REFLECTIVE QUALITIES OF THE ARTISTIC CREATIVE PROCESS AND CHAOS THEORY: A STUDY OF THEIR RELATIONSHIP AND THE IMPLICATIONS FOR ART EDUCATION AND TEACHING

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I hereby certify that the work embodied in this thesis is the result of original research
and has not been submitted for a higher degree to any other University or Institution
(Signed)

CONTENTS

Page

pp.1-3 INTRODUCTION

4 PART A: ARTISTIC CREATIVE PROCESS, CHAOS THEORY, AND THEIR CONNECTIONS

pp.5 -23 CHAPTER ONE: THE ARTISTIC CREATIVE PROCESS PRINCIPLE ELEMENTS

7	Preparation: Immersion
8	Incubation: I- A State of Mind
12	Incubation: II- Working 'On-Line': Continuous Reflection
14	Verification: Artistic Expression: Interpretation
14	Evaluation
15	INFLUENCES
15	Emotional Influence
17	Cultural Influences
19	TEACHING
20	SUMMARY

pp 24-39 CHAPTER TWO: CHAOS THEORY LITERATURE REVIEW

Nonlinearity
Sensitive Dependence on Initial Conditions
Iteration and Recursion
Irreversibility
Bifurcation
Attractors
Phase Space
Fractals and Scale
Web-Like Connections Between All Systems
Interdependence
Autopoiesis: Self-Organization
Entropy:Dissipative Structures

pp. 40-51 CHAPTER THREE: CONNECTIONS BETWEEN THE CREATIVE PROCESS AND CHAOS THEORY

40	Nature, Artists, and Essential Meaning
45	Chaos Links with Art Making
49	Structured Order
50	SUMMARY

pp.52-89 CHAPTER FOUR: FOCUSING: IMMERSION AND **INCUBATION**

52	I – Preparation/Immersion			
56	Knowledge from Experience			
59	Processing Visual Experience			
62	Contextual Considerations			
63	Cultural Contextual Experience			
54	SUMMARY			
65	II - Incubation			
65	Consciousness and Thought			
67	Memory			
58	Networks and Patterns			
70	Meditation, Attentional Focus			
71	Selective Attention			
73	Emotion and Cognition			
74	Emotion and Artistic Knowing			
78	The Self			
80	Self-Organization and Knowing-the Biology of Cognition			
85	Tension			
88	SUMMARY			

pp.90-91 INTERREGNUM ONE - AN INTERIM SUMMARY **COMMENT**

92 PART B: AN EMPIRICAL INVESTIGATION TO TEST THE GROUNDING OF THE THEORETICAL DISCUSSION OF PART A IN PRACTICE

pp.93-11 93	1 CHAPTER FIVE: OBSERVING ART MAKING PRACTICE Aims and Functions of the Empirical Project		
93 94	The Problem of Research Methodology		
96	v Gv		
	Aspects of the Project		
97	Anticipated Results?		
99	The Participants		
100	Data Collection		
102	Data Synthesis		
104	Data Synthesis Report		
109	Meanings, Definitions and Interpretations		
pp.112- 1	143 CHAPTER SIX: RESEARCH SYNTHESIS		
138	Main Empirical Research Findings		
139	Conclusions Gained from the Empirical Study		
140	INTERPRETIVE SUMMARY		
pp.144-1	45 INTERREGNUM TWO - A SECOND SUMMARY		
COMM	ENT		
146 P	PART C: ART EDUCATION IMPLICATIONS		
pp.147-1	73 CHAPTER SEVEN: ART EDUCATION AND		
	EDUCATION THROUGH ART		
148	Ideas on Art Education Since World War II		
149	Recent Art Education Developments in the USA		
158	Art Education in the UK		

Art Education in Australia

New Directions For Art Curricula Considerations

TEACHING ART TODAY

159

162

166

167		Chaos and Change in Education	
172	SUMMARY CONCLUSION		
pp.174-18	3 CHAP	TER EIGHT: NEW DIRECTIONS FOR REFLECTIVE	
	ART T	EACHING PRACTICE	
174		Towards a Reflective Art Curriculum	
179		Practical Considerations – What to Teach and How	
pp.184-19	00 CHAP	TER NINE: A DISCURSIVE CONCLUSION	
pp.191-19	3 AFTE	R WORD: A Personal Note	
pp.194-22	22 REFE	RENCES	
Fi	gures		
20	1 -	A Single Cycle of the Creative Process – A Linear View	
21	2 -	Functional Skills Involved in Visual Creative Heuristics	
23	3 -	Creative Process Stages and Functional Heuristic Skills	
37	4 -	A Single Chaotic Linear Cycle of the Creative Process	
38	5 -	Creative Process Possible Iterative Pathways 1	
38	6 -	Creative Process Possible Iterative Pathways 2	
105	7 -	Elements Linked to a Linear Cycle View	
106	8 -	An Early Stage of the Synthesis Process	
108	9 -	Definitions Relating to Art Making	
110	10 -	Research Synthesis Results	
111	11 -	Research Synthesis Definitions	
C	D CONTI	ENTS	
Part B -	- Empiri	cal Research Project	
	Research	Methodology - Questions - Synthesis Pointers - Coding Lists	
Research	Data- <i>Pre</i>	liminary and other interviews and photographs relating to	
	each part	ticipant - BB BRob EK SC SZ TS	
A Self-O	organizat	tional Reflective Curriculum for Community Art	
Teaching			

Bibliography – full list of references sourced during the theoretical research

Researcher Interpretations - Drawings, Poems, Collages

167

ABSTRACT

What is visual art making, the artistic creative process, and how does it work? These questions fuelled an investigation at first theoretical, then incorporating an empirical study centered on attaining understanding relating to the elements and dynamics involved in making visual art. The resultant study aims to offer an approach to gaining comprehensive understanding of the artistic creative process, an understanding that may inform art teaching practice, so that art teachers may better understand the related dynamics of their pedagogical processes.

Historically the artistic creative process has been accepted as one consisting of different sequential stages of development. This view however, is evolving due to the growing understanding of interrelated dynamics of life processes offered by, for example, neurological studies of the brain. New thinking links earlier philosophical and psychological ideas presented by such thinkers as James (1894) and Dewey (1934), to the work of Baars (1999), Brown (2000), Ellis (1999), Zeki (2000), in offering a deeper understanding of the natural human creative process. The reflective aspect of the artistic creative process is thus related to the way that we process information every minute of our lives; essentially it is the way we progress through life, minute by minute, learning and evolving, affirming *self* through finding meaning.

Study of current theory relating to the processes of the brain inevitably incorporates modern thinking that revolves around dynamic processes. Originating in thermodynamics, Chaos Theory has travelled far from physics to become incorporated into a broad spectrum of disciplines. It offers a common language that relates to the dynamics of human nature, and as such is totally applicable to areas of learning and human interaction. Here used metaphorically, Chaos Theory serves to elucidate interactive aspects of the discipline of art making, with much to offer an understanding of the artistic creative process as it describes exactly the same process of change and growth through experience.

A metaphorical use of the language of Chaos Theory provides visual art making with a means of sharing ideas with other academic disciplines that also constantly deal with the dynamics of the human condition, found for example in the close connections between the methods of exploration of both artists and scientists. In studying the phenomenon of 'scale' the physicist Feigenbaum commented on the

connections between perceptions of artists and those of scientists, pointing to the way in which their perceptions and analysis of things coincide (Gleick, 1987). The visual analysis evident in the work of Turner or Ruskin reflects the same process of detailed conceptual exploration of material collected by the senses as that of a student of any field of scientific exploration. Chaos Theory is important also in that it provides a language accessible by varying levels of expertise, whether at a simple metaphorical or a more sophisticated level. This work charts these dimensions because "The challenge is to reverse the disconnectedness of the present world and to develop a curriculum that is not based on separateness of knowledge from life and being, but upon their inherent unity and integration" (Lovat and Smith, 1995, p.248).

INTRODUCTION

This project is at once a synthetic and analytic work, speculative, and observational. It aims to provoke thinking about the teaching of art, and the role of art in education. In the first two dimensions, - *synthesis* and *analysis* - it draws together in thematic form a wide-ranging literature, in a fashion that seeks to identify in detail and hold up for consideration the different elements that work together in the process of art making. That exercise is augmented by an empirical project which goes to the actual activity of art making in practice: observations of artists as they make an artwork, and dialogue with them concerning theirs and the researcher's understanding of their own processes.

The project is *speculative* in terms of a well-founded view drawn from considerations of the literature relating to artistic creative process and Chaos Theory as these bear on the reflective process, and the information reviewed regarding artistic practice. This view promotes the usefulness of Chaos Theory concepts in clarifying understanding of the activity of art making. It is provocative in challenging previously accepted ideas on understanding artistic creative process, through the weight of literature, the quality of argument and analogy in that literature, and a coherent interpretation of observational data here derived. And, finally, whether the dimensions and their interrelations that Chaos Theory postulates are 'found' or 'fitted' to the process, there are challenging implications for art teaching, and for thinking about art in education for, and in, Life.

The work as a whole, through its comprehensiveness and multifaceted approach to the issue, will serve to contribute to an advancement in understanding of art making as a development of a natural creative human process that may be enhanced by means of art teaching.

In outlining what is to follow in the three parts of this dissertation it is first important to note that the basic thesis of this study is that the *reflective* element of artistic creative process facilitates all else in individual artistic self-expression. This process is considered in relation to Chaos Theory in anticipation that the complex way that artistic expression works may be elucidated by metaphorical reference to Chaos Theory concepts and terminology. It is therefore possible that these concepts may

provide an accessible and open form of structured order to an art maker who seeks, through teaching, to encourage others in attaining *meaning* through art making.

The three parts represent, respectively, an effort to draw together, in the above terms, a wide-ranging literature, a 'free-standing' empirical project, and a consolidation of the theoretical and empirical through a focus provided by the educational context

In Part A, Chapter One, artistic creative process literature is explored in order to pull together ideas and gain insight into current understanding on the structure of the process. Chapter Two introduces Chaos Theory concepts in metaphorical form as they may be found to relate to fields other than 'pure science.' Chapter Three considers links and connections between artistic creative process and Chaos Theory concepts. Consideration of the foregoing theory led to the conclusion that further elucidation of the artistic creative process may serve to illuminate what actually happens when we make artworks. Chapter Four therefore focuses on the areas that appear to be of most interest when considering the *reflective* process involved in art making, those of *immersion* and *incubation*. These two areas are aspects of the creative process that involve the artist in the processing of newly absorbed information in conjunction with that previously acquired. Chapter Four illuminates the dimension of knowing and *reflection* that is crucial here, by reference to contemporary work in the field of consciousness studies.

Part B consists of an empirical study that explores the creative processes of a number of practicing artists. Chapter Five describes the project, whilst Chapter Six contains the research report and conclusions. Synthesis of the information collected here, considered in relation to the findings of Part A, is aided by use of the computer software 'Nudist-4.' In order to achieve an understanding of the interrelatedness of the complex process, data has been subjected to a search for what appear to be the most important aspects of the processes by all concerned, followed by an explanation of these aspects by means of the most appropriate language, that is, with reference to Chaos Theory concepts. This process resulted in a diagram that illustrates those interrelated activities that appear to be involved in artistic creative process, according to synthetically evolved definitions. This provides a guide to the variable elements that may be encountered in relation to artistic creative process, rather than providing a strictly invariant model. The variable quality of these elements from one occasion to

another leads one to recognise the ever-changing character of artistic creative process as a naturally ordered structure that is suitably described in Chaos Theory terms.

Part C approaches the area of art education in relation to the results of Parts A and B. Chapter Seven offers a recent history of Art Education, and Chapter Eight offers ideas on possible new reflective directions. Chapter Nine contains a discursive conclusion on the whole work

A CD Rom is provided as an adjunct to the printed work, as it contains appendices to support the study. These consist of empirical data, interview transcriptions, field notes, and photographs, pertaining to artist participants and their creative work processes, information relating to research methodology, and a comprehensive Bibliography offered as a scholarly resource. There is also an example of a self-organized curriculum that was developed in connection with experience in community based teaching.

This study offers an understanding of the underlying structure of a process which is in itself variable according to individual and group ontogenies and contextual elements. The elements that comprise the creative process are universal, in that they form an integrated natural human process, and as such function within the structure of our ever-changing human boundaries. A diagram of a process such as that which has emerged from this study may provide heuristic reference when contemplating concepts that have learning implications for those designing a curriculum, a syllabus or a lesson plan. Such conceptual references may be born in mind when actively teaching artistic creative process through art making, thus enhancing teacher-student understanding.

Significantly, this project itself developed as any self-organizing creative process may be expected to, by working within continually expanding structural boundaries, developing according to the growth of ideas as the project progressed, resulting in a truly reflective creative product. It is chaotic in character, being openended in aspect and projection of ideas.

The creative process initiated by this work is reflected in the Afterword and the section on the CD labelled Researcher Interpretations. These refer to some of the artworks produced by the researcher while this project was in progress, which are offered as concurrent artistic reactions to the material encountered by the researcher, as a supportive interpretation to the written word.