	30,0

A versatile clear, transparent glaze, suitable for staining with oxides.

Source: Marietjie van der Merwe

\* CHOUINARD = The Chouinard Glaze Research Institute, New York, N.Y., USA

## Appendix 16

(Source: *Hilda Ditchburn Curriculum Vitae and teaching duties: JY Armstrong Archives*)

### H.L. DITCHEBURN

### CURRICULUM VITAE

- 1938 B.A.(S.A.) (Fine Art Major) at Natal University College Pietermaritzburg. In addition, 3 B.A.F.A. courses in Modelling (N.D.F.) and Pottery.
- 1939 University Education Diploma
- Jan. 1940 - Specialist art teacher, Natal Education Department  
June 1941
- Aug 1941 - Seconded by the Education Department to the Fine Arts Department N.U.C. to teach Modelling, Pottery and History of Art, when Prof. O.J.F. Oxley joined the Army to run the Occupational Therapy Unit.
- Jan 1946 - Appointed to a permanent post in the Fine Arts Department to teach Pottery and Modelling
- Dec 1947 - On study leave. Studied stoneware techniques and glaze chemistry under Dora Billington at the Central School of Arts and Crafts, London and travelled widely in England and Europe, investigating particularly oil Kiln design and firing
- Feb 1949
- 1950 - Introduced Glaze Chemistry into the Pottery course.  
1951
- 1952 Delegate to the International Conference of Potters at Dartington Hall in Devon, England.
- 1953 Designed an oil kiln for high temperatures and introduced stoneware into the Pottery course. (at this time still a minor course taken by all B.A.F.A. students)
- 1971 Under Professor Duckworth, Ceramics introduced as a major subject for B.A.F.A. as well as a minor course. Personal promotion to Senior Lecturer.
- 1971-1972 Introduced porcelain techniques into the course, Department acquired large electric kiln for high temperatures.
- 1957  
1966  
1972- Acting Head of Fine Arts Department  
1973  
1976

Exhibited in various group exhibitions in Pietermaritzburg, Durban, Capetown and Pretoria.

Associate Member of the Craftsmen Potters Association of Great Britain.

Member of Selection Committee for Association of Potters of S.A.(Natal)

The making of earthenware and stoneware glazes have always been of particular interest. More recently experiments in porcelain.

MRS. H.L. DITCHBURN

Long Leave due August 1979

122 days + 50 days accumulated from previous leave.

Note: My appointment has been extended to 31st December 1980  
(i.e. the initial three year extension beyond super-  
annuation date 31st December 1977)

When I retire, my post will revert to Lecturer as the  
promotion to Senior Lecturer was a personal one.



CERAMICS (H.L. DITCHBURN)

TEACHING DUTIES (All Years)

1. General Ceramic Design.
2. Throwing and turning (both functional ware and assembled functional or sculptural pieces).
3. Methods of decoration (slip, underglaze and overglaze painting wax-resist etc.).
4. Preparation and application of earthenware, stoneware and porcelain glazes.
5. Guidance in the students' glaze experiments.
6. One lecture per week in Glaze Chemistry and study of ceramic materials (2nd years). These lectures could be almost completed in the 1st half of year. (3 hour exam in November).
7. Critiques of student work periodically.

Organisation (shared with Miss Armstrong)

1. General organisation and supervision of studios.
2. Organisation of firing schedules, packing of kilns and supervision of firing (after class hours when necessary).
3. Checking of equipment and stores.
4. Responsibility for all departmental equipment and for locking of studios etc. if open after 5 p.m.

HOURS

<u>Mon</u>	8.30 - 12.30 and 2 - 5 - 2nd 3rd and 4th year Majors.
<u>Tues</u>	8.30 - 12.30 - 2nd year Majors      2 - 5 3rd & 4th year Majors.
<u>Wed</u>	_____
<u>Thurs</u>	9 - 12.30 & 2 - 5 - 1st years in groups of 7 or 8 students for throwing and glazing with a senior student to assist.
<u>Fri</u>	8.30 - 12.30 - 2nd 3rd and 4th year B course (minors).

OUTLINE OF WORK COVERED DURING THE YEAR

MAJOR students spend 3 days a week in the studios (less periods attending lectures) -  $1\frac{1}{2}$  days throwing and  $1\frac{1}{2}$  days hand-building. B course students spend 1 day a week, roughly  $\frac{1}{2}$  day throwing and  $\frac{1}{2}$  day hand-building.

1st Year

$\frac{1}{2}$  1st year class in the morning  $\frac{1}{2}$  in the afternoon, each half divided into 2 groups - one group throwing while the other group is hand-building for 4 or 3 weeks. Also for each group 3 weeks of moulded dishes and glazing sessions.

Throwing - simple basics of throwing.

2nd Year MAJORS

Throwing practice - vertical shapes

bowls

jugs

Decoration - scraffito

cut and/or beaten sides

underglaze and overglaze painting

wax resist (slip, pigment, glaze)

Earthenware glazes- Experiments with earthenware glazes

Drawing for decoration

Glaze chemistry

+ HAND-BUILDING PROJECTS

3rd Year MAJORS

Throwing - Plates

Lids

Assembled thrown pieces

Functional ware - repetitive throwing

Stoneware glazes - Stoneware glaze tests

Decoration - Various methods applied to stoneware

Drawing for form and decoration.

+ HAND-BUILDING PROJECTS

4th Year MAJORS

Throwing - continuation of previous years' work, with more specialisation according to students' choice.

Earthenware and/or stoneware glazes - further glaze tests as required.

+ HAND-BUILDING AND DRAWING.

2nd 3rd and 4th Year B course (Minors)

Projects similar to those of the Majors, but simpler, fewer in number; selected methods of decoration and less emphasis on glaze experiments. Minors may attend glaze chemistry lectures if they wish.

Roughly 2/3 of the work is covered in the 1st half of the year, but there is usually extra glazing to be done in the 2nd half year.

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<http://www.answers.com/topic/royal-college-of-art>, November 2006

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### **Archives**

Archives and Conference papers from Dartington Hall, c/o Professor JY Armstrong, CVA, UKZN

Additional Archives available from the University of KwaZulu-Natal, Pietermaritzburg  
BIO – 5 225/1/1- Ditchburn, Hilda L Prof  
BIO – 5 297/1/1- Oxley, Prof O John P

Hilda Ditchburn's artworks c/o Professor JY Armstrong (Private Collection)

Hilda Ditchburn's Ceramic Collection c/o Professor JY Armstrong (Private Collection)

*Ceramics Handbook* Compiled by I. Calder, February 1992; Supplemented by J. Armstrong 2002, Centre for Visual Art, University of Natal, Pietermaritzburg

### **Interviews**

Interview with Prof. Juliet Y Armstrong, 6 June 2007, Pietermaritzburg

Interview with Prof. Ian Calder, 20 September 2007, Pietermaritzburg

Telephonic conversation with Juliette Leeb du Toit, 16 March 2008