THE UNIVERSITY OF CALGARY

FLY CANON

by

David Botta

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE

DEGREE OF

MASTER OF FINE ARTS
DEPARTMENT OF ART

Calgary, Alberta September, 1989



National Library of Canada

Bibliothèque nationale du Canada

Canadian Theses Service

Service des thèses canadiennes

Ottawa, Canada K1 A 0N4

> The author has granted an irrevocable nonexclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of his/her thesis by any means and in any form or format, making this thesis available to interested persons.

> The author retains ownership of the copyright in his/her thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without his/her permission.

L'auteur a accordé une licence irrévocable et non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de sa thèse de quelque manière et sous quelque forme que ce soit pour mettre des exemplaires de cette thèse à la disposition des personnes intéressées.

L'auteur conserve la propriété du droit d'auteur qui protège sa thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

ISBN 0-315-54186-5



THE UNIVERSITY OF CALGARY FACULTY OF GRADUATE STUDIES

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled, "Fly Canon" submitted by David Botta in partial fulfillment of the requirements for the degree of Master of Fine Arts.

Supervisor, Peter Deacon, Dept. of Art

Ray Arnatt, Dept. of Art

Gerry Hushlak, Dept. of Art

John Will, Dept. of Art

SEPT 22, 1989

Professor John Brown Eaculty of Environmental Design

ABSTRACT
Fly Canon
David Botta

This paper provides a discussion of the central artwork in my graduating exhibition, namely the edition of three free-standing screens called Fly Canon. The work is examined within the context of the Constructivist tradition and post-structuralist thought.

TABLE OF CONTENTS

																										PAGE
Appro	oval.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	ii
Abstr	ract	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•		•	•	•	•	iii
Conte	ents.	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	iv
List	of I	Fi	gu	ıre	s	•	•		•	•	•	•	•	•	•	•	•	•	•			•	•	•	•	٧
Chapt	ter																						/			
1.	INT	R O	DU	CI	ΓI	ON	•			•		•	•	•	•	•	•	•		•	•	•	•	•	•	1
2.	SOM	Ε	ΗI	S1	١٥٦	RI	CAL	. (:01	S	DE	ER A	ΙΤ	01	15		•	•	•	•	•	•	•	•	•	4
3.	GENE	ΕR	AL	. F	01	RM	AΤ	•				•	•	•	•	•	•	•	•	•	•	•	•	•	•	12
4.	MOT	ΙF	•	•	•	•	•		•	•	•	•	•	•		•		•	•	•		•	•	•	•	21
	Fly.	•	•	•	•	•	•	•	•	•	•		•	•		•	•		•	•	•	•	•	•	•	21
	Erot	ti	сi	sn	1.	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	26
	Flig	gh	t	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	35
	Trac	ce	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	43
	The	М	ap	٠.	•		•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	47
5.	THE	M	EC	HA	N.	I C	s	F	DF	RA V	II	1G	ON	N	10 V	ľΕ	\BL	.E	P A	NE	LS	S .	•	•	•	56
6.	CONC	CL	US	IC	N .	, :	SIG	N	SY	' \$7	TEM	15	•	•	•	•	•	•	•	•	•	•	•	•	•	58
7.	SOME	Ξ	TH	ΙΟι	JGI	HT:	S A	\F1	ER	: 1	THE	: 0	OM	PΙ	ET.	10	N	0 F	F	LY	' (CAN	101	١.	•	68
NOTES	S	•		•	•		•		•	•				•				•			•	•		•	•	71
BIBLI	OGRA	٩P	НΥ	•	•	•		•	•	•	•	•		•	•	•	•	•	•		•					76
APPEN	DIX																									
	Slic	de	L	is	t		•	•	•	•	•	•	•	•	•		•	•	•	•	•	•				79
	Slic	de	s	(a	tt	tac	he	d)																		
	Samr	. 1	_	Fì	A \	(a (ากท	. 1	٥2	Α.	n.o	ck	۵t)												

LIST OF FIGURES

Figur	<u>Figure</u>														
1.	A Bi-polar System	•	•		•	•	•		•	•	•	•	•		19
2.	A Quadro-polar Syste	m.	•		•	•	•		•	•	•	•	•	•	20
3.	White Pleasure	•	•		•	•			•	•				•	29
4.	This and Gallows		•		•	•	•		•	•	• .	•	•	•	30
5.	Examples of Tree Dia	ara	ms	(i	der	nti	tv	ar	apl	ารไ	١.				53

THE QUALITY OF THIS MICROFICHE IS HEAVILY DEPENDENT UPON THE QUALITY OF THE THESIS SUBMITTED FOR MICROFILMING.

IT IS NOT POSSIBLE TO MICROFILM SLIDES.

PLEASE REFER, IF NEED BE, TO THE ORIGINAL THESIS DEPOSITED WITH THE UNIVERSITY CONFERRING THE DEGREE.

LA QUALITE DE CETTE MICROFICHE DEPEND GRANDEMENT DE LA QUALITE DE LA THESE SOUMISE AU MICROFILMAGE.

IL EST IMPOSSIBLE DE MICROFILMER LES DIAPOSITIVES.

VEUILLEZ VOUS REFERER, AU BESOIN, A
LA THESE DEPOSEE A L'UNIVERSITE QUI
A CONFERE LE GRADE.

CHAPTER 1

INTRODUCTION

Fly Canon (see slides) is the subject of this paper.

Other works will be brought in as background only. I presume an hierarchical order in one's perception of Fly Canon; that is, one would notice some things before others. This presumed order, mitigated by the necessity of coherently talking about the work, is the order of this paper. After establishing an historical relationship, I proceed through the presumed order. I assume that one would first notice the general format, that it is a free-standing screen and that it is potentially moveable; ie., on wheels and has gears. From the general, I move to the particulars of motif - The Fly, Eroticism, Flight, Trace, and The Map - after which I discuss the mechanics of drawing on moveable panels. Finally I speculate on the meaning or sign structure of the work.

A description of Fly Canon is necessary:

Fly Canon is an edition of three identical free-standing screens. Two sandblasted lexan (similar to plexiglass) panels hung in an I-shaped steel frame comprise the upper part of each screen. The panels are in fact tetraflexagons. (A flexagon is a flexible, multi-faced, polygonal object, usually constructed out of paper. "Tetra" means that the object, which is folded up flat, is rectangular. A paper example is included with this essay.)

Why flexagons were used will be elaborated in the chapter General Format. All of the panels, each one a flexagon, are identical. Each flexagon can produce six different permutations in four combinations or faces as it is turned and folded from aspect to aspect. Each of the two identical flexagons held in the upper frame starts at the opposite end of the combination sequence from the other, identical flexagon, and the drawing in total is integrated over all the combined pairs which turn up. Each screen can display only two of these six pairs at any one time, thus it takes a minimum of three screens to simultaneously display the drawing in its entirety. The upper frame can rotate with respect to the base, and through a simple action of gears the motion turns the flexagons. The work is not motorized. Rather, the turning demands personal involvement. Since the flexagons are translucent and the drawing visible to a depth of three layers as the structure is folded over itself, the drawing is further integrated with itself, taking into account the visible layers.

The drawing has two levels. The first level is a map of the flights of a fly moving from one place to another on a window pane as the flexagons go through their temporal sequence. The map is embedded in the topology of the structure, so is a kind of reading of the structure itself. Furthermore, the flexagons can be read as folding and mapping onto themselves in three alternate ways. This is accounted for in the drawing, so a trace of a fly's flight

splits into three and then rejoins. The end points of the flights being established, the line joining the end points is stretchable and can be used to compose images. Of this I took advantage, and the images are the second level of the drawing. They are erotic in intention.

The screen itself adheres to the fly motif. The translucent panels with their pen and ink lines represent the translucent wings of a fly. The grey of the chemically treated (blued) steel echoes the colour of its tough exo-skeleton, and the gears echo its eyes and mandibles. The work being an edition is a reference to the anonymity and muliplicity of the fly.

CHAPTER 2

SOME HISTORICAL CONSIDERATIONS

Systemic art, one stream of post-World War II Constructivist thought, provides a useful landmark by which to appraise my work, even though my attitude is post-structuralist. Absent from my work is the Constructivists' utopian vision, the hope of the work having utilitarian value, and the belief in some fundamental unity such as a universally understandable visual language. I think the terms 'unlikely', 'absurd', and 'comic' - terms associated with Dada - may be used to describe the signs of motion and actual motion in my work. Although my stance may be somewhat nihilistic, I measure my work from the Systemic landmark. It is possibly a negative measure, nevertheless, I think a meaningful one. The relation of my work to Constructivism is perhaps one of transgression: ". . . to transgress is both to recognize and reverse; the object to be destroyed must be presented and denied at the same time . . . " (1). No manifesto informs my work; my Constructivist association is loose, as in how the Systems Group were of a loose bond; they were a discussion group (British, 1969 - 72). They held no common thesis (2).

Incidentally, a reflection on classification, such as the classification of my work in conjunction with Constructivism, and looseness serves to illuminate one of the ideas at work in Fly Canon. Constructivism, having

arisen through global historical conditions, and its associates largely having developed independently and spontaneously, how does one establish whether the Constructivist lexicon provides a sufficient number of connections to be a meaningful critical tool with respect to some artist? That is, meaningful in the absence of a theory or manifesto. It would seem that the greater the number of connections, the more pertinent the association. This nitpicking examination of how I measure my work against Constructivism illuminates my concern in multiplying the connections between my semantic imagery and its material format: my strategy is to "multiply the connections" in order to achieve in the viewer of the artwork an agreement that the association of image with format is meaningful.

A free-standing screen, having a sculptural presence, draws attention to the relation between the flat image and its three-dimensional support. The strategy behind Fly

Canon is to bring the semantic imagery and material format into greater and greater harmony. Also, the base is related to the upper frame in three ways. The base's proportions are generated by the circle scribed by the ends of the upper frame as it rotates. The wheels refer to the overall theme of potential movement and change. The material and colour are the same as the upper frame. An alternate strategy would be to exaggerate the discontiguity as did Brancusi between his sculptures and their bases. Often the presence of his forms is heightened through contrast. The

association of semantic imagery and its material format is my project, my overall aesthetic problem.

I focus on Systemic art because it utilized arithmetical and sometimes mathematical procedures, as opposed to an optical orientation, or the attempt to minimize human intervention altogether, as did the group Zero (3). (Quite the opposite; my work can be criticized as being over-controlled.) Almost every artist's statement in the Systems catalogue plunges into a dry description of an arithmetical system and how the work was derived using the system. I suspect that of the few people who could clue into the artists systems, even fewer would. This gap between what occupies the artist's mind in the production of a systemic work and how the viewer feels about the work is a problem that plagues my own investigations. What makes this problem worthwhile, to my mind, is my belief that it will reoccur in highly technical fields such as computer assisted In our age, the brushstroke is not invisible; it is art. not a transparent medium between the model and the viewer's mind. Nevertheless, the systemic acrobatics of an artist using a highly technical medium are hidden like the brushstroke of the Renaissance. How might acknowledgement of the 'opacity' of the medium be effected without subjecting the viewer to an unworthwhile tedium? Just as a matter of speculation, this kind of problem was overcome during the Baroque period in music: the musicians and the audience were for the most part one and the same: aristocratic and

upper class amateur musicians. That is, the audience was active rather than passive; they were equipped to appreciate the systemic restrictions of the fugue.

So my tie to Systemic art is the mutual use of mathematical-like procedures in the generation of the art. My systems feel to me like enigmatic, ominous writing from one's dreams, the same feelings as stirred in me by the Metaphysical paintings of De Chirico. My intention behind Fly Canon, if it were classified within the Constructivist tradition, would lean toward Malevich's and Mondrian's mystic functionalism. However, the object or addressee of my intention is in principle unclear; the mystic function is operative, but its product is in principle unresolved, atopic, nonutopian. The utopian visionary quest typical of Constructivism assumes a structuralist world; that society operates on telelogical principles which, in themselves resist historical determination and are universal. instance, the Constructivists assumed the existence of a universal aesthetic sensibility, a structured core by which, having parred away the historical excess, they could communicate to all people aligned with scientific communism. In contradiction, to insist that the meaning or essence of such a principle is susceptible to the accidents of its iterations precludes a structuralist view by implying historical determination, and undermines the plausibility of a visionary quest. Hence to be post-structuralist is to differ from some of the generating precepts of

Constructivism. My nonutopian intention partially differentiates me from Constructivism. How might my mystic afunctionalism work? The Systemic artist Jeffrey Steele spoke of systematically derived objects acting as syntactic (rather than semantic) messengers between the known and the unknown (4). Also, Naum Gabo considered his constructed objects to be the embodiment of new mental/conceptual forms - constructed objects which convey and catalyze the crystallization of a new (improved) society (5). Now, I accept that the sources and readings of an art-work extend beyond the artist's intentions and that the unconscious plays an important part, so I find it admissible to say that the step (as in dance step) of my work - the process of its birth and its social effect - is Surrealist, but lacking the context of a utopian project, even lacking the project of expanding the context of art. As for the Constructivists' hope of their work having utilitarian value, Fly Canon toys with the notion and at the same time challenges it. Fly Canon is a screen, which is unquestionably utilitarian, yet at the same time its heavy elaboration contradicts the sense of economy intrinsically associated with utilitarianism. Whether Fly Canon ". . . corroborates and extends the deepening knowledge of linguistic and psychological structures . . . " (6) as Stephan Bann the Systems theoretician put it, is beyond my skill to judge, though I intended no such extension.

Constructivism and Dada arose out of the same melieu a search for art to address the shifting paradigms in society, in particular to meet the challenges of technology and socialism. Marcel Duchamp explored the aesthetic of the machine, and though he may have approached it from his own peculiar direction, the topic was common to the Constructivists. I share with Duchamp an exploration of closure and nonclosure. To illustrate: In the Large Glass, the bachelor machine spins around and around, figuratively speaking, destined to eternal attempt and failure at consummation with the bride. On one hand, the bachelor machine is enclosed; it can't be more than its limited cycle. But on the other hand, it is oriented toward something beyond itself, something in principle unattainable: the bride. The bachelor machine indicates something beyond itself, and so sidesteps closure. Moreover, based on Duchamp's interest in projective geometry, indicated in the Green Box, the Large Glass can be thought of as a slice of a higher dimensional space, similar to say a photographic slide being a two-dimensional impression of a three-dimensional phenomenon. Analogously, the three-dimensional phenomenon is a slice or photo of a four-dimensional phenomenon, etcetera, ad infinum (7). The suggested piling up of dimensions is an escape from closure. Similarly, it would initially seem that chess, which interested Duchamp, is a closed system; the number of possible moves is finite. However, that number is far

greater than anyone could learn, so whether the mind is closed or open, the chess system is open with respect to the individual mind. More importantly, I believe, a chess game registers in its applied strategies the personalities of the players. At the very least, this speaks of a delicacy, a complexity of form and structure which I think appealed profoundly to Duchamp. Furthermore, there is always yet another game, a match, a tournament, the best two out of three, the best three out of five, etc. Altogether, the parameters which govern the iteration of chess, its actual practice in society, are flexible, so the game, inseparable from its context, slips away from closure. A tension between knowledge and experience is set up. One has theoretical knowledge that any one chess game is but one out of a finite and inflexible set of all possible combinations of moves, however, one experiences chess as a subtle, open system, one which is flexible and subject to change.

Fly Canon dwells upon the theme of closure and nonclosure. One deduces from the simplicity of the structure that the number of combinations is quite limited (ie., closed), yet one experiences the actual articulation of the panels and consequent systematic generation of images as unfathomable (not closed). Although Fly Canon's flexagons are simple structures, because they are so folded over themselves that part is always hidden, they are very difficult to visualize. In designing the drawing, I had to experiencially work through and through the articulations,

making minor changes to the original postulate (the beginning marks) until fewer and fewer corrections were 'required by the drawing'. I couldn't visualize the structure so as to imagine the drawing or the effects of any one mark through the whole of the drawing; I could only proceed bit by bit through the repeated experience of the structure. Even more so for the casual viewer; the knowledge that the structure has only a very few states collides with the experience of them as unfathomable.

The ink lines drawn on the panels can be compared to Duchamp's <u>Standard Stoppages</u>. Like the <u>Stoppages</u>, the drawn lines are bound within a system. The curvilinear length of a stoppage is restricted to one meter. In contrast, the drawn line of <u>Fly Canon</u> must connect two, pre-established end points; its length is not restricted, but the end points are, the converse of the <u>Standard Stoppages</u>. The particular curve of a stoppage was subject to chance within parameters. Similarly, <u>Fly Canon's</u> drawn lines through their allowed elasticity were subject to my whims of composition. Both cases exhibit a theme of infinite play within restricted parameters.

Further historical associations are developed throughout the rest of the paper.

CHAPTER 3

THE GENERAL FORMAT

Fly Canon is free-standing. It occupies the central portions of a room, and its space, sandwiched between ceiling and floor, recedes from it in all directions of the compass. It would not suffer from an environment of curtain-wall architecture. The somewhat delicate and susceptible nature of its construction implies that the work be housed. Furthermore, its delicacy implies a relatively private environment as opposed to an unguarded public space. The steel, plastic and flat surfaces of Fly Canon further the agreement between the work and Modernist architecture. This mutual information of artwork and architecture is in step with the ideals of the De Stijl group and part of the Constructivist tradition. Furthermore, Fly Canon takes on an architectural function. Being a screen, it acts as a partition and divides the space, again referring to seclusion. It forms a dialogue with the 'interior'. It becomes a wall - a wall with its own abstract doors and windows.

The screen is not in continuous movement. Rather, it continuously presents the potential for movement. Fly Canon performs its screening function when it is at rest, yet at the same time it disturbs that rest by beckoning to whomever may occupy its space to make a change. In this way Fly Canon is inclusive of the observer. He is not wholly

distinct from curator and artist. In recognizing that he himself can manipulate the work, that it can be rotated, flexed and moved, the observer has already engaged with it; the message insinuates by seduction rather than by command. The observer is not told to do anything. He is already engaged at the point-blank moment of thought. This may be contrasted with the phenomenological work of Arakawa and Madeline Gins in the exhibition The Mechanism of Meaning (1). The works combine text and graphics on a scale equivalent to one's body space. The purpose of the exhibit is to make one aware of particular variations in making meaning at the 'point-blank moment of thought'. The graphics do not make sense without the words. Almost every work contains an explicit command for the viewer to do something.

An integral part of most screens is the hinge joining however many panels. The hinge allows the screen an array of configurations by which it can be adjusted to the particular needs at hand. In Fly Canon the hinge has been elevated to the same level of consideration as the panels. In other words, I have seized upon the machine possibilities of the screen, accentuating its potential articulation in space, and opening the territory of dialogue (mutual referencing) between its alternate states. An important consequence is that it is never wholly present, which may signify the conscious/unconscious structure of our psyche, or even the Derridean deconstruction of the metaphysical notion

of Being as Presence. Fly Canon's panels are themselves a kind of hinge; the first tetraflexagon (a simpler version than in Fly Canon) was invented about four hundred years ago and used as a double action hinge. Tetraflexagons were used in Fly Canon because they nicely incorporate transformation into the screen format. The articulation of the flexagon is not easy to comprehend. One knows that there must be a deterministic link between the screen's states, yet one experiences the change as mysterious. The screen itself is a hinge between the physical spaces it partitions. Furthermore, Fly Canon occupies a kind of transition place between drawing and sculpture. It is both. It is a site where something which is not drawing (sculpture) and something which is not sculpture (drawing) physically articulate against one another. It is a hinge between the two.

There is a conundrum in the aesthetic of the machine. If the machine is devoted to the performance of a function, it observes an economy widely valued among Constructivists. On the other hand, a machine may serve no function beyond its own elaboration. An example of the former is Geoffrey Smedley's As Is, which is devoted to the focusing of the sun's rays into a beam of constant direction. Jean Tinguely's self-destructive elaborations exemplify the later. The conundrum is that the artist may choose a function which explicates a certain kind of machine; he may find a machine he likes and search for a

'convincing' function it can do. Does the machine then serve the function, or is it an elaboration of itself? For instance, in Bitch's Brew (see slides) I could have achieved a flexible base without the painstaking balancing of weight and counter-weight. Extension and balance then are extraneous themes in Bitch's Brew which have little to do with the articulation of panels. Fly Canon, however, observes a more extensive integration of function (to produce a transformation), motif and mechanism, to the extent that even I can hardly decide whether I chose the function as a means to get the machine, or vise versa.

Jean Tinguely's drawing machines, his Metamatics, harness "chance in action" (2), and are devoted to the function of producing ever unique drawings. This production of drawing requires interaction with someone. That is, someone must choose the marker pens, govern the speed of the machine, and decide when to stop. The machine's function governs the machine's elaboration; in order to make the machine more elaborate, the function must be made more elaborate. So Tinguely's Metamatics incorporate both the minimalist economy of the constructivists and the arbitrary whimsy of the Dadaists into their aesthetic formula.

Fly Canon's aesthetic formula is similar indeed.

Also, in reference to my earlier remarks concerning the aesthetic's of technology-bound mediums: if you replace a Metamatic with a computer, "chance in action" with artificial intelligence, the drawing with some program (not

the product of a program), and keep the interaction with the user, you have an identical speculation on mechanical presence in art. Now, the more elaborate the Metamatic, the less intelligible it is to the user; rather than comprehending its machinations, the viewer would take it first as a sign of machination in general and go no further. I would say that the design problem is to keep the whole thing as naked as possible, which means as intelligible as possible to the user - a difficult problem with a computer, nevertheless specific enough to invite solutions.

Interestingly, if one admits the Metamatics' drawing to be analogous to writing, and considers the Barthean and Derridean speculation on the scene of writing as a scene of pleasure (as opposed to the end of pleasure - orgasm), the Metamatics remain on the level of pleasure, pornographic titilation, despite some machines' ejaculation of paper (complete with drawn squiggles) like so much semen over the audience, endlessly, like a video loop. In contrast, his machines which orgasmically self-destruct show the end of pleasure to also be the end of the machine.

I assume an analogy between drawing and writing in <u>Fly</u>

<u>Canon</u>, and the above discussion goes to emphasize <u>Fly</u>

<u>Canon's</u> mode as being one of erotic pleasure, as opposed to pornographic ecstasy.

Why have I retained a screen format? Why don't I get rid of the flat panels and indulge in machine pleasure? For one, my work being dense with information hopefully puts the

viewer into a intrinsically private reading mode. One would want to 'screen out' external interference. All this echoes the fact that the object itself is a screen which requires a relatively private environment, and creates private areas within that environment. Integral with the screen is the flat surface, which is the age-old calligraphic support. The very format shouts out, "This is a message". The vertical panels echo the banners upon which one would see the vertical columns of Chinese poetry. The evident planning and effort invested in the support lends emphasis to the contents of the panels, similar to the heightened focus on a work of art when it is placed in a gallery situation; it is isolated by and also within an elaborate frame. Thus the steel frame of Fly Canon is both a pedestal and a picture frame. Its movability accentuates the transitional character of the whole framing situation.

The flat surface is more than the pragmatic support for our visual recording systems. Since two intersecting lines are sufficient to define a plane, the flat surface carries in its topology the bi-polar system used for ages to represent or map metaphysical dynamics. A bi-polar system would be generated by two intersecting lines, for example the line north/south and the line east/west. An example of a bi-polar metaphysical map is the Greek fire/water and earth/air. I am saying that even a blank billboard carries, through historical association, a trace of our metaphysical maps; it represents map-making in general. The bi-polar

system partitions the plane, just as the screen partitions the room. The screen both partitions and represents partitioning.

However, a bi-polar field implies a plane, but a plane does not imply only a bi-polar field. That is to say, other systems besides bi-polar systems can be embedded in a plane. My work raises the trace of our metaphysical map-making by painstakingly presenting the flat panel - which is normally associated with a bi-polar field - and then transgresses it. I slide away from the bi-polar system while retaining the flat surface. Kinetic rupture of the panels is not always necessary to accomplish this. For example, in Figure 1, all one needs to describe the location of the dot is to find the intersection of the line BK and the line NF - two lines, a bi-polar system. But in Figure 2, in order to unambiguously locate the dot, one needs the intersection of line BK, line NK, line AI and line CM - four lines. The system in Figure 2 was used in an earlier work of mine entitled Liberation.

By transgressing the integrity of the flat surface, Fly Canon interrogates the very notion of a singular centre, ie., an underlying unity, an ultimate metaphysical explanation. It is at the centre of its space, but it shifts within that space subject to the provisional needs set forth in that space. Furthermore, it changes with respect to itself. It occupies a place of transition, but that place is divided, irreducibly non-simple. So Fly Canon represents a drift, or erratic flight, away from certainty; destination unknown.

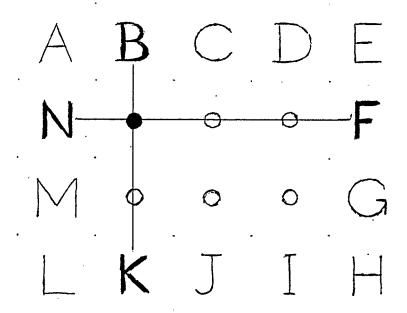


Figure 1
A Bi-polar System

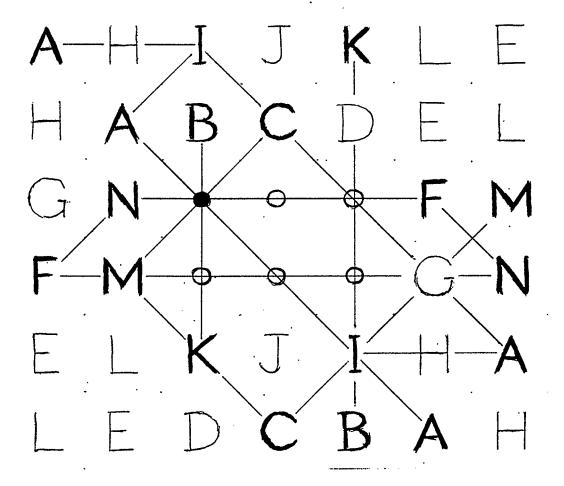


Figure 2
A Quadro-polar System

CHAPTER 4

MOTIF

The Fly

The fly motif arose out of my experiments concerning how to indicate a specific route through a network of branching possibilities, the network being the relationships between the combinations of a small set of elements, ie., panels. This kind of thinking originated in Anomie - an aesthetic navigation (see slides) in which there are three panels, each of which can independently rotate. The diagram of the relationships between the eight combinations looks like a diagram of a cube with its eight corners. Anomie includes this diagram as part of its imagery. In Bitch's Brew the diagram was turned into a three-dimensional chessboard based on the cube. A specific, narrational relationship between the chess pieces (and thus between the combinations) is feasible. A diagram of the relationships between the combinations of two rotatable panels, each being a tetraflexagon, is quite complex - a three-dimensional net of interlocking cubes. If the two panels cannot rotate, a much simpler diagram results. Fly Canon was simplified even more by making the panels identical, hence the term "canon". In trying to delineate a specific route through the net, I found that I had to represent both the 'previous' combination and the 'following' combination in the 'present' combination. The conjunction between 'previous' and

'following' was a cursor-like arrow indicting direction. Since each 'present' combination was transversed several times depending on what came before, each combination was bespeckled with an unruly proliferation of these little 'sentences'. About this time, I had a conversation with Henry Tsang, a conceptual artist from Vancouver, in which he described his fascination in attracting little flies or gnats to the concentrated beam of his desk lamp. The insects, attracted by the light but repelled by the heat, would circumnavigate the circle of light until they expired. We talked about the revelation of structure through decay. The 'cursor' transformed into a fly. All the necessary information was contained in the uniqueness of its location, its direction, and in a connecting line to a trace of its 'previous' location. The drawing would be a simple line drawing; it would be a map composed of dots (the fly, and also the trace of the fly) connected by lines. The fly is small and dark, like the anonymous dot, and with its wings is a kind of arrow indicating direction. Our perception of the fly is one of incessant movement, so the shifting of the 'cursor's' location needs no further explanation, if it be a fly.

The fly image brings with it a number of associations, most of them connected with a feeling of aversion - one's aversion to the fly. We identify it with contamination.

Since Pasture's discovery of micro-organisms and their

instigation of disease, flies have been much advertised as disease transmitters. So the fly, in our century, is a multiple symbol: It is identified with contamination. We understand that the fly carries disease from infected to non-infected substances, not vise versa; the effective direction is one way - a vector, an arrow. Reading the former two meanings in the fly places us in the age of modern technology (knowledge of micro-organisms); the fly, read as a symbol of contamination, carries an indirect reference about the reader; we are infected with the symbol. So the fly is associated with decay and death. Organic garbage, faecal matter, exposed corpses are all magnets for During the Middle Ages, people thought maggots spontaneously developed in corpses. The fly is symbolic of moral contamination: "A fly in the ointment". The notion of contamination carries within itself the notion of purity; I feel aversion to the fly because I suspect it will contaminate me, compromise my integrity. But how easily 'innocuous' signs and symbols enter my body. I am subconsciously subject to whole sign systems. The fly as a sign has long since infected me.

The fly is a symbol of insignificance: "He wouldn't kill a fly". It is anonymous in its multiplicity: "They dropped liked flies". Its insignificance places the fly on the periphery of one's attention, and there it symbolizes the whole of the world, the very sea of insignificant, chance events of which we cannot be conscious. The

inconsequential buzz of the dying fly (<u>la petite morte</u>) on the window pane authenticates the lovers' passion.

It is a symbol of frustration, even unto madness, remembering stories of elk driven mad by flies in the northern tundra. Our experience of the fly is often at the limits or margins of our moral conduct. I normally wouldn't kill a fly, but a fly can pester me beyond my resolve until I pass the limit and determine to exterminate it. So the fly symbolically occupies a threshold of moral decision. I believe I can say this because that threshold is so frequently crossed for the fly. Interestingly, the gnat (a type of fly) is the guardian at the threshold of the "other world" in Yaki mythology (1). The fly, then, symbolizes the revelation of one's alternate potentials. That threshold is not necessarily a limit beyond which one acts against one's moral convictions. Rather it can be the point at which one feels compelled to change one's belief system. This phenomenon was discussed by Durkheim in his speculation on the causes of suicide (2). He coined the term "anomie" to name the process of someone becoming disenfranchised, unglued, from the existing social values. If the person cannot resolve his or her new values with the old values, instability, insanity or even suicide is likely to result. Anomie is one of the forces behind social evolution. rupture and recombination of panels lends itself to the theme of anomie.

I ask rhetorically, who hasn't observed obsessive, even futile behavior in flies? And what committed artist hasn't felt at some time obsessive and futile? The same might be said for my motives in devising systematic diagrams. Anyway, having passed beyond my moral threshold, I determine to squash the fly, only to meet the futility of my obsession when I discover how difficult it is to predict the fly's location well enough to bash it. Concerning randomization in a fly's flight, apparently the lens patterns on the female's eyes are irregular, whereas the males have regular lens patterns. It is supposed that the female's flight is randomized because of her irregular lens patterns, and that the males' ability to predict and pursue is selected for, as in Darwinian natural selection (3). Here we have the return of the notion of indeterminable marginal variation (the chance events of which we cannot be conscious). meditation on this expands into a consideration of quantum physics - the fly as symbol of Planck's constant and its consequences. Moreover, one goes on to the possibility that there are irreducibly random processes in the universe, hence the conjecture that the future is not contained in the present, cannot be predicted no matter how much information we have of the present. We have returned to the theme of flying erratically into the unknown away from an indeterminate, uncertain origin.

The fly represents inhuman but natural alienness, as opposed to the unnatural alienness of machines. This

connotation of the fly was popularized in the two movies The Fly. In both versions a scientist experimenting with teleportation (here again the association with transmission) gets mingled (again contamination) with a fly. In the beginning, the fly was so insignificant and peripheral that he failed to notice its presence in the teleportation machine. Then it becomes most grotesque, unacceptable, alien, the hideous and frightfully energetic guardian of the other reality.

The fly symbolizes contamination, a leaking of categories; the peripheral accident; the marginal variation; the insistent presence of otherness (trace of the non-present on the present). What better symbol of the Derridean question: "If essence is always exposed to the possibility of accidents, is this not then a necessary, rather than chance, possibility, and if it is always and necessarily possible, is it not then an essential possibility?" (4)

Eroticism

We read a text (of pleasure) the way a fly buzzes around a room: with sudden, deceptively decisive turns, fervent and futile . . . (5)

Vague as they may be, <u>Fly Canon's</u> images are intended to be erotic, in so far as the work of Joan Miro is erotic. The step in putting 'privacy' and 'window pane' together to

get 'voyeurism' is a short one. Furthermore, the fly motif brings to mind some Sadean qualities. Obsession, macabre fascination, moral threshold, decadence, and corruption have all been mentioned in connection with the fly. The fly's flight is a kind of drift, for "deceptively decisive" as its turns may be, it holds no ideal destination:

My pleasure can very well take the form of a drift. Drifting occurs whenever I do not respect the whole, and whenever, by dint of seeming driven about by language's illusions, seductions, and intimidations, like a cork on the waves, I remain motionless, pivoting on the intractable bliss that binds me to the text (to the world). (6)

Moreover:

Pleasure, however, is not an <u>element</u> of the text, it is not a naive residue; it does not depend on a logic of understanding and on sensation; it is a drift, something both revolutionary and asocial, and it cannot be taken over by any collectivity, any mentality, any ideolect. Something <u>neuter?</u> It is obvious that the pleasure of the text is scandalous: not because it is immoral but because it is atopic. (7)

Eroticism and nakedness infect the domain signified by mechanism. These qualities are beautifully revealed in the work of Geoffrey Smedley. So just what makes eroticism?

. . . it is intermittence, as psychoanalysis has so rightly stated, which is erotic: the intermittence of skin flashing between two articles of clothing (trousers and sweater), between two edges (the open-necked shirt, the glove and the sleeve); it is this flash itself which seduces, or rather: the staging of an appearance-as-disappearance. (8)

An erotic mechanism, then, remains for the most part covered, hidden; it is displayed only in part. Smedley's White Pleasure. (see Fig. 3)

. . . is a raised wooden house or room structure, enclosed with spaced slats that only enable the viewer (voyeur) to discern part of the interior from each direction. . . (9)

A naked mechanism is entirely exposed, laid out:

[Smedley's]... This (see Fig. 4)... is a phallic structure supported by a frame and impenetrably enclosed with lead sides. Facing it, a set of 450 wriggly variations [each and every possible variation, actually] on a geometric symbol are suspended from a tall gallows structure. The piece appears to be both a physical and mental ejaculation, of sperm shapes and mental seeds, and the gallows notes the transient life of each. (10)



Figure 3
White Pleasure, by Geoffrey Smedley, 1982

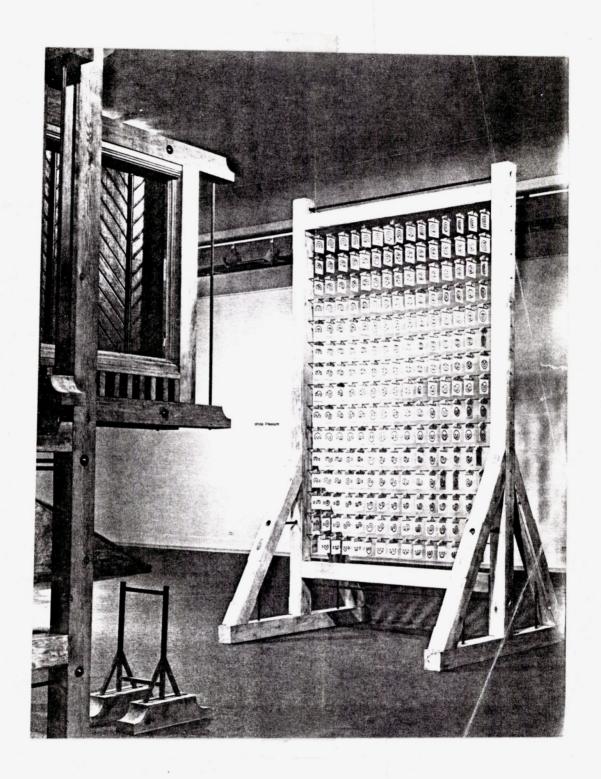


Figure 4

This and Gallows, by Geoffrey Smedley, 1982

Fly Canon's gears are an example of a naked mechanism. The three, large gears articulate sensuously against one another in a very simple, comprehensible motion. The flexagons, on the other hand, are erotic: the structures are rolled into themselves in a kind of spiral; furthermore, they are looped through themselves and joined, so part is always hidden. The mechanism is never explicit. Its articulation defies apprehension. The casual observer (voyeur) will experience only the pleasure of deferment.

The lines, or paths of flights, are gathered into images. To see the image, rather than seeing just lines on a surface, is to look beyond the picture plane. This, of course, is reading, looking beyond the actuality of the word to what it signifies. The flexagon opens like a book. The images are cloudy, and the reader transfers his own cohesion onto the 'text', creates the 'text'. Is one led by metaphor beyond the actuality to truth? Is truth exposed? Derrida writes of Freud:

The denuding of this <u>Stoff</u> [of <u>Oedipus Rex</u>], the discovery of the semantic material - such would be the end of the analytic deciphering. By denuding the meaning behind the formal disguises, by undoing the work, analytic deciphering exhibits the primary content beneath the secondary revisions. (11)

The act of studying the fictional flight paths and discovering or even just desiring a sense or a consistency

to their composition is an act akin to analytic deciphering. He goes on to say:

Is the nudity of the meaning hidden beneath the veiling forms of secondary revision a metaphor? Or already a metaphor of metaphor? A metaphor in order to say metaphoricity? Bouhours, as cited Condillac in On the Art of Writing: "Metaphors are transparent veils which allow to be seen that which they cover, or costumes beneath which one recognizes the costumed person. (12)

Fly Canon's drawings are built on translucent layers and could not be seen in their full richness of integration but for the transparent component of the "veils". Being translucent they are veils. The presence of non-presence (transparency) is integral with what they in total bear/bare: the drawing is fitted together through the process of overlapping, visible to a depth of three layers.

Exhibiting, denuding, undressing, unveiling: the familiar acrobatics of the metaphor of the truth. And one just as well could say the metaphor of metaphor, the truth of truth, the truth of metaphor. When Freud intends to denude the original Stoff beneath the disguises of secondary fabrication, he is anticipating the truth of the text [the Oedipus legend]. The latter, starting from its original content, is to be coordinated with its naked truth, but also with truth as nakedness. (13)

The eroticism of the drawing reflects the act of its apprehension - the analytic, deciphering, (re)tracing of its lines with one's eyes, like the ticklish braille of a fly's passage over sensitive skin. In looking beyond the syntagm (the array of signifiers; the window itself) one is buried again in the topology of the syntagm's terrain.

So we have both divergence and convergence, leading both away and toward the syntagm (the manifest, physical actuality), an oscillation without solution between existential reality and metaphoricity. Pleasure insists both upon its continuation (titillation) and its satisfaction (orgasm) - an insolvent situation:

Irresolution and insolvency: perhaps these words do not resonate solely in the register of the theoretical problem to be resolved. Perhaps one also has to understand the lexical keyboard of speculation: an investment made by borrowing would be underwriting a speculation without any possibility of amortization. Unpayable debts would have been contracted, engagements taken on that no one could be "acquitted" of or could answer for [Throughout its steps, the flexagon "borrows" from itself in order to "invest" in itself. This activity is the site of the drawing (the contract).]... An unpayable debt would have been contracted. Why unpayable, at bottom? Perhaps because economy itself has been

transgressed here, not economy in general, but an economy in which the principle of equivalency would have been violated. All the movements in trans- would have violated this principle, and along with it everything that can insure a payment, a reimbursement, an amortization, an "acquittal": coins, signs and their telos, the adequation of the signified to the signifier. (14)

Moreover:

... we will say that the irresolution of the scene of writing that we are reading is that of a Bindung which tends, stretches itself and ceaselessly posts (sends, detaches, displaces, replaces) to the extreme, without conclusion, without solution, without acting, and without a final orgasm (rather a series of orgasmic tremors, of enjoyments deferred as soon as obtained, posted in their very instance), along the line of the greatest tension, at the limit of the beyond of the PP (Pleasure Principle), without simply stepping over the line, the best way of stepping beyond remaining that of stepping this way, the beyond of pleasure remaining the end of pleasure. (15)

Flight

The motif is not just of the fly, but of the fly in flight. In this section, I compare the flight motif of my hypothetical fly with the course of the narrative voice. In other words, not only do I focus on the object of my quotes, but also on their narrative styles. For example, the opacity of Derrida's style, the way it seems to go around and around, circling itself, briefly alighting here and there, is in itself suggestive of the fly's flight. (Derrida's style is a direct influence on my choice of motif.) the meaning is contaminated by the signifier:

Whereas in the classical account the ideality of the type was sealed off from contamination by the variability of the particulars, in Derrida's account the two are essentially linked, and the identity and difference coexist on the same level of dignity, instead of difference begin cast out and down from the purity of the Logos. (16)

This leads into how

Derrida picks up the view of language developed first by the symbolists and then by the modernists, that language is a quasi-material medium that is worked not by fitting words to the requisite meanings but by the attentiveness to the way the words as words (sounds, shapes, associative echoes) will allow themselves to be fitted together. This is called in contemporary

jargon "the play of signifiers" and has probably always been the way poets choose their words. . . "
(17)

In turn, the fight map is narrative, a fiction, not a map of a real flight by any means. It is a narrative link between the artwork's discrete combinations; it must be read, and it refers to the non-present (the past and the future, whether fictitious or real). By writing in a way that brings attention to his use of language - I would say translucently - Derrida accentuates the essential link between the ideal and its expression in the physical medium of language. Narrative occupies an undefinable space. It is stretched between the written symbol and its mental/verbal articulation; meaning and word do not observe an economical relationship; the use of a word may alter its meaning. Furthermore, a narrative may take on different but concurrent and even mutually exclusive meanings. The flight pattern, being a narrative, is also subject to ambiguity. Moreover, this effect, this division of meanings, is also a kind of flight, a flight from closure.

They all turn around the glass, accompanying the even hiss of the kerosene lamp with their circular flights. Their small size, their relative distance, their speed - all the greater the closer they fly to the source of light - keep the shapes of the bodies and wings from being recognized. It is not even possible to distinguish among the

different species, not to mention naming them. They are merely particles in motion, describing more or less flattened ellipses in horizontal planes or at slight angles, cutting the elongated cylinder of the lamp at various levels. But the orbits are rarely centered on the lamp; almost all fly further to one side, right or left, than the other - so far, sometimes, that the tiny body disappears in the darkness. It immediately returns to view - or another returns in its place - and soon retraces its orbit, so that it circles with others of its kind in a common, harshly illuminated zone about a yard and a half long. every moment, certain ellipses narrow until they become tangent to the lamp on each side (front and back). They are then reduced to their smallest dimension in both directions, and attain their highest speeds. But they do not maintain this accelerated rhythm long: by a sudden withdrawal, the generating element resumes a calmer gravitation. Besides, whether it is a question of amplitude, shape, or the more or less eccentric situation, the variations are probably incessant within the swarm. To follow them it would be necessary to differentiate individuals. this is impossible, a certain general unity is

established within which the local crises, arrivals, departures and permutations no longer enter into account. (18)

What about the course of flies across a window pane? The above description of bugs around a kerosene lamp at night speaks of "distance", "speed", "circular flights", "particles in motion", and "return": "It immediately returns to view - or another returns in its place [my italics] - and soon retraces its orbit . . . " But how can it retrace its path if another has returned in its place? How can another return in its place? The possibility that it might not be the same bug is left open. In one's reading of the insects, whether their identities are confused is irrelevant. The narrative of the novel Jealousy, from which the above quote was taken, takes a 'flight pattern' similar to the description of insects around a kerosene lamp. Ιt returns again and again to an incident involving the squashing of a centipede. However, as one progresses through the story, it becomes increasingly unclear just when the incident took place. On each pass around the incident, more information is added, but the added information serves only to displace the incident yet again relative to the structure of incidences. The reader becomes like a fly in a non-Euclidian space. Furthermore, there is a confusion or imprinting of narrative voices on each other, the narration seems to be in the first person, but the narrator never once refers to himself, similar to a detached narrative voice

which does not refer to itself. A kind of space is thereby opened for the reader to momentarily slip into identification with the ever-present but never-present narrator; the first person voice which does not register itself becomes a pure window through which the reader experiences the fiction's events. The voice of the narrator endlessly divides and imprints itself upon its doubles because the first person is missing from the first person narrative, in that it never refers to itself; it never says "I". In a sense, the narrative voice can replace itself as it retraces its path over the incident; it can be the reader experiencing the story through the first person narrator/ character; it can be the first person voice of one of the characters; it can be a detached narrator. On the subject of a double narrative path, coming back to the window pane, or rather the flexagon, the fly is doubled, tripled via the flexagon's "differential" (meaning both to differ and to defer) mapping onto itself; that is, the two flexagons have a singular sequence of movement, but the folding and turning is complex and may be described in alternate ways, each way being a separate branch or flight of the fly. A singular fly leaves a print simultaneously in three places. only one description (path or print) at a time can be followed by someone turning the flexagons, the descriptive map in total is "differantial". Also, the flexagons themselves must both defer and differ from themselves in order to present their successive permutations. One may

call the drawing (the map of flights) a kind of binding together of the flexagons with themselves. This binding is in a "differential" relation to itself: "Every being together . . . begins by binding-itself, by binding-itself in a differential relation to itself. It thereby sends and posts itself - Destines itself. Which does not mean: it arrives." (19)

The meaning of the map is divided. On one hand the image is of a fly, and all associations of fly and flight are indicated. On the other hand, the image is a minimal device designed to carry information about the flexagons' topology and movement. The second meaning leads one back to the physical structure, whereas the first meaning leads one away from the physical structure into the invisible realm of ideas. The feeling is of something which is not wholly present.

Since the sequence is finite, in turning the screen one quickly returns to where one started, but if there is uncertainty with regard to the singularly of the returning subject, then return itself becomes problematic. The fly, in its indicated movement, is taken and returned, like Edgar Allan Poe's purloined letter. The fly is removed and a false one (the negative image or trace) is put in its place, until the fly returns to its <u>proper</u> place. Lacan insists that the purloined letter is the phallus of the castrated mother, and that the infant boy's Oedipal intention is to return the phallus to its proper place. But in his

deconstruction of psychoanalysis through his reading of Lacan's presentation of The Purloined Letter to a seminar, Derrida shows how both the letter and the proper place are ambiguous. The ambiguity arises through a figure/ground confusion which becomes apparent in a careful reading of the story's context, something which Lacan ignored altogether. Thus the letter does not necessarily arrive at its destination; a signifier (the phallus) and its signified do not necessarily observe an economical relationship. Derrida says:

The text entitled The Purloined Letter imprints (itself in) these effects of indirection. I have indicated only the most salient ones in order to begin to unlock a reading: the play of doubles, divisibility without end, textual references from fac-simile to fac-simile, the framing of the frames, the interminable supplementarity of the quotation marks, the insertion of The Purloined Letter into a purloined letter beginning before it, through the narratives of narratives in The Murders in the Rue Morgue, and the newspaper clippings in The Mystery of Marie Roget (A Sequel to The Murders in the Rue Morgue). The mise en abime of the title above all: The Purloined Letter is the text, the text in a text (The Purloined Letter is a trilogy). The title is the title of the text, it names the text, it names

itself, and thus includes itself by pretending to name an object described in the text. The Purloined Letter operates as a text which evades every assignable destination, and produces, or rather induces by deducing itself, the unassignablesness at the precise moment when it narrates the arrival of a letter. It feigns meaning to say something, and letting one think that "a letter always arrives at its destination," authentic, intact, and undivided, at the moment when and in the place where the feint, written before the letter, by itself separates from itself. In order to take another jump to the side. (20)

All this serves as a meditation on the flight map imagery. An element of uncertainly (this also related to the fly motif as already discussed) is injected into the map iconography. One is reminded of the activity of flies on the edge of one's perception, as they disappear into the dark around a lamp, or as one dozes and blinks while contemplating a window pane on a summer afternoon. In their anonymity and in one's lack of attention, a fly can retrace its path even if another has returned in its place. It returns incessantly to a place of indeterminate location.

Trace

The trace is not a presence but is rather the simulacrum of a presence that dislocates, displaces, and refers beyond itself. The trace has, properly speaking, no place, for effacement belongs to the very structure of the trace. · Effacement must always be able to overtake the trace; otherwise it would not be a trace but an indestructible and monumental substance. addition, and from the start, effacement constitutes it as a trace - effacement establishes the trace in a change of place and makes it disappear in its appearing, makes it issue forth from itself in its very position. The effacing of this early trace . . . of difference is therefore "the same" as its tracing within the text of metaphysics. In the language of metaphysics the paradox of such a structure is the inversion of the metaphysical concept which produces the following effect: the present becomes the sign of signs, the trace of traces. It is no longer what every reference refers to in the last instance; it becomes a function in a generalized referential structure. It is a trace, and a trace of the effacement of a trace. (21)

My use of the word "trace" here varies in definition from application to application. Several kinds of trace are

evident in the drawing of <u>Fly Canon</u>. To begin with is the kind of trace which arises from how the non-present permutations of the flexagons make compositional demands on the present permutation. Since only a fraction of all the possibilities are ever at any one time present, or presented, in any presented part of the drawing is felt the trace of or reference to the possibilities which are not presented. The set of all the possibilities, taken as an irreducible whole, can itself never be presented.

It [the structure of delay] describes the living present as a primordial and incessant synthesis that is constantly led back upon itself, back upon its assembled and assembling self, by retentional traces and protentional openings. . . . We have to deal not with the horizons of modified presents - past or future - but with a "past" that has never been nor will ever be present, whose "future" will never be produced or reproduced in the form of presence. (22)

Most obvious as traces are the negative images of flies in the drawing. The negative image corresponds to the location of where the fly was on the preceding configuration and is integral with the effacement of the fly; it is, as said in the above quote, "the simulacrum of a presence that dislocates". Noticeably, there is a proliferation of traces, yet only one determined preceding configuration. If the preceding case is indeterminable (one does not know

which way the flexagon was last turned), then all the traces are potentially true, suggesting a multiple transversal of the present by fictitious pasts and futures - a kind of Shrodinger's cat situation in which the box is never opened, or "posted in. . . [the]. . . very instance" of its opening; there is a suspensive floating, an athesis.

Via the translucency of the flexagon and its multiple folding upon itself, the drawing in all its arbitrary and whimsical detail bears within itself traces of itself which are increasingly effaced depending on the depth of the layers upon which they reside. Beyond the threshold of three layers deep, the traces, which may be on any of six layers, were not accounted in the composition of the drawing. That is, to a certain level, the traces are not only born with the presented space of the drawing, they influence the composition of the drawing.

Perhaps the most effaced trace is (like the purloined letter) 'hidden' in the most obvious place. It is visible by implication through observing the differences between the three screens; soon it becomes evident that the drawings must have been traced, for their similarities are too close not to have been so reproduced. The so-called original was designed with a computer and its parts printed using a plotter. The frosted lexan plates were laid over the printouts and traced with pen and ink.

A short digression about computers: I do not know whether Fly Canon would have been feasible without a

computer. The autocad program (a drafting program) which I used was especially helpful in coping with composition through translucent layers, for I was able to draw and edit on several layers at the same time, which couldn't have been done on the physical object. The style of drawing was restricted by what was pramatically achievable with the computer. Simple as the lines are, there was just enough space in the computer to work the drawing. In the case of Fly Canon, the computer was a tool used to achieve an end that might have been possible without computer assistance. In some cases, a project may be possible but not worth the effort without computer assistance; the computer makes its presence felt through the back door, so to speak. I suspect that the computer will become fully opaque - visible - only through artificial intelligence, where one's interaction with a program would be both the tool (as a paintbrush) and the artifact. Such a possibility is glimpsed (only) through Fly Canon in so far as there is a certain binding of semantic system and physical manifestation, both of which are accessed through participatory experience.

Obviously Derrida's intent was not to describe my artwork, rather the object of his scrutiny was philosophy itself. However, the ease of how my work fits into a post-structuralist myth is considerable. Moreover, in making meaning of my work, one is led both beyond the work and incessantly back into the work - a kind of double bind.

The Map

If one accepts the drawing as a map, what does the map map? One is reminded of the unfolding and folding of a roadmap. Yes it is a map of an imaginary fly across an imaginary window pane, but one is tempted to ask, "What is the map, or the artwork for that matter, really about?" the artwork being metaphorical. True the map is about mapping, but such an answer is also trivial. I've already mentioned how my presentation of a two-dimensional surface is an indirect reference to our history of metaphysical maps. Yet Fly Canon transgresses the metaphysical map; the two-dimensional surface is presented and, through its rupture and change, denied at the same time. Fly Canon, as a map of movement, temporizes. The 'present' position of the fly is transmitted, relayed, sent over a network. Temporization implies a trace on the present of the erasure of what was. Furthermore, the fly returns; one can turn the flexagon only so far, whereupon one must return, then repeat. "Temporization", "transmission", "relay", "network" - these are all terms Derrida uses to discuss Freud's Pleasure Principle:

Freud is preparing a map of routes and a record of differances of rhythm. A differantial, and not an "alternating" rhythm, as the French translation gives "Zauderrythmus" [English: "vacillating"].

Zaudern is to hesitate, certainly, but it is above all to temporize, to defer, to delay. One group

of drives rushes forward in order to reach the final aim of life as quickly as possible. But, division of labor, another group comes back . . . to the start of the same path . . . in order to go over the route and "so prolong the journey" . . . Between the two groups, on the same map, a network coordinates, more or less well, more or less regularly, communications, transport, "locals" and "expresses", switch points, relays, and correspondences. This great computer can be described in the code of the railway or the postal network. But the unity of the map is always problematic, as is even the unity of the code within the computer. (23)

Not only is <u>Fly Canon</u> a map, it is a map which temporizes. Furthermore, even the manner of temporization is temporized. That is, the articulating structure performs simultaneously three kinds of step or motion. Each kind of step (as in a dance step) bears a branch of the map. But one can follow only one step at a time, so one's observation of the other two simultaneous steps is deferred. The above quote suggests that a temporizing map signifies the structure of the psyche. Furthermore, the map being never wholly present, the manifestation of part always deferred echoes the conscious/unconscious structure of the psyche. The unity of the coordinating network is indeed problematic, the drawing's format being a series of discrete ruptures. In

Fly Canon I read this as signifying a problematic in the very principle of identity; the unity of selfhood is in principle problematic. The idea here is not some pronouncement on psychology, but an inquiry into possible unconscious intentions behind the work.

The flexagons are turned, the structure is ruptured, recombined and a trace of what was (or what might be) on what is - the "sign-structure as reference of a present to a non-present" (24) - forms the narrative route. flexagons are turned and traces of where the fly was are recorded on the new iteration of the structure's overlapping and mapping onto itself. This representation of where the fly was (on the last iteration) is indispensable to the temporizing map; trace is indispensable to narrative. Returning to how Fly Canon echoes our psychic structure, a meditation on trace offers a connection between the death drive and identity: one's death is one's own - unique. (Remember how the uniqueness of the fly's location together with the fly's erasure and trace at that location are necessary to mark a specific route through a branching maze.) An "irreplaceable signature" is left; the mark of its erasure:

The proper name does not come to erase itself, it comes by erasing itself, to erase itself, it comes only in its erasure, or according to the other syntax, it amounts to, comes back to . . . erasing itself. It arrives only to erase itself. In its

very inscription, <u>fort:da</u>. It guards itself from and by itself, and this gives the "movement". It sends. . . (25)

Derrida here talks both of Freud's unique, paternal signature on his legacy of psychoanalytic theory and of how the death drive is the pleasure principle deferred.

The fly returns; its route, although arbitrary like Duchamps' Standard Stoppages, is circular. Return and repetition are notable aspects of Fly Canon. The map is limited to the flexagons' combinations, so in progressing through the sequence one returns to the beginning and repeats. In a sense, the fly on its circular route passes through each point represented by a fly image or a negative fly image. The fly image and its trace are singular and repeated; the fly images are all copies of a single drawing which never existed except as information in a computer. The fly is repeated. In this case of repetition being connected with mechanical motion, I am reminded of Duchamp's equation of mechanism and sexuality. Repetition is the structure of pleasure. Concerning Freud's Pleasure Principle, Derrida writes:

In question is the <u>re-</u> in general, the returned or the returning . . . - to return . . . in general. In question is the repetition of the couple disappearance/reappearance, not only reappearance as a moment of the couple, but the reappearance of the couple which must return. One must make

return the repetition of that which returns, and must do so on the basis of its returning. Which. therefore, is no longer simply this or that, such and such an object which must depart/return, or which departs-in-order-to-return, but is departure-returning itself, in other words the presentation of itself of representation, the return to-itself of the return. This is the source of the greatest pleasure, and the accomplishment of the "complete game", he says: that is, that the re-turning re-turns, the re-turn is not only of an object but of itself, or that it is its own object, that what causes to return itself returns to itself. This is indeed what happens, and happens without the object itself re-become the subject of the fort/da, the disappearance-reappearance of itself, the object reappropriated from itself: the reappearance, one can say in French, of one's own "bobine" [The "spool" in French is bobine, which has an additional slang sense of "face" or "head".], with all the strings in hand. (26)

Fly Canon's map is bound to the material syntax of the flexagon. Yet the map can be called intellectual material as opposed to solid material since its continuity is supplied by the mind. This is in keeping with Constructivist tradition: "The Constructivists treat

intellectual and solid materials in the same way" (27). Still, the map cannot be separated from the structure to which it is bound, so the terrain of its occupation is a place of translation, like the "differantial" (meaning to differ and to defer) relation between writing and speech. The simple device of connecting dots with lines lent itself nicely to the motif of Fly Canon. The result is a kind of cross of the work of Anthony Hill and Dorothea Rockburne. Hill, a British Formal Constructivist, works with tree diagrams (dots connected with lines). From some of Mondrian's painting, Hill abstracted information, or made tree maps of the compositions' structures. The compositions of his structural reliefs are based on tree diagrams. A tree diagram that he worked with a lot was the smallest possible asymmetric tree. (see Fig. 5) An asymmetric tree is one whose parts cannot be permutated. What distinguishes a Systemic artist like Hill is the fact that his structures are not abstractions from the appearance of nature, nor are they expressively contrived assemblages (28). Most Systemic artists strove to step beyond individualism through the application of predetermined procedures, usually arithmetical. Hill managed to construct physical analogues of mathematical theorems. I share with Hill this convergence of structural object and map. Rockburne drew regular curves on vellum and then systematically folded the vellum. The systems of folding are largely based on the golden section (29). The translucent vellum would allow the

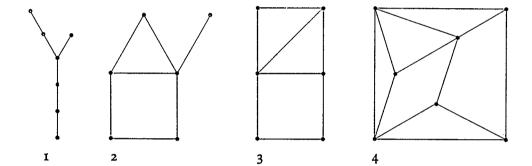


Figure 5
Examples of Tree Diagrams (identity graphs),
by Anthony Hill, 1968

transformed curve to be visible. Rockburne's lines are carried and softened on the translucent, folded structure. The folds transform the lines in ways not usually anticipated. I share with Rockburne the intrusion of the unexpected.

Fly Canon observes both a systematic mapping of abstract structure using trees, and a systematic folding of a translucent, solid structure which shows the transformed lines.

Beyond the pleasure of exploring unfamiliar territory and working through a challenging problem, the intention and history behind Fly Canon's map was to bring the imagery and the structure into a tight relationship. In Entropy (see slides), the moth and Saturn refer to time and entropy metaphorically, whereas the structure's potential to oscillate, via randomly turned panels, around a state of maximally mixed images, is a physical demonstration of the mathematical principle of entropy. The imagery is connected to the structure by what it signifies; the signifiers themselves are disconnected. In Fly Canon, not only is the signifier (the lines and dots) bound to all the combinations of the flexagons as a whole, but its material syntax (the ink lines on translucent plastic) is a component of the large-scale motif; ie., represents veined, translucent fly wings, the supporting structure representing the body. I would find the large-scale motif (the thing being a big fly) troublesome, too arbitrary, inconsistent, not systematic, if

not for the supreme convenience of the fly motif in constructing the map. The motif is fed into the map, and the map is fed into the motif. They point to each other in a kind of alogical Epimenides paradox.

CHAPTER 5

THE MECHANICS OF DRAWING ON MOVEABLE PANELS

At first, the odd and complex motions of Fly Canon's panels defy one's understanding. Nevertheless, the flat panels are brought together in various specific combinations. What are the implications of working a drawing over a set of specified changes? If one strives for a consistency throughout the drawing, then the drawing is restricted to the topology of the changes, and so becomes a transference or mapping between the restrictions and the drawing; ie., a mapping of all the combinations as a whole into each part of the drawing. In other words, each part of the drawing has to make sense (be consistent) as it is put together with other parts of the drawing. Consistency in a drawing might be defined as a perfect fitting together of all the parts, as in an Escher print.

Now suppose you have two pieces of paper, one by your left hand and one by your right, and you make a drawing over both papers. Then you switch left and right. You have a choice: to work what you've got into a continuity over both papers, or to superimpose a new drawing over the old.

Somnolence (see slides) exemplifies the former, whereas Bitch's Brew exemplifies the latter. In my experience, the greater the number of combinations, the more difficult it is to achieve perfect integration. The usual results, a compromise between the two procedures, look similar to the

work of Joan Miro (with me, anyway). That is, my images tend to look like vaguely figurative, floating, erotically interpenetrating blobs. Perfect integration is not necessarily desirable even if it is ultimately possible. The design problems and compromises resulting from unforeseen conjunctions imposed by the format are welcome in the spirit of both the Systemic and the Dada resistance of the closure of self. The applications of both system and chance (which after all is another system) are alternatives to intuitive aesthetic choices. Unlike Zero, I do not need to eradicate intuitive choices, for I believe one will always encounter the imposition of otherness, so, retaining intuition, I welcome that imposition.

CHAPTER 6 CONCLUSION. SIGN SYSTEMS

Wittgenstien wants to leave open the possibility of meaning-indicating phenomena which only indicate (i.e., suggest) meaning without actually meaning anything, so that all we can do is follow out the character of their indicativeness as far as it goes. (This is again the aesthetic susceptibility at odds with the meaning intention.) (1)

In 1972, Stephan Bann wrote the introduction to the Systems Catalogue using linguistic analysis as his critical tool. He hoped to establish: 1. that linguistic analysis is a transcendental system (2). 2. that abstract art is a language of signs, satisfying Levi-Strauss's definition of art (3). 3. that ". . . Constructive art corroborates and extends the deepening knowledge of linguistic and psychological structures" (4). He developed a small lexicon of terms with which to handle Constructive art: The "system" (what is signified) is the set of elements from which the manifest "syntagm" (what signifies) array is drawn. For example, the array of "squiggles" in Smedley's Gallows were algebraically developed (5). The algebraic structure would be the system and the actual squiggles the syntagm. The system may be something as broad as a philosophical or political ideal. The problem, or interest,

of a Systemic work of art is that most often the syntagm cannot be deciphered (or is not worth deciphering) and it cannot be read as a system of paradigms. Emphasis, whether toward the actuality of the syntagm or toward the explication of the system, comes to the fore. "Metonym" is defined as the emphasis of the syntagmatic order, and the "metaphor" is where "the syntagmatic order only serves to lead us beyond the visible to the invisible, or systematic level" (6). Bann extended his definition of system to be a heuristic tool (7). In other words, a system can be a hypothetical schema used in the analysis of a set of works, and may embody elements not deliberated in any one system from which an artist constructs his syntagm. (One wonders whether this extended definition is really the historian/critic's syntagm and the artworks his system,)

Fly Canon appears to balance between metonymy and metaphoricity. The overall fly motif suggests metaphoricity, however, the kinetic structure emphasizes actuality and manifestation: metonymy. Furthermore, given an understanding of how the map was derived, it is still difficult to decide just what is syntagm and what is system. That is, the map works over a temporal sequence; every present manifestation of the sequence refers to a past and a future manifestation. Only in transversing each and every manifestation (permutation) can one apprehend the order of the sequence. So the inferred order of the sequence is invisible, and is the system. However, the order of the

sequence is the temporal manifestation of the flexagon itself. But, as already mentioned, this very kinetic quality emphasizes the syntagm. The problem can be rephrased as follows: the designated system is the overlapping of system and syntagm. Fly Canon is not strictly self-referential, for one is led beyond the visible to an invisible realm of idea and illusion, but then one is pulled back to the physical again like a yoyo. self-referential structure is "differential" (meaning to differ and to defer). In other words, the work does not reflect back upon itself instantaneously nor symmetrically as in a pair of mirrors infinitely reflecting each other. One is left with a kind of limping oscillation and irresolution, the structure of pleasure. Any desire for completion, resolution, orgasm - the end of pleasure - must be sought in myth as defined by Roland Barthes. According to Barthes, that which is signified (the meaning) combined with that which signifies (the word) results in a totality called the sign. On a higher level - myth - a group of signs becomes a signifier for a concept. This "form" is Barthes' definition of myth (8). So what "concept" might the "differential" overlapping of syntagm and system signify? The question is broad, and invites many answers. Thus the "concept" term of "sign/concept" is rather open, and resolution is found only in a second-order myth whose "concept" is something like: openness.

My work gives one a sensation of meaning, of signification. Perhaps this giving the sensation of signification (Wittgenstien's character of indicativeness?) is the myth's concept while that which is signified (the apparent meaning) remains at the level of sign. Anyway, if the artwork is a metaphor for its own metaphorical tendencies, then it inhabits its own origin, pulls itself up by its own bootstraps, so to speak. It is sent, but both its origin and destination are indeterminable. The process might be called interrogative; the object of interrogation may be unclear to the interrogator; the interrogator may not know what to ask until the object is interrogated; questions are asked without knowing where the answers will lead, or even if there are answers.

The artwork is sent. I send it away from myself. I send myself to myself. Or to that other with whom my life, myself, is inextricably interpolated. What do you make of it? I leave it up to you. The artwork is detoured; it drifts, like a sailing vessel:

. . . the impossibility of a resting point pulls the textual performance along into a singular drifting.

I have abused this word, it hardly satisfies me. Drifting designates too continuous a movement: or rather too undifferentiated, too homogenous a movement that appears to travel away without saccade from a supposed origin, from a

shore, a border, a coast with an indivisible outline. Now the shore is divided in its very outline, and there are effects of anchoring, collapses of the coastline, strategies of approach and overflow, strictures of attachment or of mooring, places of reversion, strangulation, or double bind. These are constitutive of the very process of the athesis, and must be accounted for, if at least there is here something in such an event to be read and to be reckoned with. (9)

The development of my art may be of a genre which Derrida calls "speculation". In speculation, it isn't so much that one suspends belief and disbelief, rather one suspends one's relation to belief. It is one's "own knowledge about this suspension that is suspended" (10). Ιn other words, one would say, "I don't know how far I believe." Or, to give a mundane example, having been asked how one is, one might honestly answer, "I don't know." Thesis (position) is suspended. There is sending or posting and a re-petition of the athesis. Derrida speaks of Freud's wish to simultaneously maintain the primacy of observation and the "suspensive floating of an always provisional, and an already speculative theory. . . . And the site of this provisional floating is indeed language, but . . . this provisionalness is irreducible" (11). Remember how the initial marks in designing the connected drawing on the flexagon were like a provisional theory, and each step of

correction and change a process of speculation. The final result is not correct or true; it is still provisional. Of speculation Derrida says:

It is perhaps that its [speculation's] originality is not of the theoretical order, is not purely or essentially theoretical: a non-theoretical speculation. What is ungraspable about it (a stronghold all the more strong in being inscribed in no recognized place: the supreme ruse of a mirage in an unassignable topology [my italics, for this phrase could be a concise description of the extra-dimensional aspect of making a connected drawing on a flexagon] serves a strategy whose finality cannot be clear, cannot be itself. (12)

In making the drawing, I had to progress through the structure's changes. The drawing had to borrow from itself in order to affect a change, but something always being added or edited, the drawing could never be returned to exactly where it was. Even in reading the finished work, each reading is like a preface for the subsequent reading, and this act of preparation may modify the meaning on each go through. Now, Barthes says that "myth is speech stolen and restored. Only, speech which is restored is no longer quite that which was stolen: when it was brought back, it was not put exactly in its place" (13). In the world of thieves, 'fly' has two meanings: 1. Quick; agile; nimble.

2. Alert and knowing. These are slang terms (14). This

taking and return brings to mind the movements of the fly or flexagon, the transference, stretching, sending, posting of the fly, its flight or net over the flexagon's iterations. Moreover, between the multiple of three screens there is a transference and translation of attention. Furthermore is the question of transference and translation of the artwork from artist to society. Of borrowing Derrida says:

To Borrow is the law within every language, but also from one discursive domain to another, or from one science to another. Without borrowing, nothing begins, there is no proper fund/foundation [fonds]. Everything begins with the transference of funds, and there is interest in borrowing, this is even its initial interest. To borrow yields, brings back, produces surplus value, is the prime mover of every investment. Thereby, one begins by speculating, by betting on a value to be produced from nothing. (15)

This borrowing and transference Derrida places on the very threshold of perception; that is, transference is axiomatic, it inhabits the origin:

All the movements in "trans-, the ones that involve repetitions, displacements, and speculations, would not be after the fact in relation to a perceptive or intuitive origin, they would inhabit this origin on its very threshold:
... it will have been necessary, as the

condition of what is called a perception or a description at the edge of perception, that all the movements in trans- be of the party. From the first intuition, from its threshold, all the speculative transferences are of the party. I am purposely regrouping all the movements in transunder the word transferance, whether in question is translation toward descriptive or theoretical language, transposition from one science to another, metaphoric transposition within language, The word transference reminds one of the etc. unity of its metaphoric network, which is precisely metaphor and transference . . ., a network of correspondences, connections, switch points, traffic, and a semantic, postal railway sorting without which no transferential destination would be possible, in the strictly technical sense that Freud's psychoanalysis has sought to assign to this work . . . (16)

Furthermore, <u>Fly Canon</u> is a network of correspondences, and the screen as a whole is a representation of the fly, of the guardian gnat at the threshold of perception:

. . . The passage between transference (in every sense) and speculation that we are situating here perhaps becomes more salient. Speculative transference orients, <u>destines</u>, calculates the most original and most passive "first step" on the

very threshold of perception. And this perception, the desire for it or its concept [my italics], belongs to the destiny of this calculation. (17)

"The desire for it (the threshold of perception) or its concept" echoes the desire to close the myth form "sign/concept". Situating this desire for the perceptive origin in the term "concept", saying that this desire is integral with the character of indicativeness, we find that it is inhabited by "all the movements in "trans-, the ones that involve repetitions, displacements, and speculations . . . " The "play" (as in mechanical vibration) of myths cannot be pinned down or totalized.

Significantly, concerning the necessity of a centre as a prerequisite for structure, in reference to Levi-Strauss's structure of myth, Derrida writes:

If totalization [remember that the totalization of signifier/signified is sign, and the totalization of sign/concept is myth] no longer has any meaning, it is not because the infiniteness of a field cannot be covered by a finite glance or a finite discourse, but because of the nature of the field - that is, language and a finite language - excludes totalization. This field is in effect that of play, that is to say, a field of infinite substitutions only because it is finite, that is to say, because of being an inexhaustible field,

as in the classical hypothesis, instead of being too large, there is something missing from it: a centre which arrests and grounds the play of substitutions. One could say . . . that this movement of play, permitted by the lack or absence of a centre or origin, is the movement of supplementarity. (18)

I try to imagine the fast-motion movement of Fly Canon within a relatively private environment: Every so often someone would come and turn the flexagons, or move one or more of the edition (they're on wheels). A fast-motion film would show the motion to be discontinuous, erratic, like the flight of the fly. Fly Canon would be driven "like a cork on the waves" of the attendant's pleasure. Yet the attendant would "read a text (of pleasure) [Fly Canon] the way a fly buzzes around a room: with sudden, deceptively decisive turns, fervent and futile . . . " There is no non-provisional explanation (or origin) of the movement, and no resolution, for any resolution would be the end of pleasure (orgasm; death); and such is both desired and deferred through repetition. The metaphoric translation of the artwork to the minds of society (the course of its meaning) follows the same, vacillating motion - the atopic drift of pleasure.

CHAPTER 7

SOME THOUGHTS AFTER THE COMPLETION OF FLY CANON

In Fly Canon there is nothing to solve. The whole thing is laid out and need only be experienced. Nevertheless, in showing Fly Canon to people, in every case no one suspected the existence of the systematic map until told, and even then they had great difficulty comprehending its nature. In fact, people had to be encouraged to turn the thing, and shown how to do it; ie., to not touch the plastic. However, the map may be accessible to the viewer over time and repeated exposure. Still, the gallery situation is excluded as the most optimum forum for the I was familiar with this problem before starting the work, and therefore attempted to make it satisfying visually so that people would have something to immediately grab hold of and not feel frustrated or irritated. Concerning this immediate level, people have noticed that the lines form a continuity across both panels and a continuity from surface to translucent depth. Also, people do notice a suggestion of the human figure in the drawing. In fact, at least one person strongly picked up on the erotic, figurative aspect. Watching people look at Fly Canon has reminded me how formidable the puzzling motion of the flexagons is to encounter, precluding any devotion of attention to the drawing. I can only hope that one would look at the drawing in order to differentiate the flexagons' states, in an

attempt to comprehend the movement, and thereby get hooked into the systematics.

Fly Canon is the residue or discarded skin of my attempt to solve various problems. I would say that my systematic and structural concerns are irrelevant to the artwork in so far as the audience need not understand the systems in order to experience the object; similar to how one may enjoy some ancient ruin without any understanding of its originating culture or architectural purpose. The decontextualization of the ruin may very well have turned a prosaic object into something tantalizingly enigmatic.

Rather than bringing to completion my exploration of free-standing screens, the success of Fly Canon has expanded the territory tremendously. The same for integrated The growing list of elements to introduce into drawings. the format include springs, triggers, colour transparencies, more complex flexagons, and folding structures which are not flexagons. An avenue opened by Bitch's Brew but not yet investigated is the generation of images through symmetry in reflective surfaces. All in all, my deviation from traditional drawing and painting materials to industrial materials is successful. Still, I retain drawing, at the least in the form of the schematic diagram - the map. use of the computer as a tool in the design and execution of the drawing is quite fruitful, and I hope to develop this area.

The design and execution of Fly Canon took me nine months, during which on two occasions I thought the project would fail due to design flaws; the project should have taken seven months. Only upon final assembly was I able to see what it looked like and whether it worked visually. first thing which struck me was how the contrast between the delicacy of the drawing and the heaviness of the steel armature is more pronounced than I expected. Furthermore, the drawing is less intelligible than I anticipated. My first tests were done on plexiglass, after which I switched to lexan mid-project. The lexan is greyer and more transparent than I wanted. The increased transparency makes the map harder to follow and the drawing more confused. grey makes the ribbon hinges pop out visually. The mechanism being so exacting and finely tuned, any imperfections are magnified, to my dismay.

Several things pleased me. In transporting Fly Canon from Technical Services to my studio, I had to use an old service elevator in Science A. Fly Canon seemed so harmonious with the old cage that I was sorry I couldn't leave it there. Also, the frosted plastic and the white ribbon respond beautifully to colour and light in the environment. The delicate, curvilinear drawing sometimes fills me with a feeling of oriental grace, beauty and contemplation.

NOTES

CHAPTER 2

- (1) Roland Barthes, <u>The Grain of the Voice; Interviews</u> 1962-1980, (N.Y.: Hill and Wang, 1985), 47.
- (2) Geoffrey Smedley, interview with the artist, also from unpublished autobiographical notes, 15 February 1988.
- (3) Joost Baljeu, "The Constructive Approach Today",

 <u>Structure</u> (Amsterdam), 6 Ser., No. 2, 1964, reprinted in <u>The</u>

 <u>Tradition of Constructivism</u>, ed. Stephan Bann, (London:

 Thames and Hudson, 1974).
- (4) Jeffrey Steele, <u>Systems</u>, exhibition catalogue, introd. by Stephan Bann, (London: Arts Council of Great Britain, 1972), 53-54.
- (5) Naum Gabo, "On Constructive Realism", <u>Katherine S.</u>

 <u>Dreir, James Johnson Sweaney, Naum Gabo, Three Lectures of</u>

 <u>Modern Art</u>, (N.Y.: New York Philosophical Library, 1949),
 reprinted in <u>The Tradition of Constructivism</u>, ed. by Stephan

 Bann, (London: Thames and Hudson, 1974).
- (6) Stephan Bann, <u>Constructive Context</u> exhibition catalogue, (London: Arts Council of Great Britain, 1978).
- (7) Craig E. Adcock, <u>Marcel Duchamp's notes from the Large Glass: an n-dimensional analysis</u>, (Ann Arbor, Mich.: UMI Research Press, 1983).

CHAPTER 3

- (1) Madeline Gins and Arakawa, The Mechanism of Meaning, (N.Y.: Hany N. Abrams Inc., 1978).
- (2) Pontus Hulten, <u>A Magic Stronger than Death</u>, (London: Thames and Hudson Ltd., 1987), 17.

CHAPTER 4

- (1) Carlos Castaneda, <u>A Separate Reality</u>, (N.Y.: Washington Square Press, 1971), 115-120.
- (2) Emile Durkheim, <u>Collected Works of Emile Durkheim</u>, ed. George Simpson, (1879, reprint, N.Y.: Thomas Y. Crowell Co., 1963).
- (3) Samuel Williston, Synopsis of the Families and Genera of North American Diptera, (1988, reprint, New Haven, Conn.: J.T. Hathaway, 1984), 162.
- (4) Henry Staten, <u>Wittgenstein and Derrida</u>, (Lincoln: University of Nebraska Press, 1984), 16.
- (5) Roland Barthes, <u>The Pleasure of the Text</u>, trans. by Richard Miller, (N.Y.: Hill and Wang, 1975), 31.
 - (6) Barthes, The Pleasure of the Text, 18.
 - (7) Barthes, The Pleasure of the Text, 23.
 - (8) Barthes, The Pleasure of the Text, 10.
- (9) Mia Johnson, "Geoffrey Smedley at the Vancouver Art Gallery", Art Magazine, May, June, July, 1982: 46.

- (10) Johnson, 46.
- (11) Jacques Derrida, <u>The Post Card</u>, trans. by Alan Bass, (Chicago and London: University of Chicago Press, 1987), 415.
 - (12) Derrida, The Post Card, 415.
 - (13) Derrida, The Post Card, 415.
 - (14) Derrida, The Post Card, 389.
 - (15) Derrida, The Post Card, 397.
 - (16) Staten, 23.
 - (17) Staten, xv.
- (18) Allain Robbe-Grillet, <u>Jealousy</u>, trans. by Richard Howard, (N.Y.: Grove Press Inc., 1959), 105-106.
 - (19) Derrida, The Post Card, 402.
 - (20) Derrida, The Post Card, 492-493.
- (21) Jacques Derrida, <u>Speech and Phenomena and Other</u>

 <u>Essays on Husserl's Theory of Signs; Differance</u>, trans. and ed. by David B. Allison, (Evanston: Northwestern University Press, 1973), 156.
 - (22) Derrida, Speech and Phenomena, 152.
 - (23) Derrida, The Post Card, 362.
 - (24) Staten, 20.
 - (25) Derrida, The Post Card, 360.
 - (26) Derrida, The Post Card, 318.
- (27) Vladimir Tatlin, T. Shapiro, I. Meyerzon, and Pavel Vinogrodov (1920), "The Work Ahead of Us", trans. by Troels Anderson, printed in <u>Vladimir Tatlin</u> exhibition catalogue (Stockholm: Moderna Musseet, July September,

- 1968), reprinted in <u>The Tradition of Constructivism</u>, ed. Stephan Bann, (London: Thames and Hudson, 1974), 19 (page reference to reprint).
- (28) Anthony Hill, "Programme. Paragram. Structure",

 <u>Data: Directions in Art, Theory and Aesthetics</u>, ed. Anthony

 Hill, (Greenwich, Connecticut: New York Graphic Society

 Ltd., 1968), 251-269.
- (29) Jeff Perrone, "Working through, fold by fold", Artforum, xvii/5, Jan. 1979, 49.

CHAPTER 6

- (1) Staten, 90.
- (2) Stephan Bann, "Abstract Art a language?", <u>Towards</u>

 <u>a New Art, essays on the background to abstract art 1910-20</u>,

 (London: Tate Gallery, 1980).
 - (3) Bann, "Abstract Art a language?".
- (4) Stephan Bann, introd. to <u>Constructive Context</u>, exhibition catalogue (London: Arts Council of Great Britain, 1978), 8.
- (5) Scott Watson, introd. to <u>Geoffrey Smedley</u>, exhibition catalogue, (Vancouver, B.C.: Vancouver Art Gallery, 1982), 16.
- (6) Stephan Bann, introd. to <u>Systems</u>, exhibition catalogue, (London: Arts Council of Great Britain, 1972), 13.
 - (7) Bann, Systems, 13.

- (8) Roland Barthes, <u>Mythologies</u>, selected and trans. by Annette Lavers, (London: Paladin Books, 1973), 115.
 - (9) Derrida, The Post Card, 261.
 - (10) Derrida, The Post Card, 397.
 - (11) Derrida, The Post Card, 381.
 - (12) Derrida, The Post Card, 278.
 - (13) Barthes, Mythologies, 125.
 - (14) "Fly", Webster's Dictionary, second edition.
 - (15) Derrida, The Post Card, 384.
 - (16) Derrida, The Post Card, 383.
 - (17) Derrida, The Post Card, 384.
- (18) Jacques Derrida, "Structure, Sign and Play in the Discourse of the Human Sciences", <u>The Language of Criticism</u> and the Sciences of Man, R. Macksey and E. Donato, eds. (Baltimore: Johns Hopkins University Press, 1970), 260.

BIBLIOGRAPHY

- Adcock, Craig E. Marcel Duchamp's notes from the Large

 Glass: an n-dimensional analysis. Ann Arbor, Mich.:

 UMI Research Press, 1983.
- Arakawa, and Madeline Gins. The Mechanism of Meaning.

 N:Y:: Hany N. Abrams Inc., 1979.
- Baljeu, Joost. "The Constructive Approach Today".

 Structure, (Amsterdam), 6 Ser., No. 2, 1964. Reprinted in Stephan Bann, ed., The Tradition of Constructivism.

 London: Thames and Hudson, 1974.
- Bann, Stephan, introd. <u>Systems</u> exhibition catalogue. London: Art Council of Great Britain, 1972.
- Bann, Stephan, introd. <u>Constructive Context</u> exhibition catalogue. London: Arts Council of Great Britain, 1978.
- Bann, Stephan. "Abstract Art a language?". Towards a New Art, essays on the background to abstract art 1910-20.

 London: Tate Gallery, 1980.
- Barthes, Roland. <u>Mythologies</u>. Selected and trans. by Annette Lavers. London: Paladin Books, 1973.
- Barthes, Roland. The Pleasure of the Text. Trans. by Richard Miller. N.Y.: Hill and Wang, 1975.
- Barthes, Roland. The Grain of the Voice; Interviews

 1962-1980. N.Y.: Hill and Wang, 1985.
- Castaneda, Carlos. <u>A Separate Reality</u>. N.Y.: Washington Square Press, 1971.

- Derrida, Jacques. "Structure, Sign and Play in the

 Discourse of the Human Sciences". The Language of

 Criticism and the Sciences of Man. R. Macksey and E.

 Donato, eds. Baltimore: Johns Hopkins University

 Press, 1970.
- Derrida, Jacques. Speech and Phenomena and Other Essays On

 Husserl's Theory of Signs; Differance. Trans. and ed.
 by David B. Allison. Evanston: Northwestern

 University Press, 1973.
- Derrida, Jacques. <u>The Post Card</u>. Trans. by Alan Bass. Chicago and London: University of Chicago Press, 1987.
- Durkheim, Emile. <u>Collected Works of Emile Durkheim</u>. Ed. George Simpson. N.Y.: Thomas Y. Crowell co., 1879, (1963).
- "Fly". Webster's Dictionary, second edition.
- Gabo, Naum. "On Constructive Realism". Katherine S. Dreir,

 James Johnson Sweaney, Naum Gabo, Three Lectures on

 Modern Art. N.Y.: New York Philosophical Library,

 1949. Reprinted in Stephan Bann, ed., The Tradition of

 Constructivism. London: Thames and Hudson, 1974.
- Hill, Anthony. "Programme. Paragram. Structure." <u>Data:</u>

 <u>Directions in Art, Theory and Aesthetics</u>. Ed. Anthony

 Hill. Greenwich, Conn.: New York Graphic Society,

 1968.
- Hulten, Pontus. <u>A Majic Stronger than Death</u>. London: Thames and Hudson Ltd., 1987.
- Johnson, Mia. "Geoffrey Smedley at the Vancouver Art

- Gallery". Art Magazine, May, June, July, 1982, 46.
- Perrone, Jeff. "Working through, fold by fold". Artforum. xvii/5, Jan. 1979, 44-50.
- Robbe-Grillet, Allain. <u>Jealousy</u>. Trans. by Richard Howard.

 N.Y.: Grove Press, Inc., 1959.
- Smedley, Geoffrey. Personal interview. 15 February 1988.
- Staten, Henry. <u>Wittgensteing and Derrida</u>. Lincoln: University of Nebraska Press, 1984.
- Tatline, Vladimir, et al. "The Work Ahead of Us". Trans.

 by Troels Anderson. Printed in <u>Vladimir Tatlin</u>

 exhibition catalogue. Stockholm: Moderna Musseet,

 July September 1968. Reprinted in Stephan Bann, ed.,

 <u>The Tradition of Constructivism</u>. London: Thames and

 Hudson, 1974.
- Watson, Scott, introd. <u>Geoffrey Smedley</u> exhibition catalogue. Vancouver, B.C.: Vancouver Art Gallery, 1982.
- Williston, Samuel. Synopsis of the Families and Genera of

 North American Diptera. New Haven, Conn.: J.T.

 Hathaway, 1888, (1984).

SLIDE LIST

- 1. Fly Canon, 6.5' x 4.5' x 3.5', steel and lexan, 1989.
- 2. Fly Canon, 6.5' x 4.5' x 3.5', steel and lexan, 1989.
- 3. Fly Canon, detail.
- 4. <u>Bitch's Brew</u>, 6.5' x 5', aluminum, copper, steel and brass, 1988.
- 5. <u>Bitch's Brew The information key</u>, 5.5', steel and copper wire, 1988.
- 6. Anomie an aesthetic navigation, 6' x 9' x 2', oil on stiffened cotton, wood base, 1988.
- 7. Somnolence, 44" x 5', oil on panel, 1988.
- 8. Somnolence, 44" x 5', oil on panel, 1988.
- 9. Entropy, 22" x 34", pastel on paper on panel, with copper handles, 1987.

