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Alan Cuthbert: Colour Theory and Practice [1957-79]
English art school change in the early 1960s

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Abstract

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The core of this research are the paintings and cultural context of Alan Cuthbert, a hitherto un-researched figure who trained in the English art school of the late 1950s under the Constructionists Kenneth and Mary Martin and subsequently became the Head of the Foundation course at Wimbledon School of Art from 1963-1979. Cuthbert produced a substantial body of over a hundred geometric abstract paintings, lecture papers and writing and played a significant role in training future generations of artists and designers from the 1960s onwards.

This thesis proposes that Cuthbert is part of a broader tendency in British art schools and that practice and teaching is intimately connected to the reorganisation of the art schools and the introduction of the Foundation course in the early 1960s. I put forward the argument that through a study of Cuthbert and the shifts in art schools one can map a much under-researched aspect of British art.

This research encompasses the three fields of art history, art education and art practice and centres on an artist-lecturer, a subject of study largely ignored by the majority of art historical writing, which is dominated by the modernist model of monographs, movements/groupings, and periods. In placing the case study of an artist-lecturer in a critical and historical context, this study maps British art through organicism, Constructivism and the Bauhaus art school pedagogy and colour as they pertain to basic design and the changes in art school teaching between 1955 and 1979. Through this case study of a colourist and systems painter this thesis suggests a different, Continental orientation for British post-war geometric abstraction.

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Alan Cuthbert: Colour Theory and Practice [1957-79]
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Introduction

This thesis focuses on the paintings of Alan Cuthbert, a hitherto un-researched figure who trained in the English art school of the 1950s and subsequently became the head of Wimbledon Foundation course from 1963 to 1979.[1] The work of Cuthbert was rarely exhibited during his lifetime and he was not well known. However, he produced a substantial body of over a hundred geometric abstract paintings, lecture papers and writing and played a significant role in training future generations of artists and designers from the 1960s onwards.

My aim from the outset has been to analyse the abstract paintings of Alan Cuthbert and to situate them within a cultural context in order to better understand them. In due course I realised that the paintings are not detached from the man, his job, or his background. Although the paintings can be considered as a self-sufficient body of work my concerns are wider ranging. In particular, I seek to discover the ideas that informed their production, the aesthetic that they embody, and the specific context in which these ideas and practices emerged and how these relate within the broader frame of art in Britain during the 1960s and 1970s.

In this introduction I map out the background to the research, its objectives and the methodology. These situate Cuthbert in a cultural context which encompasses art history, art education and art practice. The chief objective is to demonstrate how Cuthbert's practice is closely related to the change in English art education in the 1960s and the evolution of modernist practice in art education. The methodology will comprise of an analysis of paintings and process, using texts, personal documents and catalogues, interviews with colleagues and other relevant materials from archives in order to build a case study of Alan Cuthbert, an artist - lecturer from that period. Furthermore, the introduction establishes the parameters of the project and the usage of the key terms.

My hypothesis is that Cuthbert is part of a broader tendency in English art schools and that his practice and teaching are intimately connected to the reorganisation of the English art schools and the introduction of the Foundation course. I put forward the argument that

[1] For that reason I have taken the date of Cuthbert's entry into Goldsmiths School of Art in 1957 as the starting date and his finishing date as head of the Foundation course, in 1979, as the time-span in the title.

through a study of Cuthbert and the shifts in art school education one can map a hitherto much under-researched aspect of British art.

Cuthbert, who lived from 1931 to 1995, studied at Goldsmiths College from 1957 to 1961, and was an artist and art school lecturer at Wimbledon School of Art from 1961 to 1992. He rarely exhibited his paintings, of which *(fig.1)* entitled *No.68 Westbere I [Border] 1980* is a late example, and was not well known on the commercial scene.[2] Cuthbert's positioning as an artist-lecturer, is central to this thesis and is the basis of this case study.[3] Most artist-based studies of the past have looked at and evaluated artists through their work and thereby their place in art history, in a shift away from the norm, I propose Cuthbert as a case study, indicative of the post-war generation who were a product of a specific art school education system and its changes. In this thesis I will situate his art and training within the educational directions of the period, including that of basic design; and within the context of Constructionism, a form of British Abstraction of the 1950s and 1960s. Here, I will examine its relation to other European Modernist movements, such as Constructivism, from which Cuthbert's work can be said to be derived.[4] Historically, this examination of context, leads me back to the Bauhaus, the beginnings of modernist abstraction in Britain in the 1930s through *Unit One* and *Circle*, and then to Herbert Read's 'Organic Aesthetic', in order to assess their impact on the art teaching debates of the 1950s and the influence of, among others, Itten's *Vorkurs* on the English art school system.[5]

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[2] See *Volume II* for a full list of figures, appendices and a CD-Rom of Cuthbert's work. Cuthbert's exhibitions chart can be found in appendix 23.

[3] Clive Ashwin is one of the few to deal with the position of the artist/teacher and the role of the artist changing to that of employee of the art institution in "The Artist/Teacher: Roles, Models and Interactions" in Paul Hetherington (ed.) (1994) *Artists in the 1990s: Their Education and Values*, London: Tate. Howard Singerman (1999) in *Art Subjects: making artists in the American university*, London: University of California Press, investigates the subject with reference to the American system.

[4] A literature search revealed that there has been no work done on Alan Cuthbert and relatively little on the artistic circle and the ideas that informed an Utopian and Modernist vein of Abstraction in the 1950s and 1960s. More exists on the inter-war years, e.g. Charles Harrison (1981) *English Art and Modernism, 1900-1939,* Indiana and London: Allen Lane. Whilst post-war British art is surveyed by Margaret Garlake (1998) in *New Art, New World: British Art in Postwar Society,* New Haven & London: Yale University Press. Other writers on British Art have given over chapters to this period - such as Frances Spalding (1986) *British Art since 1900,* London: Thames and Hudson. Writers like Alastair Grieve, Norbert Lynton and A. Forge have discussed individual artists and aspects in journals and exhibition catalogues. A. Grieve (1993) "Charles Biederman and the English Constructivists 1. Biederman and Victor Pasmore", *The Burlington Magazine* (Sept 1982) 540-51, and "New Beginnings" no.53, p.52; N. Lynton (1965) *Malcolm Hughes,* London: ICA catalogue; A. Forge (1975) *On Kenneth Martin's Writings*, London: Tate Gallery catalogue p.7. International Constructivism itself is covered in more embracing volumes such as George Rickey (1968), *Constructivism: Origins and Evolution,* London: Studio Vista, but British Constructionism is omitted from such general anthologies. *Constructivist Tendencies: from the collection of Mr and Mrs George Rickey,* (1970) University of California, the catalogue organised by Ala Story includes only four British artists: Victor Pasmore, Bridget Riley, Peter Sedgley and Peter Stroud. Herbert Read's ideas on the 'Organic Aesthetic' have been treated by David Thistlewood and Thistlewood and others have looked at Hamilton, Pasmore, Thubron and Hudson and their role in basic design. Furthermore it is rare to find studies which have married the context and the process. The exhibition catalogue *Systems* (1972-3) London: Arts Council, with a forward by Norbert Lynton, and introduction by Stephen Bann, documents the work of twelve artists *and their process.*

[5] Read, Herbert (ed.) (1934) *Unit One: the Modern Movement in English Architecture, Painting and Sculpture,* London: Cassell & London: Faber & Faber. Martin, J.L., Nicholson, B., Gabo, N., (eds.) (1937) *Circle: International Survey of Constructive Art,* London: Faber and Faber.

Frequently artists have been required to teach: from the Renaissance master-class, to the private academies of nineteenth-century Paris, right through to the 1960s art schools. Little writing has concerned itself with their pedagogic content or approach and yet this aspect must surely be crucial to the nurturing of culture, style, concept and shifts in the artistic canon. In the twentieth century, excepting Francis Bacon and some 'outsiders', few artists escape an art school education. Art is passed on. As I propose to demonstrate, Cuthbert was the subject of an art education, who, in turn, as the head of department of a Foundation course, was instrumental in passing on a particular culture.

Most art historical studies on British art of the 1950s and 1960s have dwelt heavily on contextualising the art of the period through the impact of popular culture; youth culture; new media; technology; the Civil Rights movement; and post-war and Cold War politics.[6] The subtle relationships that existed between science, maths or the Utopian ideals of the period and the rigorous intellectual projects of artists like Alan Cuthbert have been overlooked. No work exists on Cuthbert and little about art school lecturers. It is also rare to examine the context of art education or the art school for a greater understanding of contemporary trends, or to focus on related aspects of art school change, which effected new methods of teaching, rather than furthering the cult of personality.[7]

This shift in focus away from the cult of the personality towards an examination of the visual arts in the context of the social and political frameworks of the post-war period is supported by Margaret Garlake's (1998) authoritative text on post-war Britain entitled *New Art, New World: British Art in Postwar Society.* Garlake discusses the roles of the institutions, such as the British Council, the Arts Council, the Tate Gallery, the Institute of Contemporary Arts and the commercial galleries, and documents the impact of the Festival of Britain and the competition for the Unknown Political Prisoner. Within this wide-ranging social, cultural and intellectual survey of the period from 1940-1960. Garlake discusses geometric art, establishing the importance of the British Constructionists, and, of particular significance, the expansion of art education. This thesis builds upon this research by examining the impact of these factors through the case study of Cuthbert.

In order to frame Cuthbert's contribution (and that of artist-lecturers like him) within the broader context of 1960s Britain, there are three distinct and dominant movements in

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[6] David Mellor (1993) *The Sixties: Art Scene in London,* London: Phaidon; Robertson, B., Russell and Snowdon (1965) *Private View,* London: Thomas Nelson & Son; Crow, T., (1996) *Rise of the Sixites: American and European Art in the era of dissent 1955-69,* London: Weidenfeld & Nicolson.

modernist painting and sculpture which need to be outlined: Pop Art, Abstract Expressionism and the Constructivist tendency. Pop Art is the movement which has been seen to define the 1960s, although judged to have been launched in 1956 by Richard Hamilton's montage, '*Just what is it that makes today's homes so different, so appealing,*' for the catalogue of the '*This is Tomorrow*' exhibition at the Whitechapel Art Gallery.[8] Pop Art was accessible to the wider public, crucially because, of the three movements, it was largely representational and figurative. Like advertising, it mirrored popular culture and seduced the viewer.[9] Hamilton's work encompasses both Pop art and the more abstract work discussed in this thesis. Furthermore, Hamilton's involvement in both teaching and the important exhibition *The Developing Process* also reveal him as a key figure in the development of ideas of process and organic methodologies which relate to Cuthbert's work.[10]

The remaining two movements are more visually clearly related to Cuthbert's work. Abstract Expressionism and the Constructivist tendency were united by abstraction and process. It is these two fields which are pertinent to the case study of Cuthbert. Abstract Expressionism in Britain initially appears in the form of individual artworks in shows of American art, and later specifically Abstract Expressionist exhibitions in institutions, such as the Whitechapel Art Gallery.[11] The impact of Abstract Expressionism on the British public and the critic, Lawrence Alloway's support of American art is well-documented by Garlake.[12] Clement Greenberg's writings, American art magazines and the film and

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[7] The history of art education remains to a large extent peripheral within the history of British art. This may be due to the boundaries of art history as a discipline or more likely it is recognised that the development of art in Britain has been dominated by economic factors, namely the market place.

[8] 'Man, Woman, Humanity...Domestic appliances, Space. The image should, therefore, be thought of as tabular as well as pictorial.' Hamilton writing about *Just what is it that makes today's homes so different, so appealing,...* in the exhibition catalogue for *This is Tomorrow* (1956) London: Whitechapel Art Gallery, reproduced in Hamilton, R. (c.1982) *Collected Words: 1953-1982*, p.24. A few months after the exhibition in a letter to Peter and Alison Smithson, Hamilton suggests an 'Independent Group discussion on Pop Art - Fine Art relationship' and goes on to define Pop Art, Hamilton, (c.1982) p.28.

[9] Based in the exploding field of advertising, consumerism and American culture, and spurred on by new technology, Pop Art reflected the modern lifestyle, the new self of the 'you've never-had-it-so-good' sixties. Its modus operandi was pastiche, parody and fragmentation. From Americans Rauschenberg and Warhol to Oldenburg it brought every aspect of life into the gallery and every material was useable. In this respect it was seductive, but also deemed shallow.

[10] *The Developing Process: work in progress towards a new foundation of art teaching as developed at the Department of Fine Art, Kings College, Durham University, Newcastle upon Tyne and at Leeds College of Art, with contributions by Victor Pasmore, Harry Thubron, Richard Hamilton, Tom Hudson and others,* (1959) Newcastle upon Tyne: Durham University, Kings College, published on the occasion of the exhibition at the ICA London, 1959. See also the article: Hamilton, R. (1960) 'First Year Studies at Newcastle' Times Educational Supplement, 1960, reproduced in Hamilton (1982) Collected Words.

[11] Jackson Pollock had a retrospective at the Whitechapel in 1958, however the first London showing of his work was at the ICA in 1953.

[12] Garlake, M. (1998) *New Art, New World: British Art in Postwar Society,* New Haven & London: Yale University Press, pp.77-81.

photographs by Hans Namuth of Jackson Pollock 'dripping' on glass assured its export from the US to Europe.[13]

However, Lawrence Alloway was also a supporter of the young artists interested in Constructivism. He was the key critic associated with the Institute of Contemporary Arts (ICA), and published, *Nine Abstract Artists* in 1954.[14] This was the catalogue to a show by Terry Frost, William Scott, Roger Hilton, Adrian Heath, Anthony Hill, Kenneth Martin, Mary Martin, Victor Pasmore and the sculptor Robert Adams.[15] Here, Alloway presents the 'Constructionists' (as Pasmore, the Martins and Anthony Hill called themselves, in reference to Charles Biederman's term), as the logical heir to the abstract art of the 1930s, centred on the *Abstraction Création* Group in Paris.[16] Consequently, for the purposes of clarification, the difference between Constructivism, and the Constructionists is defined later in the introduction.

As various writers have shown, from the Paul Klee exhibition[17] in 1945 at the National Gallery to Lawrence Alloway's *Nine Abstract Artists* in 1954 and beyond, there is a constant trickle of abstract and semi-abstract art in exhibitions, arriving from various directions, namely France, or more accurately Paris, from the USA, specifically New York, and from Germany and Switzerland. The first time the Abstract Expressionists were shown in England was at the Tate Gallery in 1956. This exhibition, entitled *Modern Art in the United States,* changed attitudes to abstract painting, although only the last room was devoted to Abstract Expressionism.[18] In 1959 *The New American Painting,* also organised

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[13] See "American Type' Painting' by Clement Greenberg which first appeared in *Partisan Review* Vol.XXII, no.2, spring 1955, pp 179-196. Reproduced in Francis Frascina and Charles Harrison's (1982) *Modern Art and Modernism: a Critical Anthology,* London: Harper and Row, pp.93-103.

[14] Alloway, L. (ed.) (1954) *Nine Abstract Artists: their work and theory: Robert Adams, Terry Frost, Adrian Heath, Anthony Hill, Roger Hilton, Kenneth Martin, Mary Martin, Victor Pasmore, William Scott,* exhibition catalogue, London: Alec Tiranti.

[15] The Constructionist, Kenneth Martin, who was brought up in Sheffield and worked there as a designer, before attending the Royal College of Art, was, by 1956, involved with spirals and engineering structures.[15] Constructivist concepts from the Bauhaus, via Paris, and from North America via Biederman and Gabo, formed a strong thread in the British art scene of the 1950s and 1960s. That thread was the amalgam of Science and Art and centred on the ICA as I discuss in Chapter Two. Kenneth Martin, in an appreciation of Richard Paul Lohse in *Studio International* in 1968, mentions three events which influence him: The discovery of Paul Klee's writing, *Das Bildnerische Denken,* which positions him as a constructing artist; an exhibition: 'Swiss Design' at the Ceylon Tea Centre in Regent Street at which Lohse and Bill and Karl Gerstner exhibited among others; and Karl Gerstner's essay 'Kalte Kunst', [Cold Art], in which the objective construction of works is demonstrated.

[16] The *Abstraction Création* Group were international, they did not come from France but happened to congregate in Paris. Among these were Max Bill, and Naum Gabo.

[17] *Paul Klee 1879-1940,* (1945) exhibition in December 1945-February 1946 mounted at the National Gallery, London: Tate Gallery and Arts Council.

[18] *Modern Art in the U.S.: A Selection from the Collections of the Museum of Modern Art, New York.* (1956) January-February 1956, London: Tate Gallery. *The New American Painting* (1959), with an introduction by Alfred H. Barr Jr., London: Tate Gallery. Both were collaborations between MOMA and the Arts Council of Great Britain. As Patrick Heron pointed out at the time the painting was based on spontaneity. The British Constructionists were not interested in the spontaneity of Jackson Pollock, (process dominant though it might be). The first exhibition to record the American abstract impact is understood to be Patrick Heron's exhibition

by MOMA and shown at the Tate, was wholly Abstract Expressionist and post-painterly abstraction. In her book Garlake notes:

> Both exhibitions had a profound impact on virtually every artist who saw them; they were among the most significant exhibitions the Tate had ever mounted and certainly the most important for contemporary artists since 'Picasso and Matisse'. That had attracted huge crowds to the Victoria and Albert Museum when it opened in December 1945.[19]

Thus, Garlake highlights the Paris School and then the New York School, these being the two consecutive major centres and therefore, commonly regarded as the heritage for British art at the time. However, I will argue that a form of abstraction which expressly explored links between science and art comes not only from these directions, but also more directly from a third and alternative area, the ICA, as I discuss in Chapter Two. The ICA, inaugurated in 1947, showed its first exhibition of abstract art in 1951, when it moved into its own premises.[20] It became the main showcase for the avant-garde, and it is here that the Constructionists and the Independent Group were based.[21]

As outlined in Chapter One of this thesis the emergence of Constructivism in Britain was a slower process, albeit with international connections. The only critical study that attempts to map the more specific British 'Constructionism' is Stephen Bann, (1974), *The Tradition of Constructivism,* which is highly selective in its account and is now thirty years old.[22] Bann traces the Constructivist thread, using a comprehensive introduction and an anthology of articles by the main players. The latter part consists of articles by Charles Biederman, Naum Gabo, Richard Paul Lohse, Joost Baljeu, and the two British artists Kenneth Martin and Anthony Hill. Much of the book is concerned with the term Constructivism and its nature as art form, but there is little mention of a contribution to society, or education, or the more ideal concept of 'Utopia'. This emergence of Constructivism around World War I parallels the development of an abstract language and geometry akin to the interest in platonic form and structure in D'Arcy Wentworth Thompson's book (1917) *On Growth and Form*, which I examine in Chapter Two.

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of new abstract canvases of stripes in April 1957. The exhibition was entitled *Metavisual, Tachiste and Abstract Painting in England* at the Redfern Gallery.

[19] Garlake, M. (1998) *New Art, New World: British Art in Postwar Society,* New Haven & London: Yale University Press, p.25.

[20] Furthermore, in 1951, whilst Henry Moore's sculptures and drawings were being shown at the Tate Gallery as part of the Festival of Britain, *'60 paintings for 51'*, also part of the Festival, was making its presence felt. Gear won a first prize with *Autumn Landscape*, (1950) - a perceptual abstract painting in autumnal colours, and questions were asked in Parliament because of its abstract nature. In essence, The Festival of Britain helped to reinforce a wartime sense of national identity.

[21] Anne Massey's work on the Independent Group, contributes much to the history of the younger artists at the ICA and is discussed in Chapter Two of this thesis. Massey, Anne, (1995) *The Independent Group: Modernism and Mass Culture in Britain 1945-59,* Manchester & New York: Manchester University Press.

[22] Bann, S. (1974) *The Tradition of Constructivism,* London: Thames & Hudson.

When mapping the impact of Constructivism in Britain, it is important to note that the British art scene was rocked, in 1947, by Victor Pasmore turning to abstraction. In 1951 Pasmore and Mary Martin produced their first reliefs influenced by their reading of *Art as the Evolution of Visual Knowledge* (1948) by Charles Biederman.[23] Here, Biederman, an American artist and writer, argues that '*the artist should seek to imitate not the appearance of nature but its structural processes.*'[24] Biederman's influence cannot be understated and is analysed in Chapter Seven. Biederman's book resulted indirectly in Victor Pasmore, Kenneth Martin, Mary Martin and Adrian Heath discussing their mathematical theories and work in 'Abstract Art', *Broadsheet* No.1 (1951) and No.2 (1952).[25] Garlake also draws attention to the Wittenborn Schultz Inc. publications which included Mondrian's 'Plastic Art and Pure Plastic Art' (1947), Vantongerloo's 'Problems of Constructivist Art' (1948) and Arp's 'On My Way' (1948) as evidence of the growing interest in Constructivism and the move towards abstraction.[26]

The growing acceptance of the Bauhaus and other art from Germany and Switzerland played a part in the development of the Constructivist art of the 1960s among which I place the work of Cuthbert. For example, in 1959 the Tate Gallery's *The New American Painting* was followed in October and November by *Swiss Art of the Twentieth Century: Painting and Sculpture*.[27] Reinforcing this tendency, American and European artists with Bauhaus heritage and Constructivist ideas were being hosted in the main galleries of London, particularly the Marlborough New London Gallery, in the early 1960s. For example, in 1962 Klee and Kandinsky showed in *Painters of the Bauhaus*.[28] In addition, it is in the 1950s that, thanks to the Bauhaus, and its émigré legacy, pedagogic approaches become a well-discussed issue. The received view to date is that the Scarborough Summer School from 1954 to 1957 brought about a new momentum in art school teaching.[29] The nucleus of basic design is traced to the teaching priorities of Hamilton and Pasmore, Thubron and Hudson.

Hence, in 1959, when Cuthbert was studying at Goldsmiths, all of the themes which play a part in the Constructionists' work of this period were being displayed in the London

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[23] Biederman, C. (1948) *Art as the Evolution of Visual Knowledge*, Minnesota: Red Wing.
[24] Biederman, C. (1948) p.56. Biederman's heavily theoretical tome attempts to overview art from prehistory to his own ideas on contemporary art. It also includes many of his Structurist works as illustrations.
[25] 'Abstract Art', (1951-52) in the journal *Broadsheet*, No.1 (1951) & No.2 (1952) is published in conjunction with an exhibition of Abstract Art at the AIA Gallery, London, May-June 1951, by Lund Humphries, London,.
[26] As cited by Adrian Heath in Heath, A. (1953) *Abstract Painting: its Origins and Meaning*, London, p.32.
[27] *Swiss Art of the Twentieth Century: Painting and Sculpture*, (1959) October-November, London: Tate Gallery, was sponsored by the Arts Council of Great Britain and Prohelvetia Foundation, Switzerland.
[28] *Painters of the Bauhaus*, (1962) exhibition, Marlborough New London Gallery.
[29] Yeomans, R. R. (1987) 'The Foundation Course of Victor Pasmore and Richard Hamilton 1954-1966' unpublished PhD: Institute of Education, University of London.

Galleries.[30] In addition, basic design attained wide exposure through the 1959 exhibition *'The Developing Process'* which took place at the ICA, London, and in Newcastle. The accompanying catalogue brought Hamilton and Pasmore's basic design teaching methods into wider circulation.[31] Consequently, Cuthbert, as student, painter and lecturer, is representative of a period of profound change in English art education of the period 1955-79, and his practice is situated within this broader context.

Stuart Macdonald, writing in 1970 in *The History and Philosophy of Art Education*, states that the 'development that art education is today becoming increasingly analytical, logical and thematic originates from the Preliminary or Basic Course initiated by Johannes Itten in the Autumn of 1919 at the Bauhaus'.[32] This might suggest that English art schools were a few steps behind the ideas of the market place.[33] However, as I discuss further in Chapter Two, the consolidation and the spreading of basic design methods was due in part to the exhibition at the ICA entitled *The Developing Process* in 1959. Although, the exhibition was not so well received as had been hoped, nevertheless it led the way and others followed. The catalogue put forward Richard Hamilton's 'Diagrammar' and Alan Davie's 'Notes on teaching' among others.[34]

By 1964 a pivotal point was reached in the abstract pedagogic and Constructivist debate by the publication of a 'basic design' textbook. Entitled *The Dynamics of Visual Form* (1964) it was written by Maurice De Sausmarez, who had been at Leeds with Hudson and Thubron.[35] Itten's *Design and Form (Vorkurs)* had been released in English the year before.[36] *The Dynamics of Visual Form* was the equivalent, - the English art school

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[30] Notable galleries for Constructivist and Bauhaus work, in the 1950s and 1960s were the ICA, AIA, the Axiom, the Mayor, McRoberts and Tunnard, and the Drian in London and the Galerie Denise René in Paris.

[31] *The Developing Process: work in progress towards a new foundation of art teaching as developed at the Department of Fine Art, Kings College, Durham University, Newcastle upon Tyne and at Leeds College of Art, with contributions by Victor Pasmore, Harry Thubron, Richard Hamilton, Tom Hudson and others,* (1959) Newcastle upon Tyne: Durham University, Kings College, published on the occasion of the exhibition at the ICA London, 1959. See also the article: Hamilton, R. (1960) 'First Year Studies at Newcastle' Times Educational Supplement, 1960, reproduced in Hamilton (1982) Collected Words.

[32] Macdonald, Stuart, (1970) *The History and Philosophy of Art Education,* Chapter 20, 'Basic Design and Visual Education' London: University of London Press p.365.

[33] Given Kandinsky and Kupka's development of abstract art before the First World War, it might be argued that the progressive Bauhaus in 1920s Germany was dealing with pre-war ideas. However the parallels with the Soviet Union institutionalising art during the same period are interesting.

[34]Hamilton's 'Diagrammar' is reproduced in Richard Hamilton (1983) *Collected Words: 1953-1982,* London: Thames and Hudson. It states: 'the student is prompted to think of his work as diagrams of thought processes - equipment which will enable him to derive further conclusions.' p. 169, the exercises mention, 'growth of ideas', 'flow', 'cells', 'tendrils', and 'dominant forms', words which can be seen as signifiers of basic design and organic interest. Whereas Davie's words imply a route stemming from Dada and Surrealism, 'a philosophy of the irrational which functions as an activity motivated by a faith in the existence which is outside and beyond knowing.' Alan Davie, 'Notes on Teaching' in *The Developing Process,* ICA: exhibition catalogue (1959).

[35] For further research on Thubron see: Lynton, N. (1986) 'Harry Thubron - Teacher and Artist', talk given at the inauguration of NAEA, Bretton Hall, 6 November 1986 HTPL30. Forrest, E. (1983) 'Harry Thubron: His Contribution to Foundation Studies in Art Education', unpublished PhD, Ohio State University.

[36] Itten, J. (1963) *Mein Vorkurs am Bauhaus, Gestaltungs- und Formlehre,* Ravensburg: Otto Maier Verlag. English trans. *Design and Form: the Basic Course at the Bauhaus* (1964) New York: Reinhold Publishing Corp. & revised edition (1975) London: Thames and Hudson.

pedagogic textbook. It drew on Bauhaus ideas which had evolved and had slowly become part of the mainstream. Itten's *Vorkurs* and De Sausmarez' book appear around the same time and it is immediately clear from the similarities that they share a similar philosophy.

In mapping the changes in British art through Cuthbert and modernism, the important moment occurs in the reform of the art school examination systems in the early 1960s.[37] This was instigated by the First Coldstream Report (1960) advocating the termination of the National Diploma in Design, (NDD) which, since the last reforms of 1946, had been the national higher qualification in practical art.[38] The 1960 report proposed the outline of what became the Diploma in Art and Design (DipAD) as a replacement for the former NDD qualification. In addition, it introduced the one-year Pre-diploma (Pre-dip) in place of the two-year Intermediate Certificate, which had previously been the access course for the NDD.

These changes were in process as Cuthbert started teaching part-time at Wimbledon, in 1961. What had been a two-year course now became the one-year Pre-diploma course. By 1965, the Pre-diploma became known as the Foundation course. Throughout, for the sake of avoiding confusion, I shall refer to the one year course between 1961 and 1965 as the Pre-diploma and refer to the post-1965 course as the Foundation course. However, despite the name change there is no doubt that the idea of a one year general art course for all students of art and design areas was based upon Itten's *Vorkurs* at the Bauhaus.

The changes in the curricula of these courses were not all specified by the overseeing body. It is the nature of this curricular content which is of specific interest in the context of Cuthbert and art education in England in the 1960s. The Pre-diploma course was constructed by the colleges themselves and was a preparation for what came afterwards. By necessity, its structure and content was partly determined by the new Diploma in Art and Design and was informed by artist-lecturers. In contrast to the previous certificate which was tightly tied into the NDD, the new Pre-diploma was more autonomous, (so much so that no certificates were awarded). The impact of these changes in the English art schools and examinations is important to British art of the 1960s.[39] Discussion of the changes by key writers, such as Garlake, Seago, Macdonald, Frayling and Thistlewood testify to this.

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[37] In the context of this thesis and Cuthbert's work, I use the word 'modernism' as the umbrella term for the three connected threads of organicism, Constructivism and basic design, with the Bauhaus art school pedagogy in the background. Definitions of basic design, organicism and Constructivism are given on pp.16, 17 and 18, respectively.

[38] The NACAE First (Coldstream) Report (1960) London Metropolitan Archives.

[39] For example, Erik Forrest, who left Leeds in 1981 and completed his PhD thesis in 1983, considered that the more ideas-based modes of art teaching, led to some of the dry conceptual work of the 1970s.

Overall, therefore, this research contributes to the discourse on late-modernist art in Britain and to existing knowledge of the post-war period in several respects. Firstly, the work of Cuthbert has remained virtually unknown. Secondly, the research illuminates an important chapter in the history of British abstraction, providing persuasive evidence of a commitment among artists to continue an earlier, interrupted, project of modernist painting. Thirdly, more specifically, it demonstrates the change in English art education in the 1960s and the impact these had on the evolution of modernist painting practice in art education.

Of particular importance here is Cuthbert's core interest, as an artist and lecturer, in colour theory. The study of colour theory in the context of modernist painting since 1945 is an area that has been significantly under-researched. In the Anglo-American context, at least, much of the focus has been on the theory of modernist art advanced by Clement Greenberg and Michael Fried, and its reception in Britain from the late 1950s onwards. The impact of Abstract Expressionism is recorded in the writings of Patrick Heron and John A. Walker. Heron deemed himself 'one of the first Europeans to have perceived the great importance of American painting'.[40] By contrast, this thesis proposes a different, Continental orientation for British post-war geometric abstraction.[41] Centring on Cuthbert, it articulates a history of dissemination of Constructivist principles through an aggregation of artistic practices, theories and teaching methods in English art schools during the 1960s and enquires about the significance of the systematic exploration of colour within pedagogic practice.

The thesis engages with Cuthbert's work, and assesses its historical relation to the colour theories and pedagogical methods devised at the Bauhaus and subsequently disseminated to Britain. Here I argue, that this link to Bauhaus colour theory and its role in the generation of systems-based abstraction situates Cuthbert close to the artistic practices of Continental abstractionists, in particular the theory and practice of the Swiss artist, Richard Paul Lohse.

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[40] For further information see John A. Walker, (1998) *Cultural Offensive: America's impact on British Art since 1945*, London: Pluto Press. In a similar vein, Patrick Heron, whilst supporting American Abstract Expressionism makes a robust attack on, firstly, the American critics for artistic chauvinism, (against Moore and British artists) and, secondly, on the 'gutless' British critics who were obsequious to the Americans. The criticism can be found in Patrick Heron's 'The Ascendancy of London in the Sixties,' in *Painter as Critic: Patrick Heron: Selected Writings*, (1998) edited by Mel Gooding London: Tate Gallery, pp.156-161. The original article appeared in *Studio International*, December 1996.

[41] The influence of continental ideas can be traced in the work of the exhibition *Place* which included Ralph Rumney who had briefly been a founder member of the Situationist International in 1957. In September 1959, in an ICA show called *Place*, Robyn Denny, Richard Smith and Rumney utilised colour sensation as a device to create a space. Denny continued the idea of the 'environmental' impact of large free-standing coloured canvases by co-organising, with Alloway and others, the *'Situation'* shows of 1960, 1961, 1962 in London. The latter was toured by the Arts Council until 1963, for further reading see Garlake, pp.127-129.

In the introduction to his book, *Colour and Culture: Practice and Meaning from Antiquity to Abstraction,* John Gage discusses his interest in the 'fragmentation' of colour as a subject and the way, in the past, areas of enquiry into colour have not been pooled:

> ...preventing intelligent and sensitive investigators from coming to a clear understanding of their subject; why so much of what has been and still is being written about colour cannot be believed.[42]

To draw these fragmented elements together Gage proposes the perspective of history as the best approach. The related, though fragmented elements of the system of history depend upon their positioning for their meaning. The history of colour has, as Gage implies, been blighted by its study from numerous fragmented angles rather than a more holistic approach. It has been seen by specialists from subjects as diverse as psychology, religious studies, linguistics through to physics at the other end of the spectrum. Following Gage, all the related elements of colour, organised for a purpose (which is also the definition of a system) constitute colour as a subject. In brief then, it is not the element of colour per se in which my interest lies but colour as an element at a specific historical moment in the English art school the system. Primarily, through the study of Cuthbert, I am interested in the system by which colour is organised; the system via which colour is passed down; the system through which it becomes a changed educational product in England during the 1960s.

Consequently, this research focuses Gage's concept of history on a key moment of pedagogical importance in the history of colour, in order to investigate the teaching projects in an English art school and the changes which on closer inspection occur in the early 1960s. The case study is an artist-lecturer of a Foundation course in a London art school from that period.

The classical concept of organisation and ordering to a purpose, embodied by Constructivism, would seem to be diametrically opposed to much art practice in late 1950s and early 1960s British culture, given Surrealism, Abstract Expressionism and Pop Art. However, as I argue here, systems were at the root of thinking and practice among a number of artists, art lecturers and even critics.

This thesis, therefore, analyses Cuthbert's formative practice not only in terms of its immediate relation to British abstraction of the 1950s and 1960s, but also in terms of the artist's specific and innovative engagement with colour theory.

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[42] Gage (1993) *Colour and Culture: Practice and Meaning from Antiquity to Abstraction,* London: Thames & Hudson p7.

The majority of this research centres on various archives, including those of the artist, published and unpublished material, interviews and an analysis of his paintings. As a case study of an individual and his context these sources can be separated into three major types. The first type, in the foreground, is the primary source of the personal archive left intact after Cuthbert's death by a heart attack in 1995. This archive, still in Cuthbert's studio in Puylaroque, south west France,[43] contains paintings, notes on the systems which underpin the paintings, colour charts and cards, colour experimentation equipment, lecture and teaching notes, letters and other personal ephemera. The second major type of material which has been used to inform this research is a number of unpublished theses, various archives, interviews with colleagues and acquaintances of Cuthbert. Here, I have referred to the histories of individual art schools and art school documentation, where it exists, and other primary material which exists on the post-war period: artists' writings, their studio notes, exhibition catalogues, journals and art school minutes of meetings.[44] The third source of material, forming the background, are the major histories which have been written about the Bauhaus and its teachers, surveys of abstract art, British art and publications on the period.[45]

Consequently, this research is based on much invaluable primary material, the majority of which is unpublished or in private collections. This includes sole access to Cuthbert's personal letters, notebooks and papers through his widow, Lisanne Ashton. There are over a hundred paintings by Cuthbert, most are in the artist's estate, (*see Volume II, enclosed CD for examples)*, many in private collections, very few in public ones (Sheffield, Surrey, Sussex and Southampton), (*see Volume II, Appendix 24 for Alan Cuthbert's CV.*)

Regarding method, I have chosen to treat Cuthbert as a case study, seeing him as representative, of a large number of artist-lecturers who teach in English art schools. By taking a little known artist-lecturer as the focus of research, this case study can be seen as intersecting and traversing several areas of art historical study. As previously noted, documentation within art schools especially in the 1960s is selective. Some minutes and notes of subject boards, committees and governing bodies and school magazines from this period are in evidence in the archives of certain institutions, whilst student portfolios, lecturers' teaching notes and project briefs are scarce. The contrast between the documentation of the institutions on the one hand, and the personal, and primary material of the artists, on the other, is marked. Modern institutions have little storage space for

[43] Cuthbert's widow, Lisanne Ashton, looks after the studio and archive in Puylaroque, Tarn et Garonne, south west France, near Cahors.
[44] Such as Joost Baljeu (1959-64) *Structure* magazine which was an important platform for the ideas of Hill, Ernest and Lohse.

educational documents of syllabus and curriculum. Most of what is retained are records of numbers and statistics, whilst the artist's documentation frequently consists of personal ephemera, memorabilia and artworks. Consequently, this study contributes substantially to the slim body of knowledge which art schools look to as their history.[46] This history is constructed from theory and practice: not only the theories of art but also the theories of art education and likewise the practices of art and art education. A case study, which brings light to bear on these areas, is necessarily different from the majority of art historical writing, which is dominated by the modernist model of monographs, movements/groupings, and periodisation. To date, the artist-lecturer has been largely ignored. The few models for such knowledge in the twentieth century have centred around the Bauhaus. Klee, in particular, contributed heavily to areas of pedagogy, art theory and practice.[47] Cuthbert, however, is representative of a large number of art school lecturers who maintain their own practice, and whose practice and teaching make a largely unwritten and unrecorded contribution to the art system.

In accumulating the documentation I have bone in mind the relevance of truth as Einstein notes:

> Truth does not lie in the mere accumulation of facts but in an attitude of mind, and a mode of life and action, that must be renewed from generation to generation.[48]

With regard to the way histories are written, vigorous debate rages over how we approach or should approach the past. In this respect, the work and ideas of Michel Foucault have been useful tools for me when considering the flux of history. My study is a localised excavation. However, I do not necessarily see it as discontinuous, it relates to a wider view of the history of art school culture and the way in which ideas stretch both backwards and forwards in time. In this thesis I trace a number of themes through the past which surface in Cuthbert's work and project. These themes belong to modernism, whereas this research is inevitably part of a new generation.[49] The past is important when it is relevant to the future of a new generation. As Foucault declares:

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[45] These are listed in full among both the Primary and Secondary Sources in the Bibliography which appears at the end.

[46] Art schools which have started to write their history include Manchester: Jeremiah, D. (1980) *A Hundred Years and More,* Manchester: Faculty of Art & Design, Manchester Polytechnic; Norwich: by Allthorpe-Guyton, M. & Stevens, J. (1982) *A Happy Eye: A School of Art in Norwich 1845-1982,* Norwich: Jarrold & Son; and *Wimbledon School of Art: 1890-1990,* (1990) London: Penderel Press.

[47] Klee, P. (1925) *Pädagogisches Skizzenbuch,* Weimar: Bauhaus, trans. as 'Pedagogical Sketchbook' translation and introduction to English edition by Sibyl Mohly Nagy, 1953. Klee, P. (1948) *Paul Klee on Modern Art,* trans. by Paul Findlay, with an introduction by Herbert Read, London: Faber and Faber.

[48] Einstein, as quoted by Porter Sargent in *War and Education,* (1944) Boston, p.269.

[49] Bourdieu in "A Sociological Theory of Art Perception", states: '... to the extent that every work is, so to speak, made twice by the originator and by the beholder, or rather, by the society to which that beholder belongs.' in Bourdieu, P. "A Social Theory of Art Perception" Part III 'The Pure Gaze: Essays on Art', in Bourdieu, P.(1993) *The Field of Cultural Production,* edited by Johnson, Cambridge: Polity Press, Blackwell, pp.213-237.

> ...to understand the present, the present as a product of the past and as a seedbed of the new.[50]

In this research I explore how Alan Cuthbert's work relates to the project of modernism. However, in contemporary art history the concept of modernism itself is questionable. Recently, theories of modernism are being rethought, and question whether there is one modernism or simply a dominant modernism among a number.[51] Little has been written about the dominant modernist art foundation course in Britain. By examining one little known artist-lecturer I may shed light on the present circumstance in art education. The overlap between art history, theory and practice is the area occupied by the post-war English art school, and it would appear to need a history. How this is written is important.[52]

Poststructuralists have pointed out that modernists proposed various universalist theories.[53] Accordingly, I am not looking for a universal, all embracing theory, but am seeking to unearth the ignored and add to the written histories. In this respect, the language of art may or may not be universal, however the elements of that language, as we see them thus far, seem to be well established in practice in our epoch.

Foucault's concept of the search as an archaeological excavation has been useful, in particular, concerning the different modes through which the subject is approached.

> The goal of my work during the last 20 years has not been to analyse the phenomena of power nor to elaborate the foundations of such analysis. My objective instead has been to create a history of the different modes by which in our culture, human beings are made subjects.[54]

Thus, the artist-lecturer Cuthbert has been approached in this research from a number of positions and with an historical awareness of present circumstances. Likewise, Foucault analyses 'regimes of practices' rather than the way theories and ideologies express material conditions. He looks at the relationships between things.[55] He prefers to call his approach

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[50] Foucault, M. (1972) *Archaeology of Knowledge*, Alan Sheridan (trans.), London: Pantheon, p.97.

[51] Key writers, such as Frederic Jameson in *Postmodernism or, the Cultural Logic of Late Capitalism* (1991) touch on this. For further reading see Peter Nicholls, (1995) *Modernisms: A Literary Guide*, London: Macmillan.

[52] In addition to this, 'The death of the author' by Roland Barthes (1977), and the writings of Poststructuralists and Feminists have made the reader aware of who is writing art history and the function of the institution for which it is written.

[53] For instance, Roland Barthes and Jacques Derrida have written critically about Claude Lévi-Strauss' concerning the common element of all cultures and Foucault and Bourdieu have attempted to reveal the underlying 'structures' which are not universal, but specific to given historical epochs.

[54] From an essay written in English by Foucault: "Why Study Power? The Question of the Subject" as an afterword to Dreyfus, H. L., & Rabinow, P., (1983) *Michel Foucault: Beyond Structuralism and Hermeneutics*, New York & London: Harvester Press.

[55] To use his 'idioma' they are archaeological excavations into the rubbish tips of society. This is consistent with Foucault's ideas that we can learn more about a society by examining what it discards i.e. the marginalised: the mad, the sick, the criminal, and the sexual deviant.

'archaeology' - bringing to light and meticulously documenting (or stratifying) everything possible.[56] Consequently, he purports no total theory only certain instances from which no universals are drawn. Thus, a localised and discontinuous view of history emerges.[57] This is important for an understanding of this research as a case study.

As I have already suggested, my interest in the subject is from multiple positions. As a lecturer I write the history for myself and I place myself in the history. As a lecturer of art in the studio, teaching models of colour theory; as an artist, using colour in my studio practice; as a student of art history; as a product of the art school system. Therefore in scraping back the layers to unearth the histories surrounding an artist-lecturer who was neither marginalised nor part of the mainstream, I hope to become aware of Cuthbert's dual involvement with art education, - his reception of it and contribution to it. I also expect to reveal the relations between the practice of an artist and the theory of the lecturer. Furthermore, it may become apparent that the art school is a main channel of change and has a significant impact on the art of a period.

Firstly, in order to frame this research, it is necessary to define a few key terms, which are crucial to this study. The first is the question of the 'influence' of the Bauhaus.

Michael Baxandall in *Patterns of Intention: On the historical explanation of pictures*, of 1985, makes a brief and incisive point about the idea of 'influence'.[58] Looking at the notion of artistic 'influence', of one painter 'influencing' another, he sees it as 'wrongheaded grammatical prejudice about who is the agent and who is acted upon.' Baxandall points out that the idea of one artist or artwork having an effect on another is misleading, as he demonstrates with Picasso's *Demoiselles D'Avignon,* executed after Cézanne's death. He argues that Picasso was the agent in taking Cézanne to himself, responding to him and over the period from 1906 to 1910, of accepting 'Cézannian things' 'en troc'. As Baxandall notes:

> To sum all this up as Cézanne influencing Picasso would be false: it would blur the differences in type of reference and it would take the actively purposeful element out of Picasso's behaviour to Cézanne. Picasso acted on Cézanne quite sharply.[59]

By 1910 Cézanne was more central historically than he had been in 1906. Thus, Picasso by using Cézanne had moved him further into the main tradition of European painting. To

[56] Foucault, M. (1969) *The Archaeology of Knowledge*, trans. A.M. Sheridan-Smith, London: Tavistock, 1974.
[57] Like Habermas, Foucault proceeds from the assumption that reality is socially constructed and reinforced through our writing of history. Foucault, M., ibid., 'Do we need a theory of power? Since a theory assumes a prior objectification, it cannot be asserted as a basis for analytical work. But this analytical work cannot proceed without an ongoing conceptualisation....we have to know the historical conditions, which motivate our conceptualisation. We need a historical awareness of our present circumstance.' p.418.
[58] Baxandall, M. (1985) *Patterns of Intention: on the historical explanation of pictures*, New Haven; London: Yale University Press, pp.58-62.

talk of one artist influencing another, then, is misleading due to the doubtful causality of the term 'influence'. Accepting Baxandall's view, that influence is an active response, I am therefore positing that the Bauhaus influencing basic design or the Constructionists influencing Cuthbert, does not imply a passivity, but an active seeking out and engagement with concepts and working practices. For example, *The Journal of the Royal Society of Arts* of 1935-36 (No.4308, 4332, 4339), carried three transcripts of lectures by officials involved in art training for industry.[60] The accounts are of bursaried trips to the continent to visit and compare art education establishments. This resulted in Dr Nicholas Pevsner's subsidised report (January 1936), entitled 'Post-war Tendencies in German Art Schools'. The point here is that the English art education establishment was proactive in looking for a solution to the problems of art and design education for industry and new technology, and was not passively influenced by the Bauhaus. In fact, there was much interest in it as the publishing of Gropius' book *The New Architecture and the Bauhaus* by Faber and Faber in 1935 indicates. I, therefore, use the term influence with care.

'Abstract' is another concept which needs clarifying. The Latin derived word *abstractus* [past participle, (*ABS-* off, away from, *trahere* to draw)] would lead to the concept of drawing or pulling from and would fit Kandinsky's early abstracted works which are clearly drawn, in both senses of the word, from landscapes and battlefields or Klee's images drawn from plants. However, in the second or third decade of the twentieth century there is a shift in meaning, and Mondrian and De Stijl are among the forerunners when 'Abstract' starts to define something unrelated and non-representational which becomes the artwork existing in and for itself.[61] This was often referred to as concrete or substantive art.[62] Both types of abstraction can co-exist as in the work of Ben Nicholson in the 1930s. Some of his works are based on and abstracted from nature and still-lifes, others have no overt reference and deal with the elements of the language of art. Within the period of this study, both meanings of abstract are in use. However, by the late 1960s the concrete or substantive precludes the more figuratively based abstraction in the work of writers such as Bann. Cuthbert's work, in this context, can be clearly placed within the concrete.

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[59] Baxandall, M. (1985) p.59.
[60] Dr Nicholas Pevsner (1935-36) 'Post-war Tendencies in German Art Schools' in *The Journal of the Royal Society of Arts* No.4308, 4332, 4339.
[61] Piet Mondrian, repositioned his abstraction in 'Dialogue on the New Plastic', originally published in two issues of *De Stijl*, Leiden, February and March 1919, in which dialogue he says about his aim: 'to express *relationships* plastically through oppositions of color and line.' When asked: 'But didn't your earlier work represent *nature*?' Mondrian replies: 'I expressed myself *by means* of nature. But if you carefully observe the sequence of my work, you will see that it progressively abandoned the naturalistic appearance of things and increasingly emphasized the plastic expression of relationships.' Translation reproduced in C. Harrison and P. Wood, (1992) *Art in Theory 1900-1990: an Anthology of Changing Ideas*, Oxford: Blackwell, p.282.
[62] Max Bill and Richard Paul Lohse classify themselves in this field.

Concurrent with the rise in the use of the term abstract is the emergence of the concept of art as a language. It would be appear that the two concepts are co-dependant. Since the term 'language of art' is commonly used in late modernist art education, it is necessary to examining its meaning. This language is made up from the elements an artist uses to convert ideas and theory into practice and the object. The common list or canon reads: point, line, shape, form, tone, texture. It is not clear if this is a closed list or whether more will be added, however it has been seen to be fairly stable since the early part of the twentieth century, although with the advent of new technologies this may change. Early modernism regarded such elements as constituting a universal language – it was felt that these were the components to which all art could be reduced or from which all art could be constructed, and that they were cross-cultural and a pure form, to be understood and used by all. Whilst the rise of postmodern theory has led to a questioning of this language, nevertheless, the concept of a 'language of art' was and remains a way of talking about practice and has informed the practice of artists from the period discussed here.[63]

Given that part of this research, examines an area of English art education referred to as 'basic design', it is necessary to define the term and distinguish it from basic design in the sense of the fundamental principles of design i.e. drawing, creative thinking, functionalism and ergometrics. The basic design of Hamilton and Pasmore in the 1950s was in no real sense a movement, as key writers such as Richard Robin Yeomans and Jessica Morgan concur.[64] It was an approach to art teaching at Intermediate level defined by a belief in visual enquiry and open ended practical experimentation, developed from an understanding of Bauhaus pedagogy and the use of materials with an experiential emphasis rather than learning by rote. One of the tenets of basic design was the idea of a work of art as a 'diagram of thought processes' or a 'diagram of forces' as in the term 'organic' discussed below.[65] Basic design, in this sense, is notoriously difficult to define. Little research has been done into basic design courses in English art schools in the 1950s and 1960s. Furthermore, to date, no set syllabus exists and there is no rigid structure to the teaching. The main sources for definition to date come from the basic design course of Hamilton and Pasmore recorded in Yeomans' PhD (1987); the exhibition catalogues of *The Developing*

[63] The American critic, Rosalind Krauss, a contemporary of Michael Fried on the faculty at Harvard, began by the early 1970s to question the rigidity of Greenbergian modernism, and her essay 'A View of Modernism' published in Artforum, New York, September 1972, pp. 48-51, signifies a change. In it she states: 'Modernist criticism is innocent. [...] it refuses to see the temporality which is never tires of invoking – 'the entire history of painting since Manet' – as that perspectival armature on which it structures the art in question (and on which that art has increasingly tended to structure itself); it thinks of that history as 'objective' – beyond the dictates of sensibility, beyond ideology; and it is unself critically prescriptive. [...] its critical intelligence having ceased to be wary of what it has taken as given.' Reprinted in Harrison, C. & Wood, P. (1992) pp. 953-956.
[64] Morgan, J. (1992) 'Basic Design: Pedagogy or Aesthetic?' unpublished MA Report, Courtauld Institute, London University. Yeomans, R. R. (1987) 'The Foundation Course of Victor Pasmore and Richard Hamilton 1954-1966' unpublished PhD: Institute of Education, University of London.
[65] Hamilton, R., 'Diagrammar' in *The Developing Process*, (1959), exhibition catalogue, London: ICA, p.19-26. Reproduced in Hamilton (c.1982) p.169.

Process (1959) and *A Continuing Process: the new creativity in British art education 1955-1965* (1981), and writings by David Thistlewood.[66] Here, I regard the main primary source for an understanding of the work of basic design as it was seen at the time as the 1959 exhibition organised by Hamilton and Pasmore entitled *The Developing Process*. However, in tracing the development of basic design it becomes evident that some form of basic design teaching was apparent in English art schools earlier than Hamilton and Pasmore's course, thus making a clear cut definition more problematic.

In addition, the practice of basic design is further complicated by being often interlinked with the term abstract. A central consideration of basic design and its relationship to abstraction is what Thistlewood terms 'organicism' and the 'organic aesthetic', which is examined in Chapter Two.

Whilst Raymond Williams (1976) in *Keywords: a Vocabulary of Culture and Society* does not actually define the word 'organicism', he does examine the complicated meaning of organic in English, as being '*the processes or products of life, in human beings, animals or plants*'.[67] Whereas, prior to the nineteenth century, organic had been synonymous with mechanical, Williams traces its development in opposition to the mechanical, in the sense of an organ as an agent or instrument, hence to organise. Williams also points to its metaphorical meaning indicating kinds of relationship and different kinds of society. Implicitly, an organic society is one that grows according to a natural order, not aimlessly. Another aspect is the idea of the relationship of the whole and the parts. For example, Coleridge, as Williams notes, defined an inorganic system in which 'the whole is nothing more than a collection of the individual parts'. Organic, by contrast, can mean the sum is larger than its parts.[68] Deriving originally from the word 'organ', signifying a musical instrument, according to Williams, the meaning of organic had shifted from the mechanical to the biological by the nineteenth century. Whichever root is alluded to, the emphasis is on a part of a structure or form. However, Thistlewood, writing in 1982, identified a double meaning of 'organicism' with regard to the two artists responsible for the basic design pedagogy of the 1950s. Firstly, in Hamilton's work, where the marks accumulate in relation one to the next, and at each stage 'there had to be a significant contribution to the

[66] See also Morgan, J. (1992), Forrest, E. (1983) 'Harry Thubron: His Contribution to Foundation Studies in Art Education', unpublished PhD, Ohio State University and Satterthwaite, J. (1993) 'The Origins Development and Endemic Failure of Basic Design: A Study of the Basic Design Movement in Certain British Colleges of Art and Design in the 1950s and 1960s,' unpublished MPhil Thesis, Liverpool University. *A Continuing Process: the new creativity in British art education 1955-1965,* (1981) exhibition catalogue, Thistlewood, D. (ed.) London: ICA. *The Developing Process*, (1959), exhibition catalogue, London: ICA.
[67] Raymond Williams (1976) *Keywords: a Vocabulary of Culture and Society* London: Fontana p.227.
[68] This relates to a particular version of holism, which is based on the analogy of complex systems, whose parts loose their use or position and existence when removed from the rest of the organism.

growth of an idea.[69] Secondly, in Pasmore's work, where the methodical research or 'laboratory research' was more significant than the objective result, thus the process reflected every nuance of change in the surroundings, and a construction acted as a 'very sensitive register of ambient conditions'.[70] Thistlewood argued that the concept of 'organicism' entered the work of Hamilton and Pasmore in the early 1950s through interest in the book by the biologist D'Arcy Wentworth Thompson, *On Growth and Form* first published in 1917. Thompson's ideas on biological formation and morphology were applied to art and led to the work of art being conceived as a 'diagram of forces'. Hamilton and Pasmore were among those artists centred on the ICA in the 1950s, who embraced this direction of the primacy of process over result. Here, Cuthbert's art and teaching is discussed with reference to the terms of abstraction, basic design, organicism and finally Constructivist.

Equally, the term Constructivism is problematic for a number of reasons. The two key texts to date which map out the field are George Rickey's *Constructivism: Origins and Evolution* (1968) and Stephen Bann's *The Tradition of Constructivism* (1974).[71] These two important surveys constitute Constructivism from Tatlin's initial sight of Picasso's sheet-metal and wire construction of a guitar in 1912 in his Paris studio, and map its development through to 1965 in the case of Bann and 1968 in Rickey. In Bann's introduction, he states that 'from the early 1920s there has been an inclusive and an exclusive definition of Constructivism'.[72] He cites Hans Arp and El Lissitsky in the latter category and De Stijl as an example of the inclusive or more general term. Bann outlines the exclusive, the purist and restrictive term Constructivism as applying solely to its origins in Tatlin and in Russia. However, Bann, brings the debate forward from the 1920s and acknowledges the criticism made by reviewers about Rickey's book that his inclusive survey had rendered the term almost 'valueless'.[73] Whilst recognising the danger of inclusiveness and dilution, Bann states:

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[69] Thistlewood, D., 'Organic Art and the Popularization of Scientific Philosophy,' *British Journal of Aesthetics*, vol.22 (no.4) Autumn 1982, p.311. Thistlewood cites R. Morphet, (1970) catalogue of exhibition, Richard Hamilton, London: Tate, p.18.

[70] Thistlewood, D., 'Organic Art and the Popularization of Scientific Philosophy,' *British Journal of Aesthetics*, vol.22 (no.4) Autumn 1982, p.313. Thistlewood cites A.Ehrenzweig, 'Victor Pasmore's Architectural Constructions', *Quadrum* 4, (1957) pp.51-60, also catalogue raisonné 'Victor Pasmore', London: Thames and Hudson (1980) pp.56-85.

[71] Rickey, G. (1968) *Constructivism: Origins and Evolution*, London: Studio Vista. Bann, S. (1974), *The Tradition of Constructivism*, London: Thames & Hudson.

[72] Bann, S. (1974), *The Tradition of Constructivism*, London: Thames & Hudson, introduction p.xxv.

[73] Bann, p.xxvi.

> while the historian of a movement can justifiably argue that too inclusive a definition renders any attempt at historical precision more or less fruitless, the collator of documents is bound to take a more catholic view.[74]

He raises the question why if the term is confined to its flowering in Russia has Constructivism continued to be used in the 1930s, 1940s, and 1950s and 1960s. This points to the fact that Constructivism can be defined as embracing not only a movement at a specific point in time but also an approach or process which develops over time.

The inclusive range of Constructivist art can be understood by the chapters into which Rickey organises his subject matter. Published in 1968, Rickey's comprehensive and well-illustrated account charts the legacy of Constructivism from the geometric form through the Russian non-objective world, De Stijl, and the Bauhaus. Rickey identifies key subgroups such as the 'Classic Order' (among whom are Nicholson, Burgoyne Diller and Mary Martin), 'Mathematics and Concrete Art' (with examples by Bill, Gerstner, Riley, Lohse and Camille Graeser).[75] The brief last chapter, on colour (with no images), acknowledges Bauhaus, Bill and Albers and the 'systematic study of color'. In this key source, Rickey defines Constructivism primarily through a range of artworks, in contrast to Bann who reaches a similar target through documents.[76]

In the mapping of British art, the Constructionists, are generally seen as the small but significant group brought together in Alloway's 1954 book, *Nine Abstract Artists,* who took part in the Festival of Britain in 1951 and a series of weekend exhibitions.[77] In defining the British Constructionists, Bann, tackles the definition in the final section, 'From Structure (1959-64)', in *The Tradition of Constructivism,* and draws his documents from Joost Baljeu's important Constructivist magazine, *Structure*, which brought 'individual artists and small groups to a common forum'. Bann notes that; 'In England the group of Constructionists who had made contact with Biederman were brought together in the publication *Nine Abstract Artists* (1954)' and he includes Kenneth Martin's 'Construction from Within' and Anthony Hill's article 'On Constructions, Nature and Structure'.[78] Rickey, by contrast, does not directly mention or map British Constructionism but integrates references to a number of British artists into the main body of his text. For

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[74] Bann, p.xxvi.

[75] In addition, there are chapters on 'Chance'; 'Optical Phenomena' (including Vasarely, Riley, Marina Appollonia, Yaacov Agam, Michael Kidner, and Jésus-Rafaël Soto,); Movement (Gabo, Moholy Nagy and Alexander Calder); Light (Frank Malina, Lucas Samaris, John Healy, and Nicolas Schöffer).

[76] Rickey's thesis is interesting in the light of this research: 'The thesis of this book is that the pioneer work of the early Constructivists established a base from which many of the diverse and inventive non-objective tendencies of the decade 1957-67 have sprung.' Rickey (1968) Preface, p.xi.

[77] Garlake notes the non-exclusive stance in 'what amounted to a manifesto', for the Constructionists in *Broadsheet* no.1, published by Lund Humphries in 1951. A *Broadsheet* no.2, was published in 1952. Garlake, pp.112-117.

[78] Bann, (1974) p.265. Kenneth Martin's article 'Structure from Within', comes from the journal *Structure* (Amsterdam) 6th Series, no,1, 1964, reproduced in Bann, (1974) pp.283-287.

clarity then, in this thesis, when I employ the term Constructionists I am referring specifically to these British artists, and in particular to the type of work exemplified by Anthony Hill, Mary Martin and Kenneth Martin.

In using the term Constructivism a narrow definition is available, which refers to Russian Constructivism and especially sculpture from early twentieth-century Russia using modern materials such as plastic, metal, glass, cardboard, wood and which embodied grace rather than mass. The sculpture was constructed, i.e. added to, rather than subtractive, i.e. carved or cut into. This exclusive and narrow definition, deems all other use of the term inaccurate.[79] However, the term is generally inclusive of geometrically and non-mimetic art, as can be seen, for example, by the work included in exhibitions from the 1930s and 1940s such as *Art Concret, Cercle et Carré, Realités Nouvelles.*[80] As I discuss in Chapter Seven, it is my view that Constructivism infuses post painterly abstraction, hard edge, new tendency and systems art, and much of the work of these subgroups fit the criteria of Constructivism. The wide criteria for inclusion consists of work that displays scientific rationality, which might be biomorphic as in Gabo's work, *(fig.2)* or technologically inspired as in Moholy Nagy's work, *(fig.3)* or mathematical as in the three dimensional work of Anthony Hill *(fig.4)*.[81] I understand it to include only abstract and non-mimetic art, in two or three dimensions. As with Russian Constructivism, the materials are modern, and often in combinations. Rickey, in reinforcing the inclusive term, claims that in the 1920s it was loosely applied to 'any object *built* rather than cast or carved, to any designs in two or three dimensions, reminiscent of Euclid (either because they were flat and rectilinear or because they were made with straight edge and compass as Euclid's constructions were)...'.[82] He argues that is not limited to the official orthodoxy of traditional sculpture, but crosses into other media such as light. Thus, aware of the definition of early Russian Constructivism, I use the term Constructivism in its inclusive sense, as traced by Rickey in artworks and Bann in words. I place Cuthbert within this inclusive tradition.

Having examined Cuthbert as a case study, and positioned him within a context of European modernism, the final chapter, raises the issues of art school culture and the discontent that led to the occupation of Guilford and Hornsey Art Colleges in 1968. In this

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[79] For example, Robert Atkins takes the exclusive position in Atkins, R. (1990) *Artspeak: A guide to contemporary ideas, movements and buzzwords*, New York: Abbeville Press, p.67. This reflects the intention of a dictionary of art terms.

[80] Bann, S. (1974) *The Tradition of Constructivism,* London: Thames & Hudson. Rickey, G. (1968) *Constructivism: Origins and Evolution,* London: Studio Vista. Both Bann and Rickey document these exhibitions and hold the inclusive position on Constructivism.

[81] It is worth pointing out at this point that the roots of Russian Constructivism, Vladimir Tatlin's *Monument to the Third International,* built as a model in 1920, whilst being geometric and non-mimetic can be read as biomorphic, as a sea shell, thus fitting the elements of scientific rationality. In this respect I consider it organic and Constructivist.

[82] Preface, p.vii.

chapter the position of the artist-lecturer and the use of the word 'didactic' is discussed with reference to Constructivist art. The chapter concludes by drawing together the key threads of previous chapters to argue that Cuthbert is part of a broader tendency in English art schools and that practice and teaching is intimately connected to the reorganisation of the art schools and the introduction of the Foundation course in the early 1960s. Furthermore, I conclude that through a study of Cuthbert, his colour work, and the changes in art schools one can map a much under-researched aspect of British art and in so doing outline possible areas of further research.

In brief then, the thesis is structured in the following manner: In the introduction the background to the research, its objectives and the methodology are mapped out. These place Cuthbert in a cultural context, of art history, art education and art practice. Its objective is to reveal the change in English art education in the 1960s and the space occupied by modernist practice and art education. The methodology will comprise of an analysis of paintings and process, using texts, personal documents and catalogues, interviews with colleagues and other relevant materials from archives in order to build a case study of Alan Cuthbert, an artist - lecturer from that period. Furthermore, the introduction establishes the limits of the project and the usage of the key terms.

Chapter One investigates how key publications from 1900 onwards fashioned directions in art education and practice. A key issue is the arrival of Bauhaus teaching in England and the contribution to abstract art in English art and design education. The roots of basic design are examined.

Chapter Two maps the concept of 'organicism' from the early twentieth century through to Thistlewood's application of the term in reference to Herbert Read and Hamilton and Pasmore's working method. This chapter examines the link between the ICA exhibition *Growth and Form* (1951) and the advent of basic design.

Chapter Three examines the changes which occurred in the late 1950s and early 1960s in English art schools and the curriculum following the Coldstream Reports, and assesses the contribution made to these changes made by basic design, especially with regard to the Pre-dip which replaced the Intermediate Certificate.

Chapter Four investigates the Pre-dip and Foundation course of various art schools and focuses on Wimbledon School of Art under Cuthbert.

Chapter Five critically assesses Cuthbert as a case study of a Constructivist practitioner. In revealing Cuthbert's oeuvre and process, and analysing his methods this chapter aligns

them to themes discussed in previous chapters, specifically organicism and the systematic organisation of colour.

In Chapter Six the traces of Cuthbert's practice are analysed in relation to his lectures and his method of demonstrating colour theory.

Chapter Seven locates Cuthbert's practice in relation to 1960s European modernism and in particular to the Constructivist tendency in England, by reference to the publication *DATA* and the two exhibitions of the *Constructive Context* and *Systems*.

Chapter Eight, concludes by drawing together the threads of previous chapters and outlining possible areas of further research.

Introduction of Bauhaus 'basic design' thinking and colour theory to Britain c.1934-1965

The aim of this chapter is to establish the different ways in which basic design thinking, teaching and its related system of colour were introduced into Britain between c.1934 and 1965. The introduction of the Bauhaus model of the *Vorkurs* (Basic Course) into the art school system in England is an important context for the artist-lecturers of the 1950s and 1960s and subsequently for the art of the period. My focus will be on colour as an element in the language of art. This will establish the roots and cultural context for Cuthbert's studio practice and teaching method of the 1960s onwards, and provide an insight into the surge of colour teaching and colour research in the English art schools in the 1960s.

During the 1930s the Bauhaus art school model, and specifically the ideas on colour and methods of teaching, spread throughout Europe and North America. The Bauhaus influenced not only the art produced in the pre- and post- World War II years in Britain, but also the wave of new thinking that brought about change, largely through institutions such as the ICA, in London. An important factor in this context is the change in the English art school system, which, although insular and different from other European models, was affected radically by the impact of World War II. The émigré art school teachers leaving Nazi Germany from 1933 onwards for Britain and the USA were important in the introduction of Bauhaus 'basic design' thinking to the English art school system.

Furthermore, in the context of Cuthbert, as a case study, the development of colour theory in Britain, and specifically its impact through the colour theories of Bauhaus teachers such as Kandinsky, Klee, Albers, and Itten are analysed. As I shall argue, Cuthbert's own work has its roots in Bauhaus ideas from the 1930s, post-war society and philosophical trends. In particular, Kandinsky's ideas, the 'Constructivist Tendency'[1] and language inform the debates in art and art education of the 1960s in England. I propose that these have a direct import for Cuthbert's own work.

My method of tracing the Bauhaus heritage in the English art schools of the 1960s is to focus on a vein of abstraction from the 1930s onwards and to map it through to 1950s Britain, since these post- World War II artists would be the instructors of the next generation. Through this approach it becomes evident that the Bauhaus method, abstract

[1] This is a reference to Story, A. (ed.) (1970) *Constructivist Tendencies, From the Collection of Mr & Mrs G. Rickey,* exhibition catalogue, Los Angeles: University of California.

art and their offspring - basic design - are clearly established in the English art school of the early sixties. It also becomes apparent that, as part of this process, colour emerges as an abstract element, separated for teaching purposes.

Given the broad period covered by this vital background research, it is useful to frame the material around pre- and post- World War II, although this is not intended to give the impression that all artistic production and education ceased during the turbulent war years. Consequently, the *first* section of this chapter examines the wider context of the English art school system and its Bauhaus heritage through figures such as Herbert Read and William Johnstone. The *second* section examines theoretical texts of teachers such as Kandinsky and Klee, which conveyed the pedagogies of European artists to Britain between the founding of the Bauhaus in 1919 and the reorganisation in the art schools in the 1960s.

I have chosen to organise this chapter into the wider pre-war and post-war context, and the theoretical texts, in order to accommodate the complex interaction between sociological conditions, events, and ideas, which is emerging as the informed view of the period by writers such as Garlake (1998), Massey (1995) and Marwick (1991).

In order to clearly identify cultural change in national and regional institutions, I have focussed on the channels which directly feed those institutions. With regard to English Art schools, I have identified the three key channels of literature, exhibitions, and personnel. I have done this in order to give an overview of the period from the Bauhaus to the 1960s. In England during the 1950s and 1960s the output of printed matter was low in comparison to today due to the lengthy and labour-intensive printing processes.[2] Thus fewer books meant that those which did appear had a greater impact and were valued highly. Art magazines, likewise, were a scarce resource in the 1950s and colour reproductions expensive when accuracy of tone and shade were required. It was not until the 1960s, when, due to technological advances, art magazines multiplied and colour became of high quality. This in turn gave impetus to a rise in graphic design courses. Awareness of such factors and the reflected images of consumerism influenced the art of the period. In addition to publishing and literary influence, exhibitions were fewer and well attended.[3] These tended to be

[2] John A. Walker's recollections of the period are of interest here. Walker was a student at Kings College, Newcastle-upon Tyne, which was then a part of Durham University from 1956-61. The staff included Lawrence Gowing, Victor Pasmore, Richard Hamilton, Eric Dobson and Quentin Bell, among others. Walker states: 'Unlike today, art books were rare but occasionally I discovered and bought paperbacks about American artists like Jackson Pollock, Willem de Kooning and the younger generation who followed the abstract expressionists.' Walker (2003), p.11.

[3] Garlake examines the post-war exhibiting system emphasising the three key exhibitions of this period: Picasso and Matisse at the Victoria and Albert Museum, 'which attracted huge crowds'; and the two exhibitions of modern American art hosted by the Tate Gallery in 1956 and 1959, which had a great impact and heralded 'the new relationship with the New York School', Garlake (1998) pp.22-25.

London-centred, and were less frequent in appearance thus making a greater impact. The third factor, personnel, which includes, artists, art school staff, curators, art advisors, local and national education committee members, was a small pool.[4] They were a privileged few within which voices to change the institutions were the exception rather than the norm. Thus, it is important to stress, on looking back from the (post-modern) twenty-first century with its wide diversity of media, publications, displays, information systems, voices and ideas, that the post-war period was a time of relative paucity and impoverishment.[5]

However, despite the exhaustive austerity of the war effort, the post-war spirit of rebuilding was optimistic and progressive. For instance the blitz had destroyed half a million homes in London and war damage to the built environment throughout Britain meant there was a need for architects and designers. As Marwick (1991) expresses it in his book *Culture in Britain since 1945*:

> With a government committed to public initiatives and public control it was not surprising that there was a marked movement of architects from private to public service, a net swing of 40% among members of RIBA by 1948.[6]

There were new solutions to housing and style sought in the form of New Brutalism. New housing estates, high rise tower blocks were planned and built. In 1953-55, Park Hill in Sheffield was developed by associates of the Smithsons who had been involved in the ICA. In 1956 the Design Centre was opened in Haymarket, London. Sir Leslie Martin, who had edited and written in *Circle* (1937), was involved in designing the Royal Festival Hall on the South Bank in 1950 and the Loughborough Road estate in Lambeth, South London in the late 1950s.[7] However, commodities were in short supply. 'Utility' furniture bearing its distinct functionality and stamp, had grown out of wartime shortages in materials, and it continued to be available into the 1950s. Likewise, rationing only finished as late as 1954. In other areas reforms and progress were swifter as Marwick points out:

> In 1948 reform was carried through at the Royal College of Art: the theories were those of the great German centre of rational design of the 1920s, the Bauhaus, but

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[4] Under Personnel are included Symposiums and conferences, especially at the ICA; bodies such as SEA (Society for Education in Art), NSEAD (National Society for Education in Art and Design), SIAD (Society of Industrial Artists & Designers); and government education committees: Coldstream and Summerson led, which I discuss in detail in Chapters 3 & 4.

[5] Garlake, when writing about the severe winter of January 1947, states 'the availability of food was more strictly regulated than at anytime during the war, with rationing even of potatoes,' Garlake (1998) p.6. In *Reform and Reconstruction* 1945-51, Brooke, S. (1995) notes that by 1945 'exports had dropped to a third of pre-war figures, while 40% of Britain's overseas markets had been lost,' p.13. Massey states that ' Britain was shattered by the war and the period of reconstruction, which lasted well into the 1950s created an atmosphere of insularity and xenophobia', Massey (1995) p.5.

[6] Marwick, A.(1991) *Culture in Britain since 1945*, Oxford: Blackwell, pp.51-52.

[7] Marwick, A.(1991) p.55. Kenneth Frampton (1980) in *Modern Architecture: a Critical History*, states that *Highpoint One* and *Two* in Highgate built before the war by Lubetkin and his team Tecton '...gave Lubetkin a position of ascendance in the British scene immediately after the war, and the ten year period following 1945 was effectively dominated by the language invented by Lubetkin and his colleagues in the previous decade.' Frampton (1980) p.253. Frampton cites the Royal Festival Hall as a prominent example of this. Thus pointing to the continuity of ideas, pre- and post-war.

> the practice was very much that of the progressive element in the British upper class, as in so many other experiments of the post-war period.[8]

Post-war renewal, of which the 1951 Festival of Britain is seen as a key event, is well covered by historians. The material culture of renewal is documented by the objects and material possessions, which after the deprivation of war were desirable for their normality, but were still in short supply. However the less tangible signifiers of post-war renewal are harder to pinpoint. What new attitudes, ideas, and methods of teaching were cast into the arena after the upheavals of the war is more difficult to ascertain. In contrast, to the relative material poverty, there was a richness of experiences and a glut of unskilled people returning from involvement in the war eager to make a fresh start. Thus, the staff and students returning with war experience were a force for change in art and design in the English art schools. In general, what happens in such teaching institutions often follows a change in the wider arts scene when this change is given the stamp of officialdom, reinforcing the impact on the younger generation. Of importance to this thesis is the concept of 'organicism', (which I discuss in detail in the next chapter) which became dominant in the 1950s through the activities of Herbert Read, Victor Pasmore and Richard Hamilton. Although this major change occurs post-war I propose that this new concept of 'organicism' was, like other concepts such as basic design, already part of pre-war society and, in essence, already in the frame of knowledge of the English art school.

1.1 Pre-War: Introduction of Bauhaus model of 'Vorkurs' into the English art school system

The first evidence of contact with Bauhaus ideas in the early 1930s in Britain is through Ben Nicholson, who became a member of the *Association Abstraction-Création* in 1933, an exhibiting society of non-figurative art in Paris, formed in 1931.[9] Among its large number were members of De Stijl, such as Georges Vantongerloo, Piet Mondrian and Theo van Doesburg, and those from the Bauhaus, such as László Moholy Nagy and Naum Gabo. The Swiss artist, Max Bill, who had trained at the Bauhaus, exhibited alongside Nicholson in *Abstraction-Création* in Paris in 1933-34. Bill had entered the Dessau Bauhaus in 1927, at nineteen years of age, where he was taught by Josef Albers, Walter Gropius, Wassily Kandinsky, Paul Klee, Hannes Meyer and Oskar Schlemmer. In 1937, when Nicholson co-edited *Circle: International Survey of Constructive Art*, with its statement which stressed 'The Constructive Idea in Art', Bill also contributed. As Charles Harrison makes clear in

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[8] Marwick, A.(1991) p.54.

[9] In 1933 Nicholson and Hepworth were invited to join the Internationalist group, *Abstraction Création*, probably through Auguste Herbin or Jean Hélion, (Lewison, J. (1993) *Ben Nicholson*, exhibition catalogue, London: Tate Gallery, p.241). Harrison, C. (1981) suggests Hélion, p.260. Their work appeared in 1934 and 1935 issues of *Abstraction Création: Art non figuratif*. Through Winifred Nicholson, then living in Paris, they were introduced to Piet Mondrian and also through the group they met Laszlo Moholy Nagy. (Koroche, P. (2002) *Ben Nicholson: Drawings and Painted reliefs*, Aldershot, UK: Lund Humphries.)

English Art and Modernism 1900-1939 (1981) the promotion in Britain of abstract art from Paris is due largely to those involved in *Unit One* and especially Nicholson:

> Nicholson's work and activities are central to the promotion of abstract art in England during this period...[10]

Whereas Nicholson, through his involvement in *Abstraction-Création, Unit One* and *Circle* is seen as a key figure in the introduction of abstract art to Britain, Bill, as I will show, has particular significance for Cuthbert.

Although only lasting two years, from 1933-35, the group of eleven artists, including Ben Nicholson and instigated by Paul Nash, called themselves *Unit One*. They raised the debate surrounding abstraction in Britain. Herbert Read wrote the introduction to their book.[11] This accompanied their exhibition which started at the Mayor Gallery in London and, when that closed, a selection of the works toured to Liverpool, Manchester, Hanley, Derby, Swansea and Belfast. Being non-figurative art, *Unit One,* aroused controversy wherever it went, as Harrison notes.[12]

As their writings show, both Nicholson and Bill had absorbed Kandinsky's *Über das Geistige in der Kunst* (1912) and argued in favour of abstraction stressing the spiritual.[13] Nicholson likened painting to religious experience and claimed that they were all searching for the understanding and realisation of infinity.[14] Bill, as an architect, painter, and sculptor, was concerned with shaping man's environment. He embodied the Bauhaus ideal and recognised the important contribution of fine art to society through design: 'I am more than ever convinced, that the fine arts are the primary formative influence on all design.' [15]

Interest in abstraction in Britain was further strengthened by the influx of émigrés in the 1930s, due to changing circumstances in the Soviet Union and Germany. Since the late 1920s abstract and experimental art had been viewed with suspicion by totalitarian regimes.

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[10] Harrison (1981) p.253. Harrison also notes the 'general, if vague, identification of modern design and architecture with Socialism, if not Bolshevism.' He points out that 'at the outset of the 1930s in England' that the present day assumption 'that abstract art is defensible' could not be made, pp.252-253. He later examines Nicholson's development as a key figure in the acceptance of abstraction and the 'furthest left of the group, p.252.

[11] Read, Herbert (ed.) (1934) *Unit One: the Modern Movement in English Architecture, Painting and Sculpture,* London: Cassell.

[12] Harrison (1981) pp.239-253.

[13] Kandinsky, Wassily, (1912) *Über das Geistige in der Kunst,* (Piper Verlag, published late in 1911, dated 1912). Bill attended Kandinsky's painting classes at the Bauhaus, see *Max Bill* by Margit Staber (1964) 3rd page of unpaginated text, and on the 6th page: 'Bill is quite consistent in referring to his paintings and sculptures as objects for spiritual use'.

[14] Nicholson in 'Quotations' : '3. 'Painting' and 'religious experience' are the same thing. It is a question of the perpetual motion of a right idea', in Martin, J.L., Nicholson, B., Gabo, N., (eds.) (1937) *Circle: International Survey of Constructive Art,* London: Faber and Faber, p.75.

[15] Bill, M. (1953), 'The Bauhaus Idea', in *Architect's Yearbook,* journal, No.5, p.32.

For example, the Soviet Union rejected Constructivism and the avant-garde.[16] In Germany, the police closed the Bauhaus in 1933.[17] Gropius, the founder of the Bauhaus, arrived in Hampstead in 1934, where Nicholson, Barbara Hepworth, Henry Moore, and Herbert Read clustered. The artist-lecturers of the Bauhaus, who passed through Britain on their way to the USA, included Marcel Breuer in 1934, Lazlo Moholy-Nagy in 1935, and Naum Gabo in 1936. Spurred on by the turn of events in mainland Europe and the threat of war, Piet Mondrian, who had been living in Paris, travelled to New York via Britain in 1938. Gabo and Nicholson became friends and with Leslie Martin, the architect, they co-edited the book *Circle,* published in 1937.[18] In this compilation of essays and photographs, Gabo's contribution 'The Constructive Idea in Art' argued that lines, colour and shapes are bound up with human emotions, - ideas which stem from his 'Realistic Manifesto' published seventeen years earlier and echo Kandinsky's *Concerning the Spiritual in Art* (1912).[19] The aim of art as put forward in this amalgamation of modern trends from leading artists, architects and designers was to construct, to co-ordinate, and to perfect. In essence, the intention was that the creative act would have an impact on the environment; that it would affect society. Abstract beauty, harmony and balance, could directly affect people's lives. Colour was understood to be part of this.

By the 1937 publication of *Circle,* it is clear that artists, architects and designers, who were aligned by their ideals, were prepared to share the same platform, in order to benefit society. They upheld the ideal of working as a unit, while remaining individual. This was the concept behind the name *Unit One*, unlike the Surrealist trend, which by its interest was probing into the individual psyche, and effecting the isolation of creative eccentricity. However, although Nicholson's abstraction grew from his observation of Cubism rather than from Kandinsky, Klee, Itten, or Russian Constructivism, Gabo, who stayed in England until 1946, was a greater influence in terms of the 'Constructivist tendency'. Harrison (1981) assesses Gabo's theory of abstract art as significant in the activities of the English avant garde and documents the replacement of 'Constructive' for 'abstract', in the 1930s.[20] While Constructivism and abstraction were making an impact in the galleries and studios,

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[16] The move towards realism as the expression of proletarian culture and the rejection of the avant-garde, especially Suprematism and Constructivism, is highlighted in the two statements by the Association of Artists of Revolutionary Russia (AkhRR) 'Declaration' of June/July 1922 and 'The Immediate Tasks of AkhRR' of February 1924, as published in Harrison and Wood (ed.) (1992) pp.384-387. Preceding these, Lenin's speech 'On Proletarian Culture' in October 1920 rejects 'as theoretically unsound and practically harmful, all attempts to invent one's own particular brand of culture', as published in Harrison and Wood (ed.) (1992) pp.383-384.
[17] The Bauhaus, set up in 1919, moved from Weimar to Dessau in 1925 and from there to Berlin in 1932. 'Even prior to 1933, the Bauhaus had been defamed by the rising NS movement as 'cultural boshevism'; Droste, M., Hahn, P. et al. (2004) *Bauhaus Archive Berlin: the Collection*, Bauhaus Archive Berlin, p.172.
[18] Martin, J.L., et al. (eds.) (1937).
[19] Kandinsky and Gabo were both Russian and had contributed to revolutionary ideas in the 1910s. 'In the development in England of the idea that (abstract) art expresses the fundamental constructive principles of life, a decisive role was played by the Russian émigré artist, Naum Gabo', Harrison (1981) p.282.
[20] Harrison, C. (1981) pp.282-287.

their acceptance in the art schools' examination system was inevitably slower. The figure who was to change this was Herbert Read, the key figure in the Hampstead circle during the 1930s. His ability to embrace the theory of the Constructivist tendency, alongside Surrealism and English Romanticism, and his contact with Gabo, Moholy-Nagy and Gropius place him as central to the artistic issues of the moment. This and Read's recognition of the importance of Constructivism, his voicing of the value of art education, and his later organisation of symposiums at the ICA, make him one of the prime conduits for the themes and issues, which are Cuthbert's heritage in both studio and art education terms.[21]

However, Read and the Hampstead based artists were not the only group aware of the Bauhaus. As I pointed out in the introduction, key figures in the art educational establishment were also interested in the Bauhaus, using as evidence the interest in the publication of Gropius' book[22] and Pevsner's report of January 1936, entitled *Post-war Tendencies in German Art Schools.*[23] Thus, I argue that it is evident, by the mid 1930s, that the English art education establishment were actively looking for a solution to the problems of art and design education for industry and new technology, and were keenly aware of the Bauhaus. The subsequent adoption of some key elements of Bauhaus teaching in the English art schools was to provide the foundation for what later became known as basic design.

1.2 Pre-war: William Johnstone and the roots of basic design

Basic design appears as a feature in Cuthbert's art school education at Goldsmiths in the late 1950s and was to form the basis for his subsequent organisation of the course on which he teaches at Wimbledon School of Art in the early 1960s. Consequently, it is important for this study to trace its immediate origins in order to understand Cuthbert's practice and teaching. Basic design courses, loosely structured on the Bauhaus model, were introduced into the English art schools in Britain during the 1930s. The historian of art and design who has researched this area most extensively is David Thistlewood. He suggests that one of the first courses was:

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[21] In a lecture given to Documenta III, Kassel, on 28 September 1964, entitled 'The Disintegration of Form in Modern Art' Herbert Read states: 'I began by asserting that art was a biological phenomenon, closely connected to the development of self-consciousness and intelligence.' Published in Read, H. (1965) *The Origins of Form in Art*, London: Thames and Hudson, p.185. Read's ability to embrace and relate to an eclectic taste within the body of art, attests to the organic as his model.

[22] Gropius,W. (1935) *The New Architecture and the Bauhaus,* London: Faber and Faber.

[23] Pevsner, N. (Jan 1936) 'Post-war Tendencies in German Art Schools', in *The Journal of the Royal Society of Arts*, 1935-36, No.4308,4332, & 4339, three transcripts of lectures by officials involved in art training for industry. (These accounts are of bursaried trips to the continent to visit and compare art education establishments, including the Bauhaus).

> ...shaped by Olive Sullivan at Manchester School of Art: this was inspired by an understanding of the Bauhaus, gained from such sources as Herbert Read's *Art and Industry*.[24]

In addition to Manchester, another influential school for the introduction of Bauhaus ideas was Camberwell School of Arts and Crafts under the auspices of William Johnstone as Principal [1938-47], who later moved to Central School of Arts and Crafts [1947-62].[25] Before taking up his post at Camberwell in 1938, Johnstone had previously taught at Regent Street Polytechnic and the Royal College of Needlework, and was then in charge of Hackney School of Art.[26] Johnstone's autobiography of 1980, entitled *Points of Time,* consequently gives an insight into his methods and the period providing an understanding of the English art school culture.[27] In particular, his writing also gives an insight into the lack of standing of art as a subject and outlines some of the lesson content. However, it should be approached cautiously, given that there are no other autobiographies by art school principals involved in basic design at this time. As Johnstone notes:

> We used colour in abstract forms, practising the effect of one colour against another, how one colour recedes, how another marches forward to attack; matching colours, contrasting colours, but never using them to paint a banana or a bottle. [At] Regent Street Polytechnic.....We learned proportion like the scales of a piano – by constant practice until it became unconscious. [28]

According to Johnstone, he incorporated abstract forms in association with colour exercises into his lessons before 1938, which clearly showed an interest in the Bauhaus. He also asserts, according to Thistlewood, that he encouraged abstraction in Camberwell after 1938, by employing Albert Halliwell, a gifted teacher.[29] To date, there has been little debate among critics as to the formation of the earliest basic design course due to lack of evidence or research. Thistlewood, as the only authority, champions Olive Sullivan in Manchester, already mentioned, and Albert E. Halliwell, who worked under Johnstone at Camberwell. What is clear, based on the accounts of Johnstone and Thistlewood, is that the body of teachers that centred around Camberwell and Central were the most influential in the introduction of basic design thought.

When Johnstone arrived at Camberwell in 1938 as Principal there were eight to nine hundred students, (part-time, evening, junior, day-release printing) and thirty full-time art

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[24] Thistlewood is referring to Read, H. (1934) *Art and Industry: the Principles of Industrial Design,* London: Faber. Thistlewood, D., (1992), 'A Continuing Process: The New Creativity in British Art Education 1955-1965', in *History of Art and Design Education, Cole to Coldstream* (ed.) Thistlewood, D., London: Longmans and NSEAD. Garlake, M. (1998), pp.29-30 and Ch. 2 footnotes 146 &147. However Macdonald, S., (1970) in *The History and Philosophy of Art Education,* points to Olive Sullivan before William Johnstone does. Macdonald sources it to the School Calendars at Manchester Municipal School of Art 1940-3.

[25] Johnstone was a student under André Lhote in Paris in the 1920s.

[26] Hackney School of Art was an evening institute, but Johnstone supplies no biographical dates except that he left Hackney to start at Camberwell in 1938, Johnstone (1980) p.152.

[27] Johnstone, William (1980) *Points of Time,* London: Barrie and Jenkins.

[28] Johnstone, referring to Regent Street Polytechnic around 1937, Johnstone (1980) p.149.

[29] Thistlewood, D. (1985) 'A.E.Halliwell: Art and Design Educationalist,'– Inaugural Lecture, unpublished document, September 1985, DT BHPL 00041 NAEA Archive, Bretton Hall.

students. According to his autobiography, Johnstone was able to reshape the courses and employ whom he wanted with the full backing of the governors. It is significant to note that at this time many art lecturers were employed part-time. Through colleagues at the college, such as Victor Pasmore and Norman Dawson, Johnstone was introduced to others with modern ideas who were seeking employment. According to his own account, Johnstone's vision of teaching art was progressive. He attracted and employed like-minded colleagues when other schools were continuing along more academic lines. However, Jessica Morgan in her unpublished thesis of 1992, entitled, *Basic Design: Pedagogy or Aesthetic?,* which examines the rise of basic design through Hamilton and Pasmore and discusses its educational leaning and legacy, asserts that the Painting School at Camberwell remained academic.[30] Johnstone, for example, claims that basic design courses were started in the 1930s by Jesse Collins and Albert E. Halliwell. While this accords with Thistlewood's research,[31] Johnstone further claims that he and his colleagues introduced basic course ideas into the painting studio at Camberwell. As Johnstone notes:

> While they were both influenced by Bauhaus teaching, they each brought new creative ideas to the subject. Collins and Halliwell directed their teaching mainly towards Graphic Design. While another teacher and myself saw the problems from a painter's point of view. In my case, my teaching of a basic course stemmed directly from my experiences of the school of Paris at Lhote's studio. This could, I felt, give a greater depth and more imaginative approach to the subject than the somewhat limited (even sterile approach) of the Bauhaus, which by this time was beginning to be a new academy.[32]

According to Johnstone, the Surrealist painter, Norman Dawson, introduced the Camberwell Principal to Albert Halliwell, who was then teaching at Beckenham. Dawson apparently stressed that Halliwell was a born teacher and had developed a course of basic design that was far ahead of anyone teaching in other schools and that he had obtained remarkable results from his students.[33] As Johnstone recalls:

> He had been teaching a Basic Design course under the inspiration of the Bauhaus since 1933. His intentions were to establish a framework upon which could be mounted the whole future of applied design in this country. He had continuously changing variations in the courses that he taught, producing a grammar, which every pupil could use in almost any circumstances while allowing the fullest expression. Halliwell later took over the Junior art school as well as teaching commercial art in the Senior School, and the work he produced was tremendous enabling his pupils to find immediate employment on leaving school.[34]

In contrast, Thistlewood, in his inaugural lecture at the National Art Education Association at Bretton Hall, in September 1985, noted that when Halliwell was appointed full-time at

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[30] Morgan, Jessica, *Basic Design: Pedagogy or Aesthetic?* (Unpublished MA Report Courtauld Institute, 1992).
[31] Thistlewood, D. (1985) ref: DT BHPL 00041.
[32] Johnstone (1980) pp.220-221.
[33] Carline, R. (1968) *Draw They Must: A History of the teaching and examining of Art*, London: Arnold Ltd., p.268, footnote 1: 'Gropius was in England for some while after leaving Germany and I recall joining Norman Dawson, the surrealist painter, and other artist friends in discussions with Gropius, hoping that it might be possible to re-establish the Bauhaus in London, but, alas, the project never had much prospect, owing to the lack of funds and more important, the absence of support in the art circles of London at that time.'
[34] Johnstone (1980) p.188.

Camberwell in 1938, and set up Britain's first basic design course, he was not trying to imitate the Bauhaus. Rather, Thistlewood claims that Johnstone saw it as based on the Bauhaus model. In addition, Thistlewood suggests, the difference between the Bauhaus and the basic design course, as it developed over the next twenty years, was that elementary exercises were both the means of gaining aesthetic experience and also the channels through which experience gained elsewhere (experience of life and a wide range of cultural experiences), might be expressed. Thus, Thistlewood argues that:

> An exclusively Bauhaus approach would merely have stressed 'Learning by doing', and the fullest exploitation of material properties; a Basic Design approach also stressed the importance of 'doing' in order to realise what one already knows and unconsciously feels. [35]

Thistlewood makes the distinction here, between the Bauhaus method of 'learning by doing' with emphasis on material properties, and a basic design method which incorporated this and furthered a growing questioning philosophic and psychic awareness of the internal and external world. The development of the elementary exercises, from Bauhaus methodology to basic design perhaps, then, in this sense, reflected the changing cultural milieu and training needs of art and design students.

A further figure of import for the development of these methods in Camberwell School of Arts and Crafts was Edwin Straker.[36] Straker was responsible in Halliwell's department for a course in basic design for ex-servicemen on grants. Johnstone recalls that in the late 1930s Straker used step by step teaching beginning with rectangles and developing with exercises in abstract shapes, textures, form and colour.[37] However, while on the one hand, crediting Collins, Halliwell and Straker with developing basic design courses, on the other hand, Johnstone claims that at Camberwell:

> For want of a better word, I introduced what is now termed a 'basic design' or 'foundation' course, and this turned out to be a great success.[38]

In his autobiography, Johnstone assumes the change for the whole of art teaching in Britain stems from Camberwell in the immediate pre war years of 1938-39. In this respect, he is partially correct in that he employed a number of artist-lecturers who went on to make a considerable impact on the British art school system. For example, Coldstream later became head of the Slade, Dawson became head of Winchester School of Art, and Lawrence Gowing became Principal at Kings College, Newcastle, where Pasmore eventually took up a post. Also on the staff at Camberwell were Alan Davie and Kenneth

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[35] Thistlewood, 'A.E.Halliwell: Art and Design Educationalist', DT BHPL 00041.
[36] In 1947 the abstract colourist, Terry Frost, was taught by Straker and Halliwell at Camberwell.
[37] Johnstone (1980) p.205. Previous to these innovations, one key area of colour use was flower painting. Halliwell in Southport in the mid 1920s had studied: drawing and modelling from nature, from the figure, or from casts of the antique or drawing for manufacturers or craftwork applications, anatomical drawing, architectural drawing, and flower painting. See Thistlewood, *A.E.Halliwell*, (1985).

Martin. Importantly, Martin went on to Goldsmiths where he and his wife, Mary, taught Cuthbert from 1957 to 1961. However, although Johnstone asserts that Camberwell was the first one to establish basic design courses in Britain, Thistlewood's view is that figures such as Olive Sullivan and Albert Halliwell suggest that pockets of experimentation were emerging in art schools by the late 1930s.[39]

1.3 Post-war reorganisation: English art schools

The post World War II situation in English art schools is marked by a number of difficulties. There was overcrowding in the buildings, largely due to the return of mature ex-servicemen, demobbed and clutching grants to retrain. Those returning from the ravages of war were ready to question the methods and content of the gentle English art system of the past and the fixed teaching style. Women, who had played a vital part in the war and enjoyed the freedom of living away from home in order to work in munitions factories or on the land, were more visible.[40] These factors meant that students were more likely to challenge the academic art teaching of the pre-war years characterised by tight life drawing and tonal painting. Clearly, there was a need for change. This eventually came in the guise of the First Coldstream Report of 1960 which advocated the termination of the National Diploma in Design, (NDD) which, since the last reforms of 1946, had been the national higher qualification in practical art. This two year course had been preceded by a two-year Intermediate Certificate. The report proposed the outline of what became the Diploma in Art and Design (DipAD) as a replacement for the higher qualification. In addition, it introduced the Pre-diploma (Pre-dip) in place of the Intermediate Certificate, thus, what was a two-year course now became a one year course, from 1961 onwards. By 1965, the Pre-Diploma became known as the Foundation course. However, despite the name change there is no doubt that the idea of a one year general art course for all areas was based upon Itten's *Vorkurs* at the Bauhaus.

At Camberwell, Johnstone, whose immediate post-war staff included Keith Vaughan, Michael Ayrton, John Minton and Kenneth Martin, was encouraged by Pasmore to take on Lawrence Gowing, Claude Rogers, and William Coldstream. In 1949, Coldstream became Professor of the Slade, where he continued to teach his style of measured accuracy. In his

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[38] Johnstone claims they stemmed from his experiences of the School of Paris at Lhote's studio, p.120. Dawson recommends Halliwell as a teacher, Johnstone (1980) p.188. Halliwell and Collins and basic design are discussed briefly in Johnstone (1980) p.220.

[39] Johnstone (1980) p.188. Thistlewood, D., (1992), 'A Continuing Process: The New Creativity in British Art Education 1955-1965', in *History of Art and Design Education, Cole to Coldstream* (ed.) Thistlewood, D., London: Longmans and NSEAD. Thistlewood, 'A.E.Halliwell: Art and Design Educationalist', DT BHPL 00041.

[40] Elizabeth Wilson (1980) explores the construction of the archetypal and ideal postwar woman and her disintegration in *Only Halfway to Paradise: Women in Postwar Britain: 1945-1968*, London: Tavistock Publications. She documents the change in the position of women as a result of the Labour government and

book Johnstone refers to Coldstream as an 'old fashioned artist' but gave him a part-time post as he was short of staff. Given Johnstone's account of Coldstream's teaching [41] one would not have expected Coldstream to introduce progressive reforms such as the new Pre-Diploma which was influenced by the teaching methods of Hamilton and Pasmore's course at Newcastle, and Harry Thubron and Tom Hudson at Leeds and Leicester respectively. Consequently, it might be suggested that by the late 1950s change was well overdue and that pressure was brought to bear on the head of the Slade.

Of the three major London art colleges, pre-1945, the Slade was reputedly the place for Fine Art, whilst the Royal College of Art was for teacher training, (until 1949 when Darwin took over), and Central School of Arts and Crafts for designers and craftsmen and craftswomen.[42] Although there were still clear divisions between specialist colleges even in the 1960s, the emergent thinking by the 1960s was to integrate artists and designers at a basic level, along the lines pioneered by the Bauhaus.

The idea of the integration of artists and designers by establishing the common content of their professions, was best served by adopting a visual abstract language. In this respect, Itten's *Vorkurs* was most suitable for use at the intermediate level. The Intermediate course was a two year basic course of the NDD. The Intermediate, in effect, replaced by the Pre-diploma in 1961, was rigorously structured to purvey skills in a range of traditional subjects. Some of the craft-based schools, including Central School of Arts and Crafts, (consistent with the Bauhaus which was materials-based in a direct line from the Russian Constructivists) nurtured the new developments in teaching. These were ushered in by a multimedia avant-garde including Pasmore, the Martins, Hill, and Hamilton.[43] However, it is not clear if the painting departments in these institutions, such as Camberwell, Goldsmiths or Central, moved in the direction of basic design or remained staunchly academic.

William Johnstone's personal and informative account of this era, while supporting basic design thought, also sees the failings of it. In particular, he expresses the opinion that basic design led to an 'art school movement which veered towards sterility and impotence as no-one understood where it came from'.[44] The claim is made that courses were often taught by

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welfare state. For further reading see Martin Pugh (2000) *Women and the Women's movement in Britain: 1914-1999*, Basingstoke: Macmillan.

[41] See Johnstone (1980) p.201 and also verified by interview with Mike Garton, Slade, student 1955-1958 and lecturer Exeter College of Art from 1965-2000.

[42] Histories of art schools have been written for the Royal College of Art, the Royal Academy, Manchester, Norwich, Central and Wimbledon, among others.

[43] Blurring the boundaries of the artist's role in society, the rise of dual disciplinary creators, engineer / sculptors like Martin, King, and Caro, even optics, maths and science-based hybrids like Riley, Hill and Sedgley.

[44] Johnstone p.205-206.

teachers without any understanding of the grammar nor an appreciation of the idiom. According to Johnstone, the exercises merely dissolved into taste or cleverness without real feeling.

The rise of basic design as a catalyst in educational reorganisation is attributed by most writers, including Thistlewood and Maurice De Sausmarez, to the meeting of Hamilton and Pasmore and, to a lesser extent, Harry Thubron and Tom Hudson at Leeds. The success of Halliwell and Straker's teaching of the Intermediate course of basic design at Camberwell may well have been a source of influence on Victor Pasmore, as Johnstone claims. There is no doubt that Pasmore was teaching there when he produced his first abstractions around 1947. Up to this point Pasmore's painting was loosely Neo-Impressionist and tonal in a Camden Town / Sickert manner. Johnstone gives his opinion of Pasmore's art education as follows:

> His teaching experience was slight, and he himself had never had any kind of serious training in the sense of the continental art student, his training being largely at evening classes.[45]

Johnstone describes how Pasmore had long talks with Edwin Straker at Camberwell. Here he learnt much about basic design thought and came to see the work done by the junior school students under the instruction of Straker. As Johnstone claims:

> After regular discussions Pasmore went abstract producing first steps in basic design, similar to the Camberwell students.[46]

Subsequently, at both Camberwell and Central Schools of Arts and Crafts, Pasmore taught methods of mathematical composition based on the writings of Jay Hambidge, (1923) and Matila Ghyka, (1946). He also used Klee as did the radical teaching of Harry Thubron at Sunderland and then Leeds.[47] The texts of Hambidge and Ghyka are significant in that other young lecturers were using science and mathematics to inform their teaching. For example, at this time Richard Hamilton's early teaching sprang from D'Arcy Wentworth Thompson's book *On Growth and Form* and fuelled his ideas well into the 1960s. Hamilton's interest was in the natural and man-made world. He was never a pure abstract artist, his search was for new forms of figuration. Hamilton was interested in concepts and ideas rather than form; in this respect he was influenced by Duchamp.[48]

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[45] Johnstone, p.185.
[46] Johnstone, p.185.
[47] Lynton, Norbert, 'Harry Thubron - Teacher and Artist', talk given at the inauguration of NAEA, 6 November 1986, Bretton Hall, HTPL30.
[48] 'Nigel Henderson... introduced me to two masterworks that charged my batteries for the coming years. The first of these was D'Arcy Wentworth Thompson's great book on morphology *On Growth and Form*. It was Nigel also who drew my attention to Marcel Duchamp's *Green Box*.' Hamilton, R. (c.1982) *Collected Words: 1953-1982*, London: Thames and Hudson, p.10. He also rejected the idea of art as being about self-expression and thereby 'therapy' he aligned himself and the first year at Newcastle to Tomas Maldonado at Ulm, 'it differs from the Bauhaus in rejecting self-expression.' Interview with Victor Willing in *Studio International* September 1966, entitled 'What Kind of Art Education?' Also reproduced in *Collected Words*, pp.179-80.

In 1953 Hamilton was appointed to Newcastle; Pasmore arrived in 1954. They taught on the Scarborough Summer schools which ran from 1954 to 1957.[49] At Scarborough Harry Thubron, from Leeds College of Art, was involved, as was Pasmore's wife, Wendy, a lecturer at Sunderland College of Art. Pasmore and Hamilton's course and the teachings at Scarborough were influential on late 1950s pedagogy, resulting in 1959 in the key exhibition for the contemporary debates around art education entitled *The Developing Process*. The exhibition is significant both for Cuthbert as a then student at Goldsmiths and for the definition of basic design. At the heart of this debate is the relation of basic design to the Bauhaus. A further consideration is the impact basic design had on the one-year Pre-diploma.

In order to fully explore these issues it is necessary to outline the debates put forward in the accompanying catalogue to the exhibition. The exhibition's full title was: *The Developing Process: work in progress towards a new foundation of art teaching as developed at the Department of Fine Art, Kings College, Durham University, Newcastle upon Tyne and at Leeds College of Art, with contributions by Victor Pasmore, Harry Thubron, Richard Hamilton, Tom Hudson and others.* The catalogue was published on the occasion of the exhibition at the Institute for Contemporary Arts in London, in 1959, by Kings College at Newcastle upon Tyne, part of Durham University.[50] Included in the catalogue were texts by Hamilton, Alan Davie and others, which were important in setting out new directions for art education. In many senses this is the exhibition which has been seen to define basic design. Although the variety of approaches to teaching basic design, render the term vague, later attempts at definition have rested on a body of writings and studies. A key survey in this respect was the exhibition, organised by David Thistlewood, entitled *A Continuing Process: the new creativity in British art education 1955-1965,* held at the ICA London, in 1981. The basic design pedagogy was explored in the catalogue of this exhibition. This was further substantiated in Yeomans' PhD (1987). The received opinion is that basic design heavily influenced the introduction of the one year Pre-diploma course. In a letter of 1983 to Yeomans, Pasmore writes:

> It is necessary to understand that there was no single unified idea, system or programme for the Foundation Course developed by Richard Hamilton and myself at Newcastle and Harry Thubron and Tom Hudson at Leeds. In fact the whole affair was an entirely empirical and experimental procedure which somehow managed to

[49] See *Appendix 1* for a copy of the *11 day Course in Drawing, Painting, Sculpture and Construction* at Scarborough in 1956. Note 'Knowledge of how to reproduce nature's effects and appearances (as in naturalistic painting) gives way to knowledge of the causes by which these effects are produced.' In 1957, the four lecturers mounted an exhibition called *Basic Form: a pedagogical approach to basic form in the visual arts*, at the Royal Festival Hall, *Appendix 2*.

[50] *The Developing Process: work in progress towards a new foundation of art teaching as developed at the Department of Fine Art, Kings College, Durham University, Newcastle upon Tyne and at Leeds College of Art, with contributions by Victor Pasmore, Harry Thubron, Richard Hamilton, Tom Hudson and others.* Catalogue of exhibition at the Institute for Contemporary Arts in London, in 1959, published by Newcastle upon Tyne: Durham University, where it was subsequently exhibited at Kings College.

> muddle together and combine collective exhibitions which gave the appearance of unity..... in my view the Newcastle / Leeds 'Tower of Babel' was its great strength and vitality. [51]

In the same way that Pasmore considers the growth of the Pre-diploma course as organic, so it must be said that the colour project was not one fixed package plucked from the Bauhaus to explore colour as a material. However, the models of colour teaching, in the Pre-diploma and Foundation courses in the 1960s, seem to convey the same knowledge and skills, to a greater or lesser extent according to who was running them. For example, Pasmore at Newcastle felt that every student should make a colour wheel.[52] This was standard practice, but how much more was taught or allowed the space to develop is the crucial question.

David Thistlewood, when writing about Hudson's colour course at Leicester in 1962, following his departure from Leeds, reveals a more thorough exploration of colour than even the Bauhaus could muster. Thistlewood writes:

> Hudson's 'flexible structure' was a loose envelope of experimentation which gradually unfolded as the course proceeded, being propped into shape by various discoveries. For example, a brief introductory talk about Colour would initiate experiments with a vast range of techniques, materials and phenomena – colour juxta-positioning and the assessment of visual and psychological effects; observation and recording of colour forms in nature; work with light beamed through various filters; analysis of optical effects and retinal after image; systematic and intuitive colour mixing; the grasping of verbal language with which to compare opinions and responses. Only after a protracted period of visual experimentation (visual adventure was the term which was coined) came the crit, and the propping into place of the two principal definitions of Additive and Subtractive Colour and other established theory. [53]

Thistlewood (1981), Macdonald (1970) and Carline (1968) all differ slightly in their view of the connection between Bauhaus and basic design thinking. In brief, Thistlewood makes a strong case for basic design being formed by the thread of the organic, which I discuss in Chapter Two. He refers to the theory of it emerging from the Bauhaus as 'unsound'. In his 1978 thesis on Read, Thistlewood puts forward the case for Read's critical development as organic.[54] Given Read's involvement in all aspects of British art and education it was then consistent for him to apply this line to basic design. However, Macdonald in 1970, writing about Camberwell School of Arts and Crafts states that:

> ... approximately from 1952, abstract work, strongly related to basic forms, was introduced into the School by these artists. Pasmore followed the development by directing courses concerned with the basic elements of art at the Scarborough summer school... [55]

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[51] Letter to Yeomans from Pasmore, Malta, 10 September 1983, in Yeomans' appendix.
[52] See Yeomans (1987) p.252.
[53] Thistlewood, D. (1981) *The Visual Adventure: Leicester College of Art,* Leicester: Leicester College of Art, p.40; See also (1961) *The Visual Adventure: Leicester College of Art 1961,* catalogue with introduction by Tom Hudson, Leicester: Leicester College of Art.
[54] Thistlewood, D., 'Dialectical Organism', unpublished PhD, Liverpool University, May 1978.
[55] Macdonald, S. (1970) p.367.

In Chapter Twenty, entitled: 'Basic Design and Visual Education', Macdonald goes on to state:

> The development of art education is today becoming increasingly analytical, logical and thematic. This development originates from the Preliminary or Basic Course initiated by Johannes Itten in the autumn of 1919 at the Bauhaus. [56]

Macdonald, as a former Principal Lecturer in Art and Design at the De La Salle College of Education of Manchester University, seems to have a grasp of what is being taught in art schools and secondary schools at this time. His language of 'growth points' and 'point of development', echo the organic language of Hamilton and Pasmore, and he recognises that basic design has only partially understood the developments introduced by the Bauhaus. Macdonald stresses this in his 1970 assessment of the situation:

> The course at the Bauhaus provided many growth points which are just being comprehended today. In the recent past how often has one heard the foolish remark, 'we are past the Bauhaus', from an art educator whose class has not reached its point of development, and is practising one limited aspect of the courses of Itten, Albers, or Nagy; as Tom Hudson states, 'Apart from a few isolated and fitful attempts there has been little development in this country of the work of those great pedagogues.[57]

By contrast, writing in 1968, Carline, who had been chief examiner in Art for Cambridge University Local Examination Syndicate, sees Pasmore's methods as directly emerging from the Bauhaus,[58] and argues that Bauhaus ideas gained a foothold from about 1953 onwards.[59] This date, c.1952-3 (as the point from which Bauhaus basic design thinking gained a foothold,) coincides with Macdonald's view and refers to the emergence of basic design. However, these are retrospective accounts written at a time when opinion in art education had swung against basic design as being too prescriptive.[60]

Macdonald and Carline both acknowledge the current position in 1968-70 as being indebted firstly, to the Bauhaus, and secondly to Hamilton and Pasmore and basic design. They recognise that the theory and practice of abstract art has come about in the English art school system through the Bauhaus 'pedagogues'. Carline, in particular sees the 'form problems' as radical innovations which constitute the preliminary course. Carline states:

> These 'form problems' constituted the preliminary course, and Gropius persuaded Johannes Itten, whom he had met in Vienna, where the latter was conducting his own school, to take charge of it. It was the essence of this course that nature provided the essential material for study, but a new attitude governed the way that nature was used in teaching. Whereas in the past it had always been assumed that the artist was concerned only with natural effects which could be perceived with the eye, the Bauhaus course adopted a more all-embracing view, assuming that any

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[56] Macdonald, S. (1970) p.365.
[57] Macdonald, S. (1970) p.368.
[58] 'the ideas and the methods of today concerning the teaching of abstract art stem in varying degrees from the pedagogic systems evolved in the Bauhaus.' Carline, R. (1968) p.263.
[59] 'It is only within the past ten or fifteen years that the ideas which originated mainly in the Bauhaus have obtained a firm foothold in Great Britain, rapidly permeating art teaching like a river in flood. One of the chief advocates of these methods, Victor Pasmore, although he would not claim to be among the pioneers in the field of abstract art, ...Carline, R. (1968) p.268.
[60] Peter Lloyd Jones' letter in *The Listener* (10 October 1968), Maurice de Sausmarez' reply on the letters page, *The Listener* (31 October 1968) and Noel Shepherdson's letter (7 November 1968).

> aspect of nature, by whatever means it might be perceived, could be conveyed visually. This concerned such aspects as potentiality for movement, texture and even the inner, unseen, structure.[61]

According to Carline, the shift in the way nature was employed in teaching, from its natural effects to its 'potentiality for movement, texture and even the inner, unseen structure' are the legacy of Bauhaus teaching. Carline, then, locates Itten's course in the natural, i.e. natural and organic 'form problems'. Structure, learnt from nature, mathematical patterns in nature, rhythm, movement, geometry and of course the structure of colour in nature are seen within these 'form problems'. (The term *problem* is also interesting in that it requires looking into and finding a solution, - a scientific term far from artistic effete unboundaried discovery). It might be argued that these 'form problems' could be seen to be taken up by individual Bauhaus teachers, in their own work, for example Klee, Moholy Nagy, and Albers. In addition, the shift to potentiality of movement and the inner, unseen structure are clearly preoccupations of the latter period of the Bauhaus *Vorkurs*, when Moholy Nagy is leading it. In each of these phases of the Bauhaus and, later, art education in England, the traces of what D'Arcy Wentworth Thompson calls 'biological formation' and what Thistlewood calls 'organicism' can be seen to be inherent. A key point here is that, unlike other writers such as Carline, Thistlewood provides a much broader perspective, that sees Bauhaus basic design thinking as part of a wider historical concern with organicism.

Thus, Thistlewood, writing in the 1980s and 1990s draws together themes which had been charted by Victorians from Darwin to Ruskin, Morris, Goethe and the Romantics to D'Arcy Wentworth Thompson and biological formation. Knowledge and research in this area of art education may be partial and fragmented, but, nonetheless, from existing material it is clear that by the early 1960s, Bauhaus and basic design thinking; methods of teaching colour, as a separate abstract element; and 'form problems', a concept of Bauhaus teachers, all can been seen to have reached English art schools. Cuthbert, a student and a lecturer in the English art schools of the late 1950s and 1960s was certainly influenced by these concerns.

1.4 Bauhaus pedagogical texts: Kandinsky, Klee, and Itten

The pedagogies conveyed by books, exhibition catalogue prefaces and personal correspondence are a vital source for charting changing views and the dissemination of ideas. The review of these as sources of inspiration for artist-lecturers necessarily involves an engagement with the writings of Kandinsky, Klee, and Itten.[62] The reputations of these three, as teachers at the Bauhaus, and the publications of their ideas for teaching, fashioned them as role models for others who saw the merit of teaching abstract art and thereby changing the established order. Furthermore, these three mark a key shift in approach to art

[61] Carline, R. (1968) p.264.
[62] The impact of Gropius, Moholy Nagy and Gabo is also to be noted in this respect.

teaching in that they can be seen as artist-lecturers, not merely artists who teach. This is an important shift which emerges as a factor in the advent of abstract art and will be returned to later. Certainly, the dissemination of their ideas through the Bauhaus series of publications was an essential moment in the history of art education in the twentieth century.[63]

Richard Robin Yeomans, in part one of his PhD (1987) entitled: 'The Foundation Course of Victor Pasmore and Richard Hamilton 1954-1966,' starts with Kandinsky, Klee and Itten when positioning the origins of basic design thought.[64] Yeomans then focuses on Hamilton and Pasmore's basic design course, exploring the differences in interest and background of each one's art and teaching approach. In the course of his research Yeomans collected images of students work from basic design courses and also interviewed various personnel and corresponded with Pasmore.[65] In his abstract Yeomans concludes that: 'to some extent basic design teaching represented a dissemination of Bauhaus thinking in post-war Britain'.

In the preface Yeomans establishes three key points with regard to basic design which are important for this study: *Firstly* it is 'misleading to describe it as a movement in Art Education – it was a number of loosely bound participants.' *Secondly* 'What they had in common was a belief that the visual arts contained formal elements which are amenable to objective analysis.' And *thirdly* 'in seeking for a radical alternative model, it was natural to look at the only available coherent body of modernist pedagogic theory; the Bauhaus.'[66]

This reinforces the view that the basic design of Hamilton and Pasmore's era was a broad ground swell of ideas rather than a tight-knit manifestoed group, and the second point, that they were looking at the elements of the language of art almost scientifically. The third point indicates that there was a move for change in the English art educational institutions.

Yeomans identifies the importance of the Bauhaus method of 'teaching by doing' or experimental approach, which separated them from contemporaries. Yeomans also raises the much-debated institutional dilemma of learning by rote and prescriptive teaching versus observation by exploratory and experiential teaching, in essence, the difference between

[63] Gropius and Moholy Nagy edited the series of Bauhaus books which included titles by Klee (1925) and Gropius himself.
[64] Yeomans, R.R., (1987) 'The Foundation Course of Victor Pasmore and Richard Hamilton 1954-1966', unpublished PhD, Institute of Education, University of London, part one: 'The origins of basic design thought: Kandinsky, Klee and Itten', pp.14-69.
[65] In support of his argument he uses the material of Peter Sinclare, who initiated some work on basic design in 1974, and the abandoned research of David Philips from Coventry's Lanchester Polytechnic and key portfolios of Will Varley in Liverpool.
[66] Yeomans (1987) Preface, pp.1-14.

training and education. This discussion framed art school teaching in the 1960s and 1970s. Some school classes and Higher Education courses in art provided no structure whatsoever except a space to express oneself, - a point I will return to when discussing art school culture of the period. Other courses, especially the Foundation course, which had one eye on providing successful applicants for art and design courses, were experiential and structured and, as Yeomans points out, there was only one available model to consider. The Bauhaus, as that model, relied on its artists to deliver the creative experience for its designers.

In looking closely at the Bauhaus as the model for the Pre-dip course of the early 1960s, one must be aware of the intervening thirty years. The artists, Kandinsky, Klee and Itten devised their structures and pedagogies in the first three decades of the twentieth century.[67] Inevitably these artist-lecturers looked to their own practice and current cultural ideas, which included music, maths, biology and the structures lying therein. The key point here is that Kandinsky, Klee and Itten all approach teaching from a knowledge base which can be loosely termed 'scientific', including contemporary knowledge in areas of maths, natural sciences, music and linguistics.[68] I will argue that Cuthbert's practice and teaching also emanate from this knowledge base.

As with Cuthbert, the concept of the language of art, and colour as an element within that language, is the general approach used when analysing the work of Kandinsky, Klee and Itten. What is also clear are attempts to see their oeuvre as a system, a set of elements that make up their 'world', (particularly in Klee's case). Klee's affinity with music (he was a gifted violinist) and his iconography of sound and narrative is well documented along with his desire 'to draw like a child' and his description of 'the line going for a walk'.[69] Considered the leading figure of abstract art, Kandinsky, whose shapes and colours related to music and sounds, developed non-representational art and his legacy lies with the 'Constructivist tendency'. Itten's approach is more objective, especially with regards to colour, in which the steps and grids make up the system of classification.

In analysing the subject which they are teaching, Kandinsky, Klee and Itten break down their matter into elements. The frames for this can be seen to be geometric and musical in Kandinsky's *Über das Geistige in der Kunst* (1912); musical and biological in Klee's

[67] To this list one might add Moholy Nagy and Naum Gabo.
[68] Ferdinand de Saussure gave his important course of lectures between 1907-11 on the elements of language, which saw language as a system of signs. It became the now famous *Course in General Linguistics*, composed from lectures and students' notes and published after his death. Investigators into visual language may have been aware of his work, but as yet no clear link has been made.
[69] *Pedagogical Sketchbook*, introduction, p.9, English edition with introduction and translation by Sibyl Mohly Nagy, (1953).

Pädagogisches Skizzenbuch (*Pedagogical Sketchbook*) (1925); and in Itten's case, the theory of composition was the general theory of contrast. In the introduction to *Design and Form: The Basic Course at the Bauhaus* Itten clarifies it thus:

> The basis of my theory of composition was the general theory of contrast. The chiaoscuro (brightness-darkness) contrast, the material and texture studies, the theory of forms and colors, the rhythm and the expressive forms were discussed and demonstrated in terms of their contrast effect.[70]

Itten also frequently refers to art as an analogy with music or movement, as follows:

> Each time principles of form, rhythm, or colour had been discussed, I asked my students to analyse relevant masterpieces to make them see how different masters solved a given problem. When a pianist seeks to experience for the first time a piece of music by playing it, it cannot be his aim to play each note and each rhythm as the composer prescribed them; he will endeavour to grasp the general rough outline of the composition.[71]

The *organisation* of what these three artist-lecturers want to teach is rational and analytical. Their analogies of musical, biological, and geometrical systems reflect an ordering of the matter into the elements and the structure or form. In order to establish the particularities of their practices which have import for later generations of abstract artists in the 1950s and 1960s, I first want to investigate their individual approaches to art and art teaching. This can be done by tracing two reoccurring themes.

The first is summed up by a line from Rodchenko: 'Art is a branch of mathematics, like all sciences'.[72] The second theme, from the same manifesto, is: 'Construction = organisation of elements'. These quotes from Soviet documents concerning the organisation of the art schools suggest that these two themes were of common interest at the time to artists who saw art as having a particular value to society - among these we could place the Bauhaus artist-lecturers.

Of the trilogy of treatises on individual art theories to arrive in England, Kandinsky's was the first. *Über das Geistige in der Kunst* was originally translated into English as *The Art of Spiritual Harmony* in 1914 by M.T.H. Sadler.[73] In the introduction Sadler remarks:

> Kandinsky is painting music. That is to say he has broken down the barrier between music and painting, and has isolated the pure emotion, which for want of a better name we call the artistic emotion.[74]

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[70] Itten, J., (1964) *Design and Form: the Basic Course at the Bauhaus*, p.12. With short lectures on everyday subjects and using relaxation and sound and breathing exercises Itten's methods were unorthodox. In 1923 Gropius observed that he could no longer be responsible to the government for Itten's methods of teaching, and Itten spontaneously decided to leave the Bauhaus.

[71] Itten, p.13.

[72] Rodchenko, A. 'Slogans' and 'Organisational Programme' first published in (1920-1) *Khudozhestvenno-konstructorskoe obrazovanie (Artistic-Constructive Education)*, no 4, Moscow, 1973, pp. 203-6, this translation taken from: in. Khan Magomedov, S. (1986) *Rodchenko : The Complete Work.*

[73] Sadler was a prominent author and publisher, who visited the artist at Murnau in 1912 and continued to correspond with him for over two decades. The book was published by Constable and Co. Ltd. in London in 1914.

Although Sadler's remark prioritises emotion to which Kandinsky gives access through abstract art by drawing on the feelings evoked by music, by adopting music Kandinsky's quest is to identify the system. Furthermore, in Kandinsky there is a preoccupation with form and the problems of form and their meaning, the difference between the inner and the outer or the signifier and what is signified.

> On the whole keen colours are well suited by sharp forms (e.g. a yellow triangle) and soft, deep colours by round forms (e.g. a blue circle). Form, in the narrow sense, is nothing but the separating line between surfaces of colour. That is its outer meaning. But it has also an inner meaning, of varying intensity and properly speaking, *form is the outward expression of inner meaning.* [75]

Kandinsky's book, which was published later under the title *Concerning the Spiritual in Art*, is preoccupied with colour theory – not in a physical scientific way, but in a pseudo-religious attempt to link colours to sounds and shapes, to create order and reveal the system.[76] In common with much theosophist writing of the time the emphasis is on revealing a world order behind the surface. There is a fine line between looking for this order and imposing the order of geometry, pure shapes and colours. Kandinsky was at the confluence of these ideas, having been involved in the reorganisation of the teaching programmes for the schools in Moscow (the VKhUTEMAS, the State Higher Artistic and Technical Studios) around 1920. The programmes for these were a combination of the ideas expressed in his earlier book and of the Suprematist and Constructivist concepts known as 'the culture of materials', which later became the model for the Bauhaus course. In the reorganisation of the state art schools, the architects of a new social order (Rodchenko, Stepanova, Mayakovsky and Brik) embraced new forms of expression. On the one side: the technically and socially functional married to the other side: the creative/intellectual/spiritual/individual.

> Painting has two weapons at its disposal. 1. Colour. 2. Form. Form can stand alone as representing an object (either real or otherwise) or as a purely abstract limit to a space or a surface. Colour cannot stand alone; it cannot dispense with boundaries of some kind. [77]

This new form of expression entailed Kandinsky separating out the component parts of art in order to analyse and educate. However, as Sadler pointed out in his original introduction, Kandinsky is painting music and analysis of the elements is frequently in the language of music and this includes the orchestra. Kandinsky's publication was one of the most important sources for new methods of conceiving form and colour pre- World War II.[78] Its early translation, in 1914, was the key to its impact.

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[74] Kandinsky (1914) p.xix.
[75] Kandinsky. (1914) p.29.
[76] The meaning of the German word 'geistlich' is broader than the English word spiritual, it also means intellectual and of the mind.
[77] Kandinsky. (1914) Ch.5 'The language of Form and Colour', p.28.
[78] The book has been reprinted in English a number of times, significantly 1947, 1955, 1963, 1977, and translated into several foreign languages including Japanese.

Klee's writings were published in Germany from the 1920s, and known in Britain in the 1940s through translation of key publications and through catalogues of exhibitions. Klee's first exhibition in Britain was held at the Mayor Gallery in 1934 with a further show there in 1950, (the gallery closely associated with *Unit One).* Klee died in 1940 by which time his work and teaching were recognised as influential. There were exhibitions in 1941 at the Leicester Galleries, London, and in 1945 the Tate Gallery organised an exhibition which was held at the National Gallery. His book, *Paul Klee on Modern Art,* which had been translated by Paul Findlay, with an introduction by Herbert Read, for Penguin Modern Painters, was published in 1948.[79] *Pädagogisches Skizzenbuch* (*Pedagogical Sketchbook*), first published in Germany in 1925 as the second of fourteen Bauhaus books edited by Walter Gropius and Laslo Moholy Nagy, was published in England in 1953 by Faber and Faber.[80] Whereas Kandinsky, along with Cézanne and Picasso, made an impact in Britain before the war, Klee seems to have become important after World War II.

Klee's interest in systems and the natural sciences plays a key role in the development of post-war British art and design. For example, an interest in Klee can be traced in Pasmore's abstract work, in the spiral design for the Festival of Britain restaurant and in the work of the Festival designer, Lucienne Day, *(fig.5).* In the introduction to the *Pedagogical Sketchbook,* Sibyl Moholy-Nagy identifies music and nature, as Klee's two leitmotifs of inspiration, and pinpoints his way of teaching as follows:

> As a young man he had spoken of his art as *Andacht zum Kleinen*, devotion to small things. Which in the microcosm of his own visual world, he worshipped the Macrocosm of the Universe. [81]

As this suggests, Klee worked from the particular to the universal. His sketchbook presents four main characteristics of two dimensional language. 1) Proportionate line and structure. 2) Dimension and balance. 3) Gravitational curve. 4) Kinetic and chromatic energy. Klee studies the small things and expands them into the universal guidelines for students to follow. His interest in the matter of plants, biological forms and growth patterns, which can be seen in section 1.8 - 1.9 of the sketchbook (on p.5), is revealed by titles such as 'material structure in nature' and examples of bones, tendons, and muscles.[82] Klee's interest in the natural sciences can also be traced in numerous examples of his own work. In this respect, Sibyl Moholy Nagy's naming of one of Klee's leitmotifs as nature is pertinent.

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[79] Klee, P. (1948) *Paul Klee on Modern Art,* trans. by Paul Findlay, with an introduction by Herbert Read, London: Faber and Faber.

[80] In 1945 [Dec 45-Feb 46] the Tate mounted *Paul Klee 1879-1940,* at the National Gallery and it was toured by the Arts Council. In November 1953, there was a symposium on Klee at the ICA.

[81] Klee (1953) p.8.

[82] 'And is it not true that even the small steps of a glimpse through the microscope reveals to us images which we would deem fantastic and over-imaginative if we were to see them somewhere accidentally, and lacked the sense to understand them?' Klee, P. (1948) *Paul Klee on Modern Art,* London: Faber and Faber.

In the De Stijl group, Mondrian is recognised alongside Theo van Doesburg, as the key proponent of the Modernist grid, and his mathematical interests are documented in terms of Theosophy and the rhythms of Jazz. However, there is another less obvious lineage for the value structure of hues organised in grid form. In this respect, Klee's interest in Baroque music in association with the structuring of colour, seen in the stepped tonal sequences of the paintings of 1921, reflect his interest in organising the colour visually.[83] When Klee focuses on colour he homes in on the form of the grid, for example, in *Scheidung, Abends,* (Separation, evening) 1922, Klee family collection, *(fig.6)* [84] This acts as a solution to the problem that since colour cannot stand alone, it cannot exist without form. The repetition of the elements within a grid serve as an allegory for the steps and gradations we perceive in using colour. The grid provides a structure for the colours in the way a language forms a structure for words.

In Klee's desire to organise the rectangle into a framework, he buries the grid in his pictures to explain the pictorial space and movement. For example, in the section entitled 'Structure' in the *Pedagogical Sketchbook*, he links the grid to maths.[85] The grid is a useful way of containing colour so that it can be studied for itself, in relation to its like, without distraction from the other elements of visual language, such as movement. Colour is a dependent quality and a grid provides a standardising format for comparison of the qualities of colour.[86] The devices of the grid and chequerboard were central to the Bauhaus and can be seen in Klee's as well as in Albers's work, for example, *Gitterbild*, 1922, glass assemblage, *(fig.7).*

Klee's lead is taken up by two of Klee's Swiss students from the Bauhaus, Richard Paul Lohse and Max Bill. Constructivists, especially those in Paris in 1936 (including Lohse and Bill), the post painterly abstractionists in the 1960s and many later colourists and students taught in Bauhaus-style courses, recognised the need to contain the irrational element colour within rational boundaries. For example, the grid is taken up by Josef Albers in his programmes at Black Mountain in the United States and, in turn, appears in the work of his students, Ken Noland and Richard Anuskiewitz.[87] The combined threads of

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[83] Gage, J. (1993) pp.241-242. However, Klee was not the first to try to associate colour and music, and thereby mathematics, Kandinsky and Kupka had been working in this area of visual systemisation since c.1911.
[84] Klee's organising of colour and thereby interest in Goethe's colour theory in particular are confirmed in Mary Pearce's unpublished PhD (2001) 'Colour and Communication in Twentieth Century Abstract Art', Kingston University. Pearce interprets Paul Klee's painting *Eros* as a representation of Goethe's colour theory, whereas previous interpretations have focused on gender and sexual readings.
[85] Klee, P. (1953) *Pedagogical Sketchbook*, section 1.6, pp.22-24.
[86] The ways of ordering colour either in a circle or a grid bring to mind the taxonomies of the natural sciences and language.
[87] Black Mountain College was set up by John Andrew Rice in North Carolina. Running from 1933-1956, it was renowned for its experimental spirit, which attracted artists and teachers, poets and musicians. In 1933,

music, maths, geometry and nature, which underpin Constructivism and analytical colour theory, are inherently woven within the Bauhaus pedagogies. Their legacy in English art schools can be traced in the form of projects on colour by lecturers in the 1950s and 1960s. Furthermore, there was significant interest in Klee evidenced through publications and exhibitions in the 1950s, which I discuss in a later section.

Although I will examine Itten's organisation of colour in Chapter Five in detail with reference to Cuthbert's studio method, at this point it is useful to outline Itten's post 1960 contribution to ideas in British art education. *Kunst der Farbe* (published as: *The Art of Colour* (1961)) and *Mein Vorkurs am Bauhaus: Gestaltungs- und Formlehre* (1963), (published as: *Design and Form: the Basic Course at the Bauhaus* (1964)) were published in English when Itten was resident in the United States.

As previously mentioned, new pedagogical ideas of abstraction and colour clustered in educational terms around the Bauhaus from 1919, where Johannes Itten had been searching for a basic formal vocabulary of art.[88] Like Kandinsky, Itten saw colour as a major element alongside form. However amongst those who taught colour at the Bauhaus in the early years there was a range of approaches. Research to date shows that between 1919 and 1922 colour was not regularly taught.[89] In 1921 it appeared under 'Complementary Subjects' and only became a fixed subject for the students in 1922.[90] Itten embedded colour teaching in the Vorkurs from 1920, however a regular course only started when the students requested a course in colour from Itten and weekly lectures from Klee. Ludwig Hirschfeld-Mack held regular colour seminars around 1922-23, *(fig.8)*. As Britta Kaiser-Schuster points out there were others who taught colour in their areas, such as Scheper and Schmidt in the wall-painting and advertising workshops. In her mapping of the range of sources for these colour theories, Kaiser-Schuster argues that Itten, Klee and Kandinsky drew upon work from Goethe, Runge and Holzel, whilst Scheper and Schmidt favoured the schematic colour ordering of Ostwald, who was eventually invited to lecture in 1927. Significantly, Scheper, Schmidt and Hirschfeld-Mack's exercises for teaching colour did not become known further afield, only the writings of Kandinsky, Klee and Itten, while Munsell's theory is notably absent.

Josef Albers was hired to teach art and his wife Anni later taught weaving, they stayed for 16 years. Albers' students included Robert Rauschenberg and Kenneth Noland.

[88] The importance of colour in Bauhaus teaching is evidenced by the awareness of contemporary colour theory - Walter Gropius installed Ostwald's spinning devices and charts in the lobby of the school, and Kandinsky and Klee, among others met him. (Klee later came to dislike him intensely.) This may have been an important moment in modernist colour theory, in that it drew together the scientific and the aesthetic. See also studies by Ludwig Hirschfeld-Mack from his colour seminars in the Bauhaus Archive gmbh., 10785 Berlin, these can be paralleled with Kljun in USSR, In 1921, the VKhUTEMAS set up a course in colour theory, taught at times by Popova, Kljun, Klucis and Istorich.

[89] Fiedler, J. & Feierabend, P. (ed.) (1999) p.392.

Publications documenting the Bauhaus are numerous, however, two key points emerge from the writings about the teaching of colour and the *Vorkurs* at the Bauhaus.[91] Firstly, the *Vorkurs*, although set up and initially taught by Itten between 1919 and 1923, evolved through the contribution of several artists. Klee taught on the course from 1923 followed from 1924 by Moholy Nagy and Albers, to which Klee contributed theory of form for one hour and Kandinsky the theory of colour. Certainly, Moholy Nagy and Albers moved it towards a scientific and functional approach.[92] The second point is that, although there were a number of theories about the subject and how it should be taught, colour was brought in as a fixed element by Itten and remained enshrined in the timetable from that period onwards. [93]

Itten's *Vorkurs*, a six-month basic instruction course for study towards the three year Bauhaus course in Building Design, appears to be the first general introductory art course for preparation and entry to more advanced studies in higher education. It gave an introduction to all materials and basic training in design and art. The idea of integrating art and craft had come from William Morris, via Adolf Loos to the Bauhaus.[94] The desire was to reunite fine arts and crafts. As Bill, a former Swiss pupil of the Bauhaus explains:

> The Bauhaus was formed on the amalgamation of the concepts of *Formmeister* and *Werkmeister*, a blending of the two schools: Fine Art and Arts and Crafts. This was the *Staatliches* Bauhaus.[95]

Prior to this, fine art was taught through the Paris studio model whilst design came through the apprenticeship workshops of makers. Training artists and designers (the terms artisan or craftsman were often used) together was a relatively new idea. In his Bauhaus manifesto of 1919, Gropius strove to bring together artists and designers into the same stream, declaring that:

> We must all become craftsmen again ... no essential differences exist between the artist and the craftsman, the artist is a craftsman of heightened awareness...But the

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[90] Kaiser-Schuster, B., in Fiedler, J. & Feierabend, P. (ed.) (1999) p.392.
[91] Fiedler,J. & Feierabend, P. (ed.) (1999). Droste, M. (1991). Bayer, H.(1938). Whitford, F. (1992).
[92] With Itten resigning and Moholy Nagy appointed as leader of the *Vorkurs*, the debate between the creative approach of Kandinsky and Klee, on the one hand and the functional and scientific leanings of Moholy Nagy and Albers, on the other, caused a deepening rift. Whitford, F.(1992) p.35.
[93] Kaiser-Schuster, B. 'Teaching Color at the Bauhaus' in Fiedler, J.& Feierabend, P. (1999) p.392.
[94] 'Indeed, Loos specifically identifies himself with the work of Morris, Ruskin and Crane, which he oversimplifies by summarising its main thrust as 'negation of the machine'. (Loos [1898]: in 'Die Potemkin'sche Stadt', Opel, A. (ed.) (1983) Vienna: Prachner, p.38), in Stewart, J. (2000) *Fashioning Vienna: Adolf Loos' Cultural Criticism*, London: Routledge.
[95] Bill, M. (1953) 'The Bauhaus Idea,' *Architect's Yearbook*, No.5, pp.29-32. The Bauhaus produced two Swiss students, Max Bill, and Richard Paul Lohse, whose interest in colour and Constructivist ideas become marked later in life. Evidently the Bauhaus had an important impact on colour teaching and Constructivist art. The fact that Klee, Bill, Lohse and Itten are all Swiss, seems to have escaped comment. Is there a factor inherent in Swiss culture that provokes a curiosity about the systematic organisation of colour?

> basis of craftsmanship is indispensable to all artists. It is the prime source of all creative work. [96]

Gropius' view stresses the need for art and craftsmanship, whilst Itten's opinion establishes the basic course as independent of art, craft and technology, implying it is a problem-solving course. [97] As Itten later states in *Design and Form*:

> I did not believe that the slogans 'back to the crafts' or 'Unity of Art and Technology' were capable of solving our problems. [98]

However, Itten recognises that he is preparing students for future co-operation with industry and his exercises with materials and textures include colour. By 1922 the syllabus of the Weimar Bauhaus classifies colour as a material alongside clay, glass, stone, and wood, *(fig.9)*.[99] In addition, it does not ignore the lessons to be learned from the past, using part of the course for analysis of old masters and discussion on how they were constructed in terms of colour, tone, movement and line. The information which Itten communicated to his students was not revolutionary in itself. However, the method and individualistic approach of Itten was certainly groundbreaking.[100] In fact, the mechanics of colour mixing at the Bauhaus, such as the mixing of opposites to make greys, were all established facts. What was different to previous academies and institutions was that Itten, and other members of the Bauhaus, saw themselves as artists and teachers in a different way: their pedagogic and individualistic approach to their own work were both seen as an integral part of their profession. This was a major shift in thinking. The staff of the Bauhaus were artist-lecturers, they were not individual artists teaching master-classes, as in the Paris studios.[101] At the Bauhaus, Gropius fostered a pedagogic institution with a unity, a purpose, and a philosophy, even if the lecturers followed their own personal philosophies under this umbrella.

In this respect, the Bauhaus broke with the old academic tradition and introduced new methods which artists used to change the way art was taught. The Bauhaus was, in its cultural organisation, a modernist institution. As Itten notes in the introduction to *Design and Form*, the Bauhaus set out to embrace new ideas, technologies and approaches.[102]

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[96] Itten (1963) *Mein Vorkurs am Bauhaus, Gestaltungs- und Formlehre, (My Foundation Course at the Bauhaus, Design and Form)* p.7.

[97] Rodchenko is also at this time (1920-21) looking to problem solve: 'the scientific duties of the workshop are the analysis and elaboration of problems in art and in pictorial technique', point 1a in the 'Organisational programme of the workshop for the study of painting in State Art Colleges', this translation taken from: in S. Khan Magomedov (1986).

[98] Itten (1963) *Design and Form*, p.9.

[99] See 'Syllabus of the Weimar Bauhaus' Vol. 2, *(Fig. 9)*. In this round diagram note the divisions of rings into 3,5,7, and 1.

[100] 'I studied Eastern philosophy and became interested in Persian Zoroastrianism and Early Christianity.' 'My first morning periods in class began with relaxation-, breathing- and concentration- exercises to establish the intellectual and physical readiness, which make intensive work possible. The training of the body as an instrument of the mind is of great importance to a creative person.' Itten, J.(1964) *Design and Form*, p.9.

[101] Klee substantiates this approach in his first lesson in May 1921 on 'practical composition', in which he analysed and discussed his own work and that of the students. Fiedler, J., & Feierabend, P., (ed.)(1999) p.247.

[102] Itten, J.(1964) *Design and Form*, pp.7-8.

Furthermore, the radical organisation of their courses differed from the previous academies. Notably, the projects and processes placed more emphasis on learning and experimenting rather than on the finished product. In so far as can be assessed without firm documentary evidence from earlier art schools, the Bauhaus represents a radical shift from product to process, from master-class to pedagogy, to learning by exploration and self discovery rather than by rote, copying, or repetition. In the realm of self discovery the light of Eastern philosophies shines faintly through.[103] Itten succinctly contrasts the change of approach through his recollections:

> When I took up my art studies in Geneva in 1910, the subjects were taught there, as in other art colleges, in a medieval manner. The professors set themselves up as examples to their students, and the students followed them. The star students were those who made the best job of copying their professors. [104]

Viewing other art schools as archaic, Itten was keen to change the master-class method of teaching.

Because the ideas of Kandinsky, Klee and Itten were published, these three key pedagogues made a substantial impact on the English art school system. Little is published concerning that impact on account of sparse documentation of the syllabus and curriculum. Researchers working on art schools rely heavily on autobiography, reminiscence, oral history and art students' portfolios. However, successive generations of Bauhaus artists and students published recollections and theories, thus imbuing it with legendary status in an almost empty field. Yeomans (1987) is wise to start with these three important teachers. In addition, a Swiss lineage, which is also important for Britain, is evident. In the area of Bauhaus teaching method, colour and Constructivism, Klee and Itten, can be seen to pass on ideas to two more Swiss artists already mentioned, who also attended the Bauhaus, Max Bill and Richard Paul Lohse.[105] The fact that Bill and Lohse were in Paris in 1936 at the same time as the American Charles Biederman, Ben Nicholson, and a number of other figures is a key point in tracing basic design and Constructivist ideas. Bill and Lohse's interest in colour, Bauhaus heritage, and the 'Constructivist tendency' touches the English connection of Kenneth and Mary Martin, known as the British Constructionists, to whom, as Cuthbert's teachers, I will turn later.

In summary, the Bauhaus pedagogues, their publications, practices, art and emigration were the major conveyors of Bauhaus ideas to Britain. Though, as I have stated, it was

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[103] Zoroastrianism, or Mazdanan, was adopted by Itten and a number of his students, they ate vegetarian food, fasted occasionally and persuaded the canteen to serve vegetarian food. Eastern ideas were becoming more common intellectual property. Likewise, Klee knew of the work of Herman Hesse, they lived in the same town. See Verdi, R. (1984) *Klee and Nature*, London: Zwemmer, pp.229-230. Eastern ideas were becoming more common intellectual property.

[104] Itten, J. (1964) *Design and Form*, p.6.

[105] Why at this time does the Swiss arts scene adopt the seeming neutrality of abstract art?

Kandinsky who was significant in the move towards theorising abstraction with his book '*Concerning the Spiritual in Art*' (1911). The early translation of this book guaranteed its radical impact. In it he linked colour and form to music in his search for a universal language - an unconditional language, which he believed could be accessible to all classes, creeds and races.[106] Colour and form as elements in that language were purified in order to eliminate realism or representationalism, in doing so it was hoped to arrive at a universal truth. His ideas were first to cross the channel in print. Likewise, Itten's teaching on the *Vorkurs*, up to 1922, symbolises the creative projects, centred on the individual and the language of art. This can be seen as the first phase of the impact of the Bauhaus.

Three other Bauhaus figures of import for British art are László Moholy-Nagy, Naum Gabo and Josef Albers. This second phase of Bauhaus teaching primarily that of Moholy Nagy and Albers' from 1924 symbolise the different pedagogic aspect of the Bauhaus, - mechanism and functionality. Moholy Nagy's and Gabo's contribution could be classified as more inherently constructivist, whilst Albers' work is in the usage of colour. Their impact on and correspondence with English artists is well documented, including, for example, Gabo's correspondence with Peter Lanyon.[107] The impact of this second pedagogic thread highlights the point made by Jessica Morgan that the Bauhaus pedagogy is not one package:

> Bauhaus pedagogy is not a pure form since it consisted of amalgamated ideas from various artists.[108]

However, it was Kandinsky, Klee and Itten who indirectly provide the more widespread teaching material for the English art school system.

1.5 Colour theory

In addition to the pedagogic books of Kandinsky, Klee, and Itten already mentioned, there were a number of other publications between 1934 and 1965 which were significant for Constructivists and artist-lecturers intent on communicating colour theory. These included books on the physics of colour and on the spiritual and psychological aspects of colour. Significantly, many of the early abstractionists, such as Frantisek Kupka and Robert and Sonia Delaunay, are regarded for their colour use.

A number of key publications were available to artists in Britain who were interested in colour. Goethe's *Colour Theory* had been translated by Charles Lock Eastlake in 1840, and later Chevreul's useful primer, *The laws of Contrast and Colour and their Application to*

[106] This points to what could be called Utopian ideals. The translator of Kandinsky's book was Michael Sadler, who was a patron of Leeds Arts Club of which the young Herbert Read was a member. Sadler was an enthusiastic collector of modern paintings and Read had access to works by Klee and Kandinsky.
[107] Garlake, M. (1995) 'Peter Lanyon's Letters to Naum Gabo', *Burlington magazine*, April 1995, pp. 233-241.

the Arts, was translated and published in London in 1858 (second edition) and even contained a few colour plates.[109] However, inspired by Blanc's *Grammaire*, Seurat's search for the laws of pictorial colour alongside the compositional harmonies, is widely considered to be the germ of twentieth century abstract colourist painters of the 1960s.[110] As John Gage (1993) suggests 'it was colour that was to supply the spearhead of non-representational art'.[111] Gage (1993), in his extensive study on *Colour and Culture: Practice and Meaning from Antiquity to Abstraction*, argues this clearly in Chapter Fourteen, via De Stijl, the Bauhaus and individuals such as Kupka, Balla, Robert and Sonia Delaunay, Kandinsky, Klee, Itten and Albers. In Britain, the importance of Seurat is recognised by the early publications on him in the 1930s and his use in teaching in the 1950s and 1960s.[112]

In terms of the broad category of texts which focus on modernist colour theory, the two key theorists were Alfred Munsell in the States and Wilhelm Ostwald in Germany, both of whom were busy organising and publishing their colour systems in the first two decades of the new century. Munsell and Ostwald devised colour-order systems which dealt with the physical and scientific aspects of colour. Their aim was to catalogue colour and produce a model of reference. Public Interest in the colour primer by the Nobel prize-winning German chemist Ostwald, *Die Farbenfibel* (1916),[113] was first shown in Holland by the De Stijl (1917-28) group of painters, especially Piet Mondrian who turned to primary colours and mathematics to construct his paintings.[114] The American painter, Munsell published

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[108] Morgan, J. (1992) p.8.

[109] Goethe, J.W. von, (1967) *Theory of Colours*, trans. Charles Lock Eastlake, London: Frank Cass and Co. Ltd. First published in German as *Farbenlehre* in 1810.

[110] According to Blanc, like music, the 'fixed laws' of colour could be demonstrated. He organised his colour teaching as well as his guidelines on drawing into a 'grammar'. The idea of colour as a universal language was first put forward by Chevreul, see Gage (1993) p.247.

[111] Gage J. (1993) *Colour and Culture: Practice and Meaning from Antiquity to Abstraction*, London: Thames & Hudson, p.247.

[112] Interest in the colour use and composition of Seurat was evident before the war, as the book by Rich, D.C. (1935) and the 1937 exhibition *Seurat and his contemporaries* held at Wildenstein & Co., London, January 20 - February 27, 1937, suggests. Books on Seurat in the 1960s included Homer, W. (c.1964), and Fry, R. (1965).

[113] Ostwald dedicated himself to studying the laws of colour in the hope of developing a scientific basis for their perceived harmonies. One of the resulting publications was *Die Farbfibel* (The colour primer) appeared in 1916, in Leipzig, making accessible a colour system devoted to this task (*Die Farbenfibel* ran for 15 editions). It first appeared in English in 1969 as *The Color Primer*, edited by Wilhelm Ostwald & Faber Birren, New York. However, Ostwald's concepts had been translated earlier, in 1948, by Egbert Jacobson as *Basic Color: An Interpretation of the Ostwald Color System*, Chicago. Klee valued Ostwald's *Malerbriefe* published in 1904. (English edition, *Letters to a Painter, on the Theory and Practice of Painting*, translated by H.W.Morse, Boston 1907).

[114] John Gage (1993) in *Colour and Culture*, Ch. 14, deals with the colour theories of the De Stijl group (and Mondrian's rejection of Green, - its connection to nature became an anathema to him). According to Gage, the Hungarian painter and designer, Vilmos Huszár seems to have introduced Ostwald's *Farbenfibel* to the De Stijl circle by 1918. He also did one of the earliest grid studies dated 1918. By 1920 non-representational artists were interested in the grid. Gage also suggests 'it was colour that was to supply the spearhead of non-representational art', p.247.

his first book, *A Colour Notation* in 1905 based upon a circle of ten colours in a sphere format borrowed from the German artist Philipp Otto Runge.[115]

In surveying other books on colour theory which were published between 1934 and 1965, further insight into the balance of knowledge can be afforded.

In the 1930s books useful to artists and designers included: Katz, D. (1930) *World of Colour*, Allen, A.B. (post 1932) *Colour Harmony for beginners: (the Ostwald Theory)*. In 1935, Rudolf Steiner's Anthroposophic Press, published *Colour*, with an introduction by Marie Steiner, in both London and New York. Steiner built on Goethe's colour theory and sacred concerns. Adrian Stokes, in 1937, produced *Colour and Form*, in which he takes up the debate on significant form.[116] On the other hand there was the on-going debate about standardisation and classification, evidenced by *The British Colour Council Dictionary of Colour Standards*, (1938).[117] Harmony, form and the classification of colour are the three main considerations of Cuthbert's work.

In the 1940s, H. Darval, and J. Moxford's *Colour, its Meaning and Use: being an introduction volume in a series devoted to the Syntax of Art, explaining the Key system*, by Pentagon Press, in 1944, as the publisher's name suggests was an occult attempt to conjoin the spiritual, the mathematical and the visual under the heading of 'Universal Wisdom'. While, in 1948 Jacobson's book, *Basic Colour: an Interpretation of the Ostwald Colour System*, arrived from America with extensive colour plates and was quickly adopted by artists and designers. The Swiss psychologist and colour consultant for industry, Max Lüscher, in 1949, published *Psychologie der Farben*, which, although in German, created a wave of interest in this aspect. The increase in consumption of colour manuals is also shown by A. Maerz, and M.R. Paul's *A Dictionary of Colour*, of which the second edition appeared in 1950.[118]

Finally and significantly, at the beginning of the 1960s, Itten in his book *The Art of Colour* (1961) and Albers in *The Interaction of Colour* (1963) mediated the theories of the scientists to produce lavish colour texts for artists and lecturers. Whilst not conclusive the

[115] Munsell's more widely known colour system: *A Grammar of Colour*, was first issued in 1921. The term 'grammar' likening art to language had been used by Joshua Reynolds and appears especially in book-titles such as G. Field (1850) *Rudiments of the painter's art: or a Grammar of Colouring*; Blanc (1874) *The Grammar of Painting and Engraving*, trans. Kate Newell Doggett, New York. Prior to this Emily C. Noyes Vanderpoel, (1902) published *Colour Problems: a Practical Manual*, indicating that there was a market for such books.

[116] Stokes, A. (1937) *Colour and Form*, for Faber & Faber, the London publishing house who specialised in art books, among them Herbert Read's considerable oeuvre.

[117] On Cuthbert's shelves were a number of these books, including Itten, Albers, Rood, Steiner, Goethe, Lüscher, and the Methuen Handbook of Colour.

survey for the period clarifies the three areas of colour texts which often overlap, the artist's manual (Stokes), the symbolic and spiritual meaning colour primer (Steiner) and thirdly the scientific classifier (Ostwald and Munsell).[119]

In mapping the introduction of Bauhaus 'basic design' thinking to Britain c.1934-1965, the remaining area to consider is the range of exhibitions held in Britain, linked with related publications, or known through catalogues.

1.6 Exhibitions

It is significant that Pevsner's reports on the Bauhaus in 1935 and 1936 appear at the same time as Walter Gropius', *The new architecture and the Bauhaus* (1935), which as the name suggests, leaned towards Gropius' interest in Architecture.[120] However, the major body of knowledge about the German institution came via an American publication in 1938. This key early publication, entitled, *Bauhaus 1919-1928*, was produced for the exhibition at the Museum of Modern Art in New York. It was prepared by Herbert Bayer under the general editorship of Professor Gropius, with the generous collaboration of a dozen Bauhaus teachers, and with a preface signed by Alfred H. Barr, jr., Director of MOMA. Whilst the exhibition itself did not come to London, the accompanying book was available to a privileged few.[121] Two years after its publication Pevsner further raised the debate surrounding the art schools and design training in *Academies of Art, Past and Present* (1940) in which he discussed the Bauhaus programme.[122]

In Britain, the lack of exhibitions about the Bauhaus, as a design school, throughout the 1940s and 1950s, can be attributed to the post-war climate. Post-war exhibitions were fewer than they are nowadays. There were a smaller number of commercial galleries and

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[118] Lüscher, M. (1949) *Psychologie der Farben*, Basel: Test Verlag. Translated by I.A. Scott, published in English (1970) London: Cape. It used a number of colour cards to assess personality traits.

[119] With regards the scientific, whilst, in the nineteenth century studies on colour had arrived in Britain primarily from France, and in the early twentieth century from Germany, by the mid twentieth century the research, especially the scientific, was arriving from North America, thanks in part to economic links and the lack of need for translation. For instance, the publication: *A Symposium on Colour: Jointly Sponsored by the Inter-Society Colour Committee and Illuminating Engineering Society to be presented at the 34th Annual Convention of the IES, at Spring Lake, New Jersey, on 11. September, 1940*, indicates, by its bibliography of 120 book titles, that the USA was leading the way in research into optics and physics.

[120] For further study regarding architecture see *Gropius in England: A Documentation, 1934-37* by David Elliott (c.1974) London: Building Centre Trust.

[121] Bayer, H., Gropius, W., and Gropius, I., (1938) *Bauhaus 1919-1928*, Prepared by Herbert Bayer under the general editorship of Professor Gropius, and with the generous collaboration of a dozen Bauhaus teachers. Preface, Alfred H. Barr, jr., Director of MOMA, New York: The Museum of Modern Art.

[122] Pevsner, N. (1940) *Academies of Art, Past and Present*, Cambridge: Cambridge University Press, reprinted (1973) New York: Da Capo, pp.277-283.

state funded exhibition spaces.[123] Indeed state funding by the end of the war was at a low point. As Garlake (1998) clarifies:

> In 1945 the exhibiting system was reduced to a skeleton that would not be fully fleshed out until the 1960s. Since the Tate was unable to promote contemporary art adequately, this function was parcelled out between exhibiting groups and commercial galleries in a makeshift accommodation which failed to acknowledge the distinction between the artist-led societies, headed by the Royal Academy, and profit-making dealer galleries.[124]

The system was also centralised. Exhibitions were staged by and large in London. However, touring exhibitions were put together despite the difficulties in war time institutions. For instance, the Tate Gallery mounted *Paul Klee 1879-1940* (December 1945-February 1946) at the National Gallery and it was toured around the country by the Arts Council.[125]

Although some examples occur earlier, interest in the Bauhaus increases rapidly in the 1960s in response to a number of cultural factors already mentioned. During the 1940s and 1950s, exhibitions and books had appeared, which were related to the Bauhaus, if not directly about it. The most exhibited member of the Bauhaus in Britain during the period had been Paul Klee, as previously discussed. In addition, Kandinsky had been ever popular, in exhibitions such as, *Paintings by Kandinsky,* in 1958, from the Solomon R. Guggenheim Museum, New York, which were shown at the Tate Gallery. The next year, 1959, *From Hodler to Klee: Swiss Art in the Twentieth Century: Painting and Sculpture* was mounted at the Tate Gallery.[126] A collaboration between Pro Helvetia Foundation and the Arts Council of Great Britain, this show is a signifier of the importance of Swiss art and artists at this time.

However, it was not until the 1960s that the Bauhaus reappeared significantly in the public's view, mainly through small exhibitions in commercial galleries, such as *Painters of*

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[123] Garlake points out that there were debates taking place in the post-war exhibiting systems and focuses on the changes in exhibiting groups such as the left-associated AIA and the genteel London Group. She outlines the protagonists in the debate around modernism, abstraction and the school of Paris. In chapter two, entitled 'Benefactors and Bureaucrats: the Art Support System', Garlake's detailed examination of the establishment, the collectors, state patronage, the exhibiting groups, the private galleries and the art publishers, concludes with art education. It would, at some point be worth raising the question as to whether art education was the most inflexible part of the art scene and the last to adopt new ideas. However the debates around modernism have always focused on the artists and movements and not the pedagogies.

[124] Garlake, M. (1998) p.22.

[125] Where it toured exactly is not mentioned in the catalogue. There are two catalogues, one for the National Gallery exhibition, which showed 137 works and 5 photographs from 26 December to 17 February, and one for the touring exhibition, which was compiled from 51 of these works by the Arts Council.

[126] In this exhibition, there was work by among others, Paul Klee, Le Corbusier, Sophie Tauber-Arp and Felix Valotton, there was no work by Lohse and very little geometric painting. The catalogue raised the issue of Swiss characteristics, and the bulk of the work were domestic scenes, landscapes, portraits and loosely Surrealist painting. *From Hodler to Klee: Swiss Art in the Twentieth Century: Painting and Sculpture* (1959) a collaboration between Pro Helvetia Foundation and the Arts Council of Great Britain, London: Tate Gallery and Arts Council of Great Britain.

the Bauhaus, (1962).[127] The major exhibition, which affirmed the Bauhaus' arrival was held at the Royal Academy of Arts, entitled *50 years Bauhaus,* from September 21st to October 27th 1968.[128]

Further books on the Bauhaus appeared rapidly at the beginning of the 1960s; Itten, Albers brought out their works on the *Vorkurs* and colour, whilst Hirschfeld-Mack's *The Bauhaus,* (1963) appeared with contributions from Gropius and Read. Before the end of the 1960s, Scheidig, W. (1967), Naylor, G. (1968), Roters, E. (1969) and Wingler, H. (1969) published works in English directly about the Bauhaus. The steady stream of publications that follow regularly in the 1970s testify to the ongoing relevance of the Bauhaus to modern issues in art, design, art school organisation and teaching.

However, the great debate in the art journals, as evidenced by Patrick Heron's articles in *Studio International,* was the arrival of American Abstract Expressionism to Europe, firstly via Britain. The scale and freshness of the work impressed young British artists. By the mid 1950s American Abstract Expressionism was beginning to be shown in Britain, following the first canvases of Jackson Pollock at the ICA in a group show in 1953 as noted by Patrick Heron.[129] Notably, in 1956, the Tate Gallery presented *Modern Art in the U.S.: A Selection from the Collections of the Museum of Modern Art, New York,*[130] and then reinforced the new interest, in 1959, with *The New American Painting.*[131] The catalogue held an introduction by Alfred H. Barr Jr., a key figure in MOMA and the New York art scene. Both of these exhibitions at the Tate involved the Arts Council in collaboration with MOMA.

By the early 1960s a number of the American painters had come through a college system which espoused Bauhaus ideals, mainly through the émigré artists and teachers who settled in North Carolina, at the Black Mountain College and from 1938 onwards the New Bauhaus in Chicago, where Moholy Nagy was a founding director.[132] The various

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[127] *Painters of the Bauhaus,* (1962) Catalogue of an exhibition held at Marlborough Fine Art Ltd, March-April, 1962, London : Marlborough Fine Art Ltd.

[128] *50 years Bauhaus,* (1968), catalogue of exhibition held at the Royal Academy of Arts from September 21st-Oct. 27th, 1968. It was sponsored by the Federal Republic of Germany and arranged by Württembergischer Kunstverein Stuttgart, London: Royal Academy of Arts.

[129] Heron, P. (1998) 'The Ascendancy of London in the Sixties,' in *Painter as Critic: Patrick Heron: Selected Writings,* edited by Mel Gooding, London: Tate Gallery, p.159.

[130] *Modern Art in the U.S. : A Selection from the Collections of the Museum of Modern Art , New York* shown from January to February 1956, organised by MOMA and the Arts Council of Great Britain.

[131] *The New American Painting* (1959), a collaboration between MOMA and the Arts Council, with an introduction by Alfred H. Barr Jr., London: Tate Gallery.

[132] The Institute of Design, as it became known in 1944, grew a reputation for disciplined experimentation with materials, technology and forms. It established the preliminary course, which incorporated basic design. Serge Chermayeff later became head of the Institute and remained true to the original Bauhaus ideas. This Bauhaus model, adopted by other colleges, led to a decline in the previously dominant Beaux-Arts tradition throughout America.

pedagogies of the Bauhaus therefore reached Britain through a number of different sources throughout the period 1934-65.[133] Whether through exhibitions, publications or personal contact with the émigrés, the impact of these new methods of teaching was measurable in terms of change in the English art school.

1.7 Conclusion

In this chapter I have traced the dissemination of relevant ideas and pedagogy of the Bauhaus to the English art school via personnel, literature, theoretical texts and exhibitions ending in the 1960s. Intermittently interwoven are the contingent concepts of Constructivism, educational approaches and colour theory. As this chapter suggests, I will argue that Cuthbert's work and practice have their roots in these Bauhaus ideas, the emergence of basic design, art college culture, Constructivism, and post-war society.

To this end, I have outlined how Kandinsky, Klee and Itten provide an understanding of Bauhaus teaching, supplemented by ideas from Gropius, Moholy-Nagy, Albers and Gabo. Soviet Constructivism, in the service of society, contributed to the Bauhaus through Kandinsky and Gabo, through the social contribution of art not only in the form of design but also of aesthetics. The ability to change society and the environment, to create new order, is implicit in this.

One of the tenets of basic design pedagogy which can be seen in Itten's writing (and of all the pedagogues' mentioned) was to liberate the innate potential of the individual rather than restrict by imposing techniques, methods and ideas from without, - in essence, education rather than training.[134] This is echoed in Itten's remarks:

> The work they submitted to the Bauhaus was devoid of individual expression. It was difficult to assess the student's potential and character.[135]

Furthermore, the work was to be:

> Genuine... personal growth. Imagination and creative ability must first of all be liberated and strengthened...[136]

This highlights the concepts of individual expression and the journey of experience in contrast to rigorous skill-learning by copying. And while there appears to be a tension here with the stress I have placed on the scientific aspects of basic design or as Yeomans notes that 'the visual arts contained formal elements amenable to objective analysis',[137] the

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[133] Pearce's hypothesis in respect of colour use in American painting is worth noting here: 'that the way colour is used and understood in the mid twentieth century in America relies on the same understanding of colour that was developed in the early twentieth century in Europe'. Pearce (2001), Research Context, p.7.
[134] Maurice de Sausmarez (1964) concurs with this in his views on basic design, section (e), p.12.
[135] Itten (1963) p.7.
[136] Itten (1963) p.8.
[137] Yeomans (1987) Preface, pp.1-14.

common ground is the understanding of the pedagogies as incorporating a valuable element of personal research as process. In effect, the prominence of the learning process, over the finished product can be traced back to the Bauhaus and forward through basic design into the Pre-diploma course and further into the art of the 1960s. This is supported by David Thistlewood's observation about the ideas prevalent in the ICA in the early 1950s:

> Organic development in a work of art is at least analogous to, and probably identical with, organic development in nature; in an organic artistic scheme the essence of art is in its processes rather than its products;[138]

The modes of art teaching and working, evident in the Bauhaus pedagogies, inspired the basic design movement.[139] The émigrés from the Bauhaus and artists who visited Paris in the 1930s encouraged the wider introduction of abstract art, both expressive and geometric, to Britain. However, as I will show, it would be misleading to see basic design teaching alone as responsible for the art of the 1960s and the 1970s.

In this chapter I have argued that the Bauhaus model was radical and exploratory, and was consistent with the move towards the abstract, which the young vanguard of post-war Britain wanted to embrace. Secondly, I have argued that the process dominant methods of teaching helped retain standards of education rather than training. They provided the intellectual rigour which justified the educational standing of art as a tertiary or higher educational subject. In addition, I have highlighted the point that the ideas, art school model, and visiting émigrés came for the most part from Europe rather than North America. Furthermore, I have argued that publications about research into colour came from the centres of culture, firstly France, secondly Germany and thirdly North America. Finally, I have argued that personnel, literature and exhibitions, were the main channels of dissemination, of which art schools were a significant part. It was in this climate that Alan Cuthbert's methods of teaching and creative practice were forged.

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[138] Thistlewood, D., 'Organic Art and the Popularization of Scientific Philosophy,' *British Journal of Aesthetics*, vol.22 (no.4) Autumn 1982, p.317.

[139] Hamilton in 'First Year Studies at Newcastle', when discussing Gropius' Bauhaus and the Vorkurs, in particular the two aspects of joint training for artists and designers and emphasis on technical training and research, comments: 'Between these two poles, both stemming from Bauhaus ideology, there are many attempts to train designers towards a sensitive understanding of form so that now every municipal college of art and design at least pays lip service to Gropius' principles. Design education has changed with a changing world – indeed it has been partly instrumental in that change – but fine art education has stuck in a deeply worn groove.' Times Educational Supplement, (c.1960).

Organicism: the impact of a scientific form and process on art education in Britain 1942-56

This chapter further investigates the context which shaped an artist-lecturer, such as Cuthbert, interested in abstract geometric, process-dominant art and the physical properties of colour. The working premise here is that Cuthbert's work from the early 1960s emerged from an understanding of aspects of basic design and Constructivism, both of which incorporated an 'organicist' or organic-aesthetic element. In order to understand the wider historical context of Cuthbert's process, analysed in detail in Chapter Five, I focus on the way these elements are evident in Britain in the period from 1942 to 1956.

One of the key ideas within basic design is, I argue, organicism, a concept which was seen as central to a progressive art education system in the 1950s and underpinned the introduction of the Foundation course. In this chapter I map the concept of 'organicism' from D'Arcy Wentworth Thompson's book of 1917, and republished in 1942, through Herbert Read's developing critical aesthetic, to ideas inherent in the emergence of basic design. As noted previously, the ICA was a significant venue for Read's ideas, and the Independent Group in the 1950s. Furthermore, this meeting place is important for the dissemination of the emergent ideas of basic design in the later developments in art and art education. In addition, within the ICA, the Independent Group, along with Hamilton and Pasmore, further the linking of science and art through aspects of nature and the machine, which have importance for Cuthbert's work. In this chapter I argue that the emergence of basic design can be seen as one of the major factors that bring about the change in the Pre-diploma course in art schools in the early 1960s. This is important to an understanding of Cuthbert as an artist-lecturer since traces of these concepts are apparent in the development of his paintings and his pedagogical practice.

It may seem curious to return to the early twentieth century to shed light on an artist-lecturer of the 1960s and 1970s, however in this chapter I want to establish that 'organicism' as Read and Thistlewood understood it, did not suddenly appear. Interest in this area of design and form was in circulation from before World War I. This can be established by the study of a few key books published between 1908 and 1917.

As I outlined in the introduction, 'organic' by the early twentieth century had a number of meanings, two of which were 'the processes or products of life', and the agent or instrument as part of a whole. These two are particularly relevant in philosophical terms

and Thistlewood draws attention to them when discussing Read and Lancelot Law Whyte's interest in Alfred North Whitehead's philosophy of science. Whitehead, Bertrand Russell's mentor at Cambridge, whose main interests and publications were on logic, the foundations of mathematics and the philosophy of science wrote:

> The organism is a unit of emergent value...On the materialistic theory there is material...which endures. On the organic theory, the only endurances are structures of activity, and the structures are evolved. Enduring things are the outcome of a temporal process...[1]

By 1925, when Whitehead's *Science and the Modern World* appeared, there was established interest in scientific models, such as those of the biological organism, being transposed into the social sciences or other areas of learning. Whitehead, originally trained in the physical sciences and mathematics, expands his thoughts on these fields into other areas.[2] The parallel interest in form and structure and process in the arts emerges in the biomorphic forms of Gabo for instance. These interests in biomorphic structure and process are echoed in an image in the catalogue of *The Developing Process* and I will show other evidence that they are inherent in basic design, *(fig.10)*. This interest by artists in theories in science marks a shift in view of the world, away from the material and concrete to the structural and relational aspect of the element within a body or system. Whitehead viewed nature as a non-fixed, ongoing system, in 1925 he notes that 'nature is a structure of evolving processes. The reality is the process.'[3] The concept of process is an important one for basic design.

Furthermore, existing histories of British art generally do not take account of this linking of art and science through theory. There is little emphasis placed on the continuing organic thread in British art. Thistlewood has mapped out the territory and Garlake recognises the value of these ideas in Pasmore's and the ICA's interest in D'Arcy Wentworth Thompson.[4]

D'Arcy Wentworth Thompson was a classical scholar, a mathematician and a naturalist. As far as can be ascertained, although Thompson's biological text, *On Growth and Form,* may have made an impact on individual artists in the early decades of the twentieth century, it is only in the 1950s that its impact can be most forcibly seen on a wide range of artists. In part, as I will argue, primarily through the efforts of Herbert Read. Read was the

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[1] A.N.Whitehead, (1926) *Science and the Modern World*, Cambridge: Cambridge University Press, p.135, as cited in Thistlewood's article: 'Organic Art and the Popularization of Scientific Philosophy,' *British Journal of Aesthetics,* vol.22 (no.4) Autumn 1982, p.317.

[2] Another book by Whitehead which is specifically pertinent to the early twentieth century interest in structure, process and biological formation, is *Process and Reality* (1929) New York: Macmillan.

[3] Whitehead (1925) p.90.

[4] Apart from Thistlewood (1982) and Garlake (1998), section headed 'Art and Science' in pp.107-109, a more general survey on art and science can be found in Waddington, C. H. (1969) *Behind Appearance: A Study of the Relations between Painting and the Natural Sciences in this Century,* Edinburgh: Edinburgh University Press.

personality who had perhaps the largest single impact on pre and post-war British art and its institutions.

2.1 Thompson's book

In early twentieth century publications, at a time of great change, it is notable that design and form are explored through scientific eyes, with a direct link back to Leonardo. The most influential study, which has best stood the test of time, is D'Arcy Wentworth Thompson's biological text *On Growth and Form* published in 1917. This held ideas which became directly transferable to art.

Thompson's book is an analysis of biological processes, from their mathematical and physical aspects, *(fig.11)*. As he describes in the introductory chapter 'Of Life Itself':

> My sole purpose is to correlate with mathematical statement and physical law certain of the simpler outward phenomena of organic growth and structure or form, while all the while regarding the fabric of the organism, *ex hypothesi*, as a material and mechanical configuration.[5]

Like its predecessors it drew upon arguments and examples from other disciplines, albeit related ones, although the point is made in the 1963 preface that it lacked a biochemical approach. It is difficult to measure whether this book attracted the interest of artists at the time it was published to a greater extent than previous books, however sections of it have been much quoted since in the justification of artistic process. A second edition appeared in 1942 and there have been many reprints since.

Thompson's thesis was:

> ...that except in extremely rudimentary organisms, physical form is determined by the forces that produce growth and that in every instance this is unique and unpredictable.[6]

The introductory chapter provides the hub of Thompson's argument:

> The terms Growth and Form, which make up the title of this book, are to be understood, as I need hardly say, in their relation to the study of organisms. We want to see how, in some cases at least, the forms of living things, and of parts of living things, can be explained by physical considerations, and to realise that in general no organic forms exist save such as are in conformity with physical and mathematical laws. It is energy in its various forms, known or unknown, that acts upon matter. [7]

Thompson regarded organic form as changing according to the laws of physics and mathematics and focused attention on the agent of change and its effect on the form of matter. Thus an object could be read, as it were, and deductions made regarding the forces

[5] D'Arcy Wentworth Thompson, (1942) *On Growth and Form*, (second ed.) Cambridge: Cambridge University Press, p.14.
[6] Thompson (1942) p.127.

of change. He makes this clear in the following passage, in which appears the phrase, 'diagram of forces', that was quoted later by Richard Hamilton.

> The form, then of any portion of matter....and the changes of form which are apparent in its movement and in its growth may in all cases alike be described as due to the action of force. In short, the form of an object is a diagram of forces in this sense at least. [8]

In effect, the key principles disseminated in this biology book were thus: Form is determined by the forces that produce growth; Form conforms to physical and mathematical laws; the form of an object is a 'diagram of forces'. The simplicity of the statements make them applicable to a wide range of situations from sociology to engineering. Moreover they arose from close observation of the external world through the magnifying glass and the microscope and focused on the abstract quality of form of two dimensions and three dimensions which implies shape and structure.

As I have previously mentioned, Kandinsky in 1911 published *Über das Geistige in der Kunst,* and Klee (1925) *Pädagogisches Skizzenbuch.* Although it can not be assumed that there is a direct causal link between the scientific and artistic development of knowledge, interests of both scientists and artists at this time seem parallel and curiously close. Greater understanding of science and the natural world were contemporaneously developing an involvement with form. Science and the natural world were looked to for models of structure and process. Mathematics in the form of geometry, in terms of nineteenth-century composition, was more familiar ground, as can be evidenced by a study of paintings by Ingres, Gericault and Manet.[9] Composition was a feature of studio teaching in the private academies. The search for an ordering of form pervades a large body of literature, manifestos and educational texts from the first years of the twentieth century. In *Towards a New Art,* Adelman and Compton (1980) map out the thread of mathematics in the first two decades, including the use of grids, (Mondrian, van Doesburg, Delaunay, Marc, Itten, Klee and Kandinsky) and Le Corbusier's use of subtle grids on paintings and architecture, - 'tracées regulateurs'. As they state:

> It was believed that the effect of great art had always been due to its underlying geometry and that the naturalistic figures and objects which have obscured that geometry were merely superfluous elements, concealing the inherent order of the work and thus detracting from its true impact. ...Similar analysis was undertaken by Hoelzel and was a required part of Johannes Itten's Basic Course at the Bauhaus in Weimar...It was the man-made, abstract structure of a composition, rather than the

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[7] Thompson (1942) p.15.
[8] Thompson (1942) p.314.
[9] The use of geometrical composition, division of the rectangle and the Golden section can be observed in such examples as *The Oath of the Horatii* (1784) by Jacques Louis David, *Bather* by Ingres (who had worked in David's studio), *The Raft of the Medusa* (1819) by Théodore Géricault, *Liberty Leading the People* (1830) by Delacroix, *Olympia* (1863) and *The Balcony* (1869) by Manet.

> naturalistic representation, that was significant and this in turn was held to have been the universal language of art. [10]

Geometry, Grids and the Golden Section inform a body of art from Juan Gris and Klee, for example, to Vantongerloo and surround debates of the De Stijl group.[11] Mondrian, and a number of artists viewed nature as a transcendent order beyond the merely physical, anchoring it in a spiritual realm, in line with Romantic thinking. However, it is the concept of nature as biological and mathematical truth which is at the crux of these discussions for artists. Nature as that which appears outside ourselves, but to which we are biologically connected. The ordering of nature by scientist and artist alike reflect the desire for control over the external world - the classical precept, which we can trace back to Plato's 'eidos', the concept of perfect form.

Hamilton, certainly, later strongly identified with Thompson applying, by analogy, the statement 'any portion of matter' to a work of art, as a 'diagram of forces'.[12] In doing so he implied that a work of art is an organic object. Thompson lays out his ideas on morphology thus:

> Morphology is not only a study of material things and of the forms of material things, but has its dynamical, under which we deal with the interpretation, in terms of force, of the operations of Energy..... the spermatazoon, the nucleus, the chromosomes or the germ-plasma can never act as matter alone, but only as seats of energy and as centres of force. [13]

Thompson's discussion of organisms is particularly relevant here. In a later chapter there is a passage about breaking down an organism into its component parts for study: body, skeleton, limbs, whereas in fact, he argues, that it all exists as one integral and individual whole:

> The biologist, as well as the philosopher, learns to recognise that the whole is not merely the sum of its parts. It is this and much more than this. For it is not a bundle of parts but an organisation of parts, of parts in their mutual arrangement, fitting one with another, in what Aristotle calls 'a single and indivisible principle of unity; [14]

Thompson links this 'principle of unity' with Goethe's law of 'compensation' or 'balancement of growth':

> ...where sometimes a knowledge of form leads us to an interpretation of forces, and at other times a knowledge of the forces at work guides us towards a better insight into form.[15]

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[10] Adelman, L. & Compton, M. (1980) 'Mathematics in Abstract Art' in Adelman, L. & Compton, M. (1980) *Towards a New Art: Essays on the Background to Abstract Art 1910-20,* London: Tate, p.87.
[11] Klee (1925) *Pädagogisches Skizzenbuch* mentions Euclid's Golden Section in section 1.7. and his paintings frequently refer to plant biology and music.
[12] Thistlewood (1982) p.314.
[13] Thompson (1942 edition) p.19.
[14] Thompson (1942 edition) p.1019.
[15] Thompson (1942 edition) p.1019.

The 'interpretation of forces' upon an organism can be transposed to readings of art works, as can concepts of 'balancement of growth' and 'principle of unity' in aesthetic or formalist criticism. However, there are no evident examples of this until the 1950s.

In chapter XIV, 'On Leaf Arrangement, or Phyllotaxis', Thompson discusses the form and growth of plants, in particular the logarithmic spirals of sunflower heads and pine cones, the regularity of nature, the Fibonacci series, the *sectio aurea* or Golden Mean of unity. He suggests that the Golden Mean is not new in its application to biology and art-criticism and cites Sir Theodore Cook in *The Curves of Life*, among others, as an instigator.[16]

However, there are a number of books in the early twentieth century which deal with these ideas. The first in 1908 by J. Bell Pettigrew entitled *Design in Nature* is in three volumes. Its title page reads:

> Illustrated by spiral and other arrangements in the inorganic and organic kingdoms as exemplified in Matter, Force, Life, Growth, Rhythms etc., especially in Crystals, Plants and Animals. With examples selected from the Reproductive, Alimentary, Respiratory, Circulatory, Nervous, Muscular, Osseous, Locomotory and other systems of animals.[17]

Among these topics it has superb illustrations of cell biology, which are notable for their abstract qualities and would have appeared startling to the average reader of the time.[18] Atoms, molecules and cells as factors, [19] the development of the human embryo and foetus, protoplasmic, amoebic and other movements all help to establish the mediated view through the microscope as ordinary.[20] In addition, 'Lodestone, lines of force' adds to the broad range of topics. [21]

This interest in nature, form and biology is confirmed by the publication of another book a few years later, *Nature's Harmonic Unity: a Treatise on its Relation to Proportional Form* by Samuel Colman, edited by C.Arthur Coan, published in New York in 1911.[22] This covered the areas of biology, natural history, and mathematics. This was followed in 1914 by Theodore Andrea Cook's more visually accessible *The Curves of Life*, subtitled: *An account of spiral formations and their applications to growth in Nature, to Science and to Art, with special reference to the manuscripts of Leonardo da Vinci. (fig.12).* As well as the mention of Leonardo, the illustrations testify, in the production of the book, to a visual

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[16] Cook, T. A. (1914) The Curves of Life: An account of spiral formations and their applications to growth in Nature, to Science and to Art, with special reference to the manuscripts of Leonardo da Vinci, London: Constable and Son.
[17] J. Bell Pettigrew (1908) *Design in Nature*, London: Longmans, Greens and co., title page.
[18] J. Bell Pettigrew (1908) plate LX, p.144.
[19] J. Bell Pettigrew (1908) plate LIX, pp.142-143.
[20] J. Bell Pettigrew (1908) p.322.
[21] J. Bell Pettigrew (1908) p.106-111.
[22] Samuel Colman, (1911) *Nature's Harmonic Unity: a Treatise on its Relation to Proportional Form* edited by C.Arthur Coan, New York: Putnam and Sons.

awareness which is beyond the average scientific tome. In the course of the investigation it links shells and spiral staircases, phi, sunflowers, brooches from Hallstadt, violin heads, protozoa, bones, and horns, climbing plants, swastika symbols, seedpods, plant growth, and pinecones to Fibonacci ratios and left handed and right handed spirals *(fig.13.)*

Cook's well-illustrated volume was known to Thompson, and at the beginning of the chapter, 'On Leaf Arrangement, or Phyllotaxis', Thompson refers to Cook's discussion of Leonardo da Vinci, who he perceived as the first to record his thoughts on 'the beautiful configurations produced by the orderly arrangement of leaves or florets on a stem.' Thompson, however, ascribes this to the Greeks and Egyptians.

Thompson's thesis examines in a scholarly manner all the European scientists (many of whom were German), who have contributed to this area, including his contemporaries. He is careful to dissociate himself from the non-scientific, in particular, what he terms the organic mystery or the mystical biology of Oken and his school.[23] Far from claiming that all organisms follow the Golden Mean and the Fibonacci series slavishly in matters of growth and form, Thompson is at pains to point out that the evidence is there for some forms but that in other studies proof has been misconstrued.

> We come then without more ado to the conclusion that while the Fibonacci series stares us in the face in the fir-cone, it does so for mathematical reasons; and its supposed usefulness, and the hypothesis of its introduction into plant structure through natural selection, are matters which deserve no place in the plain study of botanical phenomena. ... all such speculations as these hark back to a school of mystical idealism. [24]

This clarity of vision, and resistance to a sweeping mathematical formula to the growth and form inquiry, is perhaps why Thompson was respected by the Independent Group at the ICA. His scepticism of the universal and his empiricism ensured his legacy and relevance to the younger generations in the 1950s.

The move toward growth and form is also evident in the writings of Heinrich Wölfflin, the major art historian of the time. In *Principles of Art History,* published in 1915, Wölfflin claims there is an underlying mechanism of development:

> Stylistic development is subject to natural law in the same way as biological growth is; its transformations obey an 'inward necessity' and represent the unfolding of a rational psychological process.[25]

Note that Wölfflin mentioned biological growth in the same sentence as stylistic development and does not 'inward necessity' recall Kandinsky's phrase 'a work of art is an outward expression of inner necessity'? Evolution, and organic are scientific terms which

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[23] Lorenz (Okenfuss) Oken (1779 - 1851) published his *Naturphilosophie in* 1809. His theories about life were romantic. Oken published the journal *Isis* and founded theosophy.
[24] Thompson (1942) p.933.

towards the end of the nineteenth century seem to slip into art terminology as do models of scientific theory from areas such as biology, physiognomy and physics.[26] There was a belief that an understanding of the workings of the brain and the psyche were crucial in the understanding of perception, creativity and vision, which forms part of the modernist project. This occurrence of scientific language in the art criticism of the early part of the century is scarcely covered in books on art and science. Form is also a word which becomes significant in writing on art at this time as in the case of Clive Bell.[27] The word 'Form' suggests architectural structure, chemical, biological and physical materiality, at a time when progress in science was moving more swiftly than ever before. Progress in art and technology were equally fast.[28]

It would be too simple to surmise that scientific language in art writing around the First World War is the signal of the advent of scientific ideas in art and art criticism. Terms change and new areas open up gradually constructing their own specialist language. The ground between art and science, expression and research, had been pioneered in the modernist era by the developments of Eugene Chevreul and the paintings of Seurat. The main fields of research were colour and vision, and the unconscious. Prior to this, various artists such as Vermeer had used science and technology to explore vision as David Hockney's recent research has confirmed.[29] Similarly, Einstein's theory of relativity is said to have affected Cubism.[30] In short, artists do not work in a vacuum. Thus, in the 1950s Thompson's biological text, enlarged and republished in 1942, made an impact on artists primarily through the 1951 symposium Herbert Read organised at the ICA. The coming together of art and science at this gathering had a resounding effect on post-war British art and its institutions. It was also become an important source for Cuthbert's concern with process, science and the organic concept.

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[25] Wölfflin (1915) *Principles of Art History*, (1950 edition) p.146.

[26] 'Organic' is examined in the introduction of this thesis under usage of terms. Williams notes that 'evolution', as a term moves from natural history to social history, and firstly with Darwin came to incorporate natural selection and shift the meaning of inherent design. A metaphor for growth, it has come to be used in contrast to revolution. Williams, R. (1988) pp.120-123.

[27] 'Significant form' was a term coined by Clive Bell in 1913 to describe the essential quality of a work of art, which evoked a particular 'aesthetic emotion'. 'Significant form' included colour. See Bell, A.C.H. (1914) *Art*, London and New York: Chatto and Windus. For further discussion, see Warburton, N. (2003) *The Art Question*, London: Routledge, Chapter One, pp.9-35.

[28] According to Williams, 'technology' in the seventeenth century meant a systematic study of the arts, and in the mid nineteenth century that it specialised to the practical arts. The new sense of science in opposition to arts emerging in the nineteenth century, redefines technology as the practical application of knowledge. Williams, R. (1988) p.315. I use this to support the idea that the shift in the meaning and use of biological terms, such as 'organic' is significant.

[29] Hockney, D. (2001) Secret Knowledge: rediscovering the lost techniques of the old masters, London: Thames & Hudson.

[30] Waddington, C.H. (1969) *Behind Appearance: A Study of the Relations between Painting and the Natural Sciences in this Century*, Edinburgh: Edinburgh University Press. Waddington, as an animal geneticist, lectured at the ICA symposium in 1951, *Aspects of Form*.

2.2 *Thistlewood's organicism*

In 1982 David Thistlewood,[31] the critic most acquainted with basic design, published an article in the *British Journal of Aesthetics* in which he drew together a number of themes which he argued had been clearly influential in 1950s and 1960s British art and art education.[32] In the previous year, 1981, Thistlewood had curated the exhibition, *A Continuing Process,* at the ICA, London,[33] which looked back to an earlier survey of the work of Hamilton and Pasmore and basic design, *The Developing Process,* at the ICA, and Kings College, Durham University (1959).[34]

In the 1982 published article 'Organic Art and the Popularization of a Scientific Philosophy',[35] which he calls 'a report on the selective appropriation of a scientific philosophy and its eventual popularisation in the field of art education', Thistlewood refers to a large number of prominent 1950s artists who had coined the term 'organic' when referring to their work. This did not mean they were artists of nature. Instead, according to Thistlewood, this 'organic' label helped justify the following:

> ...a way of working in which images or forms would appear to develop and to gain their ultimate characteristics, with little specific pre-intention on the part of the artist, during the process of creative activity. And for others it signified that their works, considered as chronological successions, constituted 'time-lapse' recordings of their evolving creative awarenesses.[36]

Thistlewood cites Richard Hamilton's work as an example of the first kind of 'organicism'.[37] The mark accumulated in a considered relationship between each mark, its predecessors and the boundary, (i.e. rectangle or frame), but each step had to contribute to the growth of an idea. For Thistlewood, this was a move away from the traditional format of preliminary pictorial composition through sketches and cartoons, in preparation for the execution of the final piece and thus a move away from 'specific pre-intention'.

Thistlewood defines the second kind of 'organicism' as validated by the gradual, but traceable change apparent in an artist's works, from work to work.[38] This was identified as *'progress'*. This progress within the artwork itself, and the progress through a series,

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[31] Thistlewood taught at Liverpool University, and died in 1987. He published on Read, basic design, art education and organicism.

[32] Thistlewood, D., (1982) 'Organic Art and the Popularization of Scientific Philosophy', *British Journal of Aesthetics,* vol.22 no.4, Autumn 1982. National Arts Education Archive, Bretton Hall, no.DTBK 00003.

[33] *A Continuing Process,* (1981) exhibition catalogue, ICA 1981, London: ICA.

[34] *The Developing Process,* (1959) exhibition catalogue, ICA April-May 1959, London: ICA.

[35] Offprint from *The British Journal of Aesthetics* vol.22 no.4, Autumn 1982, DTBK 00003, Bretton Hall Archive.

[36] *British Journal of Aesthetics* vol.22 no.4 Autumn 1982, p.311. This is reminiscent of Whitehead's concept of 'actual occasions', or windows on the world, through which we experience it, an event being a 'nexus of actual occasions'. Whitehead (1929) p.113.

[37] *British Journal of Aesthetics* vol.22 no.4 Autumn 1982, p.311. Thistlewood, in his (1978) PhD in (ch.5) points out that Hamilton was producing 'organic paintings' in 1950-51 before Read's symposium at the ICA promoted D'Arcy Wentworth Thompson's views.

[38] Thistlewood (1982) pp.311-312.

constitutes change. For Thistlewood, Victor Pasmore's work during the five year period from 1949 to 1954 provides an example of this particular model, *(fig.14)*. Here, Thistlewood argues that Pasmore's research into the elements of a painter's vocabulary take him through a plethora of materials, formats, surfaces, and media (both two dimensional and three dimensional), breaking at various times the flatness and rectangularity of painting.[39]

Thistlewood 's two definitions of organicism constitute a useable theory for the organic element in art process of the 1950s in Britain, and he rightly surmises this develops from Thompson's influence, through Read and the ICA.

The term 'Organic' has clearly shifted in meaning since the 1950s, for example in common contemporary usage, it often means natural, or untainted. In opposition to which 'scientific' can imply contrived, or meddled. However, 'Organic' to the 1950s generation still carried a sense of geometry or perfect form, even if examples of this form were damaged or decayed. This sense is recognised by emphasis on formal symmetry and structural regularity as Thompson points out in the following:

> ...Symmetry is highly characteristic of organic forms and is rarely absent in living things – save in such few cases as Amoeba, where the rest and equilibrium on which symmetry depends are likewise lacking. And if we ask what physical equilibrium has to do with formal symmetry and structural regularity, the reason is not far to seek, nor can it be better put than in these words of Mach's: 'In every symmetrical system every deformation that tends to destroy the symmetry is complemented by an equal and opposite deformation that tends to restore it. In each deformation, positive and negative work is done. [40]

This view of the structure of organic form embodying symmetry, geometry and equilibrium, feeds directly into compositional studies in art education in the 1950s. By emphasising this link with Thompson, Thistlewood in his article shows Pasmore and Hamilton to have absorbed this 'organic' concept, approaching it differently but stemming from the same sources.[41] The sources for this were 'scientific', that much is established by Thistlewood.[42]

In addition, Thistlewood also highlights that within Thompson there is an element of process, which is taken up by Hamilton and Pasmore. In biological terms, organic process suggests a process of growing onto what is already there, and by the laws of biology, growth according to a pattern, even a mathematical formula, as in the Fibonacci series of

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[39] Thistlewood (1982) p.312.
[40] Thompson (1942) p.357.
[41] Thistlewood (1982) p.314.
[42] Thistlewood (1982) p.313. However, the 'organic aesthetic', which Thistlewood applies to Hamilton and Pasmore, and links to basic design teaching, is problematic in its understanding of 'organic'. Is Thistlewood understanding organic to imply an underlying perfect form, a pre-set agenda, an initial template, or an aimless growth, which becomes a '*diagram of forces*'?

numbers. Thistlewood's paper refers to process, but there is a question mark over whether what he is describing is an organic process according to the laws of biology. Note the word 'aimlessly' in the following paragraph concerning Pasmore or an artist's process:

> Complex, unanticipated effects had resulted from a simple, self-propelling process. Their 'unfolding' or 'emerging' gave an example of how in principle, a creative sensibility might expand 'organically', that is to say, aimlessly, in the sense of having no larger goal beyond each temporary objective. Pasmore's was a stage by stage development, offering an extensive sequence of incremental gain. Paradoxically, the other kind of organicism, typified in Hamilton's painting, afforded much smaller ranges of resulting works, each of which, however, was an embodiment of considerably more complex development.[43]

Thus, whilst Thompson's influence on 1950s and 1960s art and art education is highlighted in Thistlewood's 1982 text, it also raises the cultural shift in the meaning of the word 'organic' between 1951 and 1982. Consequently, the radical impact of the term 'organic' via Hamilton and Pasmore's pedagogy has become devitalised.

2.3 Thistlewood's reassessment of Read

The understanding of Thistlewood's use of organic can be further examined by his writing on Read, whose importance to British art through out this period is indisputable. Thistlewood extols Read's contribution to British art in his PhD.[44] When talking about Read's development, Thistlewood hints at the allegory of a plant adjusting to its conditions, however Thistlewood uses the phrase: '...revision and change and no obviously predetermined goal, provides one reason for describing Read's aesthetic as 'organic'.'[45]

However, throughout Thistlewood's writing the 'organic aesthetic' remains ambivalent. Read's aesthetic may not have had a predetermined goal and an artwork can develop with no pre-set agenda, but a plant does have a predetermined goal, in the pattern of its creation, its perfect form: in its DNA, - its genetic fingerprint; a geranium over the years cannot become a mimosa tree, whatever the conditions of growth. This is a sticking point in understanding Thistlewood's theory, which signifies a shift in the meaning of the word 'organic' from Thompson's clear cut biological definition to the present day use.

Thus to summarise the concept of organic before moving on to Read's contribution: from D'Arcy Wentworth Thompson, Read, Hamilton and Pasmore and Thistlewood's writings we arrive at 'form determined by growth' which places an emphasis on process rather than end result. The artwork at any one stage is a diagram of the forces acting on it; that things

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[43] *British Journal of Aesthetics,* vol.22 no.4, Autumn 1982, p.313.
[44] Thistlewood, D. (1978) 'Dialectical Organism', unpublished PhD., Liverpool University May 1978. This study laid the foundation for Thistlewood's subsequent writing.

grow organically, not premeditated but step by step, either according to physical and mathematical laws (Fibonacci, Golden Mean) or asymmetrically (Amoeba).

A significant part of Thistlewood's mapping of the route from organicism to basic design, focuses on the work of Read, which includes the development of Read's critical philosophy. In 1998 Thistlewood contributed two articles to *Herbert Read Reassessed* edited by David Goodway. In the second of these essays, Thistlewood outlines his approach as follows:

> In order to appreciate Read's theorising about the contemporary art of his direct experience we must observe it over its fifty year unfolding. The way in which it developed by distinct stages, with periodic consolidation, revision and change and no obviously predetermined goal, provides one reason for describing Read's aesthetic as organic.[46]

While Thistlewood makes the point that Read's aesthetic was eclectic and complex, he argues that Read was adapting and adjusting his main theme throughout his long and influential career. In the first of these essays, reprinted and published in the *British Journal of Aesthetics* as 'Organic Art and the Popularization of Scientific Philosophy' Read's aesthetic is explored. Thistlewood asserts the idea of the organic as a long running theme in Read's writing and lectures on the nature of good art and creativity, as the following line shows:

> What pleases the senses? Good form. Our model for good form? Why nature itself.[47]

Since the concept of biological formation and the organic have such an impact on later ideas of artworks as growing into a whole, a diagram of forces, and projects in art teaching which have no 'pre-determined goal' or no pre-set agenda, it is important to examine the recent genealogy of this concept. At this point it is useful to summarise Thistlewood's view of Read's 'Organic Aesthetic' (as Thistlewood calls it), a term which sounds quite restrictive and contrary to Read's championing of a diverse range of artists from Surrealism to Constructivism. According to Thistlewood the tracing of Read's unfolding aesthetic through its clear stages demonstrates how his theorising about the art of his time brings him to revise and adjust the aesthetic.

In the essay cited above, entitled: 'Herbert Read's Organic Aesthetic: [1] 1918-1950', Thistlewood establishes Read's interest in German scholarship, – classical idealism, Goethe and his expertise in German historical manuscripts (through his civil service post

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[45] Thistlewood, D. 'Herbert Read's Organic Aesthetic: [I] 1918-1950' ed. by David Goodway (1998) in *Herbert Read Reassessed,* Liverpool: Liverpool University Press, p.215.
[46] Thistlewood, D. (1998) ed. by David Goodway, p. 215.
[47] Read, Herbert, (1943) *Education Through Art*, London: Faber, p.31.

at the department of Ceramics at the Victoria and Albert Museum). In addition, Read edited T. E. Hulme's literary papers. Hulme had defended abstraction in Constructivist British art in the libertarian socialist paper *New Age* and used theories of 'empathetic identification' from the German art historians and theorists Riegl and Worringer, in whom the German Expressionists, including Kandinsky, were also interested.[48] Moreover, Read was a member of the Leeds Art Club, which provided a forum of debate, and whose patron was an enthusiastic collector of modern paintings, including those of Klee and Kandinsky. This patron, Michael Sadler had also translated Kandinsky's *Über das Geistige in der Kunst* into English.[49]

Whilst at the Victoria & Albert Museum, Read had frequently travelled to Germany and, as Thistlewood notes, had certainly visited the Bauhaus in Dessau. In 1931 he became Professor of Fine Art at Edinburgh and in an open 'Proposal for a Scottish Philanthropist' (undated) had called for funds to set up a Bauhaus in Edinburgh.[50] It is also fair to assume that Read would have consulted with Walter Gropius, Kandinsky, and Moholy Nagy on the setting up of this new venture, especially since the approaching political crisis in Germany would have made them available, potentially as teachers. The project however was never realised. Through Read's knowledge of German culture, his contacts with Germany, and the artists of the Bauhaus, Thistlewood argues that the thread of abstraction, Constructivist and organic in Read's thinking came through these routes. In addition to his interest in the Bauhaus as a model institution, Read was also accommodating to the Bauhaus artists who fled Germany at this time and arrived in England.[51] As Thistlewood notes, this was important in the emergence of basic design and in the changes which occurred in the English art school at the start of the 1960s.[52] The key venue for the dissemination of organic and scientific ideas for artists of this period was the ICA.

2.4 *The ICA and the Independent Group*

There are three main events which are important to the emergence of basic design in Britain. The first is the nation-wide Festival of Britain in 1951 which displayed the work

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[48] Hulme, Thomas Ernest, 'Modern Art I', *New Age*, vol.14, no.11 (15 January 1914), p.341; and vol.14, no.21 (26 March 1914), pp.661-662, as cited in Thistlewood (1998) pp.215-231.

[49] Sadler was elected to the Consultancy Council of the Society of Education in Art alongside Read and William Johnstone.

[50] Read Archive, document no.37/55, British Columbia, University of Victoria, (n.d. [1932]) as cited in Thistlewood, footnote, p.229.

[51] Gropius and Moholy Nagy had stayed in Hampstead on their way to the USA.

[52] Thistlewood (1982) p.313. Read's involvement in the ICA became a platform to elaborate his organicist ideas. Thistlewood notes that the related concepts of organicism inspired a number of artists. These centred around the ICA and included, William Turnbull, Eduardo Paolozzi, Reg Butler, Alexander Calder, Patrick Heron, Hamilton, Pasmore and Kenneth and Mary Martin. Many of whom are later teaching on basic design courses at Leeds, Newcastle, Central and Goldsmiths. 'The ICA thus promoted an organicist *identity* of nature, mind and art.' Thistlewood (1998) p.238.

of a large number of British artists and designers, including Kenneth and Mary Martin, Hamilton and Pasmore. Its main arena, the South Bank Exhibition, became a populist magnet and symbol of the end to wartime austerity.[53] Among artists contributing were Kenneth and Mary Martin, Victor Pasmore, and Alison and Peter Smithson, who subsequently became Independent Group members.[54] The second, and more important event was the setting up of the ICA in 1947. Both Garlake and Massey have confirmed the importance of the ICA as a venue for artistic discussions and the instigation of change during the 1950s.[55] The third event is the formation of the Independent Group, which has been researched in detail by Massey. Much of Massey's research into the Independent Group is pertinent to the development of the 'organic aesthetic' which I see as contingent to the systems art of the 1960s and 1970s. In this context, I will identify and discuss the key events in terms of their relevance to the ongoing debates surrounding the thread of an 'organic aesthetic' in the 1950s.

The key publication on the Independent Group is Anne Massey's book, *The Independent Group: Modernism and Mass Culture in Britain 1945-59.* Massey begins chapter one by focussing on the Welfare State culture and the restructuring of culture, society and institutions after the war. She outlines the attitude towards modernism and its allegiance as radical art to leftwing politics. The Group, *Unit One*,[56] as the model for this, incorporated artists, designers, architects and writers. However, as Massey points out, the *Abstract and Concrete* exhibition organised by Nicolete Gray (Mrs Basil Gray) in 1936;[57] the influx of émigrés throughout the thirties; and in 1937 the resultant publication of *Circle* confirmed the involvement of designers and architects in the field of abstract art and politics in Britain.[58] The post-war conditions and rebuilding looked ripe for some of the utopian ideals to be realised. The founding of the Welfare State was a step in that direction. Nonetheless, as Massey points out the vision of modernist reconstruction never became a reality due to the following factors:

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[53] Although post-war rationing ended as late as 1954, and Eden succeeded Churchill in 1955.
[54] The festival also involved 20 architects and a large number of sculptors.
[55] Set up in 1947, the ICA was inaugurated in 1948 by Herbert Read, Roland Penrose, Eric Gregory, Edward Mesens (London Gallery), Peter Watson, Robert Melville and Geoffrey Grigson (critics), J.B.Brunius (filmmaker) George Hoellering (proprietor of the Academy Cinema), joined by J.M. Richards of the Architectural Review and Doug Cooper (collector and historian) see Garlake (1998) p. 20. Also Massey, A., (1995) *The Independent Group: Modernism and Mass Culture in Britain 1945-59*, Manchester & New York: Manchester University Press.
[56] *Unit One,* announced by Nash in 1933, was a group of 11: Nash, Moore, Wadsworth, Coates, Hepworth, Nicholson, Bigge, Burra, Armstrong, Lucas, Hillier (who replaced Frances Hodgkins). It fell apart within two years over the divisive issue of abstraction.
[57] Gray, N. (1936) *Abstract and Concrete: an international exhibition of Abstract painting and Sculpture Today,* arranged by Mrs Basil Gray at the Axis Gallery, April 1936, London: Alex. Reid and Lefevre. 'The exhibition was staged at Oxford, Cambridge, Liverpool and London and showed the work of Moore, Hepworth, Nicholson, Piper and Holding alongside the European artists: Calder, Gabo, Hélion, Leger, Miro, Moholy-Nagy and Mondrian.' See Spalding, F. (1986) *British Art since 1900,* London: Thames & Hudson, p.112

> Britain's weakening position on the world stage coupled with America's ascendancy. Britain was shattered by the war and the period of reconstruction, which lasted well into the 1950s created an atmosphere of insularity and xenophobia.[59]

The major point here is that Britain was slow to accept modernism, as the incident over William Gear's painting reflects. Gear was the fifth prize-winner in the Festival of Britain exhibition of Fine Art called *Sixty Paintings for 51*.[60] The competition had been arranged to stimulate quality and quantity in British art and for future display in new public institutions: hospitals, schools, universities and public buildings. In order to encourage large scale painting the Arts Council offered free canvas. The response to the modern and international aspect of British art is symbolised by Gear's painting, *Autumn Landscape*. A two month long debate on the letter pages of the *Daily Telegraph* and press vitriol created a notoriety about the painting which resulted in a question being raised in the Houses of Parliament. As Massey notes:

> From the letters of complaint it was the international, modern nature of the work which so many found objectionable. The exhibition attempted to integrate Festival of Britain policy with that of the Arts Council by promoting wholly British culture. None of the contributing artists had spent as much time abroad as Gear had done. Gear had returned to Britain only during 1950 after spending three years painting and exhibiting in Paris...[61]

Fine art was only a small part of the regenerating festival, the emphasis was on design and the Council of Industrial Design designated the official style for the Festival of Britain as the 'Contemporary'.[62] The theme of molecular biology was chosen by the Council for the Festival Pattern Group. This consisted of twenty eight British manufacturers who based textile prints, light fittings, glass and ceramics on crystal diagrams. As Massey notes, the notion of using crystal structures was inspired by Dr Kathleen Lonsdale's book, published in 1948, on the subject, *Crystals and X-Rays*.[63] Judging by the response to this theme, which was embraced by the designers, it caused much less controversy to use new forms in architecture and design, which were aligned to biology, chemistry and scientific imagery, than to embrace European modernism in the form of abstract painting.

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[58] *Circle* was a collection of essays and photographs containing contributions from architects, designers and artists, including Gabo's 'The Constructive Idea in Art.' Many links had been forged through the *Abstract and Concrete* exhibition. Martin J.L., Nicholson B., Gabo N., (1937) *Circle,* London: Faber and Faber.

[59] Massey (1995) p.5.

[60] *Sixty Paintings for 51* (1951) catalogue of exhibition of fine art organised by the Arts Council of Great Britain for the Festival of Britain in 1951, London: Art Council of Great Britain.

[61] Massey (1995) p.16.

[62] *The Festival of Britain 1951* (1951) the official book of The Festival of Britain, published by HMSO and Lund Humphries & Co. The festival and its travelling exhibitions, one by ship and one by a fleet of lorries, were divided into three main sections: 'The Land of Britain', 'Discovery', and 'The People at Home'. The growing awareness of the mass appeal of art and design is marked by their being an inherent part of the presentation and display.

[63] It was published by G.Bell and Sons in 1948 and a paper read at Girton College, Cambridge, in 1949. Massey (1995) p.11.

On the one hand, architects and designers were being encouraged to use a new language of biology, crystals or microscopy,– since the theme was 'Contemporary', on the other hand modernism in fine art caused press vitriol and public complaint. As Massey has implied, modernism was perceived as un-British. Painting was comfortably accepted if it was 'Slade-style': Claude Rogers, the safest of the five who won the prizes, of 500 pounds each, alongside William Gear, was the perfect example of the un-contemporary. The more liberal attitude in reception towards the designers reflects a sympathy with their usefulness in contributing something more tangible to the post-war society. Art Nouveau had relied on natural form, tempered of course by function, and this may have set the precedent for some of the designers. However, it is more than likely that architecture and design were seen as more useful in the rebuilding programme, and were viewed more leniently. Whereas, in contrast, the fine artists and their public were seemingly unused to embracing the new. Here was a discipline of artists and critics restricted by its history.

Massey aligns this prevailing attitude to issues about the 'face of Britain'. As she notes:

> The 'face of Britain' in 1951, depended largely for its security on traditional values of the past to cope with the future. ...appropriate styles in art and design, were reworked from Britain's past. This trend dominated British culture during the first ten years after the war, and may partly explain the apparent unpopularity of the ICA in their single-minded promotion of European modernism.[64]

Here Massey also refers to 'the xenophobic atmosphere of the Festival of Britain'. The issue of British identity is key to the debate surrounding the modern art of the period. The progressive element in art, design and architecture is well represented in the works of the festival, in the shape of the organic, the biological or scientific. Three major pieces of evidence for this are: the selected theme of molecular biology for the Festival Pattern Group;[65] Victor Pasmore's mural outside the Regatta Restaurant at the South Bank, (which was not traditional, but is reminiscent of Klee or organic structures); and Powell and Moya's Skylon tower which, according to Garlake is 'the most highly acclaimed and compelling image of the entire Festival'.[66] The Skylon tower and the Dome of Discovery were the symbolic magazine images of its futuristic architecture.[67] This type of work fits definitions of modernism in that it deals with modern life, contemporary scientific theories and reflects the technology and aspirations of the moment. Certainly the Festival of Britain was looking forward to salvation from the horrors of the past by means of a progressive symbol. These progressive themes, based in nature, science and neutral issues appealed in constructing a new and progressive British identity. However, the future needed to be

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[64] Massey (1995) p.17.
[65] Lucienne Day's textile design *'Calyx'* referred to in the previous chapter, *(fig.5)* was done in response to the set theme, although, in fact a calyx is the outer case of a bud or flower.
[66] Garlake (1998) p.219.
[67] *Festival of Britain 1951* (1951) for details of the Dome of Discovery, pp.6-7.

structured and organised, and what the incident with Gear's work conveyed was the shock value of expressive paint work which highlighted the individualist artist. Reconstruction would come from group effort and those concerned with society rather than the artist looking inwards. Abstract art could more easily be accepted through Constructivism which always had close links with architects and designers, as is evident in *Unit One* and *Circle*.

2.5 'Aspects of Form'

However, the most significant vehicle for dissemination of the 'organic aesthetic' was the ICA symposium in 1951, entitled 'Aspects of Form', organised by the physicist, Lancelot Law Whyte and supported by Herbert Read, the ICA director. Read encouraged the artists to make connections with theory and was able to provide the contact with scientists, some of whose theories were applicable to the process of constructing or creating an artwork. Read collaborated with Lancelot Law Whyte, on a theory of scientific and artistic creativity. Contributors to the symposium, included nine eminent scientists and two art historians who dealt with the significance of visual form and debated ideas on 'organicism'.[68] The symposium included such speakers as the psychologist, Konrad Lorenz, the animal geneticist C.H.Waddington, the art historian, E.H.Gombrich, and Anton Ehrenzweig, who gave a lecture entitled 'Gestalt-free perception and creativity.'[69] Richard Hamilton, who had been introduced to the ICA and to the work of D'Arcy Wentworth Thompson by Nigel Henderson, had been planning an exhibition with these themes in mind. After some negotiation, and a committee, (since the ICA members were loathe to trust a young student from the Slade), Hamilton organised an exhibition, entitled *Growth and Form,* in conjunction with the symposium.

In the catalogue accompanying the symposium Read quoted D'Arcy Wentworth Thompson's book:

> I know that, in the material study of things, number, order and position are the threefold clues to exact knowledge.

Furthermore, Read added:

> Knowledge of form is the key to understanding not only in science but also in art. The invention of new optical machinery has extended the scientists knowledge of form and revealed to the artist a new visual environment, 'a new landscape' as Gyorgy Kepes has called it.[70]

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[68] The contributors were: R.Arnheim (psychologist); H.B. Cott (biologist); A.Dalcq (human-anatomist); Anton Ehrenzweig (art theorist); E.H.Gombrich (art historian); C.C.L.Gregory (astronomer) F.G.Gregory (plant physiologist); S.P.F.Humphreys-Owen (crystallographer); Konrad Lorenz (psychologist); J. Needham (biochemist); C.H.Waddington (animal geneticist); and W.G.Walter (neurologist).

[69] Ehrenzweig, A. (1953) *The Psycho-analysis of Artistic Vision and Hearing,* London: Routledge & Kegan Paul.

[70] Kepes, Gyorgy (1956) *The New Landscape,* Chicago: Theobald, and the earlier: (1949) *The Language of Vision,* Chicago: Theobald.

Read, as the Director of the ICA, wrote the preface to the catalogue of papers and photos, which were edited by Lancelot Law Whyte, entitled *Aspects of Form: a Symposium on Form in Nature and Art.*[71]

In juxtaposition to the symposium but documented in the same publication, Hamilton organised the thematic exhibition *Growth and Form*, which opened on 3 July 1951, in which the installation of the work echoed the symposium's content. Inspired by the visuals from Thompson's book and also Thompson's theory of biological development, Hamilton's media for this exhibition were scientific drawings, diagrams, models and photographs, either free-standing or displayed on a metal mechanistic framework.[72] The space was partitioned by a bone-like wooden structure. While, a large x-ray image of the bones of a hand appeared on one wall. The work was organised into seventeen groupings, illustrating aspects of structural growth and form in nature. All of this encouraged the viewer to wonder at the science of nature.

As in the exhibition, the images in the catalogue, entitled *Aspects of Form*, were of nebula, crystal structures and growth, larvae, molluscs, sea urchin, plant forms, a goat pelvis, muscle fibre of a rabbit, a hand and head. Some of these images were taken with new technology, such as x-ray crystallography and electron microscopy.[73] The cover of the catalogue, read as follows:

> One conclusion suggested by these essays is that form plays a decisive role in man's relation to his environment, and therefore holds a key position in man's understanding of nature and of himself.[74]

Clearly the drive was to understand form - a unifying theme in the disciplines of art and design. The exhibition in conjunction with the symposium and the catalogue, gave support to the propositions that 'organic' development, in a work of art, is at least analogous to, and probably identical with, organic development in nature. In an organic-artistic scheme,

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[71] Whyte, Lancelot Law, ed. (1951) *Aspects of Form: a Symposium on Form in Nature and Art,* London: Lund Humphries. The publication acknowledged the generous help of the Slade.

[72] Whyte, Lancelot Law, ed. (1951) *Aspects of Form: a Symposium on Form in Nature and Art,* London: Lund Humphries. See also *Richard Hamilton* (1970) catalogue of an exhibition at the Tate Gallery March – April 1970, Richard Morphet in the introduction, London: Tate Gallery, p.20.

[73] Interestingly X –ray crystallography and electron microscopy were also responsible for images in Kepes book *The New Landscape* (1956). This was published in Chicago where Kepes was an associate of Moholy Nagy, who had settled there from 1937 until his death in 1946. Here Moholy Nagy was director of a School of Design, modelled on the Bauhaus. As with the German school, the Chicago school produced an important series of books: of which *Vision in Motion* by Moholy-Nagy (1950) was important in Constructivist and Op Art thinking. How had Herbert Read known Kepes' phrase 'The New Landscape' before the book was published in 1956?

[74] On the cover it advertised a book by Agnes Arber (1950) *The Natural Philosophy of Plant Form: the Study and Shapes of Leaves, Morphology of Flowers and Philosophical Problems*, who first published on botany in 1912.

therefore, the essence of art lies in its processes rather than its products. The only endurances are structures of activity.

Thus, through Read's interest in the relationship of science to art; Hamilton's exhibition; Law Whyte and the symposium, D'Arcy Wentworth Thompson's biological book became a stimulus to artists and designers alike. As I have mentioned in the previous section, *On Growth and Form,* was first published in 1917 but revised and enlarged in 1942. Thompson's thesis was that natural form was the product of growth, and that this was conditioned by protoplasms responding to internal energies and external force-fields to produce unique conformations. Hamilton asserted that Thompson's ideas applied to the growth and development of artistic imagery. In particular, as Thistlewood notes, Hamilton embraced the following concept: *'in short, the form of an object is a diagram of forces'*, and proposed seeing a work of art as such.[75] If natural form was produced by growth, then form in art would also be produced by growth, so the inevitable search for the laws of growth led to, among other things, the Fibonacci series. The idea was also considered reversible by Hamilton, in that it could be used constructively or deductively. Thus for Hamilton, from the shape, form or texture of an artwork such as a Rodin or a Picasso or a Pollock, it was theoretically possible to deduce the forces that are acting or have acted upon it. From this point onwards D'Arcy Wentworth Thompson's book appeared on many of the Constructionists' bookshelves, and came to be used in their work and teaching.

2.6 'Parallel of Life and Art'

The Independent Group, which was a younger group based at the ICA during the fifties, also played a large part in discussions about art, design and the environment.[76] This group made an impact between 1952-54 and was concerned with the environment rather than the specifics of sculpture, painting or buildings. In 1953, Alison and Peter Smithson worked with Nigel Henderson and Eduardo Paolozzi to produce an exhibition at the ICA entitled *Parallel of Life and Art.* The theme, which aimed to fashion the exhibition as total environment, was modelled on *Growth and Form* (1951) and was a precursor to *This is Tomorrow*, a more highly acclaimed major Constructivist exhibition at the Whitechapel in 1956. These three key exhibitions had a major impact on the developments in British art in the late 1950s and 1960s.

[75] Thistlewood (1982) p.314.
[76] The Group consisted of Mary Banham, Richard Hamilton, Nigel Henderson, Eduardo Paolozzi, Peter Reyner, Alison and Peter Smithson, and William Turnbull. It met officially between 1952-55, Garlake (1998) p.138.

The importance of *Parallel of Life and Art* in British art hinged on the arrangement of a montage of objects and photography which constituted a new experience for the public.[77] The concept of wandering through a space and coming across objects, statements and images suggested chance encounters, a Dada concept furthered by the Surrealists in the 1920s and 1930s.[78] The total environment at the ICA exhibition had come about through the Independent Group's interests in information, media, advertising, the contemporary environment, sociology and the visual.[79] The belief was inherent that by observing the environment artists could change it and thereby modify society through it. Two early members of the Independent Group, the Smithsons, as Garlake (1998) explains, were developing solutions about the reconstruction of the city and were well informed about the theories of Le Corbusier.[80] A key figure in these debates, Le Corbusier's lectures at this time were fuelling debate on how future cities should be planned.[81] With their close friends, Nigel Henderson and his wife, Judith, an anthropologist, the Smithsons proposed human association rather than mechanistic function, as the basic dynamic of the city. Whilst Le Corbusier was planning the grand scheme imposed from above, the Smithsons, helped by the Hendersons, were seeing the city from the street up and realising the language structure of signage, advertising and environment.[82] This brought about the chance encounter of the total environment.

This approach to *Parallel of Life and Art,* which included a wide number of concepts and media, is important in understanding later developments in the 1960s and 1970s. Fundamental changes not only in art practice but also art and design education, can be seen to stem from the Independent Group's modus operandi and its impact. In essence the Independent Group had taken Hamilton's experimental show, *Growth and Form*, and added more layers. This was not merely an art show, it made interventions into design, architecture, advertising and sociology. It also treated the exhibition as an art form in its own right.[83] This was an integrationalist account of society. Furthermore, it incorporated Whitehead's philosophy of the organism, in that one object had a bearing on another, as did street signage and advertising. The single elements of an environment, when removed lose their significance in the whole. Unlike Le Corbusier who viewed the city as a machine, (an

[77] Henderson, N. & Paolozzi, E. (1953) *Parallel of Life and Art,* London: ICA.
[78] The idea of chance, also seen in Kenneth Martin's work *Chance and Order* series, started in the late 1960s can be seen to have come through a Dada and Surrealist channel, combined with a scientist's desire to understand the laws of probability, via the debates at the ICA. The presence of Surrealist ideas at the ICA is evidenced in Massey. Read, Penrose, Mesens, and Del Renzio were supporters of Surrealism.
[79] The idea of the total environment was not new: first executed by the Russian Constructivist Lissitzsky, who delivered a paper outlining his concept of *Proun* to INKhUK in the USSR in 1921and exhibited it in Berlin in 1923.
[80] Garlake (1998) p.138.
[81] Massey (1995) p.51.
[82] For further discussion on the Smithsons' and Hendersons' view of the environment, see Garlake (1998) p.139

old definition of organic) the Independent Group were inclined to see it as a living organism, a complex system, - a structure of activity. The outcome of this position was that what artists, architects and designers did to their environment affected humankind as part of the whole organism.

Here, I am arguing that the unifying theme of form, in which organic structure figured strongly, was the locus of the creative vanguard in Britain in the late 1950s. The ICA, under Read, embraced design and architecture, while the Independent Group also made interventions in this area. Their backgrounds and interests made this possible. Design and Architecture were clearly on the agenda and increasingly so. In this respect, it is significant, that Le Corbusier gave the opening remarks at the *Growth and Form* exhibition, praising Hamilton among others.[84] The series of lectures hosted by the ICA also stressed this integration of the fields.[85] In addition to the symposium, in 1951 the ICA hosted talks and forums for discussion. Speakers included, for example, Anton Erhenzweig on '*A Psychoanalytical Evaluation of Abstract Art*', while Matila Ghyka lectured twice on '*Art and Maths*'.[86] At this time the threads of maths, science, biology, nature and mechanisation are enmeshed in the ICA. These, as I will show, are important tenets of basic design through the inclusion of organicism and integrationalism. Basic design was not a reductive course, it set out to integrate a broad spectrum of ideas and disciplines for artists, graphic designers, sculptors, three dimensional designers, textile and theatre designers, and architects.

Before discussing the introduction of basic design, I want to focus briefly on two other aspects of the exhibition which have relevance to later developments of 1960s painting and art education. In the context of the Independent Group these are the contingent issues of mechanisation and the universal.

Hamilton's staging of the *Growth and Form* exhibition took place in the year of the Festival of Britain and also the year of the first studio exhibition of the Constructionists, as

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[83] In this respect every integrated exhibition from the 'Great Exhibition' to the Festival of Britain has had the ability to mirror contemporary society and project a future image.
[84] Massey, p.30.
[85] Massey details the lecture programme at the ICA in the appendices. Appendix 1: course of nine seminars organised by the ICA, 1953-54, pp139-141. Appendix 2: Independent Group sessions in 1955, which consisted of nine meetings and a maximum attendance of twenty two at any one session, pp. 142-144.
[86] Dr Jacob Bronowski, the eminent scientist was among those who lectured. In addition, The American Architect, Philip Johnson, lectured on 'Modern Architecture'; Serge Chermayeff on 'Education for Designers'; Sybil Moholy Nagy on the work of her husband Laszlo; Maxwell Fry on 'Modern Architecture'; Britain hosted the 10th 'Congrès Internationaux d'Architecture Moderne' (CIAM) in 1951 and the ICA took the opportunity to give a platform to eminent architects.

Lawrence Alloway named them. It is clear Hamilton used Thompson for inspiration.[87] He was, however, aware of another book: *Mechanisation Takes Command: A Contribution to Anonymous History* by Siegfried Giedion (1948), which became a key source book, as Garlake notes.[88] Giedion's essentially investigated man's relationship with the machine through a wide-ranging survey of technological form, machines, agricultural implements, tools and an analysis of technological process,

As both Garlake and Massey note, Giedion's book was a 'primary source book' for Hamilton's *Reaper* series of etchings made in 1949.[89] Massey refers to it in a section entitled 'The Machine Aesthetic'.[90] Hamilton was therefore interested in Thompson on the one hand and in Giedion on the other. This was an intelligent blend which was unrestrictive. It allowed a space for manoeuvre between the scientific natural and organic, representing the ever present, and the machine, symbolising the contemporary and the transient. Hamilton was a key link between the two directions. It was, of course, not merely the subject matter which would be effected, but, in the long run, society itself. Massey notes that the Independent Group based its critique of contemporary British aesthetics upon the non-Aristotelian approach of Giedion, Gombrich and Thompson.[91]

Moreover, Massey indicates that the link between Thompson's thesis and the Independent Group was in effect the rejection of teleological, universal explanations of the environment.[92] Hamilton's interest in mechanisation coupled with Peter Reyner Banham's convenorship of the Independent Group[93] and their uncritical appreciation of new technology (with the rest of Western society) furthered the debates around science and society.[94] The theme of mechanisation, which initially seems contrary to nature is important for a number of reasons. It made the work contemporary and modern; it put humanity at the centre (since technology does not develop by itself), and it bought artists, designers and architects together in their desire to critique and change society.

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[87] In *Richard Hamilton* (1970) catalogue of an exhibition at the Tate Gallery, Richard Morphet in the introduction points to a number of pictures and prints in which Hamilton makes use of natural scientific images, pp.20-21. When commenting on the series of work or phase of paintings called *microcosms* Morphet notes that 'these works of Hamilton equally follow an open step-by-step development. The ideas in Klee's Pedagogic Sketchbook, in which Hamilton was interested, also have a clear connection', p.18.

[88] Hamilton, (1982) p.12.

[89] Garlake (1998) p.256, See footnote 28.

[90] Massey (1995) p.49.

[91] Massey (1995) p.45.

[92] Massey (1995) p.44.

[93] In 1959 Peter Reyner Banham argued that fine art could no longer function in its traditional form and must acknowledge the impact of mechanisation. Massey (1995) p.49.

[94] Nine seminars were organised by the ICA between 1953-54 among them were: 'The Impact of Technology' by Reyner Banham (15 October 1953); 'New Sources of Form' by Richard Hamilton (29 October 1953); 'Proportion and Symmetry' by C.A.st John Wilson (26 November 1953) Massey, pp.139-144.

2.7 *Conclusion*

It is in and around the Independent Group's activities that basic design emerges, in parallel to the practice of the Scarborough summer schools, discussed previously. Equally as important here and sometimes overlooked is what Massey (1995) refers to are the generational differences. As Massey notes with reference to the Independent Group:

> These young artists, architects and writers who were to form the Independent Group came to modernism fresh from their wartime experiences and extracted an entirely different meaning from that of the pre-war Surrealists and post-war Welfare State worthies. Inspired by the philosophy of logical positivism and existentialism, the Group arrived at a new understanding of modernism which emphasised the history of science and technology and gloried in the disorder of human existence as opposed to the preciousness of metaphysical art.[95]

Massey is clear in drawing attention to the philosophical shift away from the universal.[96] The old guard of Le Corbusier and Read had sought an aesthetic and a universal language in abstract art.[97] The younger generation had been drawn to laws, both scientific and aesthetic, which worked in smaller fields. This was to release art and design from a blind alley where formal aesthetics ruled.

The recognised emergence of basic design in the 1950s through the artist-lecturers Hamilton and Pasmore is influenced by the choice of the direction of debates and ideas at the ICA and the Independent Group. It is clear from the research by Thistlewood, Yeomans, and others that the ideas at the ICA emerged in art education. Basic design, as the name suggests, was not merely a pedagogy for the teaching of fine art, but drew together design and fine art, much as the Bauhaus had done, under the same cloak - an integrationalist approach. Whether the two areas, fine art and design, were diverging or converging is debatable. For instance, artists, who also designed or illustrated, such as Minton and Piper, and those who designed theatre sets, were frequently from a fine art background. Commercial art courses and theatre design courses were few and far between at this time. What is perceptible is the growing importance of design during this period and a growing seriousness about the training of designers. Raised awareness of a designer couple, Robin and Lucienne Day, whose work epitomises the era, encouraged this.[98]

Thus, by 1956, the key factors which gave birth to basic design are all embedded in the ICA in the 1950s. Among those I have discussed were Read, scientific interest, organicism, the debate about public art, the relation of art to architecture, the contemporary

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[95] Massey (1995) p.31.
[96] Massey (1995) p.45.
[97] Read, Herbert, (1952) *The Philosophy of Modern Art: Collected Essays,* London: Faber.
[98] For further reading on the Days, see Lesley Jackson (2001) *Robin and Lucienne Day: Pioneers of Contemporary Design,* London: Mitchell Beazley.

environment from advertising and consumerism to the machine and housing (Smithsons and Hendersons), and art education.[99]

With basic design came a new way of teaching. The intermediate certificate subjects included typography, calligraphy and drawing from the antique in a prescriptive style. After the success of Hamilton and Pasmore, Thubron and Hudson's courses, the multimedia environment of the Independent Group, and the lessons learned from biology, and other sciences, the education system was ripe for change. The maelstrom of ideas was present for instigating change in the English art schools.

As Roger Coleman pointed out in 1959 in the introduction to *The Developing Process*, the Central Schools of Arts and Crafts, Leeds College of Art, Kings College (University of Durham), and the Scarborough summer schools were the locations for the development of basic design.[100] I have shown that the other key point in this development in art and design education is the ICA through the choice of topics for lectures, exhibitions and discussions.

To summarise, in this chapter I have shown that D'Arcy Wentworth Thompson's book is the key publication for artists on biology and form to appear in the early twentieth century. I have asserted that the interest in science, maths and form appear in the writings of Klee, Kandinsky, Moholy Nagy and Gabo, and that interest is widely held. Moreover, biological growth and form occur as words and ideas in art history around the beginning of the twentieth century, pointing to a more widespread use than the writer, Thistlewood, asserts.[101] Establishing this idea in the English art scene, I have recognised Thistlewood's application of the 'organic aesthetic' to the work of Herbert Read. However, although this term is somewhat unstable, it is nevertheless clear that Read is important in integrating the science and the arts, especially at the ICA in the 1950s. The received view supported by Garlake and Massey that the Independent Group figure largely in the growth of Pop, among other threads in post-war art, is not contested, but I have argued that the Group along with Hamilton and Pasmore aid the linking of science and art, through the aspects of nature and

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[99] Read, Herbert (1943) *Education through Art*, London: Faber. Read was in the Society for Education in Art (SEA) since his appointment in the mid 1940s to the Consultative Council. His involvement in the SEA and the ICA bought wider attention to the basic design approach, especially at the 1956 SEA Conference at Bretton Hall College. See 'The Formation of the NSEAD' by David Thistlewood in. Thistlewood, D. (ed.) (1992) *Histories of Art and Design Education: Cole to Coldstream*, London: Longman & NSEAD, p.186.

[100] Coleman notes: 'Most of the subsequent basic design courses in British art schools owe something of their character to work done at the Central,' in the introduction to *The Developing Process: work in progress towards a new foundation of art teaching as developed at the Department of Fine Art, Kings College, Durham University, Newcastle upon Tyne and at Leeds College of Art, with contributions by Victor Pasmore, Harry Thubron, Richard Hamilton, Tom Hudson and others* (1959), published on the occasion of the exhibition at the ICA London, 1959, Newcastle upon Tyne: Durham University, Kings College, p.1.

[101] See Gombrich, E.H. (1979) *The Sense of Order: a study in the psychology of decorative art*, Oxford: Phaidon. In which Gombrich, writing on the decorative arts, shows concern with biological form which predates twentieth century.

the machine. With reference to artists-lecturers, especially Hamilton, Pasmore, Hudson and Thubron, I have further argued that the resulting emergence of basic design as an educational thrust and its inherent ideas were in part located and disseminated through the activities of the ICA.

Through the elements discussed in this chapter I have demonstrated a range of sources that gave impetus to change and were specifically to impact upon Cuthbert's approach to painting as discussed in Chapter Five.

Changes in the English Art School: Overview 1955-65

In 1963 the one-year Pre-diploma course was a new venture for Cuthbert, Wimbledon School of Art and the principal Gerald Cooper. In fact, it was part of a major moment of change in English art schools brought about by the emergence of basic design in the second half the 1950s. These changes were substantiated by the First Coldstream Report of 1960 and the Summerson Council convened in 1961 which transformed the art schools.

This chapter focuses on the impact of these changes in the London state-funded art schools, and the factors that contributed to this momentous rethink of English art education in Britain. This period was one of unprecedented change in the art schools but the diversity of the institutions and the differing requirements of the authorities resulted in a complex state of affairs. Consequently, for the sake of clarification, I have viewed the changes in three parts: the initial part concerns the HMI reports of the 1950s and leads into the second part concerning the reorganisation as a result of the Committees and Councils in the late 1950s and early 1960s; and the third part concerns the teaching content.

One of the key changes I examine in this chapter is the introduction of basic design which since the exhibition *Developing Process* (1959) became increasingly part of art school teaching especially on the Pre-diploma, which replaced the two year Intermediate course. The roots of basic design can be traced back to the immediate post-war period by looking at the changes in the art examinations and the move to a larger number of vocational courses which saw the instigation of the basic design course as beneficial. One of the dramatic shifts is the move from predominantly amateur courses to the vocational courses, in line with the growth in the art and design related industries.

The Intermediate Exam in Arts and Crafts and the National Diploma in Design (NDD), were introduced in 1946 in England in response to long needed changes to the education system. These consisted of a two-year Intermediate general art followed by two more years in a specified field.[1] In 1951 the exams were modified insofar as the student work was henceforth assessed firstly by staff from the college of art and, then secondly, by the assessor from the Ministry of Education. Calls for more radical changes in education and administration followed. This resulted in the setting up of the National Advisory

[1] In 1913 the Board of Education Drawing Certificate (later Ministry of Education) was created, followed by the Certificate for Painting, Modelling, Pictorial and Industrial Design, and the Certificate of Pedagogy. The Certificate of Pedagogy remained as it was even after 1946.

Committee on Art Examinations (NACAE) (1957), which advised a greater measure of freedom for art schools in constructing courses and assessing students' work. This led indirectly to the setting up of the National Advisory Council on Art Education (1959) under William Coldstream, who was by this time a professor at the Slade. The Pre-diploma was introduced in 1961 and renamed the Foundation course in 1965. The National Diploma in Art and Design examination was introduced to replace the NDD in September 1963 and the first awards were made in 1966.[2]

Thus, Cuthbert can be placed at the centre of this change, given his own recent training at Goldsmiths School of Art, finishing his Intermediate and NDD before the introduction of the Pre-diploma in 1961, and his position as head of Pre-diploma studies at Wimbledon School of Art from 1963 (later the Foundation department), and his profession as artist-lecturer. Using Cuthbert as a case study will help to question the way the artist is forged by his or her environment, education and profession. The profession of the artist-lecturer may be different to the artist and affect the work he/she produces. In this respect the act of contextualising an artist such as Cuthbert may suggest answers to such questions about practice and profession. All of these are important for an understanding of the context of Cuthbert's practice, which was rooted in basic design, and relied heavily on abstraction and process. Here, my premise is that basic design becomes part of the Intermediate course which is then superseded by the Pre-diploma course

In order to give an overview of the changes I have used the London state-funded art schools, particularly those involved with the Intermediate course, as a case study. Hence to form this overview I have made substantial use of the London Metropolitan Archives. However I have excluded from this category, the Royal College of Art, the Royal Academy and the Slade, since these three were a different tier, with different backgrounds, agendas and funding.[3] Wimbledon School of Art is strictly speaking outside the boundary of London before 1965, that being the year Wimbledon School of Art passed from under the control of Surrey County Council to the London Borough of Merton. Thus its documentation is separate from the other London art schools. Since it is the focal point of this thesis as Cuthbert's place of work, I have consequently examined Wimbledon School of Art in depth in the following chapter. A broader national view can be gained by

[2] Of necessity some of the discussion uses statistics and documents up to 1967, however the renaming of the Pre-diploma as the Foundation course occurs in 1965 and this is my intended end date for this section.
[3] Christopher Frayling's writing explains that part of these changes resulted in the Royal College of Art becoming a research and postgraduate establishment from 1966 onwards. A body of research is slowly emerging which covers both vocational and design courses. This body has been supplemented by Frayling's books on the Royal College of Art. Frayling, C. (1987) *The Royal College of Art: One Hundred and Fifty Years of Art and Design*, London: Barrie and Jenkins. Frayling, Christopher, & Catterall, Claire, (ed.) (1996) *Design of the Times: One Hundred years of the Royal College of Art*, Shepton Beauchamp: Richard Dennis / RCA.

investigating the histories already written of other key art schools, such as Leeds, Leicester, Cardiff and Manchester.[4]

3.1 Art school reorganisation in Greater London

By 1952, there were ten art schools in Greater London offering Intermediate courses: Camberwell School of Arts and Crafts, St. Martin's, Central School of Arts and Crafts, Chelsea School of Art, Regent St. Polytechnic, Goldsmiths, Hornsey, Putney School of Art, Sir John Cass and Hackney School of Art. By 1962, the number of art schools had been reduced or amalgamated down to six. On a national level this trend was reversed. By 1955, there were twenty eight art schools plus three technical Colleges in the country which offered Intermediate courses, by 1964 there were thirty six overall.[5] Thus whilst in London it was thought that bigger was best, the growth was in the regions, where although expansion was uneven in some areas, new schools were set up or devolved from other institutions.[6] It is important to study the reorganisation in order to understand exactly what changes occurred.

In 1954, Chelsea School of Art was one of the smaller art schools in terms of the number of students it entered in the Ministry of Education Intermediate examinations. That year it entered 24 candidates, alongside Camberwell - 33, Hornsey - 30, Wimbledon - 27 and St. Martin's – 34.[7]

However, the 1955 report produced by HMI following inspections from 1952-54 of the ten art schools of Greater London, decided that some reorganisation was due. The report established that within the LCC area 236 students were studying for the Intermediate

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[4] Thistlewood, D. (1981) *The Visual Adventure :Leicester College of Art, 1962,* Leicester: Leicester College of Art; Jeremiah, D. (1980) *A Hundred Years and More,* Manchester: Faculty of Art & Design, Manchester Polytechnic.

[5] The Slade, Royal Academy and Royal College of Art were not included., Document ILEA/EO/HFE/1/322/323-326, Ministry of Education report by HMI 'Art Education in Major Establishments of Further Education in Greater London, inspected 1952-54,' issued June 1955 & NACAE Report 1964-65. From London Metropolitan Archives (LMA). *(In the ensuing footnotes in this chapter (LMA) signifies London Metropolitan Archives and BH signifies NAEA, Bretton Hall).*

[6] There was however pruning in the regions too. In Devon, for example, in August 1955 there were 6 art schools providing for the Intermediate exam: Exeter Central College of Art (date unknown), Plymouth (founded 1876), Torbay, Bideford (founded 1875), Newton Abbot and Tiverton (founded 1882). The two that had already closed were Barnstaple (founded 1877) and Teignmouth (founded 1884). By 1956 Tiverton had closed. Newton Abbot went soon afterwards whilst Bideford School of Art offered a Foundation course up until 1975, which is now offered at North Devon College, Barnstaple. Plymouth (PCAD), remains one of the few specialist art colleges in the country whilst the remaining Foundation courses are under the auspices of the Further Education Colleges. Autonomous art schools are fewer. This follows some of the policy thinking in the Coldstream Report echoed in Education Officer, E.Walker's note to Mr Wheatley in 1962: "it is our wish and the Art College Principals have indicated at previous meetings that they would support the idea, to offer experimentally pre-dip courses in selected secondary schools". From Document ILEA/EO/HFE/1/324, London Metropolitan Archives (LMA).

examination at the end of the session 1953-54, and it estimated the capacity of all schools for this work was 434. Consequently, the HMI report suggested that 5 centres should make adequate arrangements for the intake assuming there was no increase in the future. Thus these five centres held their position as providers of the Intermediate certificate.

The 1955 report also had major implications for other aspects of art and design training, which reflect a growing need for trained designers. For example, the report considered that the 'post-war full-time attendance was considerably inflated' and that these returnees had now finished training and the situation was back to normal.[8] It suggested that art departments should be removed from technical colleges and be separate institutions. Further tightening was due in 1956 with the recommendation that:

> ...the function of these schools will be to provide vocational training and that in general, the amateur student will not be admitted to full-time or part-time courses...[9]

Thus, the important shift was that art schools were now seen as places for training for industry, vocations or teaching.[10] The HMI report of 1955 includes also a written report from the Principals and Heads of the London art schools. Based on a meeting of the Principals and Heads of London art schools the report notes that:

> ...in view of the country's serious financial position schools of art are now regarded as purely vocational training institutes – in the absence of any word about the cultural value of art or the growing importance of London as a world art centre, this statement is apparently intended to be taken as a final one and as covering the field.[11]

As the above indicates, the art school Heads found the decision deplorable and also objected to the term 'wastage' as applied to students who did not sit examinations.[12] Nevertheless amalgamation and pruning was sought by the Education Office Department. The thrust was to reduce the number of schools in London to six: Camberwell, Central, St. Martin's, Goldsmiths and Hornsey and to amalgamate Chelsea and Regent St. Polytechnic, and to limit the provision of Intermediate courses to five of these, i.e. minus Central. As the various press articles show, the amalgamation of Chelsea and Regent St. was unpopular.[13] In 1960 the Chelsea teaching staff agreed to the merger and the new building

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[7] Ministry of Education report, 'Art Education in Major Establishments of Further Education in Greater London', HMSO issued June 1955, (LMA). See *Appendix 3*. Compare this with the intake of 130 students on Exeter College art Foundation Course 2003/2004.

[8] ILEA/EO/HFE/1/322-326 'Art Education in Major Establishments of Further Education in Greater London', HMSO issued June 1955, p20, (LMA).

[9] LCC, Report 913, Education Committee 1956, (LMA).

[10] Hornsey and Goldsmiths were seen as adequate provision of teaching courses for art, but the unsuitability of the premises noted in Ministry of Education report, 'Art Education in Major Establishments of Further Education in Greater London', HMSO, issued June 1955, (LMA).

[11] ILEA/EO/HFE/1/322-326 'Art Education in Major Establishments of Further Education in Greater London', HMSO issued June 1955, (LMA).

[12] For example: Camberwell (1951/52) 46 Intermediate students, (1953/54) 24 NDD students therefore wastage of 22, i.e. those not continuing to the higher level. See *Appendix 3*.

[13] Under EO/HFE/1/326, (LMA). The merger was reported in *The Times*, 30th December 1957, *Birmingham Post* 28th December 1957 and 'Art Schools Merger Plan Storm - Chelsea School of Art are up in arms' in *Westminster News* 3rd January 1958. *The Sketch*, London, 12th February 1958 in its article ' The Great Art

was ready for the first session in September 1963. Regent St. was incorporated in 1964, however, the reorganisation and merging of staff and transfer of students to Manresa Road, Chelsea, resulted in much discontent.[14]

At St. Martin's School of Art the Education Committee report of 1961-1962 focused on the increased work of the school to justify its bid for more staff and accommodation.[15] For example, the minor technical staff, which had not increased since 1948, consisted of a stores and general assistant and a modelling assistant. However, between the academic year 1947/48 and 1959/60, the full-time student numbers had risen from 350 to 552; the part-time students from 121 to 254; the evening class students from 1,273 to 2,027 and the students taking Ministry of Education examinations from 61 in 1948 to 180 in 1960, a three-fold increase.[16] From 1962, departments were expanded and reorganised and new areas created to meet this expansion. For example, a new department of Preparatory Studies was to be formed from September 1963 at grade 2 level,[17] from 1 January 1965, a department of Art History and Complementary Studies (grade 3) was to be set up. There was also an increase of technicians, due to the introduction of the Diploma.[18] In 1967, on the retirement of the Principal E.J. Morss, to be replaced by the younger, 38 years old, Ian Simpson ARCA, there was a further increase in technicians.[19]

With the increase in numbers in the late 1950s and early 1960s, St. Martin's, like most other art schools suffered a lack of space. Plans were consequently drawn up to build new premises on the south bank of the Thames, downstream of Waterloo Bridge which would include a 910 bed hotel and restaurant, an exhibition centre, conference centre, entertainments (a bowling alley), eight small shops, a petrol filling station and the art school. In 1963 'Scheme 18', as it was called, was eventually shelved but not before a few years of effort and speculation had gone into its planning.[20]

School Controversy' interviewed famous artists about the situation: Augustus John commented 'I am informed also that in some cases, one day a week is set aside for "Abstract" work! Such methods can only lead to commercialisation of Art and constitute a serious waste of public money.' There were calls by Coldstream and Ardizzone to the Ministry to let them know their full intentions about the amalgamations of the two art schools.

[14] ILEA/CL/E/FHE/09/004, (LMA). In Chelsea and Regent St. Polytechnic numbers for staff and students between 1959 and 1960 can be seen in *Appendix 4* - note the expansion in Regent St. Polytechnic in part-time staff teaching on the Intermediate course from 17 in 1959 to 27 in 1960 with a reduction of full-time staff from 17 to 11 over the same period. Chelsea's staffing reads differently. Intermediate students rise first year and second year total at Regent St. 70 to 75 and in Chelsea 71 to 78. Non exam numbers at this time also rise, see *Appendix 4.*

[15] Education Committee, Further and Higher Education subcommittee, St. Martin's, Westminster, 1961-85 ILEA/CL/E/FHE/09/010 (LMA).

[16] Education Committee, Further and Higher Education subcommittee, St. Martin's, Westminster, 1961-85 ILEA/CL/E/FHE/09/010 (LMA).

[17] LCC Education Committee, Report 645, 7.5.63 (LMA).

[18] LCC Education Committee, Report 762, 14.12.64 (LMA).

[19] LCC Education Committee, Report 638, 8.7.67 (LMA).

[20] LCC Education Committee, Report from Finance Committee, 914, 16.12.63 (LMA).

In the London Art Schools the expansion in numbers and the re-organisational changes occurring between 1959 and 1968 were of a similar nature to those in the regions. They resulted from the changes to the exam system, in particular the move from the Intermediate to the Pre-Diploma model. Some institutions reacted quickly and effectively, others had more complex situations with which to deal initially. Firstly, in the early 1960s, there was an expansion in numbers in four of the London Art Schools, which parallels that of Wimbledon School of Art. As the ILEA(1965-90) minutes note:

> ...the emphasis on full-time courses for diploma in Art and Design has, in spite of a fall in part-time day and evening courses, substantially increased the office work in connection with student applications, enrolments and records. Camberwell requires 3 additional units, Central 4 ½ units, Chelsea – an executive officer, 5 Heads of department at St. Martin's require 2 ½ units.[21]

The varying re-organisational changes to the London schools were a response to this expansion in full-time courses and the introduction of the Pre-diploma course. Some created new departments.

For example, at Camberwell School of Arts and Crafts there was departmental reorganisation following the introduction of courses leading to the National Diploma in Art and Design in 1965. The Design and Crafts department became three separate departments of Graphic Design, Ceramics and Textiles. The school also created a department for Art History.[22] By November 1968 Camberwell was organised into eight departments as follows: Pre-diploma Studies, Theatre Design, Ceramics, Textiles and Liberal Studies which were all grade 2, whilst Fine Art, Graphics and Industrial Design were grade 4. Grading was an indicator of importance, size and funding within a school. Grades 4 & 5 being the most prestigious. In January 1968 it appointed, at senior lecturer level, a tutor librarian with an Art History qualification, rather than just a librarian, in order to help with supervision, research and thesis work.[23] The changes in the individual London schools are examined here in order to form a picture of the general national trends.

Goldsmiths School of Art, in contrast to the above, was run by a delegacy.[24] It was answerable to the University of London for academic standards, although it received its maintenance grant from the local authority, the London County Council. Thus, it was, to a certain extent, more independent than the other London art schools. It escaped the thrust towards industrial and vocational training by being aligned to the University of London and

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[21] ILEA minutes, Report of Education Committee, 26.5.65 London Metropolitan Archives (LMA).
[22] ILEA Report of Education subcommittee, 12.5.65 (LMA).
[23] Education Committee, Further and Higher Education subcommittee, Central School of Art Records, 1967-85, August and November 1967 ILEA/CL/E/FHE/09/033 (LMA).
[24] A body of elected representatives. ILEA/CL/E/FHE/09/011, (LMA).

holding its position as one of the two London art schools training art teachers.[25] Here numbers were also steadily growing. In Goldsmiths School of Art, (as separate from the rest of the college), 252 students in 1966/67 rose to 287 in 1968/69 and to an estimated 297 in 1969/70.[26] This steady and continuing rise was in full time courses.

Thus, through an overview of the London art schools in the 1950s and 1960s it is clear that the changes were affecting art schools, whether they were tightly under the auspices of the Education Office or had a looser affiliation. It can also be verified that, as with Wimbledon School of Art discussed in the next chapter, there was an expansion in the certificated courses and a reduction in the evening, and part-time day courses. Whilst it is clear there was, at this time, a process of streamlining and rationalisation, the conclusion of these statistics is that they support the view that there was an expansion in a specified direction. In particular there was a policy of industrial and vocational courses. There was a clear demand for certified courses. There was a general increase in numbers of full-time students between 1959 and 1965. Part-time students for some schools were not a priority, or else numbers fell of their own accord.

The expansion in numbers brought about a need for more teaching space, and a request for more staff, specifically in the areas of the library, the Pre-diploma department, and the Art History provision, (in most places it did not merit the name of department until later.) This expansion frequently resulted in pressure for accommodation, i.e. studio, workshop and office space in most art school buildings. Annexing was one solution in dense city areas where there was no opportunity to construct purpose-built studios and workshops.

3.2 National Advisory Council on Art Education 1959

Stuart Macdonald, writing in 1969, in *The History and Philosophy of Art Education,* explores the post-war state of art and design education.[27] In common with other commentators, such as Seabourne and Ashwin,[28] Macdonald identifies the key changes brought about in this period by the Coldstream and Summerson Reports. In order to understand the educational reorganisation these created it is necessary to outline the key councils and their changes to the examinations and thereby the art and design courses. The National Advisory Committee on Art Examinations of 1957 proposed to the Ministry the recommendation that a diploma of a higher standard, as yet unnamed, should replace the

[25] Hornsey School of Art was the other one offering the certificate of pedagogy.
[26] ILEA/CL/E/FHE/09/011, (LMA).
[27] Macdonald, S. (1970) *The History and Philosophy of Art Education,* London: University of London Press.
[28] Seabourne, B. (1968) 'The Art School Foundation Course 1967/68, a report written and prepared by Barry Seabourne', (Dip. FA London) unpublished postgraduate report, BHDCPL 00020. Ashwin, Clive (1975) *Art*

National Diploma in Design (NDD). In 1959 the National Advisory Council on Art Education (NACAE) was appointed. Headed by William Coldstream, (the Slade professor from 1949, who had taught under Johnstone at Camberwell), the NACAE, was an advisory committee to the Ministry of Education. In 1960, the First Report of the Coldstream Council recommended the adoption of the Diploma in Art and Design to replace the NDD. The same year the National Council for the Diploma in Art & Design was appointed headed by Summerson, as an executive body to oversee the changes, which I examine in the next section.[29] Furthermore, the number of committees, reports and papers are evidence of general restructuring of the education system throughout the early part of the 1960s.[30]

Reflecting on this, the specific catalyst for many of the changes in the art schools was the dissolution of the NDD and the introduction of the National Diploma in Art and Design, as recommended by the First Coldstream Report of 1960.[31] It recommended that the Diploma in Art and Design offer a liberal education specialising in a number of broad areas of study consisting of Fine Art; Graphic Design; 3 Dimensional Design; and Textiles/Fashion. It did not advocate specialisation in one single area however high the resulting standard. The level was to be approximate to that of university studies with which it was analogous. The minister's policy (circular 340) stated that the new three year Diploma in Art and Design was to be higher in standard than its forerunner the two year NDD and that the students should be over eighteen years. In addition, the level of a student's education at entry must be broadly equivalent to the present Intermediate Examination in Arts and Crafts. So what was previously a two year Intermediate and two year NDD, now became a three year Diploma accessed via a Pre-diploma of one or two years. Initially, the view was expressed

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Education: Documents and Policies 1768-1975, London: Society for Research in Higher Education. Piper, D. W. (ed.) (1973) *Readings in Art and Design 2. After Coldstream*, London: Davis Poynter.

[29] In 1962 the second Coldstream Council Report, 'Vocational Courses in Colleges and Schools of Art', was published. Existing publications concerned with art education in Britain have placed the emphasis on the changes to the NDD and the introduction of the Pre-Diploma course and the Diploma course (Dip.A.D.)This report and the issue of vocational art courses in art schools has received little attention and is barely covered. In this respect, Macdonald is no exception.

[30] In 1963, a further change was proposed by the Robbin Report on Higher Education which recommended that Colleges of Education should be brought under the aegis of University schools of Education. These would provide a four-year course leading to the University degree of Bachelor of Education. In addition, the Certificate of Secondary Education was instituted. The next year, 1964, the Coldstream Council published the third report entitled 'Post-Diploma Studies in Art and Design' which laid the basis of what is now called postgraduate studies. In 1965 the National Advancement Council in Art Education (NACAE) recommended renaming the Pre-diploma course as the Foundation Course. In 1966 a White Paper: 'A Plan for Polytechnics and other Colleges' foresaw more widespread changes. The recognition of the growing need for professional, vocational and industrially-based courses, not met by the universities, led to the publication of the 1966 government White Paper 'A Plan for Polytechnics and other Colleges' (GB. Parliament, House of Commons, 1966). The need for these courses was met nationally by the 45 polytechnics.

[31] Published in 1960. See BHDCPL 00025. *(All documents in this chapter beginning with the letter BH are to be found in the National Arts Education Archive, Bretton Hall).*

that some secondary schools would run Pre-diploma courses. However, this was not popular among the art schools whose existence was threatened.[32]

The first report of the NACAE, the Coldstream Report, drew up the regulations of the new award, of the Diploma in Art and Design (Dip.A.D.). This liberal education was specified as one year Pre-Diploma studies followed by a three year diploma in one of the four areas, Fine Art, 3D, Graphic Design or Fashion and Textiles. History of Art was to be studied throughout the course, examined, and would comprise 15% of the course.

One of the most important changes proposed by the NACAE First Coldstream report (1960) was that each art school would be free to construct its own Pre-diploma course and work out its own ideas without reference to any national body. The report set the brief as follows:

> Each art school should be free to construct its own pre-dip courses without reference to any national body. The general aim of these courses should be to train students in observation, analysis, creative work and technical control through the study of line, form, colour and space relationships in two and three dimensions. A sound training of drawing is implicit in these studies. All courses should include some study of the history of art and some complementary studies of the kind referred to later in this report in connection with the diploma courses. These aims are expressed in very general terms and there are many ways in which they can be achieved. We think that art schools should be free to work out their own ideas. [33]

According to the Coldstream report the purpose of the Pre-diploma course was diagnostic and therefore the general art approach was favoured, (this is very often understood to be the 'taster' approach, or 'carousel' covering areas such as printmaking, textiles, or sculpture, in one day or in longer blocks.) However, it was also recommended that all students should receive some fine art training as the basis for any later specialisation. Although it may appear that the report did not prescribe the content of the Pre-diploma course, it did set a number of criteria which had to be met. Moreover, all courses were to include some study of art history and some complementary studies.[34] The introduction of the Diploma in Art & Design secured the importance of art history (later called complementary studies) as part of the teaching method and demonstrated the desire of educationalists to embed a written component in all art and design Higher Education courses. The expansion of library services was due to the need to research for the written component in art history and a need

[32] The debate was still running in 1972, when Falmouth Art School strongly opposed that Foundation studies courses should be moved to secondary schools and cease to function in art schools, a policy that was discussed but never implemented. Article in THES, 22 December 1972, BHDCPL00025, Bretton Hall Archives.
[33] *First Report of the National Advancement Council on Art Education*, Addendum, paragraph 3. Published August 1965, signed on behalf of Coldstream.
[34] Complementary studies were already in evidence in some schools from earlier. For example, in Manchester School of Art, in 1955 students were expected to attend one period of English a week.

to provide theory for the practice. Developments in print technology, had also resulted in more books on the market and more writing about art than ever before.[35]

The final external marker which signified the policy of raising the level of art and design awards was the change of name of 'schools of arts and crafts' to 'colleges of art and design'. College implied a standing equitable to a university, whilst craft was disdained and dropped.[36] For example, in 1965 the governors at Central School of Arts and Crafts suggested the change to School of Art and Design, since craft courses were no longer a feature of the school.[37] However, Camberwell School of Arts and Crafts, retained its title, indicating that individual schools were free to make certain decisions.

Thus, although the Pre-diploma is only outlined in the First Coldstream report, it is the expansion to three years of the Dip. A.D. which has the crucial impact on the one year Pre-diploma by condensing it and concentrating the teaching on elements which were common to a range of specialisms at a higher level.

3.3 Changes in the art school curriculum in 1960s Britain

After the First Coldstream Report of 1960, and prior to the Second Coldstream Report of 1962 on 'Vocational Courses in Colleges and Schools of Art', the government set up the National Council for the Diploma in Art and Design, [NCDAD]. Under the chairmanship of Sir John Summerson, the distinguished architectural historian, the Summerson Council or NCDAD was responsible for the administration of the new award, the Diploma in Art and Design. It was set up in March 1961 as an independent body whose purpose was executive. Its brief was to look closely at the proposals and visit the schools in which the diploma courses would take place, in order to view the conditions. After thirteen months, in May 1963 it announced its verdict on the first batch of applications.

By 1964, 87 colleges had applied for approval of 201 Dip AD courses.[38] Through the Summerson Council and the Ministry of Education only 61 courses from 29 colleges were approved. However, this number increased over the next few years as the message was

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[35] In addition, by 1965 more artists were using text in their work than previously, this development coincides with the increasing use of text which suggests a link. A research culture was fostered in that students were encouraged to seek out ideas, in contrast to nineteenth century academies where the agenda was set by the famous artist of the master-class.

[36] It has been retrieved since, by hard work from the Crafts Council, in particular. Frayling, C. & Catterall, C. (1996) map the history of craft and design at the Royal College of Art.

[37] ILEA, report of Education Subcommittee, 10 December 1965, London Metropolitan Archives.

[38] Wollheim gives different numbers: 85 colleges submitted 205 course applications and 61 courses were approved. Wollheim, R. 'Should Art be a Respectable Occupation?' magazine article from *The Observer*, circa September 1968. BHDCPL 00028. NAEA, Bretton Hall. Wollheim resigned as a panel member of the Summerson Council (1962-3), after disagreeing with the Council's policy.

understood that standards were rising and courses needed to be rewritten or at least provide some documentation. By 1969, 40 colleges had achieved recognition for Dip AD. Macdonald reports, as do other commentators, on the failure of many colleges to get their Dip.A.D. courses approved and the fact that the Summerson report (1964) came down heavily on the poor standard of History of Art and Complementary Studies.

The Summerson Council was an independent body set up by the Ministry of Education in May 1961 and included Lawrence Gowing, Professor Nikolas Pevsner, and Professor Claude Rogers. It numbered twenty one, which included the chair, the vice chair and three women; additionally there were two assessors appointed by the Ministry of Education. The Council was supported by five membership panels: the four practice areas and History of Art/Complementary studies. On the membership panels it is worth noting that Kenneth Martin was among the twenty one allotted to Fine Art. Among the seventeen members in three dimensional design were Professor Gooden and one woman member Lady Casson. Of the twenty one members in Textiles/Fashion thirteen were women.[39] In History of Art / Complementary Studies panel were Professor Pevsner, Professor Quentin Bell, Professor Gombrich, and Norbert Lynton All were appointed by the Minister of Education.

The First Report of the Summerson Council published in 1964 resulted in 64 paragraphs with reports on the implementation of the recommendations adopted by the Minister of the First Coldstream Report (1960). It covers, among other topics, entry regulations, one area colleges, part time staff accommodation and specific areas. Its second paragraph outlines the 'Character of the Diploma' and quotes paragraph 14 of the Coldstream Report:

> ...the aim should be to produce courses conceived as a liberal education in art in which specialisation should be related to one of a small number of broad areas or, to put it another way, that a subject that is principally emphasised should always be studied in a broad context.[40]

Only one of the paragraphs mentions the Pre-diploma under entry regulations:

> We are less happy about the interpretation of the second qualification for admission to Dip.A.D. courses - the completion of a pre-Diploma course lasting not less than a year. The character of these pre-Diploma courses is not within the Council's scope and we accept the view that as much freedom as possible should be allowed to colleges of art in devising them and to principals in their mode of selection of students for entry to Diploma courses. Nevertheless, we feel bound to draw attention to the prevailing uncertainty as to what is (as regards substance and quality) and what is not a pre-Diploma course to suggest that this aspect of art education needs further consideration.[41]

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[39] The involvement of women on the committees is mentioned in passing, although this is not within the remit of this thesis. As an important issue it would merit further research, to this end general reading can be found in Dalton, P. (2001) *The Gendering of Art Education*, Buckingham: Open University. Likewise issues of class in the art school system, especially the widening access to higher education in the 1960s, is not a focus of this thesis and remains peripheral.

[40] *First Report of the National Council for Diplomas in Art and Design*, Published by the Council February (1964), paragraph 2.

[41] *First Report of the National Council for Diplomas in Art and Design*, (1964), paragraph 3.

From this reference the conclusion must be drawn that the Pre-dip., outlined in 1960 by the Coldstream report and mentioned (unfavourably) by the 1964 Summerson report, was struggling to find a form. Although it would appear beneficial that the colleges had been left a blank canvas to draw up their own courses, some saw the Summerson report's lack of attention to Pre-dip. courses and the secondary school - Pre-dip. relationship as an inadequacy on the part of the Council.[42] The content and the structure of the Pre-diploma was left in the hands of the staff of individual art schools, of this there is no doubt.

The Summerson report was also problematic in relation to the Diploma. Of the 201 Diploma applications from 87 colleges, only 61 applications from 29 colleges were approved by the NCDAD. These were set to commence in September 1963 with the first awards to be made in 1966. The largest number (73) of the four areas were the fine art courses. The number of fine art courses was significant in itself. However what was shocking to the art schools was that so many of their applications had been turned down. They reassessed their course rationale, cast around for short course models, consulted texts, revised pedagogies and applied again.

The expectation of the Coldstream Committee of 1960 was that the most usual form of organisation would be the two-area college, however, because of the stringency of the Summerson Council, many colleges found it difficult to get diploma approval for two courses in say Fine art and Three Dimensional Design. Of the 29 colleges that gained approval in one area or more, those that gained approval in all four areas bear mention, since these were obviously the then centres of excellence, who epitomised the direction the Council were heading. These were Birmingham School of Art and Design, Manchester School of Art and Central School of Art, notably the only one of the London Schools. These three schools of arts and crafts in particular were known for their urban, industrial environments and craft based history. As an example of a one-area college approved by the Council to commence a diploma in September 1963, Wimbledon School of Art made a successful application only in 3D Design. This Diploma was offered only in theatre, not sculpture or ceramics and of all of the colleges it was the only one to offer Theatre Studies. It was in effect the Theatre Art School.[43]

To assess the impact of, firstly the Coldstream Report of 1960, and secondly, the Summerson Council's administration of change, is difficult across the 29 colleges who

[42] Peter Farrell, ex member of staff of Guildford School of Art, writing in a newspaper article (no title, no date), expresses this opinion. BHDCPL00028, NAEA, Bretton Hall.
[43] Of the others commencing in 1963: Birmingham, Central, and Manchester offered all 4 areas, whilst Exeter only offered Fine Art, Hornsey Fine Art and Graphics, and Kingston 3DD and Textiles & Fashion. *First Report of the National Council for Diplomas in Art and Design*, (1964).

successfully applied to run courses in 1963. To assess the larger number of Pre-diploma courses, of which we have no number, is even more difficult. Clearly from the report, the attention to the Pre-diploma was inadequate. The only recourse is to investigate individual colleges and see if common trends emerge as to how they resolved the vacuum of guidance from above. Such a comparative examination is tackled in Chapter Four, investigating in detail, aspects of certain colleges for which there is data and documentation. However, the Summerson Council can reveal other points about the position of, and attitude to, basic design, fine art and abstraction.

The Coldstream Report of 1960 had stressed that fine art should be kept as a focal study and common experience for all students. The Pre-diploma course was the ideal place to achieve this. However, there were also tensions between sculpture and painting on the one hand and design for industry on the other. The importance of design had grown steadily since the war and especially in industrial cities. Taking Manchester School of Art as a model can reveal a number of changes in structure and curriculum. In 1946, there was already an expansion in the interior design courses at Manchester School of Art, signifying a post-war interest in design. For these courses basic design was obviously beneficial. However, in 1949 for example: "to see basic design swallowed up in the system of Intermediate exams was ...disappointing."[44] This implies that basic design was already part of the system in some form. There was a further expansion in design areas in Manchester School of Art from the mid 1950s to the 1960s. In 1960, as a direct result of the Coldstream Report, it reorganised its departmental structure into Foundation Studies, Fine Art, Architectural Design, Fashion and Textiles, Education and Advanced Studies. In May 1961 it became the Manchester College of Art and Design. Manchester was a model of the common pattern of creating a Pre Diploma / Foundation Studies Department; of recognising and expanding Design subjects and departments; of changing the name from School of Art to College of Art and Design, and of appointing a librarian /tutor and lecturers in History of Art and/or Liberal Studies, (sometimes called General Studies). It was only after Summerson that a full-time art history appointment was made, when the essay became a prerequisite of the Dip.A.D. exam. This pattern of change seen in Manchester, is found elsewhere.

The aim of the Coldstream Report stated that the Pre-diploma avoided uniformity by leaving art schools free to construct and direct their own courses. Furthermore it avoided national validation of Pre-diploma studies, as this would inhibit the art school's freedom to devise courses. What it stressed was the diagnostic purpose of the Pre-diploma and that the

students should experience all 4 areas of study: Fine Art; Graphic Design; Three Dimensional Design; Fashion and Textiles. However, in contrast to this official stance of flexibility, Yeomans who interviewed Pasmore and Hamilton, reveals that Pasmore stated that the Ministry of Education accepted the case for 'abstract foundation courses'.[45]

Certainly, the references to the formal elements of line, form, colour and space relationships show that basic design was evident in the Coldstream report. Pasmore was a key figure on the committee, as head of the Fine Art department of Kings College, Newcastle, as a teacher and developer of basic design with Hamilton, Hudson and Thubron and at the Scarborough Summer schools and as an exhibiting abstract artist. In addition, the exhibition, *the Developing Process* exposed the teaching and students work at Kings College, University of Durham at Newcastle-upon-Tyne to a wider audience. All of this made him a persuasive and charismatic committee member.[46]

Pasmore argued the case that his 'abstract foundation course' would be an appropriate activity and focus for all students regardless of their specialisation beyond the Preliminary year. The Coldstream Committee may have understood that Pasmore's course was suitable at Diploma level rather than just Pre-diploma level, but it preferred to leave the choice of activity to each college rather than be too prescriptive at the higher level. Pasmore's course model was only accepted as appropriate for the one-year Pre-diploma course and Pasmore resigned from the committee.[47] The adoption of basic design seems to have heralded its undoing, as Yeomans explains:

> As Richard Hamilton stated, the rot set in when it became a prescribed activity for every art school in the country, changing it from the ad hoc, experimental engagement of a handful of artists, to an academic system imposed on establishments where there was no background of interest or commitment to it.[48]

Yeomans' conclusion to his thesis makes it clear that Pasmore was the 'missionary zeal' behind the acceptance of the basic design course in the pre-diploma course. He cites an interview with Richard Hamilton talking about Pasmore:

> Victor was a very powerful figure in the educational system, and became more so, because he was appointed to the Coldstream Committee. And he, when they were determining the regulations of the form of the diploma was very dogmatic and powerful in putting pressure on other people in committee. He was able to put it across that every art school should have a basic course, and so this was by some strange anomaly of the British education system written into the ministerial levels as a requirement of art schools that they should have a basic course. And it meant that principals of art schools, who had absolutely no interest in the subject, no

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[44] For a history of Manchester School of Art see Jeremiah, D. (1980) *A Hundred Years and More*, Manchester: Faculty of Art & Design, Manchester Polytechnic, p.46.
[45] Yeomans (1987) pp.292-294.
[46] Pasmore 'was a fascinating and infectious teacher and his interest in three dimensional activity communicated itself to a whole new generation of students.' Robertson, B.(1965) *Private View*, p.57.
[47] (Yeomans 1987) p.292.
[48] Yeomans (1987) p.293.

> knowledge of it and no desire for any knowledge of it, had to appoint people to do the job, and the whole thing became an absolute mess because something was being enforced which should have been the serious and genuine interest of the teacher and teacher student relationships. It became an enforced policy and system, and therefore quite rightly fell into disrepute.[49]

According to Hamilton, the basic design course is 'written' into the First Coldstream Report of 1960 as a 'requirement of art schools'. Conversely, the importance of fine art is stressed in 1964 in the *First Report of the National Council for Diplomas in Art and Design*, (1964). This may identify a move towards basic design in the late 1950s and a reinstatement of the importance of fine art in the early 1960s. This latter point can be seen in paragraph 21 under 'One Area Colleges':

> ...certainly, the Coldstream Report envisaged such colleges. But in the course of our review we became increasingly conscious of the need for caution in the recognition of only one area. First, it was clearly necessary that Fine Art, where it was not the approved course should nevertheless be well provided for in the college. Second, the approved course would in itself need to be wide-ranging and broadly treated. Third, the college would need to have strong resources for ancillary and supplementary studies. It was felt to be important that not only students but staff, too, should enjoy the stimulus of academic contact with persons working outside their particular specialist field. In the event, the nine colleges recognised for one area satisfied us that they would adequately fulfil these requirements.[50]

The points that it should be 'well provided for', 'wide-ranging' and 'broadly treated' and 'have strong resources for ancillary and supplementary studies' and 'have contact outside its specialist field', clearly signal that fine art was more important than other areas. No such provisos are made about graphic design or fashion and textiles for instance. Hence, even if a college had achieved recognition in graphic design it was being encouraged to ensure that fine art was strong and resources were made available to it. The centrality and value of fine art is impressed upon the report again in paragraph 40, 'Fine Art in other Areas':

> A principle emphasised in the Coldstream Report is that Fine Art should play its part in all areas of study. This was generally appreciated but we found that colleges approached the matter in two rather different ways. Some arranged things so that the Fine Art had very close contact with other departments and was itself responsible for the penetration of Fine Art into all Diploma in Art and Design courses. Others preferred that each department should organise its own Fine Art studies. We inclined to the view that, while the one approach was not necessarily better or worse than the other, any system which tended to restrict the influence of the Fine Art department from circulating freely throughout the college was to be deplored. Furthermore, however the system was arranged, we felt it to be essential that the Fine Art department itself should on all occasions be the effective source of method and direction. In colleges where the Fine Art course was either not submitted or not approved, the Fine Art content of other courses was very strictly investigated.[51]

The key question must be what the committee conceived of as fine art in this context. And that, given the emphasis on fine art, what made its 'penetration' into all Diploma in Art and Design courses important. Whatever was seen as 'fine art' was deemed essential to

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[49] Yeomans,(1987) p.294.
[50] *First Report of the National Council for Diplomas in Art and Design*, (1964), para.21, 'One Area Colleges'.

Fashion and Textiles, Theatre Studies, 3D Design, 2D Design. There are two umbrella qualities which seem to fit this brief: basic design and experimentalism, by this I mean allowing students to explore and experiment with materials, techniques and processes without restriction, as was encouraged in both Hamilton and Pasmore's basic design and the Bauhaus *Vorkurs* under Itten. This is the direction in which the Pre-diploma course leaders were being pointed.

Between 1962 and May 1963 the individual art schools hosted the visits from the body (the Membership Panels) and then managed to transform their Diploma courses to the new format. The Pre-diploma was problematic – it was so short. It was recommended to be at least a year, but was in effect less than nine months. This meant it had to intensively cover a broad number of common elements for students who would go on to any of the four areas. Essentially, it was not designed as a diploma in itself, but used for putting a portfolio together for entry to a higher diploma.

A key point here is that the abstract grammar or 'language of art' was of use to all four areas. fine art, was encouraged as central to other areas and basic design, as explored by Hamilton and Pasmore, was a ready model. By 1961, consequently, in using the abstract grammar of art, the teaching in fine art had blended with basic design in a quiet, unnoticed way. There seems to have been no great outcry, merely a reinforcing stamp of approval of what was generally happening. Copying from the antique, for example, was no longer suitable, nor was calligraphy – these areas of the old Intermediate certificate were no longer common elements. In the past it had been usual to copy an old master.[52] These things took time, which was a luxury the new course didn't have. What was helpful to all areas were the elements of an art language (line, tone, form, colour etc.) It is important to note that the essence of the syllabus was therefore a concurrence of design and fine art on the common ground of Bauhaus (*Vorkurs* style), experimentalism, basic design, and abstraction, with drawing seen as a crucial skill. Ideas and concepts as taught by some art historians were also seen as useful core skills, not to mention literacy and communication skills.

In this context, the changing status of design is also important. The standing of designers had been steadily growing since the 1951 Festival of Britain. Robin Darwin's leadership at the Royal College of Art throughout the 1950s supported the design disciplines, and he was keen to push their work forward. With regard to that, Frayling claims that the College was well represented on the Coldstream and Summerson Committees of the early 1960s and it

[51] *First Report of the National Council for Diplomas in Art and Design*, (1964), para.40, 'Fine Art in other Areas'.

was seen as a model 'although it is never explicitly stated'.[53] By 1965 ideas about the role of the Pre-diploma course as preliminary training for designers was becoming clearer. The Society of Industrial Artists and Designers in their *Pre-Diploma Educational Policy Statement* (9 March 1965) suggested certain guidelines:

> ...that discipline be run concurrently with liberation of talent. (i.e. manual skills, use of tools machines and processes as extensions of the hand.... and mental disciplines, objective study of situations conditioning design problems, ... their methodological analysis ...factors of a non-aesthetic nature which influence every design job.) While development of intuitive creative talent is essential, the training of the mind to apply this talent to a given job is of paramount importance.[54]

From the wording here one senses that 'liberation of talent' was happening all too freely in the Pre-diploma and that SIAD wished to instil a little more 'discipline' into the system. Also in respect of history of art the Society makes a valid point, it warmly endorsed the Pre-diploma broad study of history of art – usually interpreted as a history of painting and sculpture, and recommended the study of architecture and different forms of design including the context of sociological references.

The crux of the issue is what is thought of by the term fine art by this period in art education. It must be seen from the projects, the books in circulation often used as textbooks and the views of the artist-lecturer formed in their own practice, that fine art was no longer the fine art as envisaged by the Intermediate certificate. It was no longer sufficient for fine art in education to consist of still-lifes, landscapes, portraits, life drawing, modelling, carving and pictorial composition. Somewhere before the demise of the Intermediate course and the beginning of the Pre-diploma course there is a paradigmatic shift, aided by the 1959 exhibition at the ICA entitled *The Developing Process*. Even though there is disillusionment with the precepts of basic design around this time, as claimed by Julian Satterthwaite,[55] it is inevitably absorbed into the institutions, along with the model of organic form, ideas of Constructivism and experimental expressive tendencies.

Art education gained by absorbing basic design into the Pre-diploma course, Hamilton and Pasmore's approach, based on the Bauhaus *Vorkurs* had much to offer British art. The art schools were able to absorb it and blend it with fine art, while satisfying its need to provide

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[52] For example, at her Goldsmiths interview Bridget Riley had taken along a copy she had made of *'the woman in a red turban'* by Rembrandt. Kudielka, p.223.

[53] Frayling, Christopher, (1987) *The Royal College of Art: One Hundred and Fifty Years of Art and Design.* London: Barrie and Jenkins p.174.

[54] Bretton Hall Archives DCPL18 Society of Industrial Artists and Designers, 7, Woburn Square, London. *Pre-Diploma Educational Policy Statement,* 9th March 1965. By 1970, Olive Sullivan, who had run one of the first Basic Design courses was a member of the SIAD.

[55] Satterthwaite, Julian, 'The origins, development and endemic failure of Basic Design: a study of the Basic Design Movement in certain British Colleges of Art and Design in the 1950s and 1960s,' Liverpool University,

a general design course. By presenting basic design as an alternative to the old order, it had already served its purpose of instigating change. The educational establishments were steered towards an integrated approach at Pre-diploma level by the subsequent diploma award status. As the Summerson Council made clear fine art was central even to design education. Thus, the amalgamation was the way forward. This gave it a stamp of approval. However, fine art was high culture whilst design was vocational. This was a difference which reflected the class obsessed post-war society. It would appear that the status of design benefited from its association with high culture in the form of fine art, reflected in the strengthening belief and growth in design in the 1960s. Concurrent with this or even due to this amalgamation and the emerging Pop art climate, fine art was moving towards populism and reflecting the consumerist society, as Hamilton's own work of the late 1950s suggested. The key point that these reports and documents reveal, however, is that in the art schools at the beginning of the 1960s the meaning of fine art shifted, due to the amalgamation with basic design and the condensing of the Intermediate course into the Pre-diploma course.

The model of the radical Bauhaus, including Itten's '*Vorkurs*' was significant and most commentators in art education allude to its contribution in the establishment of the Pre-diploma course. It is no surprise that Itten's book *Mein Vorkurs am Bauhaus, Gestaltungs- und Formlehre*, (*My Foundation Course at the Bauhaus, Design and Form*) (1964) is published in English at this time. However there was no other model for a course to bridge the knowledge gap between school and higher education, especially in design subjects. Art in schools in the 1950s was still poorly taught and funded, except for the privileged few. The nearest most pupils got to design was woodwork or craft, in the form of bookends or basketry.[56]

The need for improved design training, the art scene moving away from traditional easel painting (towards Constructivism, Pop art and Abstract Expressionism) and new materials offered (plastics, fibreglass, new photographic and printing methods) meant that the old way of teaching art had to evolve or die.

M.Phil. 1993. See also John A.Walker, 'The basic faults of the Basic Design courses' *Art Monthly* (46) 1981 pp.27-28.

[56] If there had been more funding, facilities and timetable space, there would not have been the need for students to be funnelled. The fact that the one year Foundation course still exists points to the impression that schools are still unable to train young people to a standard where they can choose a specialist degree in art and design. Neither chemists, geographers, mathematicians nor English undergraduates need a foundation or diagnostic year.

This period of 1959 to 1965 is a period of upheaval for the art schools and their curricula, and the inconsistency in the terms of fine art and basic design are symptomatic of the confusion in the struggle between an old order and an emerging new vision of art school provision. Whilst the NACAE and the NCDAD had instigated the change in the exams and the art school reorganised accordingly, the reports were sometimes stringent in their requirements and at other times provided little guidance. The lack of guidance and confusion meant that reorganisation in teaching direction in the Pre-Diploma took a little longer to emerge. However, from the evidence of the art school reorganisation and the Coldstream and Summerson reports the following three key points can be established. Firstly, that there was a concurrence of design and art on the common ground of Bauhaus teaching models. Secondly, that an abstract grammar of art was useful to all areas. And thirdly, that the centrality and value of fine art in the Summerson report, was from one point of view representative of a shift in the meaning of fine art. From the other point of view, it could be said to be representative of a change in value and approach to the teaching of design. A major force in creating these changes was the working practices of artist-lecturers.

The introduction of the Foundation course, Cuthbert and Wimbledon School of Art 1961-1979

Cuthbert started teaching part-time at Wimbledon School of Art in 1961, directly after finishing studying at Goldsmiths under the Martins. By 1963 he had accepted the full-time position of leader of the Foundation department, which entailed the creating of a new Pre-diploma course and the subsequent introduction of a Foundation course.[1] Wimbledon, like other English art schools, underwent dramatic and exciting changes during the 1960s and, in this chapter, my primary aim is to identify the specific nature of these changes with reference to the Foundation course and to assess the range of Cuthbert's contribution to these as artist-lecturer and head of department.

This chapter is divided into three sections. In the first, I establish the major features of Wimbledon School of Art by the early 1960s, the shifting size of its student population and the changes in staffing and curricula in response to the Coldstream report of 1960, the Summerson Council 1961, and the subsequent inspection of the School in 1962, including consideration of the presence of basic design, approached through primary archival material. The details in the minutes of the Wimbledon School of Art Board of Governors sheds some light on the changes happening at Wimbledon School of Art.[2]

In the second section, I seek to contextualise the specific nature of the Foundation course at Wimbledon by identifying and analysing the structure and content of Foundation courses in England in the 1960s through a study of project briefs and syllabi. In particular through an analysis of Seabourne's 1968 study of Foundation courses, I assess the role of basic design, the impact of organicism and Constructivism, and map out the personal networks developed in the wake of reforms in the key art schools.

Building upon this, in the third section, I analyse the specific nature of the Pre-diploma/Foundation course at Wimbledon under Cuthbert, drawing upon primary course documentation, oral history and the Wimbledon School of Art magazine. I also assess Cuthbert's role in shaping the teaching through his appointment and deployment of staff. Here I will argue that aspects of basic design, Constructivism and organicism were an

[1] In this chapter, for ease of terms, I refer to the course and department at Wimbledon as 'Foundation' although it was in fact at first a Pre-diploma course and department until 1965.
[2] Wimbledon School of Art, Book II 1956-63 Board of Governors Minutes, CEM/210, Surrey History Centre, see *Appendix 5.*

inherent part of Wimbledon School of Art Pre-diploma course at its inception in September 1963 and over the following years.

Throughout the 1950s it built a reputation as a successful art school, which carried it forward into the period of rapid change with confidence. In 1965 the changes within the school were matched by external changes as Wimbledon School of Art passed from the control of Surrey County Council to the London Borough of Merton. Thus, it was that Wimbledon was in an unusual position of moving out from under the aegis of a County Council to under that of a London Borough.

I have highlighted the reasons for change in post-war art schools because previous histories of the period have been unspecific. As outlined in the previous chapter, the impact of these changes is significant since they raise the issue of what is thought of by the term fine art by this period in art education,. From the projects, Pre-diploma briefs or syllabi and course structures an understanding can be gained of the conception within the art education establishment. Contingent with this is the tension created in the Foundation course as to the position of design. At diploma level the teaching was oriented accordingly to the area, but at Pre-diploma/Foundation level where the purpose of a project was broad and had to accommodate both art and design, the cross fertilisation between the two was a significant factor. The range of colleges examined depends on the scant evidence available from this period.

4.1 Changes at Wimbledon School of Art

The chairman of the Board of Governors of Wimbledon School of Art, W.E.Hamblin had been on the board for fourteen years when he died in 1957. His successor, Mrs Harriet Corbett held the post until at least 1963. The length of Hamblin's involvement is suggestive of the success and stability of Wimbledon School of Art. As a measure of this success, for example, in 1957 six students gained places at the RCA and the Slade respectively. In March of that year the total number of students enrolled at the school was 1102. Of these, 114 were full-time, 322 were part-time, 470 were evening students and 196 were Saturday morning juniors. The expansion in numbers reached its peak of 1200 in June 1958 and stabilised around 800-900 in 1963. Thus, by the time Cuthbert introduced his pre-diploma course in 1963, the overall student numbers at Wimbledon School of Art had dramatically fallen. However, closer examination of these figures with particular reference to the Intermediate certificate show that a key area of growth was the Pre-diploma course. By looking closely at the Intermediate certificate, which was a two year basic course in art and design, it is possible to compare this with Cuthbert's setting up of the new Pre-Diploma

course and pinpoint the changes, both within the institution and overall in the teaching content.

The growth is evident in the numbers, for example, in 1957, 26 students entered and passed their Intermediate exam. In 1958, 31 entered and 24 passed.[3] By February 1962 the enrolments had risen to 50 in the first year of the Intermediate Course and 48 in the second year of that course. The overall Intermediate numbers of both years together were, therefore, 98 students. The analysis of these figures reveal that while the overall total of the school had reduced, the Intermediate and National Diploma in Design (NDD) intake was expanding. The evening class and Saturday morning juniors numbers were reducing or staying the same. In essence there was a greater demand for the Intermediate certificate and National diploma course. Comparison with other art schools at the time show that this was the general trend.[4] The post-war rise in numbers up to 1957 were due to the bulge of returning servicemen entitled to retraining on grants, who entered art schools, but that bulge had abated by 1960 and the new rise in numbers, it must be assumed, was due to a different social climate. Qualifications were becoming more important. Parents had greater educational aspirations for their offspring. This can be seen in the first generation of working class children to go to university.[5] Pinpointing the details of these changes in the English art schools, brought about by the emergence of basic design in the second half of the 1950s and substantiated by the Coldstream Report of 1960 and the Summerson Council of 1961, provides a previously un-researched context for the art of the 1960s.

Likewise, the number of staff employed in the school was not static. After the Burnham award in 1956, which was a general review of staff and pay, there was standardisation and upgrading. For instance, Mr P.A. Bucknell was upgraded from senior lecturer to Head of Department of Theatre Design. This was significant for the future profile of the School. Always strong on Theatre Design, it became an important part of the school to the extent that when the Diploma in Art and Design was awarded it was the only specialist theatre course in the country to be approved.[6] The entries in the minutes of the Board of Governors for 1956-1963 tend to be dominated by the concerns of the Theatre Design department.[7] In 1959 one lecturer was upgraded to senior lecturer. By September 1963

[3] The records show that in 1959, 33 entered and 27 passed their Intermediate exam. In 1960, 34 entered and 30 passed. In 1961, 36 entered and 30 passed. Wimbledon School of Art, Book II 1956-63 Board of Governors Minutes, CEM/210, Surrey History Centre, see *Appendix 5.*

[4] Chelsea Intermediate intake in the years 1959 and 1960 is indicative of the trend to expand what becomes the Pre-diploma course. See *Appendix 4.*

[5] John A. Walker, (1986) *Cross-overs: Art into Pop: Pop into Art* London: Comedia, p.16.

[6] See *First Report of the National Council for Diplomas in Art and Design*, published by the Council February 1964.

[7] The Theatre department, in October 1958, together with the other departments: Fine Art, Sculpture, Graphic Design, and Stained glass, comprised the five Heads of Department, one senior lecturer, four lecturers, one grade 'B' assistant.

there were six Heads of Department (including Vice-Principal), three senior lecturers, six lecturers, and one assistant. The additional Head of Department was Alan Cuthbert who led the new area of Pre-diploma studies and was also the Vice-Principal.

There are a number changes which indicate what becomes important at this time to art schools in general and Wimbledon School of Art in particular. Her Majesty's Inspectors from the Ministry of Education, visited the school in February 1962 and on 5 March 1962, Her Majesty's Inspectors Miss Smale and Mr Pickering (District Inspector for Surrey) attended the Board of Governors meeting and praised Gerald Cooper, the principal of Wimbledon, highly in their report to the Governors. From their recommendations it can be presumed that they were keen to bring about change in the art school, building upon its successes. Their report made the following recommendations: a lecturer in charge of the library to co-ordinate more work in Art and Design tutorials and discussions for help with the new Diploma in Design. A welfare assistant to advise the young on health, accommodation and social life, (there were at this time 57 students from outside Surrey). Furthermore, the Ministry of Education had recently given approval for the appointment of a senior lecturer to be responsible for the teaching of art history. These library and art history recommendations were intended to raise the academic standards in art schools, this had been suggested by the entry qualifications of five 'O' levels being instituted in the 1960 Coldstream Report. These changes are of particular interest to this study in the light of the content of basic design teaching, which focused on abstract ideas and concepts in its exploratory teaching methods, in much the same way as the Bauhaus had done. Access to better library facilities and to relevant art history lectures would stimulate new ideas and encourage a culture of research.

The HMI visit of February 1962 ushered in some of the changes in its subsequent report by making the following comments about the Intermediate course:

> The numbers admitted to the first year of the Intermediate show an increase of 25% on the figure for the session 1958/59 whilst the numbers submitted for the exam at the end of the second year of the course have increased by 33% over the same period.[8]

When this is compared to a decrease in figures on the amateur courses, the change in policy of the art school becomes apparent. The report went on to recognise the emphasis on drawing in the course, but criticised its weaker history of art, architecture and lettering, and the overall presentational aspect by the students:

[8] CEM/210, Surrey History Centre, p.5, 6 &13.

> The belief that the discipline of drawing will establish skill, understanding and sensitivity is responsible for the composition of the course, as it stands. In figure drawing, pictorial composition, perspective, still life and plant drawing, this belief is evident in the supporting works: but it is less clearly shown in lettering, architecture and historical studies, all of which have a casual resemblance to their sources. The notebooks on the history of art contain matter written up perfunctorily, giving little evidence of support from reading or other private study. It is doubtful whether the kind of drawn illustrations they contained had much value and the cuttings, scraps and other illustrations were sparse and often not to the point. A single well ordered notebook covering all the kinds of personal study and reading undertaken by, and required of the student could have great value. It could be regarded as a matter of opinion that art students should learn to present their studies in a neat and workman - like way; it would be easier to assess the value of much that had to be looked through during the inspection if the portfolios could have been more orderly and well arranged and the notebooks comprehensive. Supervision of this side of the training might well be arranged.[9]

These aspects of the mechanical workings of the Intermediate course highlight the shift in direction suggested by the ministerial authority. As the following quote shows, the Inspectors are looking for quite specific evidence:

> The study of pattern, colour, texture, etc. has not been regarded as a separate subject although some experimental work has been done and a recently appointed teacher is working out a scheme to extend experiment more widely.[10]

The concept of the separation of subjects, or the elements of the language of art and the inclusion of experimental work, is voiced by the inspectors, implying an understanding of Bauhaus principles.

As in most art schools during this expansion, lack of space became a problem. Whilst it is evident from the following comment that three dimensional work is regarded as inherent.

> That first and second year should have studio spaces of their own.
>
> Modelling is taken by every Intermediate student but it is suggested that it is used to develop the opportunity to meet specific aesthetic problems.[11]

The inspectors lauded the success of the school whilst implying that changes were on the way:

> As a result of general development in art courses, changes will inevitably have to be made, but whatever the future may hold it is clear that for the past 30 years the Wimbledon School of Art has made a valuable contribution to art education in this country.[12]

In summary, then, the HMI report of 1962 on the Intermediate course at Wimbledon School of Art makes these points: 1) there is an increase in numbers; 2) Drawing is a key component; 3) the benefit of well ordered notebooks; 4) Experimentation could be extended; 5) Division of years, i.e. more space needed; 6) Modelling could be more

[9] CEM/210, p.5.
[10] CEM/210, p.6.
[11] CEM/210, p.6.
[12] CEM/210, p.13.

adventurous; 7) Wimbledon's past record is recognised as successful. Nothing galvanises a course more than an increase in numbers. While points 2) and 7) are worthy, it is points 3) to 6) which evidence the future direction of art education, even before the Pre-diploma course is established.

It should be pointed out here that the external reports had a profound effect on changing and shaping the courses teaching art. Through the inspectors reports money followed and in order to receive the government funds certification was needed.

In mapping the introduction of basic design into art schools, it is pertinent to note that the term 'Basic Design' is used in the Wimbledon minutes for the first time in 1962, at the point where the school needs to expand areas in order to comply with the new requirements of the Diploma in Art and Design. The school had applied to the Summerson Council for recognition of Diploma courses in four areas: Fine Art; Graphic Design; 3D Design – Theatre; and 3D Design – Ceramics. In June 1962 a team from the National Council for the Diploma in Art and Design visited Wimbledon School of Art. In May 1963 the Council notified Wimbledon that it approved, for five years, the 3D area of Theatre Design only. It was the only one in the country to be recognised for theatre studies at the time.[13] Central School of Arts and Crafts had applied but was turned down. In the minutes, proposals were made to reapply for Fine Art and Graphic Design and possibly Ceramics. The Secretary of the Summerson Committee pointed to the inadequacy of the Library – it suggested that it should be better equipped and open day and night, and furthermore, that a full-time Librarian was essential.[14]

Following this, Gerald Cooper's report to the board of Governors requested additional staff necessary to comply with the requirements of the Summerson Committee: these included one full-time and one part-time teacher of basic design, three part-time teachers of Art History in addition to the present full-time lecturer, one part-time teacher for painting, one typographer for Graphic Design, one senior lecturer for Theatre Design, part-time staff for architecture, one assistant for Liberal Studies, one full-time librarian and two assistants. On the support side he requested technical assistants for Theatre and Graphic Design and Painting and a wardrobe supervisor. In addition, the Education Committee agreed that Gerald Cooper be granted an extension of service beyond normal retirement age whereby he might continue as Principal until the end of the academic year 1963/64.

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[13] See *First Report of the National Council for Diplomas in Art and Design*, (1964), and EO/HFE/1/325, (LMA).

[14] Consequently, Hans Brill was appointed in September 1964 to expand the library resources.

4.2 The Foundation course in the 1960s

Sifting through the content of documents of Foundation courses of the 1960s, it is apparent that many approaches to art and design co-existed. These range from the more traditional to the more abstract and expressive. However, three influences on projects - Thompson, Bauhaus and basic design - occur with regularity. These are interdependent to a greater or lesser extent and constitute a new thrust in the reorganisation of the art schools.

It is sufficient to list them chronologically, since their content has been examined in previous chapters. The methodological theories of D'Arcy Wentworth Thompson; the Bauhaus pedagogy, especially of Itten's *Vorkurs* but also the teachings and texts of Kandinsky, Klee, Albers and Moholy Nagy; basic design as fashioned by Hamilton, Pasmore, Thubron and Hudson, in sequence with Thompson's theories.[15] I have searched for these looking at any teaching or syllabus structuring, which evidences these three approaches.[16] The indications of these appear as phrases such as 'the grammar or language of art', or words such as 'organic', 'nature', 'structure', or 'biological formation'. I have also looked for evidence of colour teaching, from both psychological and physiological positions, and Itten's content of the *Vorkurs*. 'Experimentation' is a key word in relation to the pedagogy of the Bauhaus and basic design and its use in project briefs is significant and frequent. The documents and information come from a number of different sources and they are not exhaustive, namely, Bretton Hall Archives, Wimbledon School of Art, Tate Britain Library, Alan Cuthbert's personal documents, and Don Pavey, lecturer in art history at Kingston. As I have stressed art schools varied enormously due to strengths, region and leadership. Their directions were many and diverse, but common projects and trends are, as I have argued, traceable.

In September 1963, the launch of the new Diploma in Art and Design and the Pre-diploma course, (later to be called the Foundation course), was the biggest change in art education for decades. It was a difficult time for lecturers and principals, for the Ministry guidelines resulted in some art schools not making the grade and eventually merging or closing. The content of the Pre-diploma course is central to understanding these changes.

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[15] Herbert Read's support can be traced for many of these areas in British art educational and historical criticism. The 1951 ICA Symposium examined in chapter two serves as one example.

[16] The evidence of the organic and mathematical in basic design can be seen in the exhibition catalogue of *The Developing Process*, in which Harry Thubron states: 'Reference to mathematical and geometrical forms as well as forms of biochemistry widen the field of comparative study together with objective and analytical studies from nature.' *The Developing Process* (1959) p.31. Furthermore, diagrammatic drawings of (1) grid based on a twig, (2) grid based on a hand (spread out), (3) grid based on fingers, and (4) grid based on a shell, demonstrate analytical drawing projects combining biological growth, mathematics and form, see *The Developing Process* (1959) p.6.

A postgraduate research study by Barry Seabourne, entitled *The Art School Foundation Course 1967/68,* is a useful starting point for comparing elements from a number of Colleges of Art and Design.[17] Seabourne's purpose was to effect change and stimulate progress by reviewing the state of the Foundation course as it was perceived by those teaching it. This is the only such study done (and curiously it is completed untainted by discontent in the same year as Hornsey and Guildford are occupied by students in protest against the system.) He endeavoured to compare the range of teaching and structure of courses, staffing and numbers. I have sieved through Seabourne's material, including the responses from the colleges in the report, for evidence of colour teaching, and organic and Constructivist approaches.

In October 1967, Seabourne contacted twenty one art colleges about their one-year Foundation course. Among the sixteen replies, nine were visited, and the four larger ones included in the report.[18] Although most of the course content is not explicitly stated there are several thoroughly documented examples which show fundamental reorganisation. In this context, Brighton is worth citing. It organised itself into five interdependent fields and allotted 20% of time to each: 1) Objective study, 2) Basic Design, 3) Basic Construction, 4) Complementary Studies, 5) Area Study. Here, fields one and two are particularly revealing. For Brighton, Objective Study includes 'forces of growth', and 'study of natural forms' i.e. organicism. In addition, 'lectures by visiting experts on wide range of subjects such as geology, astronomy, comparative anatomy, biology, mechanics, optics, and architecture.' [19] Field two, meanwhile, is worth quoting in full because it adheres to the model of basic design, which by this time had become widespread:

> 2) Basic Design (2 Dimensional), properties of line, structure, area division, texture, shapes, signs and symbols, rhythm and movement, colour, space and spatial concepts. The aim is to stimulate visual awareness and breadth of vision.[20]

This is similar to Birmingham College of Art and Design, 'Function of Course' document, which defines design as conscious planning towards an end result, rather than accident. This aligns with the pre-intention and the pre-set approach used in the organic aesthetic by Thistlewood discussed previously in Chapter Two. The 'Function of Course' document also cites observation and perception as key skills, and breaks down its course as follows:

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[17] Seabourne, B., *The Art School Foundation Course 1967/68*: A report written and prepared by Barry Seabourne, (Dip. Fine Art, London). Postgraduate research year, department of Arts and History, Architectural Association, School of Architecture, London WC1. This is an unpublished report amongst the papers of D.W.Carruthers at Bretton Hall Archives and is annotated by him. See *Appendix 6* for a chart of some of the numbers of applicants for Diploma courses at certain colleges. Leeds and Leicester are the largest and the latter, where Carruthers was Head of Foundation, offered the most diverse courses in 1967/68. BHDCPL00020, NAEA Bretton Hall. *(All documents in this chapter beginning with the letter BH are to be found in the National Arts Education Archive, at Bretton Hall).*

[18] Leeds, Leicester, Birmingham and Manchester were among the largest art colleges at this time.

[19] Seabourne, B. *The Art School Foundation Course 1967/68*, BHDCPL00020.

[20] Also noteworthy, are the open lectures from 6:00-7:30 on Wednesday and an assembly attended by all students and staff every week, for course administration. Seabourne, B. BHDCPL00020.

> a) Drawing; b) Design; c) Colour; d) Print; e) 3D studies; f) short course in photography. g) periods in ceramics/theatre/ silversmithing / jewellery / interior design / furniture / industrial design. h) History of Art and Complementary Studies.[21]

It significant to note here that colour was now an established part of the Foundation course, since its usefulness across all areas was clear. As part of the key skills of observation and perception 'colour' was broken down into: the introduction of colour theory; study of observed form and colour; development of personal application and use; variety of material and practical use; and historical research of form and colour.

In Seabourne's documentation of Kingston College of Art in February 1968, the four usual areas are listed: Fine Art, Graphic Design, 3D and Fashion, together with the increasingly popular *diagnostic* first term. However, in this instance colour is only mentioned in passing. Seabourne notes that more emphasis is placed on the separate special mention of glass and, as the following demonstrates, on the relatively new area of audiovisuals:

> Provision is made for practical experiments with light, colour, sound and motion in the creation and related visual sound images...in addition the recent introduction of a photo electric cell system of sound generation and audio-visual synchronising offer considerable scope for advanced work in this field of study.[22]

The conclusion I draw from this is that Kingston was a progressive course with the latest technology, and therefore well funded. Not all courses could afford such equipment, and the emphasis of each course depended particularly on the head of department, and the teaching strengths within it. A further factor is whether the Foundation course existed alongside Diploma courses in related areas, from which there were obvious advantages and some disadvantages, such as space and resources.

From Seabourne's same report of 1967/68, Derek W. Carruthers, head of department at Leicester College of Art, divides his course into three phases 1) Foundation, 2) Development and 3) Project. To quote:

> The foundation phase is concerned with primarily the perceptual consideration of those factors of form and colour, which provide the basis of the artist designer's grammar, starting with 5 objects reflecting a word. Life drawing is mentioned. Week 5 light and pigment, experimental and installational.[23]

Leicester also ran a history of ideas course, in addition to a history of art course, which was quite rare among its peers, thus, pointing to the openness to concepts from other disciplines which began to affect art during this period.

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[21] Seabourne, B. BHDCPL00020.
[22] Seabourne, B. BHDCPL00020.
[23] Seabourne, B. BHDCPL00020.

Personal and professional opinions contained within Seabourne's study show the diversity of the courses and give an insight into the shifting debates in the foundation course in the mid 1960s. In his overall conclusion of the report, covering all the colleges analysed, Seabourne uses the 'organic' language: for instance in point (2.)

> (2.) Aesthetic development: this area is concerned with the development of the student's deepest feelings. [...] The studies can be such that they can see their own processes of growth reflected in the natural growth of organic processes. [24]

Seabourne considered that generally in Foundation courses, through activities such as drawing and painting, the student documented his/her growing perception and awareness as it moved through various degrees of subtlety, thus creating a history of growth in an art work. The process was deemed important. These were courses which opened students' eyes, and taught them to see. I propose that this was a concept passed down by the Bauhaus teachers and detailed in Biederman.[25] Furthermore, Seabourne's detailing of 'organic' language and mention of 'processes of growth' indicates that the Foundation courses had absorbed ideas from Thompson and basic design in their need to prepare students for a variety of further courses and professions.

In the third topic of the report, entitled 'Design Development', Seabourne openly supports an interest in the Natural Sciences, as exposed in this quote:

> Perhaps one of the largest untapped sources of visual material lies in the realm of Nature, studies of the natural sciences would be invaluable. Such areas include botany, zoology (man and animal), geomorphology, astronomy and in special instances chemistry and physics.[26]

Carruthers' response to the questionnaire carries the note 'always interesting for interest's sake but never productive in a genuinely creative way'. The second point perhaps reveals Carruthers' ennui with the organic aesthetic as encapsulated in some basic design projects.

Seabourne's report also suggests that looking toward Eastern culture can help 'to objectively assess what is of value in our present situation'.[27] Just as Zoroastrianism was popular at the Bauhaus, so Eastern philosophy was of interest to 1960s students in Britain.[28] In the modernist and avant-garde there has always been the tactic of embracing something outside the system, to effect change.

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[24] Seabourne, B. BHDCPL00020.
[25] See chapter 5 of Biederman,C. (1948) *The Evolution of Visual Knowledge.*
[26] Seabourne, B., BHDCPL00020.
[27] This copy of the report is amongst Carruthers' papers in the Bretton Hall Archives, complete with Carruthers' note in the margin 'Zen philosophy is essentially too personal and introvert for inclusion in an educational programme?' This makes a good contrast with Itten's Zoroastrianism at the Bauhaus.
[28] Eastern philosophy was an interest of some New York painters in the late 1950s, including Agnes Martin. Further reading, Dore Ashton charts Eastern philosophy in American art, for example her book on the Japanese

The third point in the report is about the teaching of Art History in foundation departments in general: 'At present they are primarily academic and bear little relation to the students' main line of work.' This is a constant cry and is even heard nowadays.

According to Seabourne Leicester College of Art was an important and progressive institution. For this reason it is worth scrutinising Carruthers' project briefs for the Foundation course.[29] At Leicester College of Art, in the synopsis of the first eight weeks of the course of 1964/65, designated foundation aspects of colour perception were dealt with in weeks 6 and 7. This is worth citing in full since it outlines the areas being covered by some colleges at this time:

Aspects of Colour Perception

1) Psychological reactions to colour - the effects of different coloured environments, symbolic colour, scale - (2 days).
2) Colour Theory. Three and four Primary circles, secondaries complementaries, negatives , etc. (2 days).
3) Intuitive experiment. Analysis of irrational or subconscious relationships. (2 days).
4) Colour analysis from painting. (1 day).

The following year, the project changed slightly. It spread over 3 weeks, although the specific number of days is not given. The effects of different colour environments have gone, as has the analysis from painting. These are replaced or renamed as 'theoretical analysis, colour analysis from visual data, problems involving accuracy observation and colour mixing, the irrational and ambiguous and the distortions of reality through colour changes'. These topic changes suggest a more thorough perhaps scientific approach to colour matching and the physical properties of colour and a distinct move away from the restrictive term 'painting' towards 'visual data'. Only by finding which textbooks on colour these key words come from or by analysis of students' projects would it be possible to trace the changing teaching of colour accurately from this time. Such examples have not yet come to light.

From the notes of Don Pavey, lecturer at Kingston, it is clear that colour was being taught at Kingston from the late 1950s onwards in various ways, including an emphasis on words and feelings in connection with colour. In February 1961, on the basic design course (note the early use of the term), in the department of design, one of the design exercises is to explore the emotions aroused by simple shapes, the expressiveness of media and how they

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American sculptor and designer Isamu Noguchi in Ashton, D. (1993) *Noguchi East and West*, Berkeley: University of California Press. In Britain Alan Davie showed interest, Garlake, p.112.

[29] Information contained in BHDCPL00002-3. Weeks 6 and 7 of the project are dated as starting 2 & 9 November 1964.

can be combined with colour to portray particular states of feeling.[30] Most notably, by November 1961/62 the project on colour had changed to a much more scientific physical analysis of colour relationships.[31] Although this based upon circumstantial evidence, this shift from the emotional to the scientific may be significant.

In mapping the occurrence of basic design in St Martins School of Art, which had a non diploma course in the department of Preliminary Studies, the 1962 syllabus was as follows: Basic Design and Printmaking; Structural Design, (from natural and man-made forms); Experimental Design (individual projects, research schemes, objets trouvés); Objective Drawing and Painting for Composition; Creative Pictorial Design; Modelling and Three Dimensional Exercises; History of Art related to political and social history.[32] This highlights the point that basic design could be used as a component of a broader course.

A further important source which underlines this shift from emotional to scientific colour was the exhibition organised by Tom Hudson at the Whitechapel Art Gallery, London, in the early summer of 1965.[33] It was entitled *Art Education of the individual: an exhibition of the work of the students of Cardiff College of Art.* In the 1960s the Whitechapel Gallery hosted an interesting number of exhibitions on art education, as an extension of the London Schools Education Service, providing an exhibition centre and studio for London schools and teachers.[34] Significantly Herbert Read, who had been involved in art education since the 1930s, wrote in the introduction:

> Mechanical processes remain mechanical and their procedures are lifeless unless they are controlled by minds that are sensuous and subtle, minds that can use the machine for the vital enhancement of civilisation.
>
> There is no fundamental contradiction between the forms of art and the forms of technology - both rely on the same language of structures, but art gives life to these structures. This is the essential truth that Tom Hudson has made the basis of his approach to education, this exhibition demonstrates in a most practical way how art can be linked to technique and technique to art.[35]

The two key phrases Read uses here 'mechanical processes' and 'language of structures' reference two important themes inherent in the language of the Bauhaus and extended through the fine artists, Klee, Kandinsky, Itten and Moholy Nagy, to basic design. The two

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[30] BRPL/2361, BRPL/2362 – 2369. See *Appendix 7* for 'Don Pavey Colour Projects 1961-62' *Document BHBRPL2362* from NAEA, Bretton Hall Archives.

[31] See *Appendix 7* for 'Don Pavey Colour Projects 1961-62' *Document BHBRPL2362* from NAEA, Bretton Hall Archives

[32] The course also included Museum Studies; and Outdoor Drawing; Life and Costume Life Drawing. EO/HE/1/324, 24 September 1962, London Metropolitan Archives.

[33] *Art Education of the individual: an exhibition of the work of the students of Cardiff College of Art*, (1965) exhibition catalogue, Whitechapel Art Gallery, from 25 May -19 July 1965, London: Whitechapel.

[34] The 1967 exhibition, *Structural Growth in Natural Form*, in the upstairs gallery of the Whitechapel Art Gallery organised by a lecturer at Goldsmiths, in which Cuthbert took part. See *Appendix 8.*

[35] Read, H. introduction to *Art Education of the individual: an exhibition of the work of the students of Cardiff College of Art*, (1965) exhibition catalogue, Whitechapel Art Gallery, from 25 May - 19 July 1965, London: Whitechapel.

themes, simplified as the machine and nature are promoted through the experimental studio teaching, which becomes invaluable to design and likewise to art in the 1960s.

Art lecturers who were interested in supporting basic design and new ways of teaching, gravitated toward certain colleges, among which were most noticeably, Newcastle, Leeds, Leicester and Cardiff. Tom Hudson, for example, moved through this network. Hudson studied at Sunderland and Kings College, Durham University in Newcastle-upon-Tyne, from whence he went via the Courtauld Institute postgraduate course in art history, to lecture at Lowestoft and then at Leeds from 1956 to 1960. He became head of fine art at Leicester from 1960 to 1964, and then moved to Cardiff. Coincidentally, Harry Thubron arrived at Leeds in 1955 staying until 1964 and moving, via two years at Lancaster, to Leicester in 1966.[36] Terry Setch who joined Hudson at Cardiff had been lecturer in Pre-diploma Studies at Leicester 1960-64 under Carruthers. Carruthers, similarly, had been lecturing at Sunderland from 1961 to 1963. Thus, through the mapping of individuals it is also possible to see the interrelated networks of ideas and personnel that developed.

4.3 Alan Cuthbert at Wimbledon School of Art

The foundation course under Cuthbert was seen as a fine art based course and rejected basic design as a full package, but incorporated parts. Wimbledon was no different from other colleges in this respect where, as I have shown, this was the prevailing trend in art education. In the following section I investigate, in greater detail, the foundation department at Wimbledon School of Art under the leadership of Cuthbert in order establish the artist-lecturer in a context with regard to basic design and other contemporary themes.

Cuthbert started at Wimbledon School of Art in 1961 having completed his Intermediate, National Diploma in Design and Art Teachers' Certificate at Goldsmiths School of Art as a mature student. He had entered Goldsmiths having worked firstly for a surveyor for a year from 1948-49. He then completed his National Service with the RAF Signals section.[37] From 1951-57 he worked for a mining engineers' firm, during which time he attended Imperial College and passed the Geo-Physics element of a B.Sc. in Mining Geology. Cuthbert's obvious interest in Geo-Physics and his experiences as a young surveyor, of drawing plans, and measuring and recording in a systematic and careful manner must have had an impact on his methods as his later painting oeuvre demonstrates. The Geo-Physical

[36] See Forrest Erik, (1983) 'Harry Thubron: his contribution to Foundation Studies in Art Education', unpublished PhD at Ohio University, Athens, Ohio, U.S., 1983. Forrest left Leeds in 1961. Thubron 1915-1986 studied at Sunderland College of Art from 1933-38, and at the RCA from 1938-40. He then returned to Sunderland as Head of Fine Art 1950-55.

element certainly reinforces the argument that his art arose from his exposure to science and mathematics and his understanding of the physical world.

Thus, with this unique surveying and geological experience, he was thirty years old when he qualified from Goldsmiths and was appointed as a part-time teacher in the painting department at Wimbledon School of Art by Gerald Cooper, the Principal, who had been at Wimbledon since 1926. Other members of the painting department included Tom White, who became full-time in 1959, and the Edwards brothers, who had been there since at least the 1940s. Cooper's own work was flower painting in the eighteenth-century Dutch manner. Tom White was a traditionalist, who taught perspective, compositional and anatomical studies. The Edwards brothers were also from an academic art tradition.[38] Cooper retired in 1964, having served thirty eight years in the same art school. He appointed Alan Cuthbert on the strength of his letter and references from Paul Drury R.E., Department of Engraving, and John Mansbridge, Senior Lecturer, both at Goldsmiths School of Art. The latter wrote in the reference:

> He is an inventive designer, his draughtsmanship sound, [39] constructive and appropriate to each conceptual purpose, and he always strives for an organic relationship between form and content, in which the function of a keen sense of colour plays a big part. He has experimented with constructions and ratios (though never merely in an academic procedure) and his simplifications are more 'extractions' than what are now commonly called abstractions. (He has just completed successfully a large design founded on birds where colour, wing forms and flight rhythms have been fused). He has executed a mural for an L.C.C. school and of late has been helping very ably with some Intermediate Life classes, and in General Painting and Drawing. [40]

This reference clearly uses the language of the current period debate. 'Constructive', 'constructions', 'ratios' and 'organic' all point to an understanding of D'Arcy Wentworth Thompson's ideas and basic design in teaching. The issue of 'form and content' is also of note.

Wimbledon was Cuthbert's first paid teaching job and it was part-time in the painting department. It has been suggested by colleagues that Cooper was impressed by Cuthbert's

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[37] 1948-49 J.Prevost & Sons (Surveyors); 1949-51 R.A.F. Signals, part of which was based at an airstrip in Yemen; 1951-57 John Taylor & Sons (Mining Engineers); 1957-61 University of London - Goldsmiths School of Art. See *Appendix 24*: Alan Cuthbert, Curriculum Vitae.

[38] Interview with David Poole, 6 December 2001, at Weston. David Poole was former lecturer at Wimbledon between 1961-1978, he then went freelance as a Portrait painter after a royal family commission. Poole later became Chair of the Royal Society of Portrait Painters.

[39] At Goldsmiths School of Art, Cuthbert was taught drawing by Sam Rabin who was renowned for his draughtsmanship and figurative work. Rabin had also taught Bridget Riley at Goldsmiths. Rabin was the son of Russian Jewish immigrant parents. He was trained from 11yrs old at Manchester School of Art and later at the Slade by Henry Tonks. From 1949-65 he taught at Goldsmiths School of Art. He was also visiting lecturer at Camberwell School of Art. As a young man he had won a bronze medal in the Olympics in boxing.

[40] John Mansbridge, reference for Alan Cuthbert, 1961, unpublished document in Cuthbert's studio, Puylaroque, France.

geology background.[41] Although Cooper was very obviously one of the 'old school' he recognised that there was a wave of change happening in the art education establishment. Cooper was by most accounts an autocrat who acted regardless of the Governing Body.[42] His appointment of young staff at the start of the 1960s seems to reflect an understanding of the changes afoot. Three years away from retirement Cooper could easily have sat firm and employed traditionalists. In 1961 in addition to Cuthbert, he appointed David Poole to the painting department as a full-time lecturer.[43] Poole had originally started his art education, alongside older students and some ex-servicemen, at Wimbledon School of Art when he was fourteen years old, a common model of training among the post-war generation which no longer exists. Poole was taught in 1945 by Gerald Cooper, Tom White, John Daly, John Ward, Lionel Ellis, and the Edwards brothers.[44] From 1949-1953 he studied at the Royal College of Art, under Carel Weight and Rodrigo Moynihan alongside such artists as Edward Middleditch, John Bratby, John Minton. It was a regular occurrence in art schools of this period for students to be asked back to teach in the schools in which they had trained. Although invited back to Wimbledon School of Art, recognising the closed system and the need for a different experience, Poole went to teach at Lowestoft, taking over from a well-respected lecturer, called Tom Hudson. As mentioned in the last section, Hudson taught at Lowestoft before going on to be involved in the growth of basic design at Leeds. Leeds became an important building block in the growth of basic design and continued to exert influence throughout the late 1950s and 1960s. Hudson's move away from the traditionalist approach in the structured Intermediate course filtered into Lowestoft and Poole was aware of the new approach. Thus, I am proposing that when change came to Wimbledon School of Art, Poole was open to it, and whilst Poole's own work is portrait, figure and landscape, he recognised the need for basic design thinking anchored in good drawing, yet experimental and exploratory in the area of the grammar of art.[45]

Another member of staff at Wimbledon School of Art who had experienced basic design was Neil Stokoe. Stokoe spent his two-year Intermediate and two-year NDD at Sunderland (1953-57), where the head of painting was Harry Thubron. Thubron, like Hudson, also later went to Leeds.[46] After two years national service Stokoe spent from

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[41] Interview with David Poole, 6 December 2001, Weston.
[42] Interview with Neil Stokoe, 20 August 2001, Crown & Greyhound, Dulwich.
[43] Interview with David Poole. 'D.J.Poole, Grade 'B' assistant at Lowestoft School of Art be appointed at Wimbledon School of Art from 1 January 1962'. Confirmed in the Board of Governors' minutes 5 October 1961.
[44] One was an ex-serviceman; the other had a hearing disability and thus was not called up.
[45] Interview with David Poole, 6 December 2001, Weston.
[46] Interview with Neil Stokoe, 20 August 2001, Crown & Greyhound, Dulwich. Wendy Pasmore was at Sunderland with Thubron. Thubron, at Sunderland from 1950-55 and at Leeds organised the basic design course from 1955 to 1964.

1959-62 at the Royal College of Art. On leaving in 1962 Stokoe was appointed at Wimbledon School of Art and taught there part-time for thirty eight years. Stokoe taught Art History for two years and then moved into the painting department. Stokoe, Poole and Cuthbert, therefore, constituted a young generation with little teaching experience, who had come into contact with basic design and other contemporary ideas. By contrast the staff who had taught there for many years had the teaching experience and methods, but were figurative artists.

In 1963, after Cuthbert had been part-time in the painting department for two years, he applied for the externally advertised post of head of Pre-diploma Studies and Vice-Principal.[47] Gerald Cooper gave him the brief to organise the course. His staffing allowance was set at three full-time lecturers and one part-time lecturer with Cuthbert as head. The staff consisted of David Poole, (who had been trained in the school) as senior lecturer; Tom White, who had been teaching in the school for at least 20 years and was close to retirement at the time; and Neil Stokoe, as the part-timer.

The team had very little written down when starting the Pre-diploma course. This was not unusual for an art school of the time. It appears that once they had been released from the rigours of the tightly run intermediate course, there was a moment of confusion in many of the colleges. However, after a year Wimbledon still had little documentation on the new course. Although Cuthbert sent around agendas still nothing was written down. Consequently, Cuthbert called a meeting in Cannizaro Park, and over a bottle of wine he outlined the syllabus for the Pre-diploma course which he had devised. Aware that they wanted to construct an adventurous course with high standards they arranged to observe other colleges. Cuthbert and Poole got leave to visit other courses in Bristol, Bath, Leeds and, notably, Gloucester. At Gloucester they turned up at the wrong place and being taken for inspectors, they were unable to withdraw from the situation without great embarrassment.[48] Of the courses visited, Leeds especially signals their interest in how one of the largest and best-known schools for basic design was organised. The year 1963 was an important moment of change in art education and many courses were in the process of reorganisation.

[47] 'Appointment of Vice Principal and Head of Pre-Diploma Studies for September 1963', was the heading of the advert in *The Daily Telegraph*, 13 March 1963. Interestingly, the following year, in *The Daily Telegraph* 23 February 1964, Wimbledon advertised for a 'part-time lecturer in Basic Design with comprehensive knowledge of design fundamentals', which indicates where basic design was to be positioned in Wimbledon School of Art, - significantly the design side.

[48] Interview with David Poole, 6 December 2001, Weston.

Cuthbert appointed people who could fulfil a part of the syllabus. In his view drawing was a valued part of the training of both artists and designers.[49] He was always careful about who taught life drawing on the staff; Poole, Stokoe and White were entrusted with it. In traditional forms of art, drawing was seen as a preliminary study for painting or sculpture, however, by the early 1960s it had become a medium in its own right and was being recognised as an immediate form of visual thinking, as well as a medium for learning to see.[50]

Cuthbert brought in Rod Thomas to lecture occasionally to the foundation students, and act as a part-time tutor – one day a week.[51] At the time this was perceived as an unusual choice. Thomas was a member of the Royal Institute of British Architects whose contribution to a foundation course might have been considered with suspicion elsewhere. In addition, he was in his seventies. Cuthbert obviously valued his approach, especially in the discipline of drawing. Thomas' approach in this respect was unorthodox by taking measurements of people's heads and constructing drawings from them, he introduced the students to challenging and experimental processes.[52]

In accordance with the wider changes in art schools at the time and instigated by the Coldstream Reports and the Summerson Committee, Wimbledon needed to expand. With the increasing stress on the importance of art history and complementary studies and the expansion in library services highlighted, Cuthbert requested more support in these areas and the Governors appointed two teachers of art history: Ricardo Priuli Bonn, who taught the history of the Renaissance, and the Principal's son-in-law, Paul Hetherington.[53] These young lecturers were joined by Hans Brill who was appointed to develop the Library in September 1964.[54] Another member of the young generation, a Polish artist named Andy Dlugosz was brought in to teach colour. By 1964 most of the teaching staff connected to the Foundation department, including its head, were under thirty-five years of age.

Peter Bucknell, who was originally in the theatre department, was appointed as principal when Cooper retired in 1964. Further changes of significance included the suspension and

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[49] Interview with Neil Stokoe, 20 August 2001, Crown & Greyhound, Dulwich.
[50] In 'Diagrammar' in Hamilton advised students to 'think of work as diagrams of thought processes', Hamilton, R., 'Diagrammar', contribution in *The Developing Process*, (1959), exhibition catalogue, Newcastle upon Tyne: Durham University, Kings College. Reproduced in Hamilton, R. (1982) *Collected Words*, London: Thames and Hudson, pp.168-171.
[51] Cuthbert also commissioned Thomas to design his studio in East Grinstead. Thomas' own studio was at World's End by the Moravian Cemetery. According to David Poole Thomas had a connection with the Bauhaus.
[52] Interview with David Poole, 6 December 2001, Weston.
[53] Interview with David Poole, 6 December 2001, Weston.
[54] Brill actually arrived at Wimbledon in 1961 to set up a successful history course for the art students. See obituary in *The Guardian*, 8 August 2001.

firing of a full-time 3D teacher in George Whitbread.[55] In his place, Terry Bruen was appointed. Bruen was sympathetic to Cuthbert's ideas and his leanings towards Constructivism and British Constructionism meant that he kept a copy of D'Arcy Wentworth Thompson's book in the department.[56] In his teaching of 3D he used mathematical and scientific, geometric and organic forms. As with many art schools the pre-diploma/foundation department was on a separate site to the main building, a situation brought about by expansion, but fostering a homogenous unit. Despite this, links with the rest of the school were good, and support could be found in the painting department, where Bob Hide was influential in basic design.[57] Clearly the threads of basic design, concept and process based art were firmly established in the foundation course at Wimbledon School of Art by 1965.

Wimbledon School of Art was neither rigorously traditional nor overtly progressive either before or after the setting up of the Dip. A.D. in 1963. It was steady, popular and middle of the road, and thus, I suggest, more valuable in providing an understanding of the educational position of the majority of art schools. The Pre-diploma course was by all accounts well structured as were those of St Martins and Camberwell.[58] The Pre-diploma syllabus sheet from October 1963, the start of the new course, indicates this *(fig.15):* Between 4:00pm and 6:00pm on Tuesdays and Thursdays 'Liberal Studies' takes place and on Wednesdays between 4:00pm and 6:00pm 'History of Art'. This shows a well organised course with activities up until 6:00pm. Moreover, the syllabus shows clearly '3D Basic Design' on Monday and '2D Basic Design' on Tuesday, which becomes 'directed pictorial composition' in the afternoon. 'Analytical Drawing' takes place on Friday. This is significant because the words 'basic design' are clearly used and would appear to signal the setting up of the new course. However, there is no Intermediate syllabus from the previous year, to compare it with. This raises the question of how much basic design was already embedded in the two year Intermediate course.

Similarly, the Pre-diploma 'Three Dimensional Design brief' for Wimbledon School of Art for Autumn term 1964, shows a clear mathematical bias by using geometric spaces, constructions and solids *(fig.16 & 17).* This is an indication of the Constructivist and geometric abstract tendency which appears in basic design and is in accordance with work Cuthbert had been doing at Goldsmiths school of art. The Pre-diploma Drawing course for 1964/65 deals with drawing in an observational manner, *(fig.18).* In this brief there is no

[55] Suspension of member of staff effective from summer term, WSA Board of Governors' minutes 10 May 1965, Surrey History Centre.
[56] Interview with David Poole, 6 December 2001, Weston.
[57] Interview with David Poole, 6 December 2001, Weston.
[58] Interview with David Poole, 6 December 2001, at Weston.

evidence of abstract, geometric or organic methodology. It is pure and simple observation and exploration of the relationship of the student to his/her environment when drawing. (It is not clear if this has taken the place of the Friday Analytical Drawing.) What emerges from this last project brief is that the basic design methodological approach was not necessarily embedded in all aspects of the course.

Given the paucity of records and documents of art schools in general in the 1960s, a further source for gauging current interests and culture are art school magazines. The *Wimbledon School of Art* magazine was produced, from c.1964 -1971 in seven issues.[59] It carried articles, images and poetry on art, architecture and theatre, written by staff, students and visiting lecturers. The magazine was produced by the students and seemingly had a generous subsidy from the institution, given the number of photographic plates and illustrations. The growing interest in the links between science and art is evident in the summer term magazine issue of 1964 involving students, Michael Andrews and David Bellany, as editors. It carried an article by Dr H.R.Calvert based on a talk delivered at Wimbledon School of Art on 6 March 1964. This had a Science Museum copyright since the speaker was employed by that institution. *(fig.19, 20 & 21).* [60] Dr Calvert's three-page article explained, in layman's terms, the mathematical formulae that have been found in plant growth and the Nautilus shell; how the florets are arranged in logarithmic spirals and their relation to numbers in the Fibonacci series. Calvert referred to the Golden Section, Ration or Divine Proportion and to Gustav Fechner's and Adolf Zeising's books, and Salvador Dali's *Sacrament of the Last Supper.* Calvert argued that maths and geometry surround us everywhere since childhood and that through our biology we are part of a mathematical structure and the artist cannot escape this. He suggested that all art can be subjected to mathematical analysis and included a study of Cartesian geometric forms, in which geometrical shapes are expressible as algebraic equations. He ended on the question 'Art by mathematics?' The first reference in the footnotes was inevitably to *'On Growth and Form'* by D'Arcy Wentworth Thompson, (new edition, 1952).

Alan Cuthbert's contribution to the Wimbledon School of Art magazine in the next issue (1965) had no text, *(fig.22).* [61] It consisted of four photos of cardboard or wooden geometric blocks, standing in a cluster with strong light casting shadows onto the flat background at different angles. Its investigation into the 3D geometric module and the play

[59] *Wimbledon School of Art Magazine* was produced in seven editions in the following years (some dates 'c.' estimated), No.1-1964, no.2-1965, no.3-1966, no.4 -c.1968, no.5-c.1969-70, no.6-1971, no.7-1973. It first appeared as *its* and later as *number 4, 5,* etc. Held at Wimbledon School of Art Library and Surrey History Centre.
[60] *WSA Magazine title*: *'its'* No.1 (1964) 'Art by Mathematics' by Dr H.R.Calvert, pp.21-23. In the same edition appeared an article by Anton Ehrenzweig, entitled 'Meditation on the Future of Art', pp.9-11.
[61] *WSA magazine 'its'*, No.2 (1965) 'Playing with Light' by Alan Cuthbert, p.62.

of light is reminiscent of Mary Martin's body of work of the time, which included pieces such as: *Nine Group* stainless steel and wood, (1964) *(fig.53), Inversions* (1966) and Biederman's *Structurist work 24* (1962) and *work 48* (1963). Cuthbert's contribution echoes the work of the British Constructionists of the 1950s, the Martins, Hill and Pasmore, and refers indirectly, to the publications of Gabo and Moholy Nagy.[62]

Further evidence of organic and Constructivist ideas at Wimbledon School of Art can be seen in the contribution of Rodney Thomas. Cuthbert recognised the drawing strengths of the established architect, Thomas, whom he employed to teach on part-time projects on the Foundation course. The magazine shows evidence of Thomas' involvement. In No.5 (c.1969-1970) 'Sky City', Rodney Thomas outlines his plans and drawings, which start with ideas developed from bees on Lupin plants, *(fig.23-27).* [63] In 1955 they led to the development of tall spiral buildings called *Lupin flats* resulting in the 1958 plan for a complete vertical city a mile high. The intricate drawings are complex geometric structures of heptograms and pentograms, triangles and volumes arranged on a 2/5 spiral. Similar to Kenneth Martin's *Screw Mobile series* from 1955 onwards *(fig.28),* they allude to the geometry of natural form. Thomas describes *Lupin flats* thus:

> Planning was done in sequence; the next part being placed in the best relationship to that which had happened before. Of course, once the form had developed it was repeated as long as the social needs remained the same. When the social structure altered, this growth took a new turn, old buildings were rebuilt and new forms of access made.[64]

There is no doubt that this echoes D'Arcy Wentworth Thompson's impact on the post-war generation. It also contains the concept of alteration, intervention or 'acting upon' common to Hamilton and Pasmore's understanding of making an artwork which grows according to its own form in the sense of biological growth, as a 'diagram of forces'.

The application of geometry to nature and organic form are evident in Thomas' article. The impressive drawing of complex structures before computers were available for such tasks remind one of Buckminster Fuller's geodesic domes of the 1950s and 1960s, also based on nature and constructivism.[65] As architects, Thomas and Fuller looked towards nature for solutions. Moreover, Thomas applied his understanding of organic form, not only to the individual building modules, but also to his understanding of the organic city and planning method.

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[62] See Gabo *On Constructive Realism* (1948) reprinted in Bann (1974) pp.234-240, and Moholy Nagy, L. (c.1947) *Vision in Motion,* Chicago: Paul Theobald.
[63] *WSA magazine, No.5* (c.1969-1970) 'Sky City', by Rodney Thomas, pp.36-40.
[64] *WSA magazine, No.5* (c.1969-1970) 'Sky City', by Rodney Thomas, p.36.

The significance of Thomas' approach is evident in a review of his work written by Norbert Lynton in 1967. The aspect of Thomas' work praised by Lynton, is his contribution to architecture as a researcher into principles and methods.[66] As Lynton states: 'Thomas was most famous for recognising the basic flaw in modern design for mass production architecture:' Thomas applied his mind to a jointing system which offered the tolerance to the inaccuracies the builder is presented with when using a modular kit, since a small variation has a detrimental knock-on effect on the whole. Thomas's aim was to accommodate the chance element in the structure or, as Lynton puts it, 'the mortar between the bricks.' Thomas had also designed wartime prefabs, but his major piece was the 'outstanding piece of architecture in the South Bank *Festival of Britain'*, the Transport Pavilion with its large sloping glass wall.[67] The above-mentioned exhibition of Thomas' work was at Chelsea School of Art where he was a part-time teacher and included some of his life-size life drawings. These meticulously, complexly measured drawings and his ingenious devices for producing them were the strength which Cuthbert recognised when he involved him in Wimbledon School of Art Foundation course to teach drawing projects, according to David Poole.[68]

In the same issue of *Wimbledon School of Art magazine*, no.5, (c.1969-1970), is an article by Bob Janz, who taught on the Foundation course. [69] In writing about the course he refers to Biederman's book, *Art as the Evolution of Visual Knowledge* (1948), to discuss art as a learned language, or seeing as a taught skill. In the article Janz aims to open up the determined limitations 'we set ourselves at the outset, concerning the language of objects.' Experimentation was clearly embedded in the foundation course teaching at Wimbledon, where as he states, the students completed 'a basic structural design course, basic drawing and colour theory.'

Furthermore, Janz outlines a project which 'emphasised experimentation with the intention of structuring audience-controlled change' and shows four examples of Pre-diploma students work dated 1966 and 1967 (fig.29 & 30). The students used transparent acrylic, and electrical and lighting equipment to create structural and modular three dimensional

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[65] In the same *WSA magazine* issue, no.5, there is also an article which discusses Ruskin and Fuller by Alan Windsor, senior lecturer in Art History at Farnham School of Art, pp.28-29. Further reading, Thomas T.K.Zung (2001) *Buckminster Fuller: anthology for the New Millenium* New York: St Martin's Press.
[66] Lynton, N. 'Rod Thomas Exhibition' *The Guardian* 25 April 1967. See *Appendix 9.*
[67] Lynton, N. 'Rod Thomas Exhibition' *The Guardian* 25 April 1967. See *Appendix 9.*
[68] Interview with David Poole, 6 December 2001, at Weston.
[69] Bob Janz, BA Chicago and MFA Maryland, was a part-time lecturer on Wimbledon Pre-Diploma course, the magazine states. (This is evidence that although it was officially the Foundation course, the name Pre-dip. lingered on.) Janz had founded the Continuum Group with Adolfo Estada in Cordoba, Spain. Continuum's first exhibition in London was at the Axiom Gallery in 1965, entitled 'Continuum Cordoba '65'. WSA magazine *Its* no.5, c.1969-1970, pp.12-15.

audience-controlled objects.[70] The four examples fall clearly within the Constructivist and British Constructionist area as represented by Mary Martin's work.[71]

Outside of the art school environment there was one feature of Cuthbert's professional interest which had a profound effect on his art and method. Cuthbert belonged to the Colour Group; a London University run society for those interested in colour in all its forms. The Colour Group had been set up by scientists from 1944 to meet monthly to discuss the measurement of colour, but by the early sixties many scientists had left. Peter Lloyd Jones, then lecturer in three dimensional design at Wimbledon, Hans Brill, librarian at Wimbledon and Don Pavey, lecturer at Kingston, also attended meetings regularly.[72] At a Colour Group meeting in 1966, Cuthbert met Dr Arthur Tarrant, a lecturer at Surrey University in colour and lighting engineering.[73] Cuthbert proposed to do research on colour scales, and consulted with Tarrant, who would have done the physical measurements, but the project was scuppered by lack of funds. However, Cuthbert employed Tarrant to give a series of lectures to Wimbledon Foundation students from 1967 to 1973. According to Tarrant, the lectures on aspects of light and colour were of particular use to those who later went on to design or architectural practices and especially theatre design, an area in which Wimbledon School of Art continued to excel. The importance of this relationship lies in the recognition by Cuthbert that science, in general, and the science of seeing and measuring, in particular, had a vital role to play in the understanding and conception of the world.[74]

Thus, as discussed above, each institution was evolving its own Foundation course. There was no consensus on what constituted a Foundation course in 1963. It is clear from the few available sources that Wimbledon School of Art engaged with contemporary ideas, which involved elements of the organic aesthetic, basic design and Constructivism and increasingly change and modular systems. However there were many opinions about what a Foundation studies course should and should not be. For example, Erik Sonntag, lecturer in Sculpture and in Foundation Studies at Guildford, (but having a wide experience of European art education, in particular Ulm,) writing in 1968/69, just after the Hornsey and Guilford sit-ins, defines a Foundation Course thus:

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[70] The back-lit transparent chevrons of Derek Pullen, 1966, are reminiscent of Cuthbert's *Chevron* paintings no.9, 45 and 57. (No.9 was painted between 1965 and 1972).
[71] Artist controlled change later appears in Kenneth Martin's work, *Chance, Order*, series from 1969.
[72] Through Jim Bartelski in the 1970s there was pressure for more art activity. See the 50th anniversary book: Halstead, M.B. & Holmes, J.G. (eds.) (1994) *Advancement of Colour: History of the First Fifty Years of the Colour Group (Great Britain), 1941-91* London: The Colour Group.
[73] Interview with Dr Arthur Tarrant, 5 October 2001 Twickenham.
[74] However, Cuthbert proposed Tarrant as a governor at Wimbledon School of Art, and after a delay, he held the position from 1973 until 1990, when the climate for governors changed due to the Education Reform Act brought in by Margaret Thatcher.

> It must provide a grammar and vocabulary for pictorial construction, an understanding of fundamental design ideas and the possibility of their expression and interpretation by tangible, visual means. [75]

He later breaks this down into a. Visual Phenomena, b. Harmony, c. Order, d. Imitation versus Creation (p.008). I shall quote the content of 'Harmony' in full since it not only aligns with Cuthbert's work but also raises questions about modernist aesthetics, formalism and scientific order.

> B., Harmony. Harmony consists of a combination of contrasts and order, the latter being either chromatic order graded in degrees or scaled light and shade. Order and contrasts in proper combination produce unity or harmony.[76]

In section IV, Sonntag defines basic design as a synthesis of the functional and the aesthetic.[77] This is a view of preliminary art training which meets the needs of a wide band of art and design areas. Function exercised concepts, whilst aesthetics made things look good. As Sonntag pointed out the Pre-dip course was often criticised for not teaching basic skills and techniques, but these could be taught on longer degree courses.[78]

In 1968, there was much public debate around institutions and art education in particular. Sonntag criticises art education for its ready-made formula. The ready-made formula is seen as contributing to disillusionment with basic design. Once the ideas and projects were set in stone and repeated by rote it was felt that the experimental aspect of the course was lost. These issues of stagnation and conformity were perceived as important by the staff themselves who wanted a degree of autonomy to develop new ways of teaching according to the art that was developing on the international scene. This is evident in the aforementioned example of Kingston's modern lighting and audiovisual equipment. In November 1968 Peter Lloyd Jones' article in *The Listener* outlines the weaknesses of 'drilled' exercises. The consequent replies in the letters page from Maurice de Sausmarez, the author of *Basic Design: the dynamics of visual form* (1964), and Noel Shepherdson, head of Foundation Studies at Epsom and Ewell School of Art, suggest that basic design was a disliked term but that the investigative way of teaching, had a great deal to offer.[79] Furthermore, as Sonntag notes:

> Ideally a Foundation Course is and, in my view must remain the core of teaching in an art school. Form, Colour, Tone, Space, time and motion must be studied. Other arts, such as, music, dance, poetry, etc., must be used as complementary stimuli to the plastic arts, thus forming a centralization and inter-discipline of these creative

[75] Leonardo MS No.143.Editor's Log No.AG32, p.005 in the magazine *Leonardo* Vol. II, (1969) pp.46-57 London: Pergamon Press. (From Cuthbert's studio documents).
[76] *Leonardo* MS No.143.Editor's Log No.AG32, p.009.
[77] *Leonardo* MS No.143.Editor's Log No.AG32, p.010.
[78] *Leonardo* MS No.143.Editor's Log No.AG32, p.011.
[79] Lloyd Jones, P., letter in *The Listener*, 10 October 1968.Shepherdson, N., letter in *The Listener*, 7 November 1968. De Sausmarez, M., letters page in *The Listener*, (31 October 1968).

> human activities, much as the liberal arts and the sciences are combined into the concept of a university.[80]

The Foundation course is a funnel which all art and design students had to pass through in order to further their studies in another area. The course was and still is a core area of tremendous import. The model of the Bauhaus, including Itten's '*Vorkurs*' was significant and most commentators in art education allude to its contribution in the establishment of the foundation course. Here, it is no surprise that Itten's book which provided one of the most comprehensive accounts was published in English in 1964.[81] However, there was no other model for a course to bridge the knowledge gap between school and higher education, especially in design subjects.

In essence, what is taught in firstly the Pre-diploma course and later the Foundation course evolves by a process of useful selection, the irrelevant is jettisoned. However, as Noel Shepherdson reminds us amongst a sally of letters in *The Listener* in 1968 discussing basic design, the content is not always the problem:

> It is not the content of the Foundation courses which is at fault, but the enormous tasks that they are expected to perform in only two terms.[82]

What becomes clear from the evidence cited above is that foundation course lecturers in the 1960s used basic design in their courses. Many realised its weaknesses, and used parts of it to teach a basic visual language. Colour was an aspect of the basic design course which was approached in both an emotional and scientific way in the project briefs shown. Furthermore, 3D studies initiated new materials and mathematics based projects, whilst some colleges were able to introduce light and sound equipment. This research proposes that in the 1960s the 'basic design craze' was institutionalised as were Constructivism and the organic theory of natural form.

In concluding this section I propose that the foundation course under Cuthbert was seen as a fine art based course and rejected basic design as a full package, but incorporated parts. In this respect, Wimbledon was no different from other colleges where this was the prevailing trend in art education.

Where is the evidence for the basic design parts? Stokoe and Poole taught observational drawing, including the life class. Drawing was central to all disciplines at this time, so for

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[80] *Leonardo* MS No.143.Editor's Log No.AG32, p.010.

[81] Itten, J. (1963) *Mein Vorkurs am Bauhaus, Gestaltungs- und Formlehre*, Ravensburg: Otto Maier Verlag, (My Foundation Course at the Bauhaus, Design and Form) English trans. (1964) New York: Reinhold Publishing Corp. & London: Thames and Hudson.

[82] The Listener, November 1968 letters page. See also, De Sausmarez et al. 'A Visual Grammar of Form' Part I: *Motif* (8) winter 1961, pp.3-29; Part II: *Motif* (9) summer 1962, pp.47-67; Huff, W., 'An argument for Basic

it to be well thought of it had to be neither traditional nor too experimental for it to be serviceable to other areas. However, the syllabus for 1963/64 verifies the presence of basic design and analytical drawing, which looked at structure, form and concept. Rod Thomas, a part-time visiting lecturer, was well informed about D'Arcy Wentworth Thompson, Constructivism and theories of organic structure. He brought this into his lectures and drawing projects. Terry Bruen, as 3D lecturer was well rehearsed in this field. Cuthbert, himself, was interested in these fields both in his own work and through the Colour Group. The evidence in the *Wimbledon School of Art Magazine* reinforces these directions with contributions from staff, visiting lecturers and students Pre-diploma work.

As I have mentioned earlier Cuthbert had been taught by the Martins and his early work resembles Mary Martin's modular constructions. He was also interested in light as the works in his portfolio and his job reference from Goldsmiths testify. Cuthbert's article in the aforementioned *Wimbledon School of Art Magazine* reinforces the evidence in this direction of Stucturist, Constructionist and 3D work. His research into Ostwald's colour examples at the Victoria & Albert Museum is triggered by his and Peter Lloyd Jones' search for teaching projects for the foundation course.[83] The fact that Stokoe had been at Sunderland at the same time as Thubron, and Poole at Lowestoft just after Hudson, may have made them open to the developments in the 1950s, in the move away from their initial traditional training. Moreover, Cuthbert and Poole's visits to other art schools, especially Leeds, signify their interest in how the largest and one of the best known for basic design was organised.

Given the need for improved design training, the overall move away from traditional easel painting (towards Constructivism, Pop art and Abstract Expressionism), and new materials offered (plastics, fibreglass, new photographic and printing methods), the old way of teaching art had to evolve or die. A major force in these changes was the working practices of artist-lecturers. In this context, the study of Cuthbert's practice is pursued in the next chapter.

Returning to the question of what is thought of by the term fine art in art education during this period it is evident from the projects, the books mentioned as textbooks and the views of the artist-lecturer formed in their own practice, that fine art was no longer the fine art as envisaged by the intermediate certificate. It was no longer sufficient for fine art in education to consist of still-lifes, landscapes, portraits, life drawing, modelling, carving and

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Design', *Architectural Design* 36 (5) May 1966, pp.252-256; Banham, R., 'The Bauhaus Gospel' *The Listener* 26 September 1968, pp.390-392.

[83] Interview with Peter Lloyd-Jones , 19 September 1997, West London.

pictorial composition. Somewhere before the demise of the intermediate course and the beginning of the Pre-diploma course there is a paradigmatic shift, aided by the 1959 exhibition at the ICA entitled *The Developing Process*. Even though there is disillusionment with the precepts of basic design around this time, as claimed by Julian Satterthwaite,[84] it is inevitably absorbed into the institutions, along with the model of organic form, ideas of Constructivism and experimental, expressive tendencies.

Art education gained by the absorption of basic design. It was able to absorb it and repackage it as fine art, and in doing so satisfied the training of designers. The educational establishments were steered towards this by the diploma award status which made it clear that fine art was central even to design education. What is important to note here, is that in the art schools the meaning of fine art shifted at the beginning of the 1960s.

[84] Satterthwaite, Julian, 'The origins, development and endemic failure of Basic Design: a study of the Basic Design Movement in certain British Colleges of Art and Design in the 1950s and 1960s'. Liverpool University, M.Phil. 1993. See also John A.Walker, 'The basic faults of the Basic Design courses' *Art Monthly* (46) 1981 pp.27-28.

Cuthbert's practice and theory, 1965-1979

> Constructivism is concerned with the structure of things and perhaps more so, the structure of the difference between things. When working in shape or three dimensional form the structure is the form. When first working in colour I tried, as many others have done, to relate colour to preconceived modulars and formats.[1]

On Cuthbert's death in 1995 he left over a hundred paintings, notebooks and studies in his studio at Puylaroque in France. This rich archive encompasses Cuthbert's student work, his paintings as a young head of the Foundation department at Wimbledon School of Art to the paintings he completed in France before his heart attack, aged 64. They constitute nearly forty years of methodical practice. The archive covers a period of time when, as I have established, there was a significant change in a number of areas in art and art education. Firstly, in the numbers of students in art schools. Secondly, in the aspirations for art to be given diploma and later degree status, which standardised it and made it more academic. Thirdly, change in the form of the introduction of the Foundation art course (as inspired by the Bauhaus and basic design principles). Fourthly, there was also a change in the systematisation of colour and a higher level of interest in it, as evidenced by the publications on colour discussed in Chapter One. Furthermore, I have argued that there was a shift in the concept of fine art which has particular relevance at the time to the educators and the practitioners themselves. In this chapter I examine the practice of Cuthbert as an artist-lecturer at the confluence of these changes in order to understand better the relationship between the practice of artists and their art historical and educational context.

In this chapter I aim to establish Cuthbert's working methods by analysing selected paintings. The primary purpose is to investigate the following questions which are directly relevant to a further understanding of the broader changes outlined above. Firstly, how does Cuthbert's changing knowledge of colour impact upon the work? Secondly, what usage does Cuthbert make of mathematics in the work? Thirdly, what use does he make of *pictorial composition*, including geometry and the Golden Mean? (This was a component of his Intermediate and NDD course at Goldsmiths as a student, and is later taught on the Wimbledon School of Art Pre-diploma course where he was the lecturer in charge.) Fourthly, although, Cuthbert uses a scientific systematised approach to colour, how is the aesthetic choice exercised? All of these questions, especially those concerning the use of

[1] Cuthbert, as quoted in the publicity for Southampton Civic Gallery Exhibition, December 1976-January 1977 in *Museums and Art Gallery Exhibitions and Events, October-December.* See *Appendix 10, document: 890125.*

maths and geometry and the Golden Mean, are best dealt with by examining Cuthbert's paintings, studio examples and process.

As discussed previously in Chapter Four, Cuthbert's developing knowledge about colour comes from a range of sources. As Cuthbert states, on leaving Goldsmiths he sensed a lack of knowledge about how colour works, but at the time was interested in light.[2] Cuthbert's interest in colour was further fuelled by his friendship with Peter Lloyd-Jones, who trained as a chemist at Imperial College. In the early 1960s Lloyd-Jones was then employed as a researcher at Courtauld's before becoming a colour consultant at Rowneys. Subsequently, after he was employed at Wimbledon School of Art in 1964, Lloyd-Jones organised the trials of acrylics for Rowneys in the studios. As Lloyd-Jones notes in interview, Cuthbert and he explored examples of Munsell and Ostwalds' colour theories in the Victoria & Albert Museum library, while working out a colour project for Pre-diploma students.[3] Further interest comes from the publications of Itten in 1961 and 1964, and of Albers in 1963, and these played their part in raising awareness of colour in the art school culture. In addition, Cuthbert joined the London-based Colour Group in 1967. This largely scientific and academic gathering was significant in deepening Cuthbert's understanding of colour.[4] Cuthbert regularly attended the Wednesday afternoon meetings and in 1968 and again in 1972, presented papers to the group.[5]

As part of this research, I have catalogued nearly one hundred paintings which can be divided into groups or series which either explore specific optical and physical questions regarding colour or follow mathematically-led constructed processes.[6] In the majority of cases Cuthbert uses ϕ=1.618 [*phi*], the Golden Mean or the Fibonacci series of numbers 1,1,2,3,5,8,13,21,34,55,89, to determine proportions.[7] In addition, he uses the grid to lay out colours in accordance with Munsell and Ostwald's colour systems.[8] For the purpose of this study I have analysed paintings selected on the basis of accessibility - they are either in the house and studio in which the artist lived in Puylaroque, France, or belong to patrons who have allowed me access – and because there is visual or textual indication of the process by which they were produced. In the context of Cuthbert's oeuvre they serve as

[2] See point 5, *Appendix 11, 00AGC12.* See examples of interest in light: 'Playing with Lights ' Wimbledon School of Art magazine no. 2 (1965) p.62 *(fig.22)* also 'Plaster forms' on [*CD at back of volume 2*]. This interest is verified in interview with Lloyd-Jones, 19 September 1997.
[3] Interview with Peter Lloyd Jones, 19 September 1997.
[4] The Colour Group had been set up from 1944, for scientifically measuring colour. By the 1960s the Colour Group lost some scientific members and expanded its art based membership. See Halstead, M. & Holmes, J. (1994) *The Advancement of Colour: the first 50 years of the Colour Group*, London: the Colour Group GB.
[5] 1968: 'Yellow, a Key to Colour Constancy', *Appendix 12, 68AGC02* (title changed later) and 1972: 'Structuring Colour in Painting,' (Part of Colour Symposium at Royal College of Art, published in Colour Group Journal 1974 pp.260-263) *Appendix 13, 14 &15, 72AGC12.*
[6] *Appendix 16 & 17, Catalogue of paintings by Alan Cuthbert.*
[7] See Cuthbert's lecture at the RCA Colour Group meeting, *Appendix 13, 14 & 15, 72AGC12.*

representative examples which illustrate certain groups or series. For example, a series examining a specified colour or geometric shape. The paintings chosen are presented chronologically in order to draw attention to the artist's development and shifts in process and practice which occur between 1965, when the Foundation course is named as such, and 1979, the year in which Cuthbert moves from being both head of the Foundation course and Vice-Principal to solely the latter post.

It is problematic to attempt to decode the work of a systems painter after his/her death if he/she has not left clear diagrammatic instructions of how his/her individual paintings are constructed. The system he/she is working with is often hidden. In analysing the paintings gaps in the knowledge of practice and process are revealed which necessitate further detective work. In the case of Cuthbert, notebooks, letters and studio documents supply a limited amount of information, but they do not fully reveal the complex nature of Cuthbert's practice which employs a hidden system. Reconstructing Cuthbert's practice has entailed painstaking work, involving measuring paintings; the production of detailed geometric drawings; precise colour mixing and matching; and cataloguing. None of the paintings bear a date on the back, and most bear a brief title. In cataloguing therefore, the approximate dates have been arrived at by consulting lists of paintings shown at certain exhibitions and working backwards from these. Further information was gained from notebooks, sometimes dated, from an album of two inch square slides made at a precise date, by photographer Nicolette Hallett, and from various photographs.

5.1 Analysis of artworks

The first selected example is *Blue-yellow-scarlet [Red Sea]* 36x36 " undated (between 1965-70) *No. 2* of the catalogue.[9] *(fig.31).* This appears to be an early example of the 'Spectrum' series which includes *No 3* At this time Cuthbert was establishing his understanding of the colours which appear directly on the colour circle with maximum saturation, the band at which intensity and colour are at their purist. In order to achieve this, decisions had to be made about which oil paints carried the optimum pigment. As Cuthbert's studio notes show, he did this by laborious testing of paint-makers oil colours and matching the results of the mixes against Ostwald and Munsell colour charts.[10] Once Cuthbert had established the most saturated, purest colours, as in *No 2 Blue - Yellow - Scarlet [2] (Red Sea) (fig.31 and 32),* he then arranged one hue stepping gradually into the

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[8] Cuthbert cites Ostwald as being the most influential, *Appendix 13 &14, 72AGC12.*

[9] The numbering system is from an inventory in Cuthbert's studio, and I have adopted it purely for ease of recognition. Cuthbert frequently used letters and numbers in the titles. However, when prefaced by *No.* the number is not part of the title, this is verified by exhibition catalogues. All measurements are in inches unless otherwise stated. *Appendix 16 & 17, Catalogue.*

[10] *Appendix 18, 00AGC01.*

next using Goethe's proportions to lay this order out in a band of fourteen steps of maximum saturation. Significantly this differed from Itten's twelve step system.[11] Cuthbert explains his method in the following extract taken from his paper delivered to the Colour Group on 6 December 1972 at the Royal College of Art Symposium, organised by Hans Brill:

> The simplest series were those related directly to the spectrum series. They were exploratory in a Chevreulesque way but with personal criteria rather than a number of observers behind the decision as to what was interesting or satisfactory and what was not. There were problems in finding suitable paints with which to paint the spectrum, decisions on how to divide the spectrum into a particular number of units, and later on how to adjust proportions in order to obtain modularity. At this stage I was thinking of colour in a negative way: white as total reflectance, colour as partial absorption, these paintings therefore were related to a white ground. The paintings explored the effect of different numbers of hues from a spectrum series. Some were selected on a measurement basis e.g. the two extremities plus the hue appearing on the Golden Mean, others on a number basis (there were 14 steps in the spectrum series used). The colours were kept in their normal relative positions, rather like a spectrum with certain hues removed.[12]

This extract reveals that Cuthbert understood that there were different approaches to colour. Selecting the primaries through personal judgement rather than by a consensus of say peers, was already a decision of process, which put the artist at the centre of the process. Experimenting with different numbers of hues and steps in the spectrum confirm knowledge of the historical and scientific debates on which he was building. This painting is a simple example of the ability of colour to affect space, and shows Cuthbert experimenting with basic principles. Notably, in *No.2*, although the blue band and the white band below are equal in height, the white band appears bigger due to the yellow and white bands below it. Similarly the red band appears bigger and dominates the white below it.

Through analysis and the piecing together of the information it is clear that *No.2* is of the spectral series on white ground. It is difficult to date but is certainly between 1965 and 1970. This can be established through an undated document (post 1984) in which Cuthbert catalogues the groups and series of work. [13] In this document firstly the 'abstract spectrum' series is listed, and secondly an entry entitled '60s and early 70s' is divided into two areas listed as 'spectrum' and 'spectrum optical and physical comps.' Furthermore, in another sheet the 'Spectral Series' are listed as 'White Grounds' and 'No Grounds', which indicate

[11] Itten (1961) p.55.

[12] *Appendix 13 &14, 72AGC12.* 'in a Chevreulesque way' means an attempt to create a system to establish a 'law of simultaneous contrast'. The phenomenon was first noticed by Leonardo da Vinci that when colours are observed adjacently they influence each other. Michel Eugène Chevreul (1786-1889), a French chemist, was striving to find this law, and approached it by systematising colour. In his 1839 treatise *De la Loi du Contrast Simultané des Couleurs*, he noted that two adjacent colours, when seen by the eye will appear as dissimilar as possible.

the difference between say *No.2* and *No.17.* The allusion to the sea in the full title is a sign that Cuthbert was retaining some reference to the outside world in his work of the 1960s unlike Biederman or the concrete purists.

Cuthbert's practice is similar to the development of other abstract artists of the 1960s and 1970s in Britain, in that Cuthbert follows a common route of referential abstraction; concrete abstraction; systemic abstraction. This progression is similarly seen in his black and white studies; his primary colour studies; increasingly subtler and more muted colour works. The practice of Kenneth Martin bears useful comparison as does that of Bridget Riley, whose move from black and white into colour is echoed by Cuthbert.[14] *(fig.33)* By studying the changing interests of similar artists of this period, the chronology and historical development of Cuthbert's practice emerges. In Cuthbert's chronology for instance, 'Early abstract / 3D / Light modulators' comes before 'Abstract shaped formats' on the same sheet. I have assumed here that he means paintings such as the cruciform series (*No.12-15*) or the chevrons (*No. 9, 45,* and *57*) or the zigzags (*No.10* and *47*). [15] Cuthbert also lists 'Parallel series without borders' before 'with borders', and this order of development is consistent with the notebooks. *No.2,* is an exploration of the spectrum at the genesis of the colour work. Thus, although many of Cuthbert's paintings have no exact dates, they can be approximated by a number of references and his developing exploration of colour principles, which along with the process, become increasingly complex. It is important to note that these progressions, both in abstract forms and colour development are also reflected in Bauhaus pedagogies and basic design.[16]

It is only later with paintings such as *No.78, Dreambeach, No.68, 70* and *72, Westbere I, II,* and *III* and *No. 65, Santorini Vulcan* and *No. 66, Santorini II,* inspired by the Greek island,[17] (the earliest of these being *65* in 1978), does he move back to the references of place, perhaps even geology, but certainly colour sampling, as the notes for the 'Westbere' group indicate.[18]

With *No 7, Y Series 7,* 36x36", undated (between 1965-70), *(fig.34)*, Cuthbert's practice engages with a period of interest in the yellow hue, hence the title 'Y' series and the

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[13] *Appendix 19, 00AGC04.*
[14] Examples which look strikingly similar to Riley's work of can be found in *Spirals* and *Jiggers, (fig.33).* Both of these artists also use graph paper for preliminary studies, which seems to have been a common practice at the time.
[15] *Appendix 19, 00AGC04.*
[16] See in particular the teaching of Ludwid Hirschfeld Mack at the Bauhaus, *(fig.8).*
[17] Notes from Cuthbert's portfolios give a clue to the colours, 'Byzantine colours' and 'Volcanic ash, Ancient city above the plains', i.e. colour sampling of the terrain.
[18] Colour sampling is evident in the two poem / prints published by South East Arts [1980], in collaboration with the poet Chris Hall.

subtitle 'Monochromatic Possibilities'. In his 1972 lecture to The Colour Group, Cuthbert outlines the group of paintings to which this painting belongs in the following terms:

> A further group of paintings was concerned with exploring monochromatic possibilities, particularly of yellow. Here one encountered the problem of constructing yellow scales... In these paintings I was also involved with developing a way of relating desaturation to proportion so that one would feel that the area, whether highly saturated and small , or less saturated and larger, contained the same amount of reflective pigment, in the one case closely packed, in the other case dispersed. In fact four different proportional series were used in attempts to achieve this colour balance.[19]

Underlying this extract is a desire to hold balance between two colours according to their saturation and their size. The quest for balance or harmony in colour and composition is one of the key elements of Cuthbert's work. In western culture by the 1960s there were three possible roots for an understanding of the concept of balance. The first stemmed from the East and is symbolised by the Yin and Yang, whilst the second stemmed from the Greek system of proportions and finds its way through geometrical, mathematical and visual composition in painting and architecture making use of the Golden Section. Closely associated with which is the third, which had emerged from notions of consonance and dissonance in music. As discussed in Chapters One and Two, the theme of balance results in a number of publications in the twentieth century, and the concept of the Golden Section underlies the principles of the De Stijl group and Le Corbusier.

In the painting *No.7, Y Series 7* there are 16 bands alternately white and a step on the colour scale, Y to Y8. To achieve the yellow scale Cuthbert cross mixed the red and green sides of the spectrum.[20] Y was maximum saturation and Y8 maximum desaturation. It will be noted that the white bands equal the yellow bands in width. As usual Cuthbert's canvas is square and measures a standard shop bought stretcher size of 36". Given the yellow steps, Y - Y8, have already been mixed and placed in tubes, the sequence of colours can be deduced. By matching the paints in the tubes to the colour bands on the canvas the system reveals itself. The tubes, still kept in his studio in France, were filled and labelled meticulously with labels such as Y6, but never the names of paint. By reducing colours to letters and numbers any other reading, such as cultural, psychological, or symbolic, is weakened and the position of the colour alone in the system of colours becomes paramount.

In order to begin to analyse the painting it is possible to consider separately the white as 8 steps - they are all white, consistent and regular in appearance, with no variation except in band width, *(fig.35)*. This forms the ground. Moving to the yellow steps 1-8 the sequence is arrived at by sampling to the mode of three: 3,1,4,7,2,5,8,3,6,1,4,7,2,5,8, ad inf.

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[19] *Appendix 13 and 14, 72AGC12.*
[20] *Appendix 18, 00AGC01.*

The white sequence is then obtained by reversing the sequence, which starting at 5 runs 2,7,4,1,6,3, to 8 at the top. The Yellow sequence is the negative of this, in that, Y8 is at the bottom and Y5 is at the top. Starting with W5 as the bottom band, the white and the yellow scale are interlocked or dovetailed together.

From the above, it is evident that firstly the choice of start numbers and sampling is arbitrary. However, Cuthbert was in the habit of working out many samples and then choosing the one which he felt had 'balance'. Secondly, the numbers 5 at one edge and 8 at the other, in addition to the sampling by 3, are clearly the Fibonacci series numbers.

Having worked out the colour sequencing, the next stage in the process is the analysis of proportions. The maximum saturation yellow, which appears on the colour circle - in this case labelled Y and always understood to be Y1, - is taken as the smallest band, since it has the highest value, i.e. lightness. Since the white bands exactly mirror the Yellow in proportion, it is necessary only to calculate the proportions for the yellow using half the canvas height. Thus, taking half of the height of the painting and the total of the first 8 numbers of the sequence, (2,4,6,8,10,12,14,16, = 72), as corresponding to the eight steps of yellow, the calculation is arrived at is 18 ÷ 72 = 0.25. Here, 0.25 x 2 is the width of the thinnest band, while Y2 will be 4 times that. Similarly, Y5 will be 10 x 0.25 and so on until Y8 = 16 x 0.25 = 4 ". Having determined these proportions, Cuthbert then applied these to the white steps 1-8.

In summary, *No.7, Y Series 7* employs a monochromatic scale, in which the most saturated yellow has the smallest band width and the yellow scale is sampled according to the Fibonacci series of numbers. The proportions of the bands are calculated in relation to the size of the canvas and the series of increasing even numbers from 2 onward. From my analysis it is possible to show that *No.7, Y Series 7* is significantly more complex than *No.2, Blue-yellow-scarlet [Red Sea] (fig.31 & 32).*

Cuthbert progresses on to more intricate and complex proportions and colour saturation, while the sizes of the canvases and bands vary little. Whilst the above canvas was 36 inches square, the following painting is 48 inches square, and shows a progression to geometric forms. The painting, *No.10, Y Y-R R [Zigzag]* undated (between 1965-70), *(fig.34)* as the subtitle suggests, belongs to a group in which geometric forms become the vehicle for the bands of colour. Others in this group are cruciform and chevron in shape. There is one other Zigzag in Cuthbert's oeuvre, no. 47 *Y Series Y-B Blue Series Zigzag* (1976) *(fig.36).* In these examples the significant change in method is that white is no

longer the ground colour. Instead, a carefully chosen colour relating to the scales now becomes the ground against which we see the other colours. The dynamic shape is the first striking feature and by drawing up the many lines and extending them as in the diagram *(fig.37),* it is evident that there is an underlying grid. This grid creates a square within a square. The internal square is at an angle to the external edge. On further inspection analysis shows that this has been created by right angled triangles in the spaces surrounding it. The point at which the internal square touches the external square of the canvas edge is, as one might expect, the length of the canvas (48" ÷ ϕ = 29.665). Thus, mathematically, the remaining amount is 18.335. Consequentially, the relationship of the zigzag shape to the external shape can be said to be harmonious according to the aesthetics of the Greek postulate of the Golden Mean. This underlying grid which Cuthbert employs is in fact quite a common diagram in maths textbooks, where it is used as a proof of Pythagoras' theorem.[21]

Given that the canvas edge is 48" and the 13 bands run from 18.335", the progressive widths of the bands can be calculated using the Fibonacci series starting at 3. In order to work out each band (bearing in mind that 6 of them are paired) it is necessary to take the overall length of the edge and subtract the bands. Thus, 48" - 18.335=29.665 ÷ 275 = 0.1078". Significantly the number 275 is the total of the Fibonacci numbers from 3 to 55 +5 to 55 (because of the pairs). This means then that the band widths will be Fibonacci number proportions of 29.665. Thus 3x 0.1078 = 0.323'' will be the narrowest most saturated band, no 8 (counting from left to right).

The series of colours seem to run according to the zigzag shaped diagram, as is explained in Cuthbert's letter to 'Peter' dated 31 July, 1985.[22] In this painting the Y scale from Y1 is desaturated by adding black in 5 steps - this of course bends the yellow hue towards green as it darkens. The Red scale starts on the colour circle i.e. maximum saturation level with Y1 and O3 and moves towards white in 5 steps. The background appears to be O4. In this instance, Y1 appears to be the anchor and starting point in that the proportions of the band widths are then given their appropriate Fibonacci number according to their distance from Y1. This band is the narrowest and allotted the power of 3. One step away, i.e. bands 5 and 11 are allotted 5, whilst bands 4 and 12 receive the power of 13. If we renumber the bands according to the zigzag starting with Y5 as 1, up to R1 as 13, the sequence runs: 9,

[21] The theorem that in a right-angled triangle the square of the length of the hypotenuse equals the sum of the squares of the other two sides. Huntley, H.E. (1970) *The Divine Proportion: a study in mathematical beauty,* New York: Dover Publications Inc. ch. 6 'Beauty in Mathematics' p.85

[22] It is not clear who 'Peter' is. Peter Lloyd Jones has no recollection of the letter. *Appendix 20, 21 & 22, 850731.*

5, 1, 10, 6, 2, 11, 7, 3, 12, 8, 4, 13, which, as on the sampling table for 13, is 4 albeit in reverse.[23]

As the above analysis shows, *No 7, Y Series 7*, represents an example of an early painting in which the system of proportion is becoming more complex and Cuthbert is engaging with the problems of colour-mixing. The particular difficulty which painters face with the darkening of yellow are clearly highlighted by this painting. Cuthbert had become fascinated with discovering ways of darkening yellow without it bending towards the green hue. In this painting, R1, desaturated by white, shifts towards red purple. The dark tones also shift and do not appear to hold their hue well. This is a good example of the unpredictable nature of darkening with black. In order to better understand and demonstrate this phenomenon Cuthbert constructed some coloured boxes with the help of the technician at Wimbledon School of Art in the late 1960s, *(fig.38)*. A box, the interior of which was painted black, with yellow rods (all the same yellow), shows the rods at the back as darker yellow. As Cuthbert demonstrated, a box, the interior of which was painted yellow (the same yellow as the rods), shows the rods at the back as a purer, dark yellow. In effect this demonstrates that in the black box, the yellow moves towards a greeny yellow, whilst in the yellow box the yellow remains true to hue. Cuthbert subsequently made little cardboard boxes, painted red or blue inside, into which a rod with a red or blue swatch could be entered. As each swatch was entered into the same coloured box, the change in tone could be observed without the hue shift which occurs when the box is black. With the help of these boxes Cuthbert was able to mix down while keeping to the hue.[24]

Painted between 1965 and 1972, *No 12, Cruciform 1*, (23x23"), *(fig.39)*, signals exploration of a new geometric form. The Cruciform series, of which *No.12* is the example shown in the diagram *(fig.40)* consists of *No. 12-15* and *No. 34* and *35*. Cuthbert repeated the format in 1984 in *No.76, R+G=Y Cruciform* (third version). In *No.12* the colour ranges from yellow to scarlet. From right to left through the centre of the canvas the colours read: Y, Sc, Sc+3W, Y2, O, Sc+2, Y3, YO, SC+1. The order runs in a zigzag on the four scales Y-Sc numbering the darkest Y3 as 1. The sequence of the painting is shuffled to 3,6,9,2,5,8,1,4,7 (0 becomes an integer in order to sample by 3). Thus, although the forms within the paintings appear simple the organisation of the colours increase in complexity and in this one the shuffling introduces an element of chance to the process.

Likewise, *No. 35*, entitled *Cruciform 6*, (72 inches square), *(fig.41)* appears in the Cruciform series and, although painted later, around 1974, follows a similar pattern. The

[23] *Appendix 20, 21 & 22, 850731.*

workings out for *Cruciform 6* appear in Cuthbert's little black notebook of 1974, this verifies the methods used to work out other paintings. *(fig.41).* This is one of the few clear examples of Cuthbert's notes matching and explaining the ordering of his paintings. This, firstly, confirms my analysis of the systems he used to create paintings, and secondly, in accordance with the exhibition catalogues, establishes the chronology of Cuthbert's development.

Cuthbert continued throughout the period 1965 to 1979, to use square canvases of standard imperial size from one to six feet. This simple rationalisation encourages the view of the paintings as one project, or even one system with defined limits. The following group of paintings are of note in that they signal a further simplification of form. Like *No 26, Y-R CV5* (18x18"), *(fig.42),* they dispense with all shapes except horizontal bands and consist of progressively subtle colours.

The 18" square canvas *No 26, Y-R CV5* is unique in that the bands are equal in size. There are five bands at 3.6" each. In fact the canvas actually measures 17.7", so the measurements which were worked out mathematically and theoretically were adjusted due to the practical constraints of the shop-bought canvas which was stretched on stretcher frames in the studio, with slight irregularities in size occurring.[25] The title indicates that the series run in yellow to red and that the colours will be constant in value (CV), i.e. equal in lightness. As their value is equal, so they are attributed equal proportions in bandwidth. The colours, being of equal value, appear in the grid thus *(fig.43).*

Varying in size but simple in their construction are a series *EV from Max Sat, 1-5, No. 36-40.* The paintings in this series follow a similar construction and *No 39, EV from Max Sat 4* (18x18") is a representative example *(fig.44).* The analysis of *No.39* confirms the systematic trajectory of Cuthbert's work. The colours can be identified from top to bottom with their respective Fibonacci values as in the diagram *(fig.45).*

On an 18" canvas this gives a bandwidth of 3.08" for Sc5 as 13 (the value allotted) divided by 76 (the total of the Fibonacci values) x 18 (Canvas size); for R4, 21 divided by 76 x 18 = 5.0. These provide the bandwidths. The proportions, which can be seen in the diagram, relate to the distance from Y. Thus in effect, the hues are related to the value/lightness of yellow.

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[24] Examples of the cardboard boxes were found in Cuthbert's studio, no date.
[25] Interview with the painter, Lisanne Ashton, Cuthbert's second wife, 29 May 2003 Puylaroque, France.

The saturated colours on the colour circle (i.e. maximum saturation) are given equal value with Y. Thus, red, which is normally a dark colour, is raised four steps with white to give it the value of Y. The central band in the painting, (YO +1W), appears as light as yellow would, and is given more space due to its one step desaturation (value 5) with white from the mean Y (value 2). Y2 (value 3) on the other hand is one step away, but in the same hue. The further away in hue from Y the larger the proportion i.e. R4 (value 21). The diagram also shows the order via the line.

The ordering system can be applied in varying ways to a number of other works produced in the 1970s. In the previously cited Colour Group presentation of 1972, Cuthbert describes the third group of works, as, 'from a series obtained from desaturating the primary yellow but maintaining a constant value by the addition of white.'[26] This description is consistent with Cuthbert's preoccupation with yellow which results in a number of paintings called *Yellow series 8-15 (fig.46, 47 & 48)*. All of these are similar in their range of shades and tints of the yellow hue. However, they vary according to subtle rules imposed by Cuthbert. The subtle rules become more controlling as Cuthbert searches for balance and harmony. In this respect, a fourth subgroup can be identified according to the following extract from the Colour Group presentation of 1972:

> The fourth was an almost complete desaturation series, (yellow desaturating towards the grey scale) except that values lighter than the primary yellow were excluded. In this the process behind the final structure was more complex, partly because of the number of yellows (36), partly because the triangular format of the series presented a problem in stringing the series in such a way and finding an interval to the final sequence, that would give variety in value and/or saturation to each of the nine sets of four. In addition to this, every other group of four was reversed in order to obtain a counterpoint effect.[27]

As this quote describes, each series uses a mathematical method out of which Cuthbert chooses certain examples to enlarge. In the fourth 'almost complete desaturation series he is looking for 'variety in value and/or saturation.' There is a strong selective element to the intricate structure, based on Cuthbert's judgement of concepts such as 'variety'. In existing documentation there are few preliminary studies in colour; more common are workings in numerical forms, and I propose that by 1976 Cuthbert knew his medium well and was attuned to the organisation of colour that he could visualise the relationships without need of prior studies. He had certainly trained himself to distinguish acutely between tints, shades and hues and it was in the yellow range that most of his research and interest lay. In these paintings (*No. 48-55*), *(fig.46, 47 & 48)* he had by the mid 1970s understood that yellow could be taken down with purple towards black, rather than with black. (This overcame the problem of the greenish hue evident in his earlier works, such as

[26] *Appendix 13, 14 & 15, 72AGC12.*

No.7). Cross-mixing in the yellow to purple range spawns a whole gamut of taupes, mushrooms, and camel colours, but of course, Cuthbert refers to them neutrally by way of letters. However, when he desaturates some of the colours with white, (creating tints rather than shades), and sets equal value lights together and equal value darks together, the colours start to oscillate or shimmer.

This is first evident in the painting *No 55, Y Series 15 Somersault 3* 1976 see *(fig.48)*, which consists of six bands on a 48" square canvas The bands work in groups of two or three bands which have equal value and therefore flicker. Sometimes, bands of colour drift into larger more desaturated areas, again due to their equal value.

Working from a number of extant paintings and the marked tubes left in the artist's studio, it is possible to name the colours. From the top, bands 1, 2, and 3, are constant in value, i.e. white has been added to bring them up to the same lightness. Bands 4, 5, and 6, are also constant in value. From this it is possible to deduce that spatial proportion, (i.e. the bandwidth), is based on saturation as this diagram shows *(fig.49)*. Thus the largest, band 1, is the most desaturated with white, and therefore furthest from the maximum saturation Y1 on the colour circle. Once again, the measurements of the bands indicate the use of the Fibonacci numbers. However, in this case, every other number of the sequence is used with fractions that follow, i.e. 1,3,8,21 to which are added 2/8, 3/8, 5/8, 8/8, respectively (the fractions are the full sequence over 8). This leaves the widest band to take up the surplus ¾ inch. Thus the measurements read 1¼, 3 3/8, 8 5/8, and 22¾ inches. Given this information and by comparing *No.55, Y Series 15 Somersault 3* with *No.54, Yellow Series 14 Parallel 4, 60X60''* it is possible to begin to name the colours in both paintings. In *No.54, Yellow Series 14 Parallel 4,* the bottom band, the ninth band, matches a tube in the studio labelled Y3. In addition, bands 3 and 4 in *No.54, Yellow Series 14 Parallel 4,* appear as bands 6 and 5 in *No.55* as do 5, 6 and 7 which occur as 3, 2, and 1.

This yellow series from *No.48-55* is significant, therefore, because it demonstrates that by 1976 Cuthbert was engaging with a subtler understanding of the physical and optical properties of colour. He had explored how yellow could be made darker without shifting hue or leaning to green; undoubtedly, the light boxes had helped in this. He was also concentrating on one hue, yellow, rather than the spectrum, and thus his perception of the differences in a narrower field became more acute. The narrowing of the field also meant that harmony was easier to achieve, since the diversity of hues were excluded.

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[27] *Appendix 13, 14 & 15, 72AGC12*

Finally, I want to focus on three paintings using the Chevron format *No. 9 Yellow Series Y-R, No.45, YY-B Chevron 1* and *No.57, Y Series Y-B Chevron (2),(fig.50).* Although like earlier works they employ Fibonacci numbers and the Golden section, they present problems in their choice of colours.

In all three paintings, the shapes and proportions were worked out according to *phi* and Fibonacci series, however, if the works are examined in detail, their colour choice is less clear. I will use *No. 57 Y Series Y-B Chevron (2)* as a representative example of the three. The right hand side edge of the 30" square canvas has been intersected by a diagonal line which meets the bottom edge half way along. The side edge intersection point is found by 30" x $\phi' = 18\ ½$". a diagonal line from the top left runs parallel with the first diagonal until it meets the centre line. The other half of the canvas is a mirror image, symmetrical along the central axis. The measurement between the top and bottom diagonals, but perpendicular to them, in total is 15". Totalling together the Fibonacci numbers 3 to 21 (4x3, 2x5, 2x8, 1x13, 3x21) these come to 114, 15 ÷ 114 = 0.13. When the Fibonacci numbers are multiplied by 0.13 the band widths are obtained, perpendicular to the diagonal, thus giving the progression from the most saturated to the most desaturated accordingly.

In this work, the colour appears in the range from Yellow-Blue and there is no white added to bring them up the scale. However it is unclear how the sequence or colours are chosen. It does not match the Fibonacci sequence or any other attempt at clarification. Such inexplicable elements are important to Cuthbert's methods as I discuss below.

5.2 Summary of Cuthbert's practice

In summary, from the above analysis of the selected paintings representative of his series, it is possible to argue the following. Firstly, although the earlier paintings are generally undated, the order of Cuthbert's cataloguing and of his other listings show that Cuthbert's learning experience about the anomalies of colour mixing tended to be in groups or series tackling certain cross-mixing issues.[28] As such these groups of paintings indicate his development and the chronological dating of the paintings. However, it is clear that he returned to certain series and reproduced ones he considered successful.

Secondly, it is clear that the use of maths and geometry is inherent in Cuthbert's work in the shape of the Golden Mean, *Phi* and the Fibonacci series. In other words, he approaches colour from a physical rather than a psychological basis. This is further supported by his use of Goethe's proportions (in *No.2*) and his knowledge of Munsell and Ostwald's colour

models. Cuthbert's experiments with colour are methodical and he reproduces experiments as demonstrated by the mixing and tubing of colours and the repetition of certain formats and series. This interest in the linking of maths, science and art, is also evident from his personal library, which included, amongst others, Josef Albers' (1971) *Interaction of Color,* Johannes Itten's (1970) *The Elements of Color: a treatise on the color system of Johannes Itten based on his book The Art of Color.* Cuthbert's library also included Ogden Rood's (1973) *Modern Chromatics: students' textbook of color with applications to art and industry,* which includes a facsimile of the first edition of 1879.[29]

Thirdly, from the majority of the examples discussed, Cuthbert chose pictorial composition without referential content, i.e. figurative, or realistic as his vehicle for researching colour. While early works have a few references, by the 1970s referential content has completely disappeared, except in a few titles. There is also no evidence in studio notes that he thought of the works in any terms other than research, and systematic investigations into colour and balance. As I have discussed, Cuthbert always employed square canvases of fixed sizes. This deliberate approach is consistent with the geometric shapes which always relate to the canvas edge and the constant medium of flat opaque oil colour. These constants in Cuthbert's format, over the larger time frame, indicate a deliberate and considered project.

Finally, there remains the element of aesthetic judgement in the examples which Cuthbert chose to paint up large. This becomes an increasingly important element after 1970. It seems to run counter to the inevitability of geometry and physical colour principles. However, this choice enlarges the process as a vehicle used by the artist under the artist's control. In this manner the artist sits outside the mechanism which results in a fixed outcome, unalterable by the artist. In Cuthbert's process, the creator has the final choice. By relating colour to 'preconceived modulars and formats', Cuthbert's project and his working method, (though changing perceptibly with different series), follow a pattern common to the period and reflect interests and issues established in the early 1960s, not least of which is how to organise a system or establish a grammar of colour. These common interests and issues of the period appear in Cuthbert's teaching which I examine in the next chapter.

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[28] *Appendix 16 & 17, Catalogue, Appendix 23, Exhibitions Chart, & Appendix 19, 00AGC04.*

[29] Books on shelves included: Berlin, Brent & Kay (1969) *Basic Colour terms: Their universality and evolution,* University of California; Bustanoby, J.H. (1947) *Principles of Color and Color Mixing,* McGraw-Hill; Hilger, A. (1973) *Colour 73: Survey lectures and abstracts of the papers presented at the Second Congress of the International Colour Association,* Adam Hilger & Institute of Physics Pub.; Kornerup and Wanscher (1967) *Methuen Handbook of Colour,* London: Methuen.

Practice into teaching: Cuthbert 1965-1979

It is important to view teaching in art schools in its design historical and art historical context, in order to assess the links between for example the Bauhaus and modernist design, or the Bauhaus and the rise of abstract art.[1] I have so far outlined the pertinent themes in the twentieth-century development of abstract, geometric and Constructivist art, drawing links with natural form and the organic in Chapter Two. I have established these as interests co-existing alongside Bauhaus influence in Britain and basic design thinking in the art schools of the late 1950s and early 1960s and noted the changes in the teaching institutions occurring at that time. Furthermore, I have traced colour as an element in visual language and noted the growing scientific and systematised approach. Building upon these observations, this chapter seeks to establish how Cuthbert's practice, based on the themes above, and through the contextual knowledge about colour learnt through his studio experiments, feeds into his teaching and lecturing.

This chapter is divided into two sections. In the first section, I investigate how Cuthbert's interest in colour is evident in his teaching and where the above-mentioned themes, such as Constructivism, geometric form and the organic, appear in his teaching. Here I identify the different contexts in which Cuthbert discussed colour. These can be broken down into three. They are the demonstration lectures about colour in art schools, lectures about his own work, usually at Colour Group meetings or academic symposiums, and his teaching method as a head of a Foundation course. In the second section, building upon section one, I assess the extent to which his teaching methods draw upon Constructivist ideas and approaches.

6.1 Cuthbert's colour approach in teaching

As a lecturer Cuthbert was wont to give a practical demonstration with paints and other equipment in studio demonstrations for students at Wimbledon School of Art, Kingston Polytechnic, St Martin's, Reigate, and later, the Royal College of Art in 1976.[2] From one of the documents in the artist's archive which contains notes for a lecture, it is possible to establish the content of Cuthbert's colour teaching.[3] The twenty points in the lecture provide the basis for understanding practice as used by, not only fine art painters, but also designers and architects, since these were the groups with which he was familiar. This

[1] A further example would be the teaching method of children by Marion Richardson and Abstract Expressionism.
[2] See *Appendix 24, Cuthbert's CV*, for a list of art schools visited.
[3] Undated document, (probably mid 1970s), *20AGC01*, not in appendix, in artist's studio papers.

lecture clearly signals Cuthbert's commitment to the Bauhaus view of colour as a material in an eclectic teaching situation where there is scant difference between students from diverse disciplines. As I established earlier, this was an important feature of the *Vorkurs* and basic design. Whilst Cuthbert always deals with flat opaque colour, in the following analysis he occupies himself with the physical aspects of colour and rarely deals with the psychological or symbolic readings of colours, thus locating the study, teaching and use in what might be termed a scientific field. Nevertheless his approach is always empirical and aligned to practice rather than pure theory.[4]

According to Lisanne Ashton, a former student on the Wimbledon Foundation course, Cuthbert started a demonstration lecture with the essential aspects: palette, circles and scales, and complementary contrasts.[5] For demonstration lectures he would arrive with the following: oil paints; brushes and a paint trap (he always used oil but maintained that the system applied to other colour media); a sheet of white 'benchcote', (i.e. waxed white paper or polythene); an electric drill and discs; examples of Equal Value cards /H cards *(fig.51)*; and a black box and a yellow box *(fig.38)*.[6] Cuthbert would start by laying out the 'benchcote' and dabs of colour in a spectrum. His simple palette for these demonstrations was six colours, two yellows, two blues, two reds, and white. This was to show how all the colours could be mixed from these and represented a basic palette. In addition, he would have black and alizarin crimson for comparison. However, he would also recommend from his own research a considerably more saturated colour circle which could be constructed from nine tubes plus white.[7] These nine tubes included three reds, a violet and a green, which were chosen from specific paint-makers for their consistency in cross-mixing. These would ensure maximum saturation, unattainable with the 6 colour system, purely because of limitations in the manufacture of paint/dyes. Thus the extra tubes would make half steps in orange, red-purple and blue-green.[8]

Ashton confirmed that Cuthbert selected his palette very carefully. Finding samples of maximum saturation paint is difficult and he would do trials with named colours from

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[4] One of the tenets of GRAV – Group de Recherche de l'Art Visuelle, who are examined in the next chapter. Peter Lloyd-Jones interview 19 September 1997 reveals that GRAV, Denise René Gallery, and the Signals Gallery in Wigmore Street, London, were of interest to himself and Cuthbert.

[5] I have confirmed the information by cross referencing various documents and interviews and elaborated some of the scientific points from papers to the Colour Group. For further clarification see *Appendix 25, 78AGC00*; *Appendix 26, 00AGC03*; *Appendix 12, 68AGC02*; *Appendix 18, 00AGC01*; and *(fig.51) H Cards.*

[6] Interview with Lisanne Ashton, Cuthbert's second wife, October 1997, Puylaroque.

[7] Cadmium Lemon / Lemon Yellow (1); Cadmium Yellow (2); Cadmium Scarlet (3); Cadmium Red (4); Rowney Rose (5); Cobalt Violet (6); Ultramarine (7); Monestial Blue / Windsor Blue (8); Windsor Emerald (9); Titanium White (10). He recommended adding white by 1 inch amounts. Interview with Lisanne Ashton, October 1997, Puylaroque.

[8] Cuthbert sought out the most saturated and pure colours and was always in search of a better Greeny-Blue; he once discovered an excellent turquoise in Italy, which he had flown over specially. Interview with Lisanne Ashton, October 1997, Puylaroque.

different makers. For instance, Robersons' Mauve or Windsor Green or Rowney Rose were selected for their purity, and could be extended, with white, and still retain their hue.[9] Cuthbert rarely used paint names but would make a point of referring to colour by neutral terminology such as Y,YO, YOO. Nor would he use the makers' names. In part, this was because makers and fabricants over the years change their formulae. When describing hue, brightness, and saturation, Cuthbert never used the term *cold* or *warm* because any so-called colour could appear warm by context. He was precise and reasoned in his terminology.

When dealing with the colour circle and scales, Cuthbert would explain that colour is a mixture of things. He would assert that it was useful to have a map and to understand the dimensions of colour. Furthermore, he would recommend adopting a method of mixing colour.[10] Cuthbert's demonstration would show how to sort out colours into opaque, translucent, transient, and different degrees of saturation. He would compare Rowney Rose, Veridian and Cobalt. In accordance with a project brief, in order to construct the circle he would stress choosing colours that adjust to maximum saturation and interval.[11]

Cuthbert's advice in these demonstrations was practical for painters and designers, and he could show that since colours often dry darker and change colour on drying, adding a small amount of white to 6:1 can compensate, without loss of intensity.[12] Also adding a small amount of white (which contains all the colours) helps compensate for the vagaries of lighting, e.g. electric light bulbs give a very yellow light, which can make purples look greyish and affect adjacent colours.[13]

Apart from being careful about working light (adaptation), metamerism (constant mixing), and contamination (clean medium, palette, & brushes), Cuthbert's teaching method would also stress that equal lightness on the palette is different when seen at a distance.[14] Equal lightness close to is different to equal lightness at a distance.[15] He also explained how to maintain hue constancy by controlling desaturation. For this he used the yellow box and was eager to avoid a hue shift. He demonstrated that the 'fluting' of scales make establishing equal lightness steps difficult.[16] Using the yellow box was a result of his

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[9] *Appendix 26, 00AGC03, Finding Examples of Maximum Saturation.*
[10] Undated document, (probably mid 1970s), *20AGC01*, not in appendix, among artist's studio papers.
[11] *Appendix 26, 00AGC03, Finding Examples of Maximum Saturation.*
[12] *20AGC01.*
[13] *20AGC01.*
[14] *20AGC02*, undated lecture notes, among studio papers, not in appendix.
[15] He recommended making observations from a distance of 6-8 feet, making sure brushstrokes are vertical when observing.
[16] 'Fluting' is where the band appears to curve, a phenomenon brought about by the closeness of tones. *20AGC02.*

research in the studio, and there are examples in his paintings of deliberate 'fluting' completed as exercises in investigation. His teaching and his studio practice cross-fertilised.

Research also shows that Cuthbert would outline the point that in mixing, it is soon discovered that there are only two components, - colour and no colour (grey scale).[17] Thus, in theory all colour can be mixed from the colour circle and the grey scale. When demonstrating the grey scale Cuthbert usually showed it in seven or nine steps, always an odd number,[18] although, in order to understand the limits of discernment better, he completed an exhaustive grey scale to see how controlled he could be. His advice on how to construct a colour circle of precision would be to use physical complementaries. No colour must be in the middle, therefore he suggested constructing from opposite complementaries. According to notebooks, yellow to purple was seen as a good starting point, but in order to do this, purple, for maximum saturation, needs a little white to raise it to the level of the others.[19] This starting point was directly related to his own work, as we have seen in paintings *No 7, 48-55*, and others that focus on the yellow scale and its desaturation darker, examined in the previous chapter.

In the second type of lectures to the Colour Group or academic gatherings concerned with colour, Cuthbert would decipher his own process (as in the lecture in 1972) or he would explore a point of colour and scientific interest. Here it becomes clear that there is a difference between what he demonstrates in lectures to students, in a practical way with oil paints and how he lectures with slides to an academic forum. The language and content in the latter are scientific and the investigation more complex. However, when he is able to elucidate a point by an example of his own painting, then there is a meaningful crossover. In the previous chapter I have already examined the process of constructing the paintings and the ordering of the system through lectures, especially those he gave to the Colour Group. Here I discuss some of the practical and research based knowledge on colour mixing, which he imparted at those gatherings.

In keeping with Ostwald's method, regarding the colour circle and the arrangement into a colour solid, Cuthbert explored their numerical and divisional relationships, *(fig.52, Colour Card Box)*. Under research conditions, Ostwald had stretched the grey scale to one hundred steps, however, Cuthbert favoured 36 steps from black to white or a factor of that number

[17] Undated document *20AGC01* and *20AGC02* (undated, lecture notes among studio papers).
[18] With odd numbers the extremities can be plotted, and then the mid point can be found. This was also useful in relation to hues and any step mixing. Munsell's method also used odd numbers of nine steps plus black and white, thus making eleven.
[19] Interview with Ashton.

(36, 18, 12 or 9). In the colour circle, research can reach as many as 100 hue steps at the point of maximum saturation. Similarly, in Cuthbert's colour-card box there are 92 steps in the colour circle with yellow as no 1. From his notebooks it is clear that Cuthbert had tried all the methods (of Goethe, Ostwald, and Munsell[20]). He suggested the use of 12 steps in Colour (no less than 10 – no more than 16). In practice and in teaching he advised the 12 step diagram with yellow balanced at the top moving through reds on the right. This positioned purple opposite yellow showing natural lightness value at the same time. This 12 step model is consistent with Itten.[21] Also in Cuthbert's studio colour-card box, white to yellow dark ochre was reached in 32 steps and orange to white in 32 steps.[22] Although in his own paintings he used a number of methods, he consistently taught a simpler method. In most of Cuthbert's paintings saturated yellow to yellow dark ochre takes 5 steps, - step 5 as the mid point, i.e. maximum saturation, as used by Munsell. Later work favours a 25 square 'shunted' grid, as in *Appendix 28, 29 & 30, Grid 1,2,&3*. It can be seen from the variations that the continuum of colour can be divided into the desired number of divisions, providing that the intervals are regular. The less the number of steps the greater the difference between them, and therefore the cruder they appear. But ultimately the point is that within the range that the eye can distinguish the choice of numerical mode is arbitrary. The artist can choose. [23]

Cuthbert's exploration and understanding of complementary contrasts is consistent with both his teaching points and his paintings and practice. He could explain that using different complementaries resulted in different colour circles and demonstrate the difference between physical and optical complementaries.[24] The following concept using complementaries was used in both types of lecture to students and scientists. When R+G=Y are mixed together they produce grey, adding yellow to this takes it to yellow, (but to achieve this needs less yellow). This was the starting point for paintings such as *No. 20, 21 and 76*.[25] Thus, the point of research interest becomes the rationale for the painting and the one explains the other in a didactic manner.

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[20] In his 'Colour Solid' Ostwald used twenty four steps in the 'full colour or hue circle', Jacobsen (1948) p.26. Munsell divides it up into 50 in his Color Tree or Sphere. Munsell A. (1921 and 1969) *A Grammar of Colour*, revised edition, fig.6, p.20.

[21] See the diagram: 'the color star' Itten, J. (1975) *Design and Form*, revised edition, p.33.

[22] Itten's (1961) example shows darkest purple to white in 12 steps, plate 58, p.55.

[23] The next question for the student of colour is what model can be used to link grey scale to colour. The models available are those by Ostwald and Munsell. For his demonstrations Cuthbert choose to explain Munsell's tree, *20AGC02*.

[24] The electric drill with the spinning discs was a device to show optical complementaries: the disc of ¾ blue and ¼ yellow spun for the retinal effect of neutral grey. This is a well observed example, Ostwald suggests it (Jacobsen 1948). See also appendix 25, *78AGC00, Paper for Intercolor Conference* (1997).

[25] This is explained in *Appendix 12, 68AGC02, A Key to Constant Hue (in Absorption Scales)*, (1968), Paper to the Colour Group.

It may seem obvious to ask the question, whether his studio practice fed into his teaching and lecturing, but it is prudent to do so, since being an artist-lecturer does not always mean sharing one's studio research or knowledge openly. Cuthbert was by all accounts open and delighted when a student or colleague showed interest in colour, such as in a tutorial. On the other hand he was quiet and modest, almost shy, and was not given to imposing ideas on Foundation course students. His understanding of the broader picture of art education meant that he was able to effect a teaching approach which would benefit designers and fine artists. When Cuthbert started teaching, colour was already on the Intermediate and NDD syllabuses, in at least a superficial and traditional way. How much time was devoted to the study or to what depth it was examined is not clear from existing material.

According to Cuthbert, colour teaching had just started in the early sixties, although by this he may have meant the scientific colour teaching that was of interest to him.[26] As previously discussed, Carruthers, Hamilton, Pasmore, Thubron, and Harry also contributed to new teaching approaches to colour. It is conceivable that Cuthbert would have had some knowledge of these projects and summer courses, in part, because Poole and Cuthbert had visited Leeds School of Art and because the rough notes for a Cuthbert lecture state that he particularly admired Harry Thubron and Sidney Harry, both of whom taught at Leeds.[27] One would then expect Cuthbert to establish the more scientific approach to colour at Wimbledon School of Art but in the Pre-diploma syllabus for 1963/64, which is actually the weekly timetable, it does not appear *(fig.15)*. It is worth noting that *Directed Pictorial Composition* is time-tabled for Tuesday afternoon and this is certainly an area Cuthbert would have identified with. Although no documentation has yet come to light, according to past staff and students at Wimbledon School of Art, colour projects appear soon after.[28]

6.2 Cuthbert's Constructivist themes in teaching

From the documents and articles I have cited, Cuthbert's understanding of pictorial composition, his colour research and his links with nature and science in the Fibonacci series are clearly evident in his practice and in his teaching at Wimbledon during the 1960s and 1970s

According to notes for an application, when Cuthbert was first employed by Cooper at Wimbledon in 1961, he started by teaching the Intermediate course: drawing, basic design and architecture. (It was likely Cuthbert had studied these at Goldsmiths). From 1963 to

[26] *Appendix 11, 00AGC12.*
[27] *Appendix 11, 00AGC12.*
[28] Interview with Nicolette Hallett, 9 January 2002. Hallett was a Wimbledon Foundation student 1966-68. A professional photographer, she photographed many of Cuthbert's paintings.

1969 Cuthbert taught drawing, colour, painting, and 3D design.[29] Architecture and 3D design seem at first glance to be outside his knowledge but his 3D understanding had already been established at Goldsmiths under Kenneth Martin in his experiments with light modulars and plaster forms.[30] The proposal that Cuthbert's approach to 3D was through structures and forms is also reinforced by the fact that he was taught by Martin as a student and he employed Rod Thomas as a lecturer at Wimbledon. Thomas' article in the Wimbledon School of Art magazine 'Sky City' [31] in which he discusses his 'Lupin flats', high rise structures for living based upon the Lupin plants, is indicative of the ideas Cuthbert valued in his department. As discussed previously, Dr R. Calvert's lecture, 'Art & Mathematics' appeared in an earlier magazine with illustrations of a sunflower, a nautilus shell and plaster forms. As this extract confirms, nature is viewed mathematically:

> Fundamentally things take on pattern and structure because they are formed from molecules which have shapes and which exert attractive forces in certain directions. Two atoms cannot place themselves together just anyhow, they must join together with, say for example, their longer axes parallel; and so we get regular crystal structure and get organic growth in fixed and oft repeated forms. Nature is therefore mathematical and in so far as art mirrors nature it too will be mathematical. [32]

This article is interesting in that Calvert, a maths and science lecturer, discusses numbers and formulae, citing the 1952 edition of D'Arcy Wentworth Thompson's *On Growth and Form.* He also cites Salvador Dali's *Sacrament of the Last Supper* as an 'essay on the theme of the golden rectangle'.[33] Calvert emphasises the occurrence of the golden ratio, the Fibonacci series, and the logarithmic spiral, and draws on ideas of pleasing shapes being predictable by mathematical formula. He states:

> ...we are ourselves are part of nature. Our brains and bodies are made up of the very molecules which build patterns according to mathematical principles. Is it conceivable that the thoughts in our minds and the motions of our hands can escape from this mathematical control?[34]

Calvert explains the mapping of solids by formulae and concludes with

> this modelling of shapes by alteration of algebraic equations opens up the possibility of studying the equations and determining what type of equation produces a pleasing shape. Art by mathematics?[35]

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[29] Interview with Ashton.
[30] See [CD].
[31] *Wimbledon School of Art magazine* no 5, c.1969-1970 pp.36-40, *(fig.23-27).*
[32] *Wimbledon School of Art magazine* no1, 1964 pp.21-23, *(fig.20).*
[33] *Wimbledon School of Art magazine* no1, 1964 pp.21-23, *(fig.20).*
[34] *Wimbledon School of Art magazine* no1, 1964 pp.21-23*(fig.20).*
[35] *Wimbledon School of Art magazine* no1, 1964 pp.21-23 *(fig.20).*

A pleasing shape, a pleasing combination of colours. Can this be achieved by mathematics? This is perhaps the crux of Cuthbert's quest in his own practice. By bringing in Calvert and Thomas to lecture Cuthbert was providing the Foundation course at Wimbledon with an aspect of contemporary art which was already current in British art of the period and provided a counterbalance to the other trends, which received substantially more attention in the media. The *Wimbledon School of Art Magazine* (no.2, 1965, p.62) also reveals a page by Cuthbert called 'playing with light' *(fig.22).* This is a simple understated set of photos of some wooden shapes positioned and, reminiscent of Moholy Nagy's works, lit from one side thus casting an ambiguous pattern of shadows. There is no text but the image suggests adherence to the Constructivist tendency. Cuthbert's participation in 1967 in an exhibition at the Whitechapel Upper Gallery, entitled *Structural Growth in Natural Form, (Appendix 8)* reinforces my argument about his organic and Constructivist interests.[36]

The division of Cuthbert's practice into the two themes: colour and structure are still the most logical analytical approach. Previously, I have shown that Cuthbert's interest in colour comes partially from his friendship with Dr Peter Lloyd Jones and his feeling of not knowing enough about colour when he left Goldsmiths.[37] Cuthbert's interest in maths, structure and biological formation stem from Kenneth and Mary Martin, and Rabin, and from Constructivism.

These ideas, as well as existing in the 1950s and 1960s in the art shown in small galleries like the Mayor and Axiom gallery, were also being used in teaching as Harry's and Thubron's references to mathematical and geometric forms in the *Developing Process* of 1959 substantiate. Similar teaching approaches were used by De Sausmarez (1964) in his book *Basic Design: The Dynamics of Visual Form.*[38] To these can be added one of the first Bauhaus exhibitions in Britain in 1965-66 organised at Middlesbrough School of Art by Sidney Spedding, the principal. There was also the exhibition of *Sehen,* Foundation course students' work from Saarbrücken in 1968, which toured Britain in 1969.[39]

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[36] *Structural Growth in Natural Form* (1967) April 30th - July 18th 1967 catalogue of an exhibition at the Upper Gallery, Whitechapel Art Gallery, London: Whitechapel Art Gallery. Cuthbert took part in the exhibition exhibiting a number of three dimensional pieces. Notably, it was organised by the senior lecturer in design at Goldsmiths College. See *Appendix 8* for full text.

[37] Peter Lloyd Jones wrote the introduction to the exhibition at the Towner Art Gallery, Eastbourne, October 1974. 'Such is the precision of the harmony used here that even the simplest colour clusters in Cuthbert's work presents us with a perceptual demand which teases the mind perpetually, yet never fails to be fresh. In these paintings colour 'harmony' becomes so much more than a musical metaphor.' Peter Lloyd Jones. *Appendix 31, 74AGC002.*

[38] De Sausmarez, M. (1964) Basic Design: The Dynamics of Visual Form, London: Studio Vista.

However, whilst these interests are explored intensively in his own work and are filtered carefully into the teaching milieu of Wimbledon, it would be misleading to suggest that Cuthbert's practice had an overriding impact on the course, or that these ideas consumed the course during the period 1965-79. For example, Tarrant, Lloyd Jones, Poole and Stokoe are clearly of the opinion that it was a Fine Art course as opposed to a basic design course.[40] Although it did have elements of basic design teaching inherent in it, Cuthbert's way of observing, using and teaching colour could be seen as only one of these elements.

In summary, Cuthbert's practice is traceable in his own lectures and teaching and also through his activities at Wimbledon School of Art. However, as has been substantiated, there is no one clear methodology for the teaching at Wimbledon School of Art in the 1960s or later, as far as can be ascertained. The content of the Foundation course seems to be an amalgam of ideas and methods from a variety of directions, presented as a Pre-dip or Foundation course, general in nature and anchored in fine art practice as it was understood at the time. Janz' article in the *Wimbledon School of Art magazine, no.5,* c.1969-1970, entitled 'Prediploma Students at Wimbledon School of Art' shows evidence of Constructivist teaching and is an example of the concept of fine art changing within the school, by using audience controlled elements in accordance with the principles of systems art, *(figs.29-30).*[41]

However, the roots of this amalgam lie in the 1951 ICA *Growth and Form* Symposium, and the lively debate fomented by Hamilton, Pasmore, Hudson and Thubron around the Newcastle-Leeds axis and the Scarborough Summer Schools, the 1957 Royal Festival Hall and 1959 *Developing Process* exhibitions and indirectly to a number of other factors including Bauhaus and teachers of the Bauhaus exhibitions, geometrical abstraction, the rise in the importance of design training, boom in the need for architects, and the practice of artist-lecturers. These directly or indirectly had an impact on the content and methodology of the Foundation course.

Cuthbert lectured at a number of art schools in the late 1960s and 1970s, and one can therefore conclude that his interest and practice was a type of art which was present in the institutions during that period. His interest in systems, geometric abstract and colour science was part of the art historical and educational milieu. However, the history of modern British art has largely ignored this aspect which is linked with Constructivism and

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[39] *Sehen = Seeing: an exhibition by students on the Foundation Course of the Staatlichen Werkkunstschule, Saarbrücken,* 1968, introduction by Oskar Holweck, shown at Central School of Art, London. See Erik Sonntag's article 'Foundation Studies Today' in *Leonardo,* Vol. 2 (1969) Oxford: Pergamon Press, pp.46-57.
[40] Interviews by AJE with Tarrant, Lloyd-Jones, Poole and Stokoe.

Systems painting. Nevertheless, as I show in the next chapter Cuthbert's interest and practice was part of a broad movement of European Constructivism, whose impact was substantial on practice, theory and education.

[41] Janz, B. *Wimbledon School of Art magazine* no.5, c.1969-1970, pp.12-15, *(fig.29-30).* Janz is included in Rickey, with examples of work, p.215 and a short biography, p. 235.

Cuthbert and Constructivism in Europe and Britain, 1960s and 1970s

Building upon the art school context of change in Chapters Three and Four, and the analysis of Cuthbert's process described in Chapter Five, the primary aim of this chapter is to position Cuthbert's practice both as an artist and teacher within the broader context of 1960s and 1970s British and European Constructivism. In order to do this I trace Constructivism in Britain through the American artist and writer Charles Biederman and the key British artist-lecturers, Mary and Kenneth Martin who taught at Goldsmiths. Using pedagogic texts and exhibitions I argue that 'inclusive' Constructivism which includes British Constructionists such as the Martins, as discussed in the introduction, is already established within the education system by the mid 1960s.

In Chapter Four I argued that Cuthbert's practice was engendered by a number of threads in twentieth-century art, namely maths, science and systems. These threads, under the guise of Constructivism, have often been set up in opposition to expressive art or subsumed into the functional syllabus of design.[1] However, the thread of science, as a marker of nineteenth-century modernity, when applied to art through the development and use of photography, the Impressionists' recording of the optical moment and Seurat's 'Pointillism', reveal the scientific project of early modernism. This scientific project encompasses visual perception and extends into the twentieth century.[2] Constructivism carries these threads forward into the 1950s where they appear as the underpinning of forms of abstraction and the basic design ethos.

In previous chapters, I have mapped two Constructivist moments in British art, *Circle* in the 1937 and *Nine Abstract Artists* in 1954, but here I focus on developments in the 1960s and 1970s. One of the key British publications of Constructivism was entitled *DATA: Directions in Art, Theory and Aesthetics* published in 1968. Significantly, this was the first major Constructivist publication in Britain since *Circle* in 1937. The collection of contributors spanned a European and North American trajectory, which reflected the importance of America in the post-war debate about art. It was also important that the contributors came from a range of disciplines, including artists and architects, thus integrating art and design. Later in this chapter, I shall use the publication of *DATA* in

[1] The rise of and interest in design comes about due to the Industrial Revolution. The rise of design also coincides with the deeper interest in the sciences and their application to art and design: Constructivism, organicism and Structurism can be viewed within this context.

1968 and two related Constructivist exhibitions of 1972 and 1978 to position Cuthbert's work. The first of these exhibitions was *Systems* (1972-3), for which Stephen Bann wrote the introduction, accompanied by a foreword written by Norbert Lynton, the then director of exhibitions. The second was the *Constructive Context* in 1978 which Bann was invited to select from the Arts Council of Great Britain collection, and which subsequently toured England ten years after the publication of *DATA*. In order to frame these exhibitions within British Constructivism it is necessary to briefly return to the Constructivist developments in the 1950s which run concurrently with the emergence of basic design and the activities of the ICA, previously discussed in Chapter Two.

7.1 Biederman and British Constructivism

When mapping the impact of Constructivism in Britain, it is important to remember that the British art scene was rocked in 1947 by Victor Pasmore's turn to abstraction. In this regard, as Johnstone (1980) mentions, two books in common artistic and pedagogic usage which were influential on Pasmore's change of thinking were Matila Ghyka's *The Geometry of Art and Life* (1946) and Jay Hambidge's *Dynamic Symmetry in Composition* (1923 & 1948). Pasmore used such publications as the basis for some of his methods of teaching maths and composition. However, Pasmore soon became aware of the book *Art as the Evolution of Visual Knowledge* (1948) by the American artist and writer Charles Biederman, and compositional abstraction, whilst Hamilton focused on the scientific content of D'Arcy Wentworth Thompson's book.[3] As previously stated, in 1951 Pasmore and Mary Martin produced their first reliefs influenced by their reading of Biederman in which he argues that *'the artist should seek to imitate not the appearance of nature but its structural processes'*, and also *'abstract from the Structural Process level of reality.'*[4]

In Chapter Two, I traced the thread of organicism and the scientific mathematical impact of nature on the British art scene, through such moments as the ICA exhibition and symposium *Growth and Form*. Here, by contrast, I want to focus on specific examples of art practice that had an impact on Cuthbert. Of particular importance here is Biederman, whose 'Structurist' views, as he was later wont to call them, were of significant importance to the development of Constructionism in Britain.

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[2] For instance, Monet and the retinal image, furthermore, Cézanne, can be included in this thread, through his painting the uncertainties and possibilities of reality in the picture plane.

[3] Hamilton drew on science for examples, when devising the groundbreaking exhibition at the ICA entitled *Growth and Form* (1951). Moreover, he used Thompson's book in his early teaching from 1951. Thompson's book, Hamilton's exhibition and the symposium organised by Herbert Read, were influential among British artists-lecturers and were examined in the chapter under the discussion around 'Organicism'. For Hamilton's acknowledgement of D.W.Thompson and S.Giedion see Hamilton, (1982) *Collected Words*, p.10. Similarly, Kenneth Martin was introduced to J.W. Powers book *Les Éléments de la Construction Pictorale* (1933) whilst he was teaching at Camberwell. Additionally, Michael Seuphor's book *Abstract Art: its origins and first masters* (1949) was also influential on aspects of basic design and on the Constructionists.

[4] Biederman, C. (1948) *Art as the Evolution of Visual Knowledge,* Red Wing, Minnesota, p.626.

After moving from Cleveland to New York, Biederman spent time in Paris and exhibited at the Galerie Pierre in 1936. In his many writings he recorded being impressed by Léger and Mondrian at this time and it becomes apparent from his later artworks that Mondrian is the key influence. Late in 1936 a group of artists, Biederman included, had gathered at the studio of Henry Holtzman in New York, who was an enthusiast of Mondrian's work. This group formed the Association of Abstract Artists and held their inaugural exhibition in 1937. Biederman's work in the 1930s shows an interest in the machine and the shapes and rhythms of biology.[5] Over the next ten years Biederman worked out his ideas at the confluence of Neo-Plasticist ideas and his changing perception of nature, which resulted in Biederman's change in views and the publication of *Art as the Evolution of Visual Knowledge* in 1948, his most important contribution to the debate. At first glance Biederman's Structurist line would seem to stem from Mondrian, van Doesburg and De Stijl, however it has been established as more complex. Jan van der Marck in the text to the Biederman retrospective in 1969 discusses Biederman's important contribution to 1940s and 1950s art in the following in terms of Monet, Cézanne, Mondrian, Pevsner and Gabo.[6] Van der Marck writes:

> Structurism, as a theory and method of creation, is unique in recent history. Developed by Charles Biederman in the light of a new understanding of nature, it stems from the basic premises of four pioneer art directions, which he has tried to apply and expand upon in his own work: Monet's paint-pigment transformation of nature's light-colour structure; Cézanne's proto-Cubist analysis of nature in terms of planar organisation; Mondrian's conversion of planes into abstract composition; Gabo and Pevsner's incorporation in their work, of scientific attitudes and modern technology's methods and materials.[7]

These interests are evident in *Art as the Evolution of Visual Knowledge* where Biederman moves through painting and its release from mimesis to abstraction, on to the relief and construction and then to Biederman's own work. Jean Gorin, whose work features in Biederman's tome, was influenced by Mondrian in the 1930s and developed his ideas of relief construction contemporaneously to Biederman.[8] Structurism was the term coined by Biederman to indicate an artwork which grew from painting but shares its three dimensional properties with sculpture. This relief construction in the U.S.A., happening simultaneously in France with Gorin, and emerging in Britain with Ben Nicholson, was

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[5] In 1942 Biederman moved to Red Wing, Minnesota and it is from this point he reassesses his relationship to nature.

[6] Jan van der Marck, 'Biederman and the Structurist Direction in Art,' *Charles Biederman: a retrospective exhibition, with special emphasis on the Structurist works of 1936-69* (1969) catalogue from exhibition held from September-October 1969 at the Hayward Gallery and Leicester, London: Arts Council of Great Britain, p.7.

[7] Jan van der Marck (1969) pp.7-8.

[8] Biederman was unaware of Gorin, also, later a contributor to *DATA*, and first contacted him in 1947. Gorin was a member of *Cercle et Carré* in 1930 and *Abstraction-Création* in 1932. He showed at *Réalités Nouvelles* in 1946, and with Galerie Denise René from 1960-1963. Thus following a common pattern for that generation.

taken up by the next generation: the Constructionists, Pasmore, Anthony Hill, and the Martins.

Biederman's relationship to the British Constructionists, is established by Garlake.[9] The British contingent saw themselves as Constructionists, rather than the latter-named and more refined Structurists.[10] The Constructionist group, which included John Ernest and Adrian Heath, were a sublimation of both European Constructivism and Biederman's Structurism. The essence of this was the structure, sometimes referred to as form, with nature and science as core. The Martins - Kenneth's 'Spirals' (*Screw Mobile* 1956-64) *(fig.28)* and Mary's mathematical cubes, such as *Cross* (1968) and *Nine Group* (1964) *(fig.53)* - exemplify the interest in nature and science. Cuthbert's early pieces, some of which were made at Goldsmiths School of Art, probably under the Martins, show an interest in the Structurist agenda. The interest in nature and science in respect of problems of form, be they two or three dimensional in Cuthbert's work, certainly suggests this lineage. For Cuthbert's work to be viewed in the Structurist lineage it is necessary to sideline the relief and three dimensional quality of Structurism, since Cuthbert's paintings emphasise the flatness of canvas and colour.

Apart from Biederman's book, Naum Gabo's presence and correspondence was important in informing the British about Constructivism.[11] The resultant direction in British art in the 1950s was not purist. It did not, for instance, follow any single factor such as revolutionary Utopianism, Le Corbusier's the machine as salvation, or Reyner Banham's the scientific structure of nature.[12] Instead, the debate revolved more subtly around the position of nature in abstraction. In this respect, the ideas of the Bauhaus take a back seat, since the materials were not the primary source of creativity.[13] Although Biederman and British Constructionists use a range of materials, such as aluminium, perspex, acrylic, it is the hidden laws of nature and the organic which are key to an understanding of their processes. I propose here that it is partly the debate about nature and organic structure, rooted in early

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[9] Garlake p.113 (footnotes 63 and 64). See also the catalogue of *Dimensions: British Abstract Art 1948-1957* curated by Lawrence Alloway, introduction by Robyn Denny, at the O'Hana Gallery, London in 1957, containing no less than six references to Biederman including the following '1952 Hill corresponds with Biederman. 1953 Pasmore corresponds with Biederman. 1954 Kenneth Martin corresponds with Biederman.'

[10] Among those I consider as Structurists, apart from Biederman, are the Dutchman Joost Baljeu, who set up the magazine *Structure* and Eli Bornstein, who broke with Baljeu and set up the magazine and group in Canada named *The Structurist.* Bann, S. (1974) in *The Tradition of Constructivism,* publishes writings by all of these.

[11] Letters between Gabo and Read published in *Horizon* , July 1944, reprinted in Read, *The Philosophy of Modern Art* (1964) London: Faber, pp.238-245.

[12] Respectively Le Corbusier's lectures at the ICA; Reyner Banham's writings; *Growth and Form* exhibition.

[13] Many, like Biederman and Hill, were experimenting with new materials. However, the symbolisation of the Bauhaus as using materials as the primary source of learning is an oversimplification. For instance, during his time at the Bauhaus, even Klee was aware of the organic and the biological sciences. Verdi (1984) makes out a good case for Klee's awareness of both Cook and D'Arcy Thompson through his friend Hans Kayser a fellow musician. He also points to Klee having read Hesse since evidence of Govinda's world view appears in the painting *Around the Fish* 1927. Richard Verdi, (1984) *Klee and Nature* London: Zwemmer, 229-230.

twentieth-century practice which drives Constructivism forward into the 1960s whereas it is usually the materials that have been foregrounded.

The importance of nature to Biederman's ideas can be traced to his Paris trip of 1936 by quoting Mondrian's piece in *Circle*:

> The laws, which in the culture of art have become more and more determinate, are the great hidden laws of nature which art establishes in its own fashion. It is necessary to stress the fact that these laws are more or less hidden behind the superficial aspect of nature. Abstract art is therefore opposed to a natural representation of things. But it is not opposed to nature as is generally thought. It is opposed to the raw primitive animal nature of man, but it is one with true human nature. It is opposed to the conventional laws created during the culture of the particular form but it is one with the laws of the culture of pure relationships.[14]

The 'hidden laws of nature' and the 'laws of pure relationships' are reflected in Cuthbert's work by the Fibonacci series and the proportionality of the bands of colour. These ideas fit exactly the classical tradition of Platonic form to which Mondrian and Biederman alluded.[15] The development of the Constructivist tendency is also demonstrated by Jan van der Marck in the 1969 catalogue where he notices the shift in terminology which reflects the move towards process art, i.e. process rather than constructed piece:

> By introducing a new term, Structurism, and applying it to past and present reliefs, he [Biederman] hoped to eliminate semantic confusion. Structurism more accurately denotes the involvement of the artist with what Biederman calls the 'structural process level of reality' as a source and model for creation. The term Structurist, therefore fully replaces and excludes Constructionist, even in discussing Biederman's pre-1952 reliefs and ideas. While his English colleagues employ Constructionist and Constructivist, Biederman has gained acceptance for the term Structurist among reliefmakers in the United States and Canada.[16]

Van der Marck is writing in 1969 and reflects the decade's move from constructive to process, but not merely a system as process.[17] As he emphasises, Biederman is pointing to the 'structural process'. The equal weight on both words adjoined to 'reality' assigns the concept to Plato's perfect forms.[18] However, it seems cautionary to point out that despite Biederman being American, the concepts must be regarded as emerging from a European tradition, not American or even solely French. That in itself is significant when considering in which direction the majority of art students and lecturers interested in Pop

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[14] Piet Mondrian, 'Plastic Art and Pure Plastic Art' published in L. Martin, B. Nicholson and N. Gabo ed. *Circle – International Survey of Constructivist Art* (1937) London, pp. 41-56. See also *Abstract and Concrete* (1936) exhibition, London, in Harrison & Wood (1992) *Art in Theory* p.374.

[15] For further reading see Rickey, p.91. His chapter on 'Classic Order' discusses the Constructivist search for order and its relationship with 'inner necessity'.

[16] Jan van der Marck, (1969), p.7.

[17] Robyn Denny was a champion of Biederman, he wrote the introduction for the 1969 show entitled *Charles Biederman: a Retrospective Exhibition, with special emphasis on the Structurist works of 1936-6,* in which Jan van der Marck wrote.

[18] Jan van der Marck's following phrase 'as a source and model for creation' hints at a creation with a capital letter. The quote below also carries this weight with 'in the light of a new understanding of nature'. 'Creation', 'light', 'nature' - the words are classical rather than modernist. In these senses Cuthbert can be seen to be a descendent of the classical tradition.

art and Abstract Expressionist movements in the art schools in the 1960s and 1970s were looking. In short, there were those who formed the avant-garde in looking to America and those who looked towards a classical past, a formal continental approach based on maths.

The impact of Biederman's book cannot be understated and its influence on Victor Pasmore, Kenneth Martin, Mary Martin and Adrian Heath led them to discuss their mathematical theories and work in 'Abstract Art', *Broadsheet* No.1 (1951) and No.2 (1952). These *Broadsheets* were published in conjunction with an exhibition of Abstract Art at the AIA Gallery, in London, from May to June in 1951.[19] Garlake also draws attention to the Wittenborn Schultz Inc. publications which included Mondrian's 'Plastic Art and Pure Plastic Art' (1947), Vantongerloo's 'Problems of Constructivist Art' (1948) and Arp's *On My Way* (1948) as evidence of the growing interest in Constructivism and the move towards abstraction.[20]

By 1964 a pivotal point was reached in the abstract pedagogic and Constructivist debate by the publication of a 'basic design' textbook. Entitled *Basic Design: The Dynamics of Visual Form* (1964), it was written by Maurice De Sausmarez, who had been at Leeds with Hudson and Thubron.[21] This was the equivalent to Itten's *Design and Form: the basic course at the Bauhaus* which had been released in English the year before. As the English art school pedagogic textbook, it drew on Bauhaus ideas, which had evolved and slowly become mainstream. Although no comparison has been made between Itten's and De Sausmarez' books to date, it is clear immediately from the similarities that they are closely aligned in pedagogic method and content. Thus, through the Bauhaus, organicism and Constructivism, the modernist scientific project enters basic design.[22]

In this context, a number of important scientific moments surround early modernism and are seen by some writers, such as Waddington, as vital to the development of modern art.[23] In the area of modernist colour and composition, where science and maths meet art, such as in Seurat's investigation (of Michel Eugène Chevreul's colour theories), the model for the artist as colour researcher is apparent. The later modernist critic, the American, Clement

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[19] Victor Pasmore, Kenneth Martin, Mary Martin and Adrian Heath in 'Abstract Art', *Broadsheet* No.1 (1951) and No.2 (1952), published in conjunction with an exhibition of Abstract Art at the AIA Gallery, in London, from May to June in 1951 London: Lund Humphries, 1951-52.

[20] As cited by Adrian Heath in Heath, A. (1953) *Abstract Painting: its Origins and Meaning,* London: Methuen p.32.

[21] De Sausmarez, M. (1964) *Basic Design: The Dynamics of Visual Form,* London: Studio Vista. De Sausmarez uses the frame 'a diagram of forces' p.14.

[22] I assert that visual perception, science, maths, and technology are at the root of the syllabus of modernist design.

[23] Einstein's Special and General Theory of Relativity 1905 and 1916; Rutherford's revolutionary new model of the atom in 1911; Max Planck's Quantum Theory of Energy in 1900 revised by Niels Bohr and Rutherford in 1913.

Greenberg, took the modernist view that science, or the scientist, has the capacity to be self critical, unhindered by emotions or taste reflecting the Kantian notion of a discipline to be self-critical, i.e. to use logic to establish the limits of logic.[24] Greenberg bases his aesthetic, the priority of formal properties, on this disinterested self-critical notion.[25] Greenberg's thesis was that painting had to concentrate upon the properties it shared with no other art form, its flatness and its visual property. When Greenberg wrote 'Modernist Painting', at the height of his influence in 1961, he upheld the spirit of scientific method as consistency and prized the goal of flatness and the strictly optical.[26]

Cuthbert's work is part of the ongoing modernist project of perception with its roots in Seurat and other European artists with a scientific interest in colour and form. As part of that optical, scientific project, Cuthbert's paintings refer to Bauhaus colour teaching; also to European Concrete art, as in Bill and Lohse; and with their references to mathematics and nature, to the umbrella term Constructivism. In order to establish the location of Cuthbert in the context of British and European traditions I want to focus on Cuthbert's practice within the contemporary debates surrounding Constructivism in the 1960s, having already cited his heritage through the Martins of the more narrowly defined British Constructionism of the 1950s. The distinction between these two terms is elaborated in the introduction to this thesis.

The majority of Constructivist ideas came initially from Europe to Britain. In contrast, Biederman was the first shift in the flow and the relationship of Biederman's Structurism to British art of the 1950s and 1960s, begins with its affect on the British Constructionists: Anthony Hill, Kenneth and Mary Martin. Gabo and Moholy Nagy, who by the 1950s were also in America each make an impact, through their theories. However, exponents of Concrete art, in particular Richard Paul Lohse and Max Bill, who feed in to the design aspect of Constructivist teaching, have closer ties with British Constructivism. This aspect

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[24] This was Krauss' point, footnoted in the *Introduction (see footnote 64)*, that modernism had slowly become 'unself-critical'.

[25] Greenberg, Clement, 'Modernist Painting' first published in *Art Yearbook 1*, New York (1961). This text is taken from the slightly revised version published in *Art & Literature*, no. 4, Spring 1965, pp.193-201. This version is also reprinted in Harrison & Wood (eds) (1992) *Art in Theory1900-1990: an anthology of changing ideas* Oxford: Blackwell, p.758.

[26] Harrison & Wood (ed.) (1992) pp.756-758. With regards to consistency, Greenberg states: 'Now as before the only consistency which counts in art is aesthetic consistency, which shows itself only in results and never in methods or means.' Harrison & Wood (ed.) (1992) p.759. Scientific method is therefore a cornerstone of modernism, and within this lies a scientific attitude to nature which is embraced by organicism, this in turn can be seen in the logical, technological and biomorphic work of Constructivist art. In the context of American late modernism Cuthbert's paintings align themselves to a number of Greenbergian modernist notions, namely flatness, the strictly optical and the disinterested spirit of scientific method. However, the alignment diverges at the last notion –according to Greenberg: 'the aesthetic consistency shows itself in results but never in methods or means'. Cuthbert's paintings overstep by revealing their methods and means to the astute observer.

is supported by La Groupe de Récherche de l'Art Visuel (GRAV).[27] The literature, exhibitions and teaching of these ideas and directions in the institutions help to locate Cuthbert's work.

The models, such as Concrete art or Op art, which have been formulated, as subgroups within the inclusive term, Constructivism, discussed in the introduction, can be looked at as frames for Cuthbert's process in a roughly chronological fashion. The developments in Cuthbert's work mirror changes in Constructivist boundaries. For example, his experiments with lights whilst he was still a student at Goldsmiths echo the work of Moholy Nagy's light-paintings and space modulators *(fig.3)*.[28] His contribution to *Wimbledon School of Art Magazine* of simple shaped pieces of wood lit from one side, continue to reflect his interest in Moholy Nagy and the Bauhaus.[29] Nature in form and structure is highlighted by his contribution to the Whitechapel exhibition, entitled *Structural Growth in Natural Form* in 1967; his use of the Fibonacci series represents D.W. Thompson and organicism; geometrical and optical interests can be seen in his unspoken homage to Vasarely[30] and finally Systems painting in colour classification and ordering.[31] However, the boundaries between the models of abstract art are frequently indistinct and their categories dependent on who is writing their history.

To this list of diverse aspects, organicism, Structurism, basic design and systematic colour painting, can be added the models of Constructionism, Op art, Concrete art, and Minimalism. Again the boundaries between these -isms are indistinct and artists move through them and develop at different rates to the -isms, sometimes setting, sometimes following trends. However, the inclusive diversity of the Constructive tendency is organised into manageable patterns at certain key moments through both exhibitions and publications. These are brought together, in the exhibitions *Systems* (1972) and *Constructive Context* (1978), and in the books, as in the publications *Circle* (1937), *Nine Abstract Artists (1954),* and *DATA (1968),* thus consolidating current ideas. What is unique and significant about the book *DATA* and the exhibition catalogues for *Systems* and

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[27] Groupe de Recherche d'Art Visuel, (GRAV), was formed in Paris in 1960. The group included, Yvaral (Vasarely's son) Francois Morellet, Francisco Sobrino, Julio le Parc and Joel Stein. Its aim was to establish a relationship between the artist and the spectator by visual stimuli, using modern materials, technology and precision. See Rickey (1968) p.234.

[28] The Hungarian Laszlo Moholy Nagy taught at the Bauhaus 1923-28. He fashioned an array of motor driven templates that he illuminated to project elaborate shadows on the nearby walls. Called 'Light Space Modulators', there is a good example on show at the Bauhaus Archive, Berlin, similar ones are included in De Sausmarez (1964) pp.56-57.

[29] *The New Vision and Abstract of An Artist,* (1947) New York, make reference to light-painting. In *Vision in Motion,* (1947) Chicago: Paul Theobald, Moholy Nagy writes of the 'Resistance of materials to the impact of forces,' and mentions in the footnote D'Arcy Wentworth Thompson (1942) citing *On Growth and Form,* (2nd ed.) Cambridge: Cambridge University Press, p.16.

[30] See *No. 21 (fig.57)* and painting *No. 20 in* CD.

[31] There is also a painting, an homage to Albers, by Cuthbert in the Puylaroque Studio, ex Catalogue.

Constructive Context is that the artists exposed the process of their own work themselves, both textually and diagrammatically, in a way that no other groups of artists have done before or since.

Cuthbert's process, thinking, methods and ideas are attuned to many of the contributions in the publication *DATA* (1968). Mindful that a number of the artists have been mentioned already, I predominantly use these artists' pronouncements in *DATA* to position Cuthbert, according to his and their working process, final presentation of the object and ideas about the relationship between art and society. Using the anthology as a base library, I examine a number of the contributors to compare Cuthbert's position.

7.2 The 1968 publication 'DATA'

In 1968 Anthony Hill brought together for the first time a spectrum of British, European and North American views within the Constructivist thread in art. The anthology, edited by the artist Anthony Hill was entitled *Directions in Art, Theory and Aesthetics*. Known, in short, as *DATA,* it established its credentials as the fly leaf reads: 'The first English publication of its kind since *Circle'*. In the introduction Hill states 'in the interim (between *Circle* 1937 and *DATA* 1968) only one other English publication has appeared devoted to abstract art; this was *Nine Abstract Artists* published by Alec Tiranti in 1954.'[32] In both *Circle* and *DATA* artists and architects wrote side by side about practice and theory, thus, stressing the integration of art in, and for, society. The uniqueness of the book, *DATA*, was indubitably significant. It brought together twenty-two practitioners in one book and a number of generations, many of whom were significant for Cuthbert. Those born before World War I included Mary Martin, Charles Biederman, LEJ Brouwer, Victor Vasarely, Max Bill, Richard Paul Lohse, Victor Pasmore, Kenneth Martin, Georges Vantongerloo and Jean Gorin.[33] The second generation, born between the world wars, were close to Cuthbert in age, and included: Gillian Wise, Jean-Pierre Yvaral, Anthony Hill, Karl Gerstner, Francois Morellet, and Joost Baljieu.[34]

The impact of Biederman' knowledge and ideas is clearly evident in *DATA*, and Biederman's own contribution hangs on 'the visual spectrum of conditioned vision'. In his contribution he states that the creative role of mimesis had ceased and that Monet sought a

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[32] Hill, A.(ed.) (1968) from the flyleaf.

[33] The Dutch mathematician and philosopher L.E.J.Brouwer was 'one of the giants of twentieth century maths. His earliest writing is alleged to have influenced Mondrian and neo-plasticism. Georges Vantongerloo, painter, sculptor, architect and writer was a close associate of Mondrian and a founder of De Stijl in 1917, also vice president of Abstraction Création 1931-1937. Biographies of all the contributors can be found in Hill, A.(ed.) (1968) *DATA*, p.294.

[34] The initiative lay with the artists, especially Anthony Hill, in compiling this publication. The guest writers come from the areas of philosophy, maths, engineering, sociology and urbanism. Note there is no linguist and a number of artists are not included such as John Ernest, Jean Spencer, and Malcolm Hughes. However, this is an international group, not solely European or British contributors.

different creative solution centred in actual nature. Monet's step was to create colour in his way as nature did in its way. As Biederman puts it: 'A new vision of nature was born, nature as creative process, an extension of the old vision of nature.'[35]

Of particular significance here is Biederman's approach to vision. Biederman guides us through Cézanne's developments reinforcing the precept that 'vision (like reasoning) is the result of an orderly learning process. We are no more born with a developed vision than with developed speech.' [36] In essence, Biederman 's message is that vision is learnt. One of the tasks of artists, then, is to educate or unlearn. The nineteen pages of Biederman's contribution are, in their tone and content, highly educational and more than that they dismantle the concept of vision and reveal it to be conditioned towards 'mimeticism' (as the title '*Creative or Conditioned Vision*' suggests). His thrust is to replace realism by seeing nature. Although it is unclear whether this relates to the Platonic forms, scientific structures, patterns, repetitions and internal mathematics, i.e. the 'Structural Process of reality' as he calls them, this technique of unlearning vision, or at least everything that had been taught so far, was a common starting point for foundation course lecturers, especially those teaching drawing, in the 1960s and 1970s English art schools.

In turning to the Martins as influential models for Cuthbert's work, both of whom are included in *DATA*, it is necessary to first draw the difference between them in order to be able to assess their individual impact on Cuthbert's work. Here it is worth remembering that although Cuthbert finished training at Goldsmiths in 1961 under the Martins, the *DATA* articles were written in 1966 and not published until 1968.

In his short essay on 'Movement and Expression', in *DATA* Kenneth Martin focuses on the two meanings of kinetic art; firstly ' Moving Construction, sculpture or picture' and secondly, 'Abstract work consciously constructed of and expressing movement', but in which no movement actually takes place.[37] The pieces for which he is best known at this time fall in the first category of which the examples reproduced in *DATA* are *Screw Mobile* (1959); *Screw Mobile, second version* (1964); *Oscillation* (1964); and *Linear Construction* (1964). Martin's work is precision engineering and kinetic - the mobiles, suspended, turn freely in the air. Martin, though, manages to retain his connection to nature and the organic aesthetic by seeing the spiral as a symbol, in the way Platonic form could be seen. He brings this secondary layer to his spirals thus:

[35] Hill, A. (ed.) (1968) p.82.
[36] Hill, A. (ed.) (1968) p.76.
[37] Hill, A. (ed.) (1968) p.68-71.

> Rotational symmetry, based on the study of and feeling for reality, is to be found throughout art as simple mechanical intuitive expression, as in primitive ornament, or as a complex symbolic construct for the passing of life,...[38]

And later: 'Signs and symbols have an organic - kinetic origin.'[39] The art historical references he makes in this essay, are not, as one might expect, to sculpture, but to two dimensional art: as in prehistoric images of rock carved spirals, the *Courtyard of a Dutch House* by De Hooch (1658), and later on to Jacques Louis David and to Renaissance perspective.[40] This emphasises the point that 'pictorial composition', as the subject taught in art schools was called, was a key source and justification for the abstract, geometric thread.

Although Mary Martin's essay is entitled 'Reflections', there are phrases which they both employ to communicate their views in words. The common vocabulary of ideas can be noted in the following extract from her essay:

> I have related works to the wall and floor. The expressive content has been concerned with movement and change, being geometrically or mathematically based. Being concerned with movement and change, it has involved rest and constancy.[41]

Mary Martin uses the terms 'symbols' and 'movement and change' as did Kenneth, but here, unlike him, she is working with the second category mentioned in his essay: abstract art in which no movement actually takes place once the piece is in situ. The movement is in the permutations of the modules. Mary explains it herself thus:

> In recent works the unit is unchanging but the situations are permuted, again according to a symbol, or logic or counter-logic.[42]

Logic and counter logic are key to process for all of the artists in *DATA*. In a similar vein, Kenneth Martin published an article in the international English language magazine *Structure* in 1964. *Structure* was an important organ for synthesist art including Constructivists and Structurists, and was published in Amsterdam. In Martin's article, 'Construction from Within' he states:

> Construction stems from within. The work is the product of inner necessity and is created through an inner logic, i.e. a developing logic within the work that results in form.[43]

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[38] Hill, A. (ed.) (1968) p.68.
[39] Hill, A.(ed.) (1968) p.68.
[40] Hill, A.(ed.) (1968) p.70.
[41] Hill, A.(ed.) (1968) p.95.
[42] 'The communication which the artists makes is slow...it is a form of dialogue between artist and work in which the artist sets a logic in operation which will answer and move in a possibly unexpected direction. This is not a mystique. Once made a work of art should be capable of existence on many different levels.' Hill, A. (ed.) (1968) p.95.
[43] Kenneth Martin 'Construction from within' in the journal *Structure* (Amsterdam), 6th series, no.1, 1964, also reprinted in Stephen Bann (ed.) (1974) *The Tradition of Constructivism*, London: Thames and Hudson p.283.

Although Mary, like the majority in *DATA*, is working in three dimensions, the similarities with Cuthbert are striking. There are four examples reproduced: *White Diamond* (1963); *Nine Groups* (1964) *(fig.53)*; *Diagonal Permutation* (1964); and *Dual Rhythms* (1965).[44]

> With a maximum of movement of elements within the work, actual movement has seemed unnecessary and stillness essential. It may be said to be programmed in that a logic and a counter logic are set in operation and the results are accepted. The success of such a process is wholly dependent on a right choice of symbols. The choice is based on intuition and experience.[45]

In her working process Mary Martin used the three dimensional form, with the choice of the 'symbols' based on intuition and experience, slicing and permuting small cubes according to a programme. Similarly, Cuthbert chose his elements or 'symbols' within a system, that was his colour range or series, and permuted the bandwidth and sequence according to a programme. Likewise, Mary's 'counter-logic' parallels Cuthbert's random sampling. The reference to intuition and experience is also significant in the context of Cuthbert who selected certain studies and colour ranges to enlarge, according to intuition and experience.[46]

However, neither has Mary Martin lost touch with nature, as the following extract from *DATA* shows:

> The artist, part of nature, seeks to discover and use forming principles in order that he may in his turn manifest nature. It is as a forming principle that I see the idea of polarity, constancy and change.[47]

In Mary Martin's terms, Cuthbert is manifesting nature. Cuthbert's use of the Fibonacci series, implying growth, balanced proportion and the organisation of the world according to a rational scientific system is a creative practice which echoes Thompson's theory of biological formation. Moreover, when Mary Martin speaks in terms of *'forming principles'* and *'polarity, constancy and change'*, she is alluding directly to Thompson's concepts.

Cuthbert's work follows the thread of nature and abstraction, but what kind of abstraction is it? Within the context of the Constructivist tendency there are a number of options. One of these is the concept of Concrete art emphasised the object existing independently of nature, hence the word concrete or substantive - a piece that could exist alone and was not referential to nature, the external or indeed the internal world.[48] It did not have to express

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[44] *White Diamond,* 1963, works on a nine rows x nine rows square format rotated into a diamond; *Nine Groups,* 1964, twelve x twelve square format ; *Diagonal Permutation,* 1964, twelve wide x thirteen high implied square format on a diamond; and *Dual Rhythms,* 1965, module of eight x eight square format rotated into a diamond.
[45] Hill, A. (ed.) (1968) p.95.
[46] For example, *Nos 48-55 Yellow Series 8-15,* discussed in Chapter five, *(fig.46-49).*
[47] Hill, A. (ed.) (1968) p.96.
[48] The term Concrete art was originated by Theo van Doesburg (1883-1931) who edited one issue of a manifesto entitled 'Art Concret' in 1930.48 The abstract art which it attempted to promote was mainly geometric and was practised by a group of artists in Paris. It became an international movement in the late 1930s and outlived the war in neutral countries in Europe and South America.

the creator's emotions or purvey social concerns. The 'objectivity' sought was embodied in the geometrical and formal properties of the language of art in painting and sculpture. The creativity was 'concret(is)ed'.

The work of Max Bill, one of the proponents of concrete art, appears in the anthology *DATA*. In 1960, Bill organised a key exhibition of this art in the Kunstgesellschaft, Zurich, entitled *Konkrete Kunst: 50 Jahre Entwicklung.* It incorporated artworks which were later described under the terms Constructivism, Constructionism, Geometric abstraction, Structurism, in effect the previous 50 years of the evolution of concrete art.[49] Consequently the difference between Constructivism and Concrete art is difficult to determine.

The quality of 'objectivity' which is evident in the exhibition *Konkrete Kunst* and especially in practitioners such as Max Bill, R.P.Lohse, Josef Albers, Jean Dewasne, Karl Gerstner,[50] is apparent in the work which seems to have been machine made. The artist's individual touch is exiled, there are no apparent brushstrokes, thus, the individual becomes less important than the process, the finished object and its meaning. Max Bill, as painter, sculptor, architect, writer, designer and typographer was a multifaceted student of the Bauhaus and progenitor of its ideals.[51] He exhibited in Paris with the group *Abstraction Création* in 1933-34, however his work first became well known to the wider public in Britain during 1953 through an incident regarding his maquette for the *Unknown Political Prisoner* competition at the Tate.[52] Nonetheless, although his work was slow to reach England, his writings were not. He wrote on 'Konkrete Kunst' in 1938, in the German magazine *Werk* and on 'Le Corbusier, Klee, Kandinsky and Mondrian'. In 1961 Bill published 'The Mathematical Approach to Constructivist Art' in the international English language magazine called *Structure.*[53]

Bill's short contribution to *DATA*, 'Art as non-changeable fact', reveals Bill's attitude to Kinetic art.[54] He distances himself from Kinetic art as 'the domain of jugglers, conjurers, the circus, and the fairground'.[55] Bill looked for permanent truth in art. His understanding of the aesthetic was 'an absolute measure' in the purist stance on the aesthetic, 'it is the scope of art to create a kind of non-changeable elementary truth'. As the title of his short

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[49] Previous to this Bill was involved in *Konkrete Kunst*, in Kunsthalle Basel 1944; *Art Concret* at the Galerie Drouin in Paris 1945; in addition, a quarterly which specialised in writing about Concrete art called *Spirale* (Bern 1953-64).

[50] *Konkrete Kunst* included some work of Jean Arp and Lucio Fontana. Through their mathematical precision and physical result, through their tabulature, grids, and aerodynamic structuring, Max Bill and Richard Paul Lohse, became forerunners of such categories as Op art, Colour field and Systems paintings.

[51] Bill later designed the High School of Design at Ulm, which was the natural descendent of the Bauhaus, and he became director there.

[52] More information in Tate Gallery archives.

[53] Bill, M. (1938) 'Konkrete Kunst', in the magazine *Werk* No 8 Winterthur, August 1938. Bill, M. (1961) "The Mathematical Approach to Constructivist Art' in the journal *Structure* 3rd series no 2, Amsterdam.

[54] Hill, A. (ed.) (1968) p.113.

[55] Hill, A. (ed.) (1968) p.114.

contribution suggests, 'the purpose of art is to give an aesthetic measure'.[56] Bill's painting *Black Ninth* (1959-67) *(fig.54)* clearly shows 'aesthetic measure' to be the mechanics and mysteries of mathematics as displayed in visual form. In *Black Ninth* Bill produces classical and Western geometrical harmony and balance *(fig.54)*.[57] His attitude to art as a permanent truth is borne out in the austerity and authority of such hard edged painting.

Richard Paul Lohse, like Bill, was a Swiss artist whose work deals with systems and colour in a hard edged style. Originally apprenticed to a commercial artist as a young man, Lohse attended Zurich School of Applied Art, and subsequently worked as an avant-garde graphic designer. From the late 1940s onwards, Lohse painted abstract colour paintings.

Cuthbert was certainly aware of Bill and Lohse's work as his lecture notes from later years reveal.[58] Cuthbert may have known Lohse's work through *Structure*. For example, in 1961 Cuthbert was just emerging from Goldsmiths as Lohse is writing on synthesist art in *Structure*. In an article entitled: 'A Step Farther: New Problems in Constructive Plastic Expression',[59] Lohse is keen to establish a developmental theory, and he traces plastic expression in constructive art through his own work, paintings, from 1943-1963 *Konkretion I*, 1945-46) to *16 Asymmetrical color-group progressions within a symmetrical system* 1956-60, which he describes thus:

> Twelve equal vertical bands each consisting of twelve color-elements continually extending from the top to the bottom are directed over the canvas-plane in a horizontally continued progression. Each of the twelve bands possesses another arrangement of the twelve colors, none of the color-elements repeating itself horizontally or vertically.[60]

Lohse's created structures for developing a painting are described here in detail. Some use mathematical sampling and sequence. He gives an example of a rule system in which he is at pains to explain the 'complexity of the work in progress'.[61] The complexity consists of

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[56] Hill, A. (ed.) (1968) p.113.

[57] Brief analysis of *Black Ninth*: the painting is constructed by taking a square, of which the height and width = *a*, the ensuing measurements of the arrangement within the square are *a/3, a/2*, and the square root of *a*. All internal measurements relate to the external edge *a*.

[58] Alan Cuthbert's lecture notes, document 20AGC30 (not in appendix).

[59] Lohse, R.P. (1961) 'A Step Farther: New Problems in Constructive Plastic Expression' in journal *Structure* 1961 edited by Joost Baljeu, p.35-38.

[60] Lohse, R.P. (1961) p.37.

[61] Lohse set his work out as a series of problems to be solved through a modular system, as the following describes in detail: 'To demonstrate with two other pictures the complexity of the work in progress, these may be described here in the following condensed way: Determination of the plastic element; Development towards standard; Identification with the picture-surface; Determination of the number of standards; Determination of the number of colors; Determination of the connection between the number of elements, their dimensions and colors; effort to establish a module operating as a progression; research for the possibilities of color movement; research for the possibility of color accumulation. These problems can be solved by several themes which are either separated, partly connected or fully connected as, for instance: additional constant progression; multiple additional constant progression; quantitative progression based on additional, multiplying or decreasing themes. One must try to connect the various movements in order to establish a coordinated modular system.' Lohse, R.P. (1961) p.37.

a number of factors, which include the 'determination' of certain aspects and 'research for the possibilities of color movement; research for the possibility of color accumulation'. Lohse's goal is to try to connect the various movements in order to establish a co-ordinated modular system.[62]

As the above suggests, in process and product Lohse's model is the one that comes closest to that of Cuthbert. Lohse's concerns are clearly close to Cuthbert's methods discussed earlier in Chapter Five. The major difference between the work of the two artists is in the selection of the colour ranges. In Lohse's work, such as *Thirty systematic series of shades* 1950-53, *(fig.55)* the wide range of contrasts, both tonal and hue, and the large number of rectangles on the grid, 29 irregular across by 30 regular high, make for 870 elements. In Cuthbert's later work the close value systems predominate resulting in the unifying of the whole and the classical ideal of harmony. Whereas in Lohse, due to the sheer number of rectangles, the grid and the diverse hue ranges, there appears a frenetic quality. Cuthbert would divide the colour circle into twelve steps. This was also Itten's advice at the Bauhaus preliminary course in 1923. In Cuthbert's colour card box in his studio there is a colour circle in ninety two steps, done as an example for reference, *(fig.52)*. In a similar vein, Lohse, in 1945 was using a colour circle of fifteen parts, this consisted of three yellows, three greens, three blues, four reds and two violets.[63] This unusual combination of steps indicates that Lohse was far more intent on the systems employed in his paintings than the science of the colour circle.

Writing in 1968 in *Studio International* on Lohse's work, Kenneth Martin notes:

> Construction is never merely an idea plastically expressed nor a sequence of ideas dispassionately added to one another, but nuclear growth. One speaks of idea and plastic but right from the beginning these two cannot be separated. From this process comes the final appearance of the work, which is not foreseen save through judgement of the means and in the light of former efforts. [64]

Here Martin is talking in the terms of the language, which was discussed in Chapter Two, named by Thistlewood as 'organicism'. Construction as nuclear growth is a key concept, and Martin is applying his terms of organic reference to Lohse's work. Further on Martin makes reference to a time when the 'sequential' nature of Lohse's work was more closely a

[62] Lohse, R.P. (1961) p.37.
[63] Lohse, R.P. (1961) p.37.
[64] Martin, K. (1968) 'an Appreciation of Richard Paul Lohse', in the magazine *Studio International*, vol. no.85 (February 1968).

musical analogy when he states: '*...form taken over by colour which shapes the rhythmic foundations of a composition by its differentiation.*'[65]

In looking at the emphasis in Lohse's work it can be deduced from his contribution to *DATA* that it is the modular and systematic elements which primarily concern him. The colour is secondary. In *DATA* four of Lohse's paintings were reproduced in black and white, beside his contribution entitled 'Elementarism. Series. Modulus.'[66] The article describes the 'serial and modular principles of design (1945-65)' and provides a 'chronological survey of the development towards the systematisation of pictorial elements'. Lohse explains what he sees as different in the new working process, where the method and picture are inseparable. Thus, following the serial and modular principles of design, both Lohse and, in fact, Cuthbert work in accordance with a number of the tenets of De Stijl and Suprematism. They have both eliminated semicircular figurative elements and adopted the anonymity of pictorial elements and a tendency to additive group formation.

Equally both Lohse and Cuthbert use flat opaque paint. There is no texture; the brushstroke is eliminated as far as possible. The canvas is quadrilateral and the shapes within rectangular and orthogonal. Although the edge of the stripes are not machine-made, the straight lines are frequently identified with machines. Whereas neither artist has any interest in machines, it must be assumed that these are the straight lines of nature which are celebrated, as edges of the forms of colours. Straight lines have been rehabilitated into the geometry of nature.[67] Similarly, both Lohse's and Cuthbert's processes were mathematical. Their methods of working out consisted of small drawings on grid paper, which was also shared by Bridget Riley. However, Cuthbert's process was more complex and more layered.

Hence I argue that the work of both Cuthbert and Lohse is physiologically rather than psychologically orientated.[68] There is no external reference or expression, no projection of mood, no passion, nothing exists outside of the created system. Subjectivity is exiled by the removal of narrative subject matter. As far as the spectator can discern the colour is the subject matter and the content is the process or the system. Within this system the colour

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[65] Gyorgy Kepes (ed.) (1966) *Module, Symmetry, Proportion* London: Studio Vista. These are Lohse's words, taken by Kenneth Martin from Gyorgy Kepes. Lohse wrote a description of an earlier published work in the volume of *Kalte Kunst* by Karl Gerstner (1957). The description was published in Kepes (1966).
[66] Hill, A. (ed.) (1968) p.63.
[67] In this sense, Cuthbert cannot be aligned to the Independent Group's preoccupation with contemporary culture and the machine, fostered by Banham and expressed by Paolozzi.
[68] Aaron Scharf (1966) in 'Constructivism' published in *Concepts of Modern Art* (1974) Thames & Hudson, states: 'Constructivism is didactic, it is physiologically rather than psychologically orientated, it is intimate with science and technology, it is concrete,' p.168.

requires form, structure and boundaries. The system in Cuthbert's work occupies itself with the physical organisation of colour. Cuthbert takes the standard organisation of the colour wheel and reorganises it according to mathematics. The search into colour vision and the measuring of the properties of colour was the concern of colour science. Cuthbert's approach is scientific, in that it explores the limits of colour, shown by his exhaustive sampling cards. In both artists' work there is research into colour. However, there is a key difference. Cuthbert wanted to know all about the effects of colours in relation to one another. For instance, he was curious about the nature of harmony and the conditions that created 'fluting'.[69] Why when you add black to yellow does it goes towards green rather than dark yellow and how to correct this. Red and Green when added together should make grey, why do they make brown?

By contrast, for Lohse, structure was more important than colour categorisation. Both artists had periods where their colour was rudimentary. For Cuthbert, this is evident in his early work of the mid 1960s when he is establishing his primaries,[70] *(fig.31, painting No 2).* Lohse generally uses primaries and secondaries and simple gradations, some of which appear high key and jarring, *(fig.56).* Above all it is the relationship between the colours which distinguishes the two artists' approaches. In Lohse the colours are lively. In Cuthbert, due to the narrower ranges and subtler gradations, and inevitably the selection process, the colours are calmer, *(fig.48, painting No 55).*

Lohse's work has been called 'democratic' in that he makes all the shapes equitable.[71] In a number of paintings he uses the same surface area for all the colours, giving the colours equal space, regardless of the tone or saturation. In other paintings, the shape is modified in the vertical or horizontal axis but not usually in both. John Gage classifies Lohse as a 'utopian modernist'.[72] Cuthbert, by contrast, does not give colours the same spaces. He works from the beginning with proportions: the thickness of the band is relative to the saturation. In Cuthbert's paintings, saturated colours have narrow bands, whilst desaturated colours occupy wide bands. These are not equal but rely on Goethe's idea of balance.[73] However, if we accept the label 'democratic', it could be argued that Cuthbert's

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[69] The term 'Fluting' is mentioned in Chapter six, footnote 16 and explained in Chapter seven, footnote 86.
[70] See examples CD *No. 2* and *No. 4.*
[71] Lohse himself use the term in a lecture at the 'International Farb-Info '79', in Hamburg. He noted: ' the quantitative equality of colours represents a democratic principle – the equivalent presence of all colours and identity and quality', as cited in Gage, John (1997) 'Bending the Law: Lohse's Logic of Colour' in *Richard Paul Lohse: Colour Becomes Form,* exhibition catalogue Jan-March and March-April 1997, London: Annely Juda Fine Art & Kettles Yard, p.31.
[72] Gage, John (1997) 'Bending the Law: Lohse's Logic of Colour' in *Richard Paul Lohse: Colour Becomes Form,* exhibition catalogue, p.28. Lohse held left wing utopian ideals, these were appreciated by the Martins. In 1930s, Lohse had supported left wing organisations, notably the Republicans in Spain, and designed political posters.
[73] Balance in western culture being linked to mathematics. Such as green ½, red ½, yellow ¾ to purple ¼, as in principles established by Goethe.

proportional distribution is also a democratic metaphor, one not of equal quantity but of proportional quantity. Unlike Lohse, Cuthbert makes no such claim for himself and was not apparently politically active. Thus, in my opinion the difference between Lohse and Cuthbert's approach could be symbolised as the classical concept of democracy and the classical concept of aesthetic harmony, as in music. Lohse's democratic organisation could be set in opposition to Cuthbert's search for the aspect of harmony. In viewing them thus for the sake of differentiating them, although their processes are connected, they would appear to adopt the positions of the political and the aesthetic.

In the introduction to this thesis I defined one of the aspects of Constructivism as a building up, not a breaking down. Essentially, it creates its form according to the relationship of one piece on another. Thus, Constructivist art exists in and for itself. It needs no outside reference in order to exist. Like mathematics or language, which are seen as artificial systems created to convey ideas, Constructivist art is able to be both detached and replaced by other systems. This raises the question of how utopian and how democratic it is. Can we all respond to colour regardless of class, culture, or belief? Cage's phrase 'Utopian Modernism', places it in the post-war era when art, for some, was believed to be capable of changing the human environment. Colour, form and basic design, had the potential to improve the surroundings and thereby the response of people to the external world.

In identifying further European influence, I have noted that one of Cuthbert's paintings pays direct homage to Victor Vasarely, *(fig.57)*.[74] Vasarely's five contributions in *DATA*, covering the period 1954-1962, include 'Notes for a Manifesto' written in 1954, in which he starts by outlining the determining factors of the past for the artists. He then points the way forward by stating:

> The desire for new knowledge has been affirmed in the recent past through the invention of pure composition and the choice of the unit, of which we speak later. Parallel with the decline of the traditional technique of painting go experiments in new materials (applied chemistry) and the adoption of new tools (the discoveries of physics). At present we are moving towards the total abandonment of the routine, towards the establishment of new functions and the basic mastery of greater dimensions.[75]

In *DATA,* Vasarely, in documenting compositional elements, pinpoints the problems of colour and form by stating that abstract language was broken down into its elements, but its elements were not discrete. For example, colour cannot be split from form. It cannot exist alone. Colour requires shape. Although the elements of visual language had been defined

[74] There are two versions: *No 21 R+G=Y (3)*, and *No 20* with a white ground. This is clearly an homage on Cuthbert's part. It strengthens the idea that through the Martins he had absorbed the views of a utopian Constructivist tendency, which included Bill and Lohse. It is no surprise to find that Vasarely was in Paris in the 1930s, at the same time as Bill, Nicholson and, of course, Biederman.

by Kandinsky and others, Vasarely was focussing on an important point here which re-establishes colour as problematic within the discrete elements of visual language. David Batchelor draws attention to the problematic status of colour in *Chromophobia*, especially with regard to Le Corbusier, as the modernist architect concerned with the impact of colour or lack of it in the built environment.[76]

In the same way Vasarely proclaims the binary opposites as a single unit i.e. black and white - not black or white, good and evil, beautiful and ugly, physical and psychical. He expresses it thus:

> Form and Colour make one unit. Form can only exist when it has been defined. The line (drawing, outline) is a fiction which belongs not to one, but to two form-colours at the same time. It does not engender the form-colours, it is a result of their meeting. Two necessarily contrasted colours make up a plastic unit, consequently a unit of creation: the eternal duality of things, recognised at last as inseparable. It is the linking of affirmation and negation. Measurable and not measurable, the unit is at the same time physical and psychical. Through it material structure is comprehended; the mathematics of the universe, everything in its intellectual superstructure. The unit is the abstract essence of the beautiful, the basic form of sensibility.[77]

Thus, Vasarely's view is that the form-colour unit is the basis of a new plastic language, new also in its adaptability to industrial techniques. Form and colour, two distinct notions in everyday language, become inseparable in plastic language.[78]

Although Cuthbert's use of colour, by necessity, requires form, this is the only evidence of binaries in his work. However, Cuthbert's work does accommodate ideas of recreation and multiplication which Vasarely cites as current procedure. By recreation he means repetition with development, and thus uniqueness. The concept that repeatable form develops subject to conditions, has echoes of the 'diagram of forces' as Vasarely suggests:

> If the idea of the plastic has belonged up to now more to artisan procedure and the myth of the unique piece, it can be found today in the possibility of recreation, of multiplication and of expansion.[79]

Recreation, multiplication and expansion, is the language of the natural sciences, in regard to form and structure, i.e. plastic.

As has been mentioned, the Op Art of Victor Vasarely had its roots in the Bauhaus.[80] Op art was responding to theories, and developments in technology, new sciences and novel

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[75] Hill, A. (ed.) (1968) p.101.
[76] Batchelor, D. (2000) *Chromophobia*, London: Reaktion Books, pp.43-49.
[77] Hill, A. (ed.) (1968) p.101.
[78] 'Reflections' in Hill, A.(ed.) (1968) p.106.
[79] Hill, A. (ed.) (1968) p.103.
[80] Victor Vasarely was interested in light as can be seen in his two works *Photographism Ibadan* 1952-62, and *Vega* 1956. Vasarely studied medicine, attended a conventional art school and in 1928-29 was a student at Muhely academy, which was known as the Budapest Bauhaus. He moved to France where, beginning as a

materials.[81] Vasarely was clear that it was not the art object that one should possess but its meaning through intuition or reasoning. This, he called, the 'indestructability of an art thought', a concept strikingly akin to the platonic form, an unrealised model or pattern.[82] He welcomed the machine for it meant that the multipliable artwork would come into its own. Vasarely, proposed regarding the artist as the one who makes prototypes which can then be reproduced at will. The artist's position as originator of an artwork, an art thought, a prototype, in an age of multiplication embodies the concept of the Platonic form. In Vasarely's view multiplicity and replication, (the possibility of modern industry) in the machine age were linked with classical ideas. Although nowhere in *DATA* does he mention Platonic form he can be seen to be using the concept in the phrase 'initial prototype' in the following passage:

> Without denying the principle of the unique, we opt for that of multiplicity as more generous and more human. This initial prototype is the complete work conceived not as one but one hundred, from the moment of its materialisation. Its value will not lie in the rarity of the object, but in the rarity of the quality it exhibits.[83]

Vasarely also furthered the Bauhaus aspect of craftsmanship by incorporating quality and the work ethic. His idea of a 'work' of art was of *work* as a practical activity. Vasarely's writings show him to be hostile to the idea of free abstraction, as his sharp criticism reveals: 'pseudo-abstract artists have produced a satiated, facile and decadent art.' [84] Furthermore, he saw the *plastic* arts as a unity, arguing that there was no need to split them into categories, such as painting, sculpture, graphics, or even architecture.[85] In this respect Vasarely aligns himself to Itten's *Vorkurs* at the Bauhaus which encouraged the experimentation and research into media which was to be the training for all later areas.

Correspondences between Vasarely's ideas can be seen in Cuthbert's work in so far as there is repetition, that the image can be repeated and that the artist produces prototypes that can be repeated by others. Furthermore, Cuthbert shares the Hungarian's ideas that the artist should as far as possible be anonymous, that the work and not the individual should speak. The case for viewing some of Cuthbert's canvases as Op art is strong, in that the close gradations of colours and equal values across hues can lead to 'fluting' or in some cases a

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graphic artist. In 1943, aged 34, he turned to painting, producing an impressive oeuvre. His non kinetic abstractions derive to some extent from those done by Auguste Herbin some years earlier which he acknowledges. Josef Albers' courses on colour at the Bauhaus also presage Op art.

[81] In 1964, the sculptor, George Rickey coined the term 'Op art'. It was brought into the mainstream when Bill Seitz curated a show entitled *The Responsive Eye* (1964), at the Museum of Modern Art in New York, which subsequently toured America. Vasarely, Bridget Riley, Larry Poons, and Jesus Rafael Soto showed alongside others such as Lichtenstein, Laing, Noland, and Stella. The latter were not essentially optical artists, but recognised the visual possibilities of Op art.

[82] When considering the interest in perfect form, models and repeatable concepts, it is to be noted that DNA was discovered in 1953.

[83] Hill, A. (ed.) (1968) p.107.

[84] Hill, A. (ed.) (1968) p.103.

[85] Hill, A. (ed.) (1968) p.105.

flicker effect.[86] Although Vasarely's articles in *DATA* were written before 1962, by 1965 these ideas were less the exclusive property of Vasarely and more clearly current usage as the work of Bridget Riley demonstrates. Maurice de Sausmarez' 1964 book, *Basic Design: The Dynamics of Visual Form,* displays these same notions of repeatability and variations.[87] Research and repeatability, fostered by technology, were inherent factors in this optical and scientific vein of art.

Goldsmiths School of Art produced a number of artists, like Riley, working in an abstract geometric and op art format. Bridget Riley attended Goldsmiths from 1949 to 1952, a few years before Cuthbert (1957-61). Both had great respect for Sam Rabin, who taught them drawing.[88] Aligning herself with the modernist project of seeing, Riley has consistently acknowledged Seurat and she notes '...whereas my roots are mainly in Seurat and Paul Klee.' [89] Other artists, such as Colin Jones and Peter Lowe, were occupied with the science of vision, stemming from basic design principles. Both, Jones and Lowe attended Goldsmiths, albeit later than Riley and Cuthbert, and showed in the *Systems* exhibition in 1972-73, which I discuss later in the chapter.

In Chapter Five, I argued that Cuthbert's process was scientific with an emphasis on the empirical and external. As can be deduced from Vasarely's writing, this was common currency in the 1960s amongst British Constructivists. The move towards a scientific process has been seen as a defiant move against the personal and internal world of the Abstract Expressionists, however, the scientific had been a major preoccupation of several artists since the late nineteenth century. In the 1950s this tradition of scientific research re-emerged in the work of the *Groupe de Recherche de l'Art Visuel* (GRAV), which was founded in Paris 1959.[90] The group was under the influence of Vasarely and adhered to his tenet that the artist should not upstage the work. Vasarely's son Yvaral was a member, as were Francois Molnar, Francois Morellet, the Argentinian, Julio Le Parc, and Nicholas Schöffer. All of these except Le Parc, contributed to *DATA.* GRAV, like *DATA,* consisted

[86] 'Fluting' is a specific optical effect which happens when the tonal gradations are close and even; a band can appear to curve out and then in towards the next, like the fluting on a column. This fits well within Kenneth Martin's first definition of Kinetic art, - the appearance of movement - referred to earlier.
[87] Thubron had a summer school in Suffolk in 1959 at which Riley met De Sausmarez. From 1959-1960 Riley was a full time lecturer on the basic course at Loughborough Art School. See biographical details in Kudielka, R. (1999) *The Eye's Mind: Bridget Riley Collected Writings 1965-1990,* London: Thames and Hudson p.223. De Sausmarez prints a useful bibliography on p.6 of his book. It lists many of the books on which this thesis is based, including D'Arcy Wentworth Thompson (1942); *The Developing Process* (1959); Klee's (1961) *The Thinking Eye*; Herbert Bayer's (1962) *Bauhaus*; and Ghyka (1956).
[88] Although Bridget Riley gave talks at Wimbledon School of Art, she did not have contact with Cuthbert. It remains unclear who invited her.
[89] Letter from Bridget Riley to Anthony Escott, dated 29 August 2002.
[90] For details on GRAV, see Rickey (1968) p.234.

of architects, artists, scientists, urbanists, plasticians and theorists which created its impact across a number of areas.[91]

Science was valued by other artists associated with basic design and abstraction. Victor Pasmore's contribution to *DATA*, entitled 'Developing Process,' written in 1967, sees modern science as the agent of change in art, resulting in the artist 'groping about in a new environment in which object was confused with subject, figure with background and individual with general.'[92] Furthermore, Pasmore notes 'Freedom has been achieved, but at the expense of dehumanising the image of man and denaturalising that of nature.' This recognition of the importance of science in the art of the 1960s by one of the instigators of basic design is significant.

What DATA shows was that there was a set of professionals from varied backgrounds who constituted the debate on form in all its guises. The concept of form embraces, as Victor Pasmore put it, 'the fact that modern science had opened the door of the rigid frame in which classical art had contained the artist'.[93] In essence, the balance between humanity and nature had been upset by the discoveries of science, and the arts strove to adjust to the new positions. Contingent with this was the fact that the Cold War saw science as the destroyer or saviour of mankind. This was a potent theme, especially in the late 1950s and early 1960s, with signifiers such as the space race, the threat of the atomic bomb, and the Berlin wall (1961).[94]

The debate, especially in English art education in the 1950s and 1960s, was in the process of re-evaluating and amending the classical world view, including Platonic form, Renaissance composition, and Euclidean geometry in order to incorporate the new world view. In the lineage of the Constructivist tradition, was this a modernist view dealing with urbanism or a classical view with the elements of nature, art, science (knowledge) as its

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[91] Among those writing in *DATA* are the Dutch 'experimental urbanist' Constant Niewenhuys. David Bohm, the Professor of Theoretical Physics at Birkbeck College, London, and author of *Quantum Theory* [1951] and *Causality and Chance in Modern Physics* [1957]. The Argentine plastician, Luis Tomasello. Frank Malina, a scientist and kinetic artist. Stephen Gilbert, who worked in 3D and architectonic projects. Robert le Ricolais, a French structural engineer and theorist, who in 'introduction to the notion of form' (Hill, A. (ed.) (1968) p.48) recognised Plato's contribution but calls the divine proportion nothing more than 'a museum piece - a collection of dry bones'. Nicholas Schöffer's direction is indicative of a strand of work which becomes increasingly popular with the development in technology. He developed theories of spatiodynamism (1948), lumodynamism (1957) and chromodynamism (1960) which involved light movement/sound structure and followed the vein of Moholy Nagy.

[92] Hill, A. (ed.) (1968) p.119.

[93] Hill, A. (ed.) (1968) p.119.

[94] Skylon, the structure at the Festival of Britain, is a good example of the positive imagery of science technology and space travel. See Garlake (1998) p.219.

characters? [95] It could be argued that the Constructivist tendency, though perceived as modernist, hails from a widely established classical tradition, one in which knowledge is acquired through rational and scientific means. It echoed the method in science by desiring a logical answer to the aesthetic, be it biological, physical, or psychological. The 1950s generation wanted to use its knowledge to create a world where all humanity could benefit. This poses the question about the relationship of Utopian ideals to modernism. The belief in the power of education to change the world and the conviction that art could improve the environment, were part and parcel of this 1950s world view. The Utopian view, intimated by some of the contributors to DATA, for example Eli Bornstein and Vasarely, must be placed in the context of the post-war, the communist and Cold war situations.[96]

The Canadian Structurist artist, Eli Bornstein, who had published several articles in *The Structurist* magazine between 1958 and 1963 contributed 'Notes on a Structurist Process' to DATA.[97] In this article he states:

> 'Nature in its widest is the primary source of art creation. As a source it is infinite, ... Denial of this source leads to a devitalised and abortive art without potential for further development and growth.[98]

On the other hand, one of the original Constructionists to be included in Alloway's *Nine Abstract Artists*, Anthony Hill, who edited the anthology, *DATA*, approaches structure through the sense of programmes without reference to nature. Hill's interests are semiotics, topology, scientific logic and networks, but he does mention the mathematician George David Birkhoff's theory of aesthetic measure which attempts to establish the aesthetic value of patterns via mathematical fomulae.[99] Birkhoff interestingly related biology to

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[95]There is a case to be made for the latter, when one considers the classically orientated educational content of the 1950s and 1960s such as Latin, Greek and Ancient History, which continued to be taught in Grammar and Public Schools. Students from this educational background were still the majority of entrants to art schools, despite the image of working class youth, who were in the minority at these institutions. However, art was an access to higher education for the working class (Walker 2003). The art school teachers had been taught in a mainly classical education system. Maths was traditionally approached with Euclidean Geometry, Algebra and Arithmetic; new maths (SMP Maths) did not appear until the mid 1960s. Science was based on scientific fact and logic, which was still held to be infallible, entrenched in culture that never doubted it. As was pointed out in chapter 3, up until 1960 at least, even in art schools academic drawing of Greek plaster busts and from the antique, were taught alongside composition with mainly Renaissance paintings as examples. That is to say that the contextual studies and art history was by and large concerned with the Classical and Renaissance periods, teaching materials for anything else were scarce. These classical 'dead' subjects were obligatory for entry to a number of subjects at universities, well into the 1970s (for example linguists required Latin; pharmacists, Greek).

[96] Eli Bornstein: 'through fortuitous time and the efforts of countless generative artists, man, history and nature can grow towards further communion and higher levels of consciousness. And art can realise its role in this endlessly unfolding fulfilment of our creative potential.' In Hill, A. (ed.) (1968) p.198. Furthermore, Vasarely notes: 'The 'form-colour unit', an immense reservoir of harmonising or exalting stimuli, opens up a prospect of health and joy necessary for the equilibrium of vast human communities,' and he uses the phrase the 'eternal city'. Hill, A. (ed.) (1968) p.108.

[97] Bornstein co-edited *Structure* with Joost Baljeu in 1958 and in 1960 founded *The Structurist*, which was published by the University of Saskatchewan, Canada, where he was a Professor in the Art Department. See Rickey, p.299.

[98] Hill, A. (ed.) (1968) p.193.

[99] George David Birkhoff, mathematician (1884-1944). Hill, A. (ed.) (1968) p.258.

aesthetics by stating that 'an aesthetic field corresponds to a network of associative nerve fibres in the brain.'[100] The structures with the highest aesthetic measure are the square and the square tessellation. The second part of his article deals with Nicholas Rashevsky's topology, in which Rashevsky considers the pattern of the structure of living cells and the topology of the molecular make-up of organisms.[101] So although, on the surface, Hill's approach appears to be strictly mathematical, his interest in programmes and structures often uses models from biology and science, thus providing an important link between the concepts of D'Arcy Wentworth Thompson and systems painting.

Through an analysis of *DATA*, an anthology of art theory and practice in the late 1960s, I have shown that Cuthbert's work employed working methods which were already largely in usage in and around the Constructivist tendency of this time. The factors that make it possible to align Cuthbert's work with this group are firstly: nature's forms and structures which are regarded as mathematical; secondly, that the art was concrete rather than mimetic; thirdly, that Cuthbert back-grounded individual expression; and fourthly, that he used machine-like lines, straight or curved, which were hand painted and symbolised craftsmanship. By aligning Cuthbert with the artists who contribute to *DATA*, it becomes evident that his work, in no way, stood outside the dominant forms of modernism of the 1960s and 1970s. Moreover, it can be most closely related to the work of Richard Paul Lohse. With regard to the Utopian ideals, shared by a number of the contributors within this group, including Lohse, it is more difficult to ascertain Cuthbert's position. Based upon his employment of the architect Rod Thomas at Wimbledon and his willingness to use his colour knowledge in a project at East Grinstead Church and the Calder Motorway Bridge these show him to be part of debate around the role of art and artist and the use of art and design in the environment.[102]

Finally, in the introduction Anthony Hill states that the two most characteristic themes to emerge from the anthology, *DATA*, are the future of plastic art and the relationship of art to science. This seems to me to be the obvious place to site Cuthbert. However, although the word plastic is problematic; in this context it is taken to mean, not solely 3D, but the issue of structure which is inherent in form, nature and process and thus can be part of the flat abstract canvas, for example, the work of Lohse, Mondrian, Van Doesburg, Vantongerloo, and Bill. Having established a broad Constructivist framework for Cuthbert's work, I want

[100] Hill, A. (ed.) (1968) p.258.
[101] Hill, A. (ed.) (1968) p.258-265. Nicholas Rashevsky (1899-1984) conceived the idea of building a mathematical biophysics on the model of mathematical physics.
[102] 1979 Colour Interior : New Church, Ashurstwood, Sussex; 1981 Colour Interior : Holy Trinity Church, Forest Row, Sussex; 1969 Colour: Calder Motorway Bridge. See Appendix 25, Cuthbert's CV.

to now focus on the Constructivist presence at Goldsmiths and the way the shift in the critical analysis of Constructivism in 1970s.

7.3 The 'Constructive Context' and 'Systems' exhibitions

In 1978, Stephen Bann was invited to select an exhibition from the Arts Council of Great Britain collection, which subsequently toured England ten years after the publication of *DATA*. Under the heading *Constructive Context,* Bann selected the work of fifteen artists. The work had been collected by the Arts Council over the previous two decades and can be seen to be representative of the Constructive tendency in British Art of the period. It is a southern-based collection, but as the inclusion of Bath Academy at Corsham suggests, not merely London oriented, although the Arts Council offices were situated in the capital. Doubtless, there were important figures missing from the collection, for example, Bridget Riley might be cited. Nonetheless, I take this exhibition as a cross section of the field of constructive art at this time, in order to draw out some final relevant points concerning Cuthbert as an artist-lecturer of the period 1965-79.

Constructive art by this point had been reframed within a structuralist critical approach. Adopting the terms of linguistic analysis, Bann refers to such an approach of a field of artists as representative at a moment in time, as a '*synchronic practice*'.[103] He also applied the linguistic terminology to the analysis of the systems art in a post 1968 period, thus, there appears a shift from the organic terminology which I argued was part of the critical vocabulary of the 1950s, as evident in Hamilton and Pasmore's use of 'the diagram of forces'.

I have already outlined that Cuthbert's Constructivist interests arose from his training at Goldsmiths. The link between Constructivism and Goldsmiths bears further scrutiny. Of the fifteen contributors to the *Constructive Context* in 1978, three Constructive or Systems artists three had studied at Goldsmiths School of Art in the 1960s: Susan Tebby (1962-66) Chris Watts (1966-69) and Peter Lowe. By 1972, Lowe had returned to Goldsmiths to teach. In itself, this is not sufficient evidence to persuade us that Goldsmiths was heading a trend, and the exhibition was not representative of a national direction given that there were few artists from Leeds or Manchester. Nevertheless, when put next to the other evidence established, namely that Bridget Riley, Alan Cuthbert, and Colin Jones as geometric abstract practitioners or systems painters and Kenneth Martin as visiting artist-lecturer from 1946-67 and Mary Martin as artist-lecturer, were all at Goldsmiths within the period between 1954 and 1967, it points to a Constructivist leaning within Goldsmiths.[104]

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[103] Bann, S. (1972) *Systems* exhibitions catalogue, p.5.
[104] Colin Jones studied at Goldsmiths under the Martins, by 1972 he was teaching at Leicester Polytechnic.

As was demonstrated in Chapter Three, Goldsmiths held a relatively independent position in the 1960s. Its teaching staff included two of the important figures of Constructivist art in Britain in the Martins. Other art schools had also assimilated basic design and Constructivism to a greater or lesser extent. The Bath Academy of Art, at Corsham, Wiltshire, must be mentioned in that, under Clifford Ellis, it furthered ideas based on the empathetic, spontaneous response which evolved from Marion Richardson's pioneering of Children's art.[105] Furthermore, of the fifteen *Constructive Context* artists, there were two, Jean Spencer and Terry Pope, who had studied at Bath and two who had taught there, Michael Kidner and John Ernest, (the latter also taught at Chelsea).[106] The well-known painter Robyn Denny also taught at Bath under Ellis.[107] This either denotes a shift, in that previously the Bath Academy, under the leadership of Ellis, appeared to have a different approach to art teaching from most of the London art schools, or that the methodology of the institution does not bind the students and teachers to it irrevocably.

It would appear from this southern cross-section that the Constructivist tendency was not an isolated interest in teaching at Goldsmiths at this time. Two leading figures who studied at St. Martin's School of Art, Anthony Hill (1947-50) and John Ernest (1952-56), show another London art school which, like Goldsmiths, was using Constructivist artists to teach. This suggests a wide-spread recognition of the Constructivist tendency through a generation of artist-lecturers of the period.

A comparison with an earlier Arts Council exhibition, *Systems* (1972-3), for which Bann also wrote the introduction helps clarify the situation.

The touring exhibition, *Systems*, proffers not only art, but the full texts of each artist's ideas and process (between one and four pages each) and Bann's own contextual introduction. In the foreword, Norbert Lynton, as director of exhibitions of the Arts Council of Great Britain, explains Bann's approach thus:

> Stephen Bann describes the historical context of the group and proposes that we employ the classifications found in semiology (the science of signs of which

[105] Garlake cites two unpublished M.A. theses to this effect. J. Morgan 1992 *Basic Design* and H. Griffiths 1997 *The Bath Academy, Corsham Court, Wiltshire, 1946-c.1955,* Courtauld Institute, London. See Garlake (1998) p.30.

[106] It is interesting to note that Kidner had studied at the Academie Lhote from 1952-55, the same institution which William Johnstone, Principal of Camberwell had attended years earlier.

[107] Robyn Denny taught at Corsham from 1959, Clifford Ellis also employed a number of other artists whose work could be viewed as part of the Constructivist tendency: John Ernest from 1960, Adrian Heath from 1956, Malcolm Hughes from 1959, Michael Kidner from 1964 and Bryan Wynter from 1952-56. James Moyes, who showed in *Systems* and *Matrix*, Arnolfini was teaching at Bath Academy by 1972. Among the more expressive artists at Bath in 1965 were Gillian Ayres and Howard Hodgkins. See the exhibition catalogue, *Corsham: Painters and Sculptors* (1965) London: Arts Council.

> linguistics forms a part) to analyse the structures of the work exhibited and to draw parallels with other disciplines. His introduction of a linguistic approach has provided the group with a common vocabulary and wider terms of reference. [108]

So the system of signs for language is used to describe, in words, the systems for artworks. This is an important point. Although, Hill acknowledges the use of semiotics as a programmatic model for the structure of artworks, this was only one model he adopted, as I pointed out in the last chapter. Others were variously mathematical and biological. As Lynton describes it above, Bann proposes semiological classification to analyse the work, and mentions no other scientific reading, organic or otherwise. By 1972, it is evident that the systems artists have been located within a semiotic framework. The biological, scientific or nature-related framework has by the time of the *Systems* exhibition faded into the background or been superseded by a semiotic interest. Furthermore, the vestigial elements of basic design, some of which were Constructivist and Bauhaus, some of which were natural science, as Walker confirms,[109] have been overlooked perhaps because they are considered part of art pedagogy rather than art history. On the elements of basic design which remained in the foundation courses by 1978 we can only speculate. Did they abandon their nature led projects in favour of Barthes' semiological ideas, or, as the work of Cuthbert suggests, attempt to marry biological formation in the guise of Fibonacci series with semiotics as in the processes used in *Systems*. What is obvious in both of these critical theories is the element of scientific rationality, perceived as part of a more inclusive Constructivism.

Given its significant impact on art education the documentation of basic design has been sparse and this points to the centrality of an art history which focuses on artists and art rather than the institutions which produce them.

Such touring exhibitions as *Systems* fed the regional network of art education establishments. For example, the exhibition *Systems* reached London, Manchester, Sheffield, Billingham, Newcastle, Birmingham, Leicester, Leeds, Southampton, Newport and Oxford, approximating one month in each venue from April 1972 to May 1973. *Systems* instructed on the intellectual ideas and processes which had previously left the public baffled about abstract art. However, the general public were not the only audience, - the art college students engaged in Foundation courses and other higher education art courses visited it, thus reinforcing views about organic practice, Constructivism and

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[108] Bann, S. (1972) *Systems* exhibition catalogue, forward by Lynton N. and introduction by Bann, S., touring 1972 April to 1973 May, London: Arts Council of Great Britain, p.3.

[109] John A. Walker notes: ' the basic design exercises taught at Newcastle and a few other art schools in the 1950s were influenced by natural science, modern science and technology. They were an attempt to introduce objective, analytical and rational methods into art education to counter the emphasis on intuition and self-expression, the development of personal touch or 'handwriting' and pictorial styles.' Walker, J.A. (2003)

Systems practice, which had been engaged with by the basic design course. This genre has, after all, as Bann draws attention to the shift in terminology, been labelled 'didactic', (although Bann terms the exhibition thus and not explicitly the work):

> *'Systems'* was, by design, a wide-ranging didactic exhibition, which comprised contributions from a wide variety of British artists working in the constructivist and concrete tradition. [110]

Bann has already established the links and written the history of this small influential group of artist-lecturers. In the diagram on p.4 of the *Systems* catalogue, *(fig.58)*, Bann shows England and a column within which lie: 8. *Circle*, and 11. *Systems*; in addition 10. *Structure* – 'a group or little magazine receiving contributions from France, Switzerland, England and the USA'. Kenneth Martin is shown as the key figure in the English column. However, as Bann notes:

> This chart illustrates the movement of Constructivist Artists and the incidence of group activity in the period 1920-70, details of time and place are necessarily approximate and there is no attempt to include every figure of importance.[111]

This systematised way of charting a movement and tracing it through a time line resembles at least two other earlier examples of the chronological ordering of art history. Bann had used it in 1974 in *The Tradition of Constructivism, (fig.58).* It also resembles Barr's renowned 1936 Diagram illustrating trends in modern art, and the chart from *Réalités Nouvelles* exhibitions held in Paris in 1946-1947 and 1948, *(fig.58).* [112]

There were twelve artists involved in the *Systems* exhibition, including two women: Jean Spencer and Gillian Wise Ciobotaru.[113] Seven of these artists: John Ernest, Malcolm Hughes, Michael Kidner, Peter Lowe, Jean Spencer, Jeffrey Steele, and Gillian Wise Ciobotaru, went on to show in the *Constructive Context.* Cuthbert was not involved in either of these exhibitions. In April-May 1972 he was showing twenty-one paintings at Surrey University and in 1978 he was working hard on a body of work in between completing a one man exhibition at Southampton Civic Art Gallery and opening another exhibition of his own work in the Gardener Arts Centre, University of Sussex in 1979. These venues were civic or linked to universities and this may be an important point. Cuthbert did not exhibit or sell through a commercial gallery. It appears he had only peripheral contact with some from this loose group, however if *Systems* was 'wide-ranging', 'didactic' both 'Constructivist and concrete' then this research shows that Cuthbert is part of a wider artistic milieu.

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[110] Stephen Bann (ed.) (1978) *Constructive Context,* catalogue of a touring exhibition organised by the Arts Council of Great Britain, London: ACGB, p.7.
[111] Bann, S. (1972) *Systems* exhibition catalogue p.4.
[112] For *Réalités Nouvelles* chart see Rickey (1968) p.272.
[113] Gillian Wise Ciobotaru born 1936 studied at Wimbledon from 1954-57 and Central. She claims Biederman as her starting point in 1958 at 22 years old: 'I have worked almost exclusively with orthogonal relationships since my first contact with constructive ideas - via Biederman in 1958.' *Systems* (1972-3) p.57.

With regards to the educational context of the participants of the *Systems* 1972-3, of the five artists who did not appear in the *Constructive Context* in 1978, Richard Allen (the artist whose work could best be considered optical art) studied at Bath Academy and had a residency at the University of Sussex, Brighton, in 1967, the same year as Michael Kidner; David Saunders also had a residency at the University in 1970. These residencies concluded in an exhibition at the Gardner Arts Centre, Sussex University. The occurrence of the University of Sussex in the CVs of a number of artists of this group point to the fact that this was an important venue at the time for this type of art. In placing Cuthbert within this milieu it must be noted that he too had a solo exhibition at the Gardner Arts Centre, University of Sussex, in 1979.

In mapping a geographical network of exhibition spaces, which comprise the nodes of a loosely termed 'movement' or trend, it is possible to draw the conclusion that there was a strong body of work of this type from 1960-79 on show in public spaces. In this respect, *Systems* and *Constructive Context* were both touring exhibitions. Throughout the 1960s and 1970s, one-man shows by individuals from this loose group took place across the country and the participants were invariably artist-lecturers. The Arnolfini Gallery in Bristol, in its early days, hosted a number of shows consistent with Systems and Constructivist art. For example, in 1971, *Matrix*, at the Arnolfini involved the following whose work had appeared in the two discussed exhibitions: Allen, Ernest, Hughes, Jones, Kidner, Lowe, Moyes, Saunders, Smedley, Spencer, Steele, and Wise-Ciobotaru. It should also be noted that Michael Kidner had a solo show in 1967 and Kenneth Martin contributed to a show called *Multiples Unlimited* at the Arnolfini Gallery in 1970.[114]

Thus, by the 1970s Constructivist work was being shown in certain civic locations, including regional galleries, such as Bristol, Southampton, Sussex, and Sheffield. These venues were not solely London nor exclusively southern and the network of students and teachers interested in this type of work emerged from and worked in the reoccurring schools of art, such as Bath, Goldsmiths, St. Martin's, and Portsmouth. In these schools, artist-lecturers were engaged in Constructivist practice, in all its definitions and, given the flow of artists from the *Systems* exhibition to the *Constructive Context*, we can deduce that the terms Constructive, Concrete, Constructionist, Multiple and Systems tended to be more fluid than would at first appear. In this sense the inclusive term Constructivism has become an established part of British art practice, education and history.

[114] The relationship between the Arnolfini Gallery and Bath Academy would merit further investigation.

In conclusion, this chapter establishes that Cuthbert's work can be identified as part of the modernist project of perception, and more specifically the perception of colour. Cuthbert worked through research into a material, via repetition; he focused on the physical rather than the psychological properties of visual content.

In this chapter I have established key aspects of Constructivism and showed how there was a strong tradition in Britain in the 1960s and early 1970s. By tracing Constructivism in Britain through the key artist-lecturers, Mary and Kenneth Martin, who taught at Goldsmiths, I have positioned Cuthbert's practice within this British tradition and, through Vasarely and Lohse, within a context of European Constructivism. Thus, I have argued that Constructivism, is already established within the education system by the mid 1960s and continues to remain visible through the 1970s.

Does art school cultural change parallel deeper artistic shifts?

In this succinct chapter I draw together conclusions of the thesis, the key argument and discuss the implications of this research for an understanding of art school culture in Britain post 1960. This includes a discussion of the role of the artist-lecturer and the broader implications of the foundation course as part of a major shift in art education.

Having used Alan Cuthbert as an artist-lecturer case study to argue that the emergence of basic design can be seen as one of the major factors that brought about the change in the art foundation course in art schools in the early 1960s, there are five key points that emerge from this thesis.

Firstly, there is the overriding fact that there is a major change in art schools in Britain in the early 1960s. Building upon a body of art education literature (Macdonald, Ashwin) and the government reports of the Coldstream and Summerson Committees, I have established the nature of this change with reference to specific art schools (based primarily on documents in the London Metropolitan Archives and Bretton Hall Archives). I have identified the nature of the changes in the London state-funded art schools as a shift in the move from predominantly amateur courses to vocational courses, in line with the growth in the art and design related industries. Furthermore, the expansion in student numbers brought about a need for more teaching space, and a request for more staff, specifically in the areas of the library, the Pre-diploma department, and the Art History provision. This expansion frequently resulted in pressure for accommodation, i.e. studio, workshop and office space in most art school buildings. In particular, with regards to Wimbledon School of Art, I have shown where some of the detailed changes occurred with the introduction of the Pre-Diploma course (Chapter Four).

Secondly, the thesis demonstrates the existence of a substantive body of Constructivist theory and practice within Britain, which existing literature has tended to ignore. This scientific, Constructivist and analytic approach, although, at times, at odds with the concept of 'organic' and nature, is an important factor in change in 1960s British art. Here, I have argued that the search for an ordering of form pervades a large body of literature in the twentieth century which focuses on nature, biology and maths. This debate on form enlightened and united both artists and designers. I have demonstrated how Thompson's theory of biological formation brings about a shift in the use of natural forms by artists and designers, and the relevance of Thistlewood's 'organicism' or 'organic aesthetic'.

Moreover, through a study of the importance of this Constructivist tendency from Biederman, the Swiss artists associated with the Bauhaus (Klee, Itten, Lohse and Bill) and the British Constructionists (Kenneth and Mary Martin, Anthony Hill, Adrian Heath and Victor Pasmore) I have shown how this attitude to nature, biology and the scientific has played a part in the emergence of basic design.

Thirdly, I have argued that the emergence of basic design is a major factor in art school change during the period under study. It ushers in a course model, (already allegedly in existence in some departments) based on the Bauhaus and the pedagogic teachings and influence of European émigrés on their way to America. There is still debate as to what extent basic design was already being taught in some departments given such figures as Olive Green in Manchester and Albert Halliwell and Edwin Straker in Camberwell. There may be other examples, yet to come to light. Building upon the research of Thistlewood and Yeomans which shows that the wider emergence of basic design stems from two initial institutions, the ICA and the Scarborough Summer Schools, I have highlighted the importance of the 1951 ICA symposium 'Aspects of Form' and the ensuing exhibition *Growth and Form*, for promoting the scientific, organic themes in basic design. This, as I have shown, is followed eight years later by the important *Developing Process* exhibition at the ICA, which distributed the basic design concepts more widely.

Fourthly, I have identified a change in the artists-lecturers' approach to colour in the 1960s. This I attribute to a number of factors: Firstly, Bauhaus teaching and in particular, the analytical approach brought to colour primarily by Itten, Albers, Klee and Kandinsky; secondly, the rise in the number of publications on colour at the beginning of the 1960s, (along with art pedagogic texts, especially those by Bauhaus artist-lecturers);[1] thirdly, the 'scientific' approach supported by artists with an interest in the overlap between perception, science and visual language, and the interest in systematisation; and lastly, new developments in paint technology, including the introduction of acrylics (for example the trials at Wimbledon School of Art by Peter Lloyd Jones) and the standardisation of colours (by bodies such as The Colour Group and Colour Research And Practice [*CRAP*]). These four factors contribute to a change in approach to colour. This area has barely been touched upon by researchers to date. This thesis establishes the importance of this shift within a broad Constructive tendency and the accompanying scientific approach to colour. In particular, the study of practice, in the case study of Alan Cuthbert. I have analysed Cuthbert's formative practice not only in terms of its immediate relation to British abstraction of the 1950s and 1960s, but also in terms of the artist's specific and innovative

[1] The major pedagogic impact of the Bauhaus has come through *Bauhausbücher*, the series of books by Bauhaus teachers, English translation 1959, Chicago: Paul Theobald.

engagement with colour theory. Through a detailed analysis of his work I have revealed that Cuthbert made clear use of such mathematical devices as the Fibonacci series, random sampling and the Golden Section to anchor his systematic approach, but ultimately was not bound by them. Furthermore, Cuthbert's work demonstrates a systematic use and research of colour.

Fifthly, Building upon existing work on post-war society and British art (Garlake) and on the Independent Group (Massey), and the establishing of basic design as an element in the foundation course (Yeomans, Morgan), I have argued that a shift occurs in the understanding of fine art practice, towards an opening up to other subject areas, not least design, but also sociology, architecture and science, (especially the use of light and sound). While proposing a Continental orientation for this shift which occurred through Bauhaus pedagogy and British geometric abstraction including such publications as *Unit One* and *Circle*, I have shown that the publication *DATA* in 1968 is symptomatic of this shift.

In the previous chapter I looked at the publication *DATA* and two important exhibitions which brought together Constructivist art in Britain in the 1960s and 1970s. These exhibitions have a strong bearing on the issues raised in this thesis and are proof of the longevity and relevance of such Constructivist artists' interests. In addition, from a study of the two exhibitions I demonstrated that some of these artists had a link with Goldsmiths which had produced a number of Constructivist artists. Similarly, through individual artist-lecturers I have mapped personnel networks which related to certain basic design and Constructivist ideas. Furthermore, I have raised additional questions for possible areas of research, such as the fact that art schools are an under-researched area of the mechanisms which effect art. In this respect, I want to return to the English art school culture of the 1960s to question the position of the 'modernist' foundation course in the 'liberal' institution. In the previous chapters I tracked the change in the art schools regarding examinations and expansion in certain areas, such as contextual studies and library resources, however, the changes in the culture also contribute to the art produced in such institutions. With regard to the centrality of the artist-lecturer, the next section of this chapter discusses the art school culture in the 1960s, the subsequent section examines the term 'didactic' and the importance of the artist-lecturer.

Inevitably, the tracking of art school culture is a difficult one, especially in the 1960s when there was a wind of change and experiment. One of the key sources here is Alex Seago (1995) *Burning the Box of Beautiful Things: The Development of a Postmodern*

Sensibility.[2] Seago recognises the importance of art and design education in the emergence of a postmodern sensibility, as centred on the Independent Group and Pop Art in Britain.[3] Firstly, he establishes the image of the art school as liberal institute where newly discovered youth culture could be expressed in lifestyle, dress and music. He traces the change of sensibility through interviews and a close study of the journal *ARK*. However, Seago focuses on student lifestyle and the art and design produced rather than on the curriculum and what was taught. Whereas the art school atmosphere has become part of cultural history, what art schools taught remains hidden.

As Seago shows, in the beginning of the 1950s art schools had been given the freedom to mark their own exams rather than be subjected to the man from the Ministry. It was also in the 1950s that the reputation for the art school as a liberal institution grew.[4] This view of the liberal institution is not, however, established on the content of what the art schools were teaching but by the liberal atmosphere which they had engendered. According to Seago, by rejecting approval of diploma courses in a number of the colleges in its report of 1965, the Summerson Committee was seen to be asserting control over the unique, populist and expanding institution. For example, by 1965 the NACAE felt the need to set out a precise definition of the Pre-diploma course and recommended the name change because many students on the Pre-diploma went on to vocational design courses and not the Dip AD. Thus, Foundation was considered a more suitable title, as the four areas of study suggests:

> Opportunity should be taken during the course to make students aware of the full range of studies available in diploma courses in all four areas of study.[5]

Thus, the chaos and sense of injustice caused by the rejection of some courses from becoming diploma courses and the uncertainty in some colleges can be seen to be the root cause of unrest at Hornsey and elsewhere in the late 1960s.[6]

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[2] Seago, A. (1995) *Burning the Box of Beautiful Things: The Development of a Postmodern Sensibility*, Oxford: Oxford University Press.

[3] Seago focuses on the importance of art and design education in his first chapter called 'Years may come, and years may go, but the Art School Dance goes on forever: Art and Design Education and an English Postmodern Sensibility'. His sources for this are twofold. Those writing within the period and those who look back on it from a decade or two a later. Seago draws on Nuttall (1968), Booker (1969), Williams (1976), Martin (1981), Horne (1982), Hewison (1986), Appleyard (1989), and Walker (1989), when tracing the postmodern sensibility. The later writers, some of whom approach the topic from a sociological perspective, look back with a postmodern awareness. He also bases the research on interviews with designers and the Royal College of Art journal *ARK* from the period.

[4] Hewison (1986). *Too Much: Art and Society in the Sixties 1960-1975*, London, sees the post-war art school as: '...a haven for imaginative people otherwise neglected by the educational system... the relative freedom of art schools encouraged experiments with style. For working class students they were an escape route from the factory, for middle class students they were the entry to bohemia.' as cited in Seago (1995) p.21. The emergence of Jazz, Rock and Pop musicians is frequently drawn upon as evidence to support this view. For examples, Ian Drury, John Lennon, and Peter Sutcliffe.

[5] *NACAE report* (1965). See also Pippa Ingram's articles: 'Foundation Courses vary widely in standards', *Times Higher Education Supplement* (22 December 1972) and 'Art Teachers protest against plan to raise Dip. AD entry standard', *THES*, 3 November 1972.

In 1968, art students, particularly those at Hornsey and Guildford, but also in thirty three other art schools, demonstrated against the national system of art education, with sit-ins and disturbances. Given that the system had just been reformed and the colleges were allowed to develop their own pre-dip courses, this would seem curious. However, as Richard Wollheim states, four basic principles for the organisation of art education as laid down by the demonstrating staff and student body of Hornsey College of Art shed light on the causes of conflict. The four principles raised by the introduction of the new system of art education, in Hornsey's Document 11, entitled 'The Structure and Content of Art-Education', were the elimination of GCE entrance qualifications, the elimination of compulsory examinations based on academic studies, the replacement of existing linear courses by a network of education, and the elimination of the distinction between vocational and diploma courses.[7] The incident at Hornsey has become a symbol of the radical image of art student identity of the sixties. Whilst in the fifties it thrived on jazz, beat and youth culture, by the sixties politics was on the agenda.

Wollheim, in his article, notes that the staff were involved in the revolt against the changes brought in from 1960 onwards. This involvement of the staff alongside their students reinforces the impact of the demonstrations.[8] He also highlights the other key protagonists. These include ambitious and successful art school principals who could not see any other way of running an art school than the way they ran theirs; progressive young painters and sculptors, artist-lecturers who believed the way they taught art to be 'the way'; and teachers of applied arts who were working to raise the standing of design subjects. As Wollheim notes:

> Most distinctive of all, however, is the extent to which the art school movement is not, in a strict or literal sense, a student movement. That is, it is not exclusively, perhaps not even predominantly (though this is more dubious), inspired or led by students. By this I don't just mean that only a minority of students is seriously disaffected (30% is the figure given for an ordinary art school: which, in point of fact, is high). I mean that much of the dynamism that has sustained the movement has come from the staff; particularly part-time staff. [9]

This is a key point that Wollheim is making here: that the staff of the 1960s art schools were politically involved in challenging the reforms which had been directly and indirectly bought about by the key personnel centred around the ICA in the 1950s. Again it must be seen that the lecturer is a key figure in change.

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[6] Wollheim, R. 'Should Art be a Respectable Occupation? September 1968, BHDCPL 00028. *(Documents beginning with BH in this chapter can be found at the NAEA, Bretton Hall.)*

[7] Wollheim, R. (1968) BHDCPL 00028.

[8] Wollheim also shows that by raising the diploma to university equivalence it would help salve the controversy of funding art schools and their students out of public money. This helped the education officers who had to justify their spending to local authorities and the public.

[9] Wollheim, R. (1968) BHDCPL 00028.

Through the work of Seago, Wollheim, Massey, and a number of sources already discussed, it would appear that the emergence of basic design, Pop culture and art school cultural change are associated. [10]

If this postmodern sensibility, which gave rise to the discontent of 1968 in general and Hornsey and Guildford in particular, was in evidence in the English art schools in the mid 1950s as Seago claims, my question is about the role of the changes in art education during this period. The changes from NDD to Dip AD and the Intermediate course to the Pre-diploma. The fact that Hamilton, Pasmore, Paolozzi and many of the Independent Group were artist-lecturers has some bearing on the evidence. The position of the artist-lecturer, is an important factor which I will explore further later in this chapter.

If the English art school was a breeding ground for the postmodern sensibility, then how much of what goes on in the art school as regards teaching should contribute to the argument? Does basic design contribute to the postmodern sensibility or run counter to it? Seago cites Horne's (1982) view that basic design becomes institutionalised, but the question might be asked how does a liberal institution institutionalise a pedagogy or an aesthetic? [11] Is there a change in method through artist-lecturers? Christopher Williams' understanding of the liberal institution points to the importance of pedagogic approach:

> The 'easy-going, freewheeling approach' which characterised most British pop was rooted in the atmosphere in the English art schools of the 1950s and 1960s which fostered particular attitudes either as an extension of or as a move away from particular lines of teaching, viewing art education as discovery and exploration, rather than as a means of imparting a set body of knowledge and a range of skills. [12]

I can only speculate that basic design starts out by being a liberalising influence, an experimental force.

However, there remains the issue of the 'modernism' of basic design, which up to now has been approached through art education. If Hamilton's contribution to the Independent Group and Pop art is approached as part of a wider cultural history linking it to postmodern sensibility, then it seems evident that basic design, which suffers from the modernist tag, could be viewed in a different light. But the continual problem of definition and by default

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[10] Thus, whilst some writers have suggested Pop Art loosely as the beginnings of Postmodernism, Seago examines the British roots of Pop art, those roots being the ICA and the Independent Group. In particular, Hamilton as the practitioner and teacher (artist-lecturer), and Reyner Banham and Lawrence Alloway as the critics and theorists are the key figures. Reyner Banham, architectural historian, and Lawrence Alloway, were both involved in the Independent Group, they wrote the two introductions for 'This is Tomorrow', Garlake, p.137 and p.144.

[11] Horne, H. (1982) 'Hippies: A Study of the Sociology of Knowledge', unpublished PhD (University of Warwick 1982) p.20, as cited in Seago (1995).

[12] Williams, C. (1976) 'A Survey of the Relationship between Pop Art, Pop Music and Pop Films in Britain from 1956-76', unpublished MA Thesis, (Royal College of Art 1976) p.20, as cited in Seago (1995).

stigma hounds both the word 'modernist' and the term 'basic design. Basic design by the early 1960s is seen as losing credibility by the traditionalists and its instigators, in particular after the publication of Maurice de Sausmarez' book in 1964. De Sausmarez compiles the content of a 'course of basic instruction, which emphatically is not a primer in a special sort of art'[13] and is at pains to distance himself from accusations of petrifying the projects into meaningless exercises by his declaration that 'basic design should be:

a) An attitude of mind, not a method.

b) Primarily a form of enquiry, not a new art form.

c) Not only an enquiry about the marks and structures which appear out of the materials used, but also an enquiry about the sources and terms of personal expression and reaction to the world around us.

d) Concerned with form in a fundamental sense in every field, it is not exclusively abstract or non-figurative; there is as much need for intensive rethinking and reshaping of our attitude to 'realism' and figural studies.

e) Emphatically not an end in itself but a means of making the individual more acutely aware of the expressive resources at his command; a fostering of an inquisitiveness about phenomena, great and small, on the paper and canvas, in the external world or the interior world of visions, personal reactions and preferences.[14]

Within the debate surrounding basic design, Julian Satterthwaite argues for disillusionment with the concept of basic design in his MPhil thesis entitled 'The Origins, Development and Endemic Failure of Basic Design: A Study of the Basic Design Movement in Certain British Colleges of Art and Design in the 1950s and 1960s'. The study is based mainly on Leeds College of Art from the mid 1950s to the late 1960s, where Thubron, De Sausmarez, Ehrenzweig and Forrest (as a student) had been involved.[15] In writing about Maurie De Sausmarez' book Satterthwaite states:

> However, to many it denied the intrinsic spirit of basic design, attempting to formulate an educational revolution that did not have formal 'rules', clear cut objectives or theoreticians with the possible exception of Anton Ehrenzweig. Although it seemed to elucidate several aspects of drawing in a formal and academic way, and attempted to rationalise and explain intuitive studies of colour, shape and form in an abstracted sense De Sausmarez' book was considered dangerously uninformed and misinforming by his contemporaries at Leeds. Erik Forrest, in an unpublished essay 'Art Education in the Sixties: Formalism and Intuition,' notes more pointedly that Thubron: 'objected strongly, for example to many of the ideas to be found in Maurice De Sausmarez' book.....' In Thubron's view the book [although Thubron's contribution of an introduction might suggest otherwise] represented an art education founded on fixed 'basic laws of design' and this

[13] De Sausmarez, (1964) preface, p.7.
[14] De Sausmarez, (1964) p.11-12.
[15] Satterthwaite, J. (1993) 'The Origins, Development and Endemic Failure of Basic Design: A Study of the Basic Design Movement in Certain British Colleges of Art and Design in the 1950s and 1960s,' Mphil thesis, Liverpool University. See also Peter Lloyd Jones' letter in *The Listener* (10 October 1968), Maurice de Sausmarez' reply on the letters page *The Listener* (31 October 1968) and Noel Shepherdson's letter (7 November 1968). Erik Forrest, who left Leeds in 1961 makes a similar observation, in 'Harry Thubron: His Contribution to Foundation Studies in Art Education', Ohio State University. (1983). Given the writer and lecturer, Anton Ehrenzweig's contribution to the debates of art and art education, the impact of his work could also be usefully reassessed.

> concept was alien to the flexibility he sought. De Sausmarez' book was not representative of what was going on, - but nothing else was documented.[16]

However, the need for De Sausmarez' book can be suggested by the fact that some of the exercises are used by art teachers some forty years on. In addition, the legacy of basic design lived on strongly in the Foundation courses well into the late 1970s.

It is my view that, as with the splintering of modernism and the question of whose modernism, so we have to ask whose basic design, that of Pasmore, Hamilton, Hudson, Thubron or De Sausmarez. Are we talking about exploratory and experimental projects, descended from Itten, Klee and Kandinsky's teaching or the format bound, tight projects which arose and strangled the 'movement' by their lack of vitality. Certain projects - and colour mixing is an obvious example - can be and were approached in a scientific manner with repeatable structure and format. However, with the number of foundation departments standing at 130 by 1972 it is not surprising that there would be as many different syllabi and approaches, all of which would have absorbed basic design in some shape or form. There were, then, many approaches to basic design and many reasons for accepting or rejecting it.

Inevitably evidence must be sought in each individual course or even subset of that course to understand the impact of the pedagogy. This detailed research into individual colleges' Foundation departments has never been conducted. In fact, until recently, they rarely keep archives at all about content and methods. The only records that have tended to survive are usually those about achievement, evident, for example, in art schools' magazines.[17] Given the paucity of published and archival material, the only documentary evidence that can be scrutinised falls into two categories. Firstly the project briefs of artist-lecturers who have donated their papers to the Tate Artists Archive or the Bretton Hall Archives specialising in art education. Secondly the portfolios of students from these periods, if they kept their Foundation course projects. Existing research, which carry some of these project briefs and photographs of students' work in their appendices, are Forrest (1983), Yeomans (1987), and Satterthwaite (1993).

It must be pointed out however that, although what is happening in the English art schools of this period is relevant in its historical context, its impact on Foundation courses was lessened, in the light of the momentous decision to transform the two-year Intermediate into the one-year Foundation. The new heads of the new courses had the difficult task, which persists today, of fitting all relevant teaching into the intensive one year in the hope

[16] Satterthwaite (1993), pp17-18.
[17] See Wimbledon School of Art magazine and the Royal College of Art magazine: *ARK*.

that students could make an informed choice as to their future direction. The straitjacket of September to June left little room to manoeuvre or complain or reflect in documents about what they were teaching. The difficulties of the new course resulted in a pragmatic approach: to give the students a taste of every department in rotation until Christmas, diagnose, specialise, and produce portfolios until Easter, in preparation for interviews. The big reform was moving to, what in effect is, an eight-month diagnostic course. To date there has been little research which has considered the impact of this momentous change.

At the beginning of this research the word 'pedagogy' arose, in reference to the innovative teachers of the Bauhaus, in the latter pages the word 'didactic' has been used to refer to work and attitudes in the 1960s. For example, Aaron Scharf echoed the views of other critics when in 1966 he stated:

> Constructivism is didactic, it is physiologically rather than psychologically orientated, it is intimate with science and technology, it is concrete.[18]

From the words 'pedagogy' and 'didactic', we might try to mark a shift in meaning of the change from the former to the latter, but in essence there is only a difference in what the words were applied to. The Bauhaus pedagogues were in some sense leaders, whilst the art and artist-lecturers of the 1960s and 1970s by being labelled 'didactic' were deemed to hold 'skills in teaching' (the OED definition). The *Systems* works, especially, displayed material skills and were nearly always accompanied by diagrams, processes and explanatory words. In this regard, *Circle* in the 1930s sets the standard of artists' essays. Certainly, *DATA* and *Systems* give much space to the contributors to lay out their ideas in words to an extent that rarely happened in other times or movements, in this respect they are didactic - i.e. skilled to teach.

These terms might mislead, if we are not clear about the specific qualities that the pedagogues brought to the Bauhaus teaching and the application of 'didactic' to the general art-forms of Constructivism and Systems art.[19] In so far as the three elements of art practice, art education, and art history overlap in the subject of this research, Alan Cuthbert, a distinction can be made between a closed didactic way of teaching, and didactic art. Cuthbert appears not to have utilised the former, and the latter might apply, but was generally part of Constructivism by this time. However, there occurs a more momentous shift, than that of the meaning of 'fine art' as discussed in Chapter Four or the use of pedagogic to 'didactic'.

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[18] Scharf, A. (1966) in 'Constructivism' published in *Concepts of Modern Art* (1974) Thames & Hudson., p.168.

[19] Barbara Rose, in 'The Value of Didactic Art' *Artforum* 5, no.8 (April 1967) p.32, applied the word to Duchamp's work: 'Pure didactic art includes that whole class of found objects which Duchamp termed 'unassisted readymades.' Very often the negative nuance of 'didactic' was broadly used to refer to the conceptualism at the end of the 1960s. Cited in Singerman, footnote 70, p.171.

This shift is the point at which the Constructivist tendency in British Art, which, as I have shown, had strong roots in biology (Thompson), physics, science and maths, is subsequently reframed within the linguistic model of semiology which Bann utilises. This shift merits further investigation.

In a broad sense, it can be argued that Constructivist art parallels the knowledge of the structure of language. For example, the Swiss linguist Ferdinand de Saussure's lectures in 1912 furthered the breaking down of language into its component parts and assessed it as a series of signs within a system.[20] Is it merely coincidence that abstract art appears around this time? Similarly 'Systems' art is underpinned by Structuralism, as Bann has established. This theorisation of practice, the analysis of language, has emerged, inevitably in art education. Both art and design have been looked at in the same manner - in order to instruct - by taking the language apart in order to teach it. This reflects again the analytical skill of teaching, i.e. 'didactic'. Whilst instruction has always been through the medium of language in the classroom (as opposed to the studio), according to Howard Singerman (1999) in his book *Art Subjects*, the language has not been a full language, since structuralism as an approach relies on fragmentation and negative difference.[21]

Continuing the theme of the importance of text in the Constructivist tendency, shown by the publications, it will help to examine some of Singerman's findings in the American system. The premise for Singerman's book, *Art Subjects*, was why, although he held an MFA degree in sculpture, could he not carve, cast, weld or model in clay? He returns in the last chapter to ask 'what does the MFA certify?' This may seem tangential but in fact it may help to place the changes in the art schools and education at the centre of questions about the present nature of art. Singerman puts forward a number of given points, with which anybody with a western art school education would tend to agree such as: 'most artists are not self made but graduated.'[22] Thus, he points to the primacy of education over the individual.

Subsequently, he links the primacy of education to language. Singerman focuses on the aspect of language in the education of artists in the institutions arguing that 'Language was

[20] Ferdinand de Saussure's lectures were first published in 1916.
[21] Singerman, H. (1999) *Art Subjects: making artists in the American university*, London: University of California Press. 'In the academy both image and language were tied to likeness and the reproduction of the object present; both image and language were imagined as pictures. The language that marks the contemporary graduate school and models its images, however is not the full language of the academy; it cannot make present. Rather it is the language that structuralism describes, a system of negative differences.' Singerman (1999) p.183.
[22] Singerman (1999) p.157.

the defining attribute of the university. The university demands language.'[23] This notion may be offered as an explanation for the emphasis on the logic of the operational principle in the 1950s and 1960s. Thus, the focus is the language rather than the content - the language of art becomes what is looked for rather than likeness, language is no longer imagined as pictures. The focus is on an aspect of the language of art, (i.e. the gesture, the colour, or the mark), or the relational system becomes the subject. The result is a diagram of forces that act both internally and externally on the organ. If the term organic is taken as its original meaning of a machine, then it is a mechanical system as in language.[24] If, however, it is taken as organic or an organism's later meaning, then the references to a living system are more applicable to language (and art) as a model of a living system, which follows an inherent pattern but reacts to internal and external forces.[25] Thus, the research indicates a shift from content to language on a number of levels.

The fragmentation, that Singerman refers to, can be seen, at a very basic level, in students being taught the physics of colour but not the poetics. There is no evidence, as yet, to support the view that this happened in the early 1960s but, in my opinion, what might be emerging is the notion that the organic and holistic elements of nature were at this time disrupted into fragments and organs separated from the organism. This, then, is not the organic or holistic approach that art absorbed from the discipline of biology. The shift in the meaning of organic reflects that change in knowledge.

Singerman (1999) also points out that knowledge is the product of the university, and that knowledge is inevitably expressed in language and is language-based.[26] In addition, the search for knowledge, (a classical precept and a theme in Constructivist art of the 1960s) is research-based. This would lead us to the linking of research based art, Constructivism especially, and the university or the academicisation of the art school, which, if the notion is accepted, is reflected in the raising of the Intermediate course to the Foundation course and later the diploma to the degree.[27]

Singerman notes that the artist-lecturer must use language and not practice - the lecturer no longer draws on the students' work - with the move towards abstract art this practice is

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[23] Singerman (1999) p.155.
[24] Williams in *Keywords* notes that Bertrand Russell argued in *The Prospects of Industrial Civilisation* (1923) that 'a machine is essentially organic, in the sense that it has parts which co-operate to produce a single useful result, and that the separate parts have little value on their own account', Williams (1988) p.229.
[25] If we accept that language is a model for art, then the question must be asked, is language organic?
[26] '...from the late 1940s through to the mid 1960s, language was the defining attribute of the university.' Singerman, (1999) p.155.
[27] This educational certification of art then, as Singerman acknowledges, is problematic for artists given their lack of language or threat in language to the campus system of essays and critiques. (This, Singerman states, is

replaced by language as the correction. This is a key point in highlighting the move from visual language towards verbal language and concept.

Singerman sees the artist-lecturer as the solution to the problem of the artist's position in society. He forcefully expresses it thus:

> The hyphenated figures of the artist-teacher and the artist-scientist are attempts to fit the artist to the courses and discipline of university study, to understand the artist in relation to existing departments. By the 1960s the artist-teacher in particular was derided as a "confused hybri[d], not fully acceptable to other species";[28] here I use that hybrid to suggest that in the years before World War II the artist was an institutional problem for the university - and perhaps has remained one: the artist-teacher was a symptomatic attempt at a solution.[29]

It is significant that Singerman points to the problematic status of the artist before the war, as the cause of the changes after the war, these being the growing involvement of artists in an expanding university system, which incorporated some art colleges. Thus, Singerman's concept of the hybrid artist-lecturer reinforces my view that the importance of the artist-lecturer has been overlooked, given both the long history of the Bauhaus and the crucial role of the artist-lecturer in setting up the new courses in the 1960s.

Singerman's conclusion in *Art Subjects* is particularly poignant, and while referring to the American University, it might serve as a conclusion for drawing together the threads of this research.[30] Singerman states his view:

> Certainly the university has worked to shape a certain version of art as a discipline; it has not caused, but it has helped to model and select and enable.[31]

Singerman embodies a number of the issues raised by this research and points to further explorations, which may be taken up in this area, being the crux at which three disciplines overlap.

Cuthbert's involvement with art education, his reception of it and contribution to it, has revealed the relations between the practice of an artist and the theory of the lecturer. In the case-study of Alan Cuthbert, then we have seen a symbiotic relationship between the education system and art practice, overlapping and inextricably connected. Furthermore, it

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not based merely on the statistical level of the high number of dyslexic students at any one time in the art faculty.)

[28] 'The Creative Artist Invades the University,' *Arts in Society* 2, no.3 (1963):4. Footnote in Singerman (1999).

[29] Singerman (1999) p.20. Artists are 'encouraged to present themselves as both artists and scholars' (p.164) 'in this sense they are hybrids'.

[30] 'I do not want to argue that the university has caused the self-criticality and historical awareness of modernism, [...] Rather what I have tried to describe is a functional relationship - and perhaps a compelling analogy - between the practices of modern and contemporary art and the development and scienticization of knowledge and its concretion in the departments and schools of the university; between the "history of art" and the narrative of the professionalization of academic disciplines within the university'. Singerman (1999) p.210.

[31] Singerman (1999) p.210.

has become apparent that the art school is a main channel of change and has a significant impact on the art of a period. In looking at art school change and the content of foundation courses in conjunction with the Constructivist tendency, I have raised questions about the way certain art schools, like Goldsmiths, turned out a number of artists interested in certain fields, either because of their courses or their artist-lecturers or both.[32]

Another question which remains largely unanswered is whether basic design falls out of favour, as some argue, (Satterthwaite, Walker)[33] or whether it merely becomes subsumed into an ever faster adapting foundation course, which even now prepares art and design students for an ever-growing number of diverse fields.

The contribution this thesis makes to the existing knowledge of this area is important in that it helps redress the balance which has seen surveys of the 1960s art and culture focus on the 'popular'. This study reaffirms the conceptual basis of a group of important British artists and explores the practice of one artist, placing him in the context of the period. This conceptual and process led art furnishes a strong basis for the art of later decades.

Cuthbert has been the starting point and has provided the material to raise such questions about art education and the role of the artist; the place of the professional and the practice within the institution; and the effect of pedagogy on the change in art produced.

The ultimate point, which was my aim initially, was to place Cuthbert in context. I have established his practice as part of the five key concluding points at the beginning of this chapter and framed him as part of art school change. I have analysed and assessed his paintings with detailed explanations and reinforced this by studying his teaching projects. Moreover, Cuthbert's studio practice and educational projects emerge from this tripartite context of art practice, art education and art history and serve as a useful example of an artist-lecturer from this period.

[32] John A. Walker's comment is worth noting in this respect: ' At Newcastle, the only logical outcome of basic design course exercises for the fine art students appeared to be abstract paintings and constructions,' and 'However, their formal and analytical character did encourage abstraction.' Walker, J.A., (2003) *Learning to Paint: A British Art Student and Art School 1956-61* London: Institute of Artology, p.16.
[33] Walker, J. A., 'The basic faults of the Basic Design courses,' *Art Monthly,* (46) (1981) pp.27-28.

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850731 [Appendix 20, 21 & 22] *Paraphrased from Cuthbert's letter to 'Peter'*, 31 July 1985. (It is not clear who 'Peter' is).

890125 [Appendix 10] Southampton Civic Gallery Exhibition (1977).

Catalogue of paintings by Alan Cuthbert [Appendix 16 & 17].

Curriculum Vitae, Alan Cuthbert [Appendix 24].

Exhibition Chart [Appendix 23].

Chelsea & Regent St. Polytechnic 1959 & 1960: Staff & Student Numbers as at 30 November 1960 [Appendix 4].

H Cards / Equal Value Cards [fig. 51].

Grid 1,2,&3 [Appendix 28, 29 &30], Shunted grid.

Boxes for Yellow [fig. 38].

No.57 [fig. 50] *Y Series Y-B Chevron (2).*

No 12 [fig. 39 & 40] *Cruciform 1 23x23" The Cruciform series.*

No.55 [fig. 49] *Y Series 15 Somersault 3 48x48" 1976.*

No 7 [fig. 34 & 35].

No. 2 [fig. 31 & 32] *Blue-yellow-scarlet [Red Sea]* 36x36 " undated (between 1965-70).

No 35 [fig. 41] *Cruciform 6 1974.*

No 39 [fig. 44 & 45] *No 39, EV from Max Sat 4 18x18"1974.*

No.10 [fig. 37] diagram.

No.26 [fig. 42 & 43] *Y-R CV5 18x18"c.1972.*

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