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COMMUNICATION OF LANDSCAPE CHARACTER BY
PRESENTATION GRAPHICS



COLLEEN PRIEST Dip. L.A. 1984

This dissertation has been completed in
partial fulfilment of the requirements
for the Diploma of Landscape Architecture,
Lincoln College, 1984.

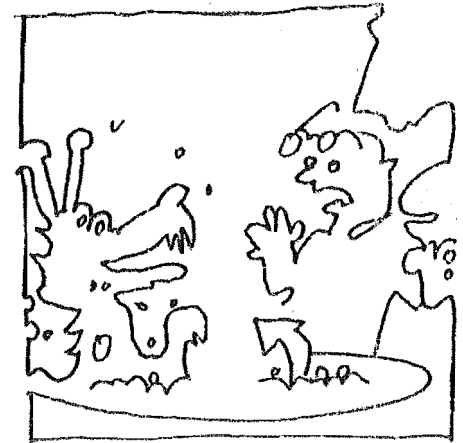
ACKNOWLEDGEMENTS

A special thank you to Mary Anne Robinson, my supervisor at Lincoln College, for her help and guidance in the writing of this dissertation.

I would also like to thank the National Park Rangers at Tongariro National Park Headquarters, Mt Ruapehu, for providing information for one of my case studies.



MONTHS IN THE MAKING.....



WHAT IS EMERGING.....

WHAT DO I DO WITH IT.....



KILL IT.....



CHANGE IT.....OR HAVE A GOOD LOOK AT VISUAL COMMUNICATION



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HYPOTHESIS

That the subtle similarities and differences in landscapes which create their specific character can be communicated by Presentation Graphics.

Footnote

Landscape character is defined as the overall impression created by the landscape's unique combination of visual features, both physical and cultural. Differences are due to the unique correlation of features, similarities are due to the common existence of certain features.

OBJECTIVES

- 1) To examine the nature of graphic communication by landscape architects and devise a method of analysing landscape character which is applicable to transformation in presentation graphics.
- 2) To test this methodology by the use of case studies of two areas of individual landscape character, which have similarities and differences in their makeup.
- 3) From these case studies, to make a statement on whether the hypothesis outlined above is justifiable and/or a tool which should be used more consciously by landscape architects.

INTRODUCTION

The basic premise of this study is to investigate whether the essential elements which create the holistic image, landscape architects call "landscape character" can be communicated by the use of presentation graphics.

Landscape character has been analysed and methods of defining it outlined by many landscape architects, but these are primarily used for written and verbal communication or testing.

When a landscape architect presents a scheme to a client, that scheme will have emerged from such a detailed study of the site's landscape character and the design will not only be sympathetic to the area's landscape character but much of its logic will be derived from that base. If the essence of the landscape character can be conveyed in the presentation graphics in a holistic way, this must reinforce the message of the design. It is felt that this would assist the client in their understanding of their site and the proposed scheme and if accurately conveyed should also indicate the dynamic processes so important in a landscape, which a static design solution drawing may conceal.

This study attempts to see if visual communication via presentation graphics of the visual and dynamic qualities of landscape character can be achieved in such a way as to benefit the landscape architect's communication with a client.

Part One begins with an investigation of the use of graphics in landscape architectural communication, and indicates how this is a continuum from self-analytical graphics through to the presentation drawing for a client.

Landscape character is then investigated with an aim of isolating what elements and processes are essential in its communication, yet also applicable for visual communication.

The separation of elements must be done in such a way that the holistic nature of landscape character can be recreated by a bringing together of those parts.

This process is repeated for graphic techniques, which is also a holistic communicator, composed of individual techniques.

These two subjects, graphic techniques and landscape character, both holistic yet both composed of component parts, are then brought together in a methodology which attempts to link the two in visual communication.

Part Two uses two case studies to put this methodology into practice. Tongariro and an area on the Port Hills were chosen as having a similar geological history, although separated by time. This similarity of geological base was seen as an important element of the two case studies landscape character, which must be conveyed in graphic communication. However, because of time and its many processes, these landscapes are also intrinsically different, and this essential difference must also be communicated.

An analysis of the success and failure of the methodology in the individual case studies indicates the practicality of communicating a specific landscape character by graphics. A comparison of the two case studies indicates to what extent the similarities and differences between landscape areas based on time and process can be conveyed.

Finally, the hypothesis is discussed in the light of the study and the potentials and limitations of these ideas are outlined.

PART ONE



INTRODUCTION

Visual Communication for Landscape Architects

In landscape architecture all the best ideas would be useless if they could not be accurately communicated, understood and approved by the client and so eventually implemented on the ground.

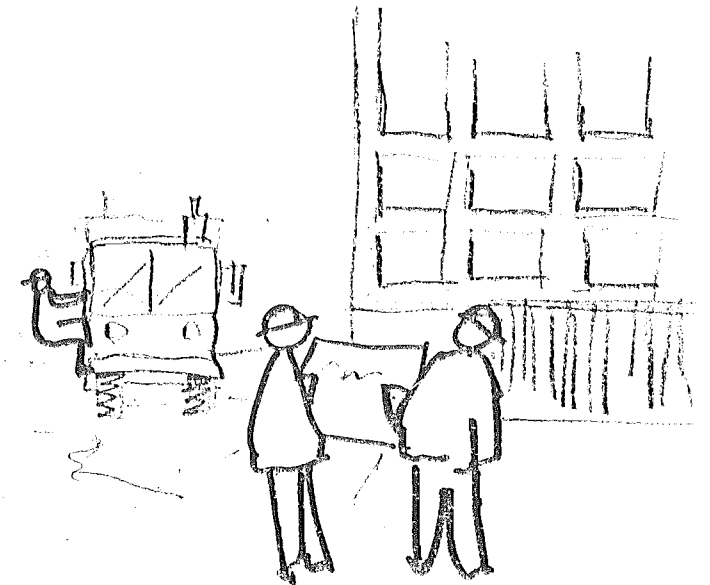
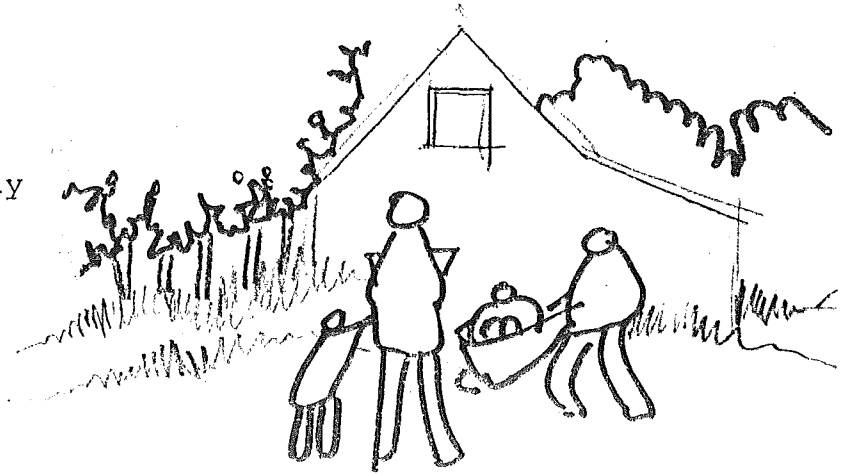
Graphic communication is vital to this process and is integrally related to the problem-solving and design presentation process.

The understanding and improvement of each landscape architect's visual communication ABC's, so that ideas may be communicated visually is very important. The criteria used to develop drawings should address the questions - What is the purpose of the drawing? To whom does it communicate? And, What is the appropriate format?

The landscape graphics perform three main functions.

- 1) They aid in the design process - the quick self-graphics.
- 2) They sell the design - the presentation graphics.
- 3) They show how it will be constructed - the working drawings/construction details.

The study of working drawings is outside the scope of this dissertation, but they can be one of the major communication components of a set of landscape documents depending on the type and nature of the information required. The content and form will vary from client to client.

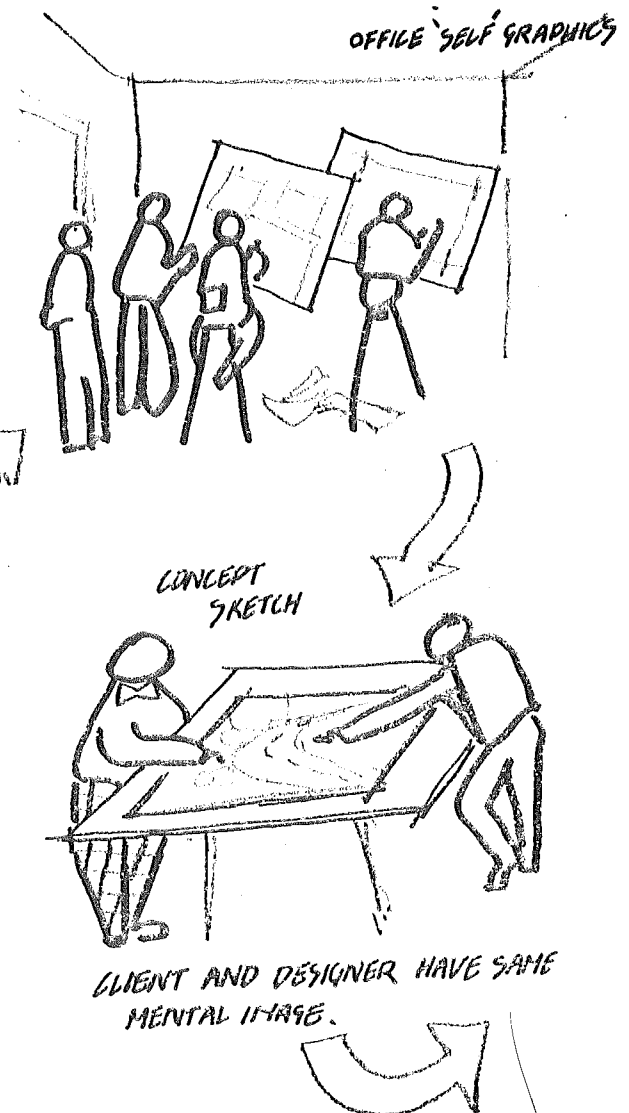
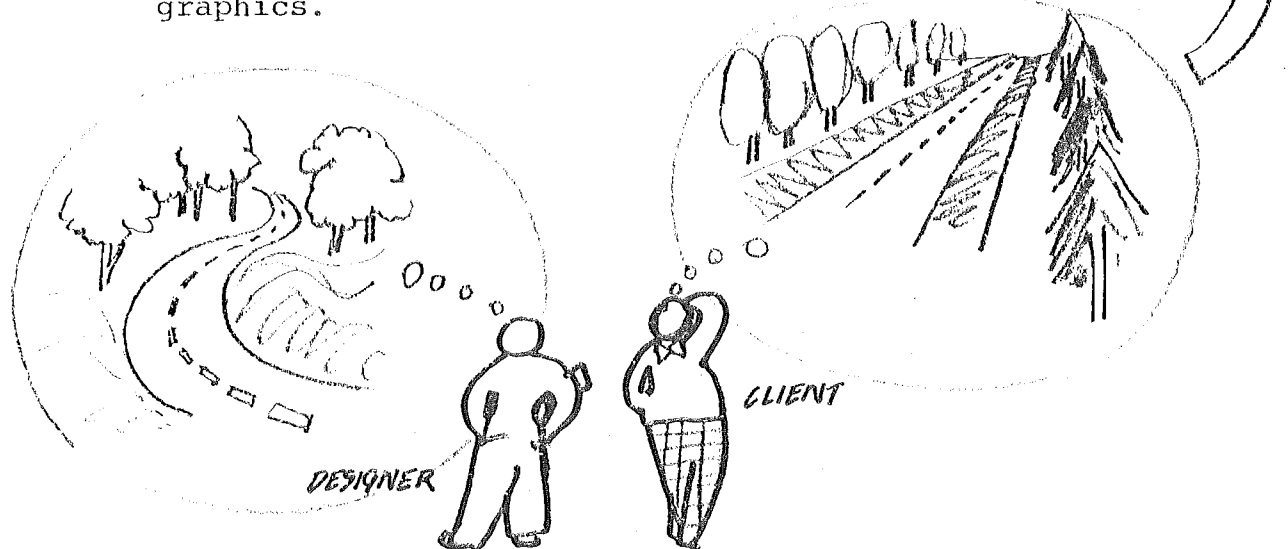


Self Graphics

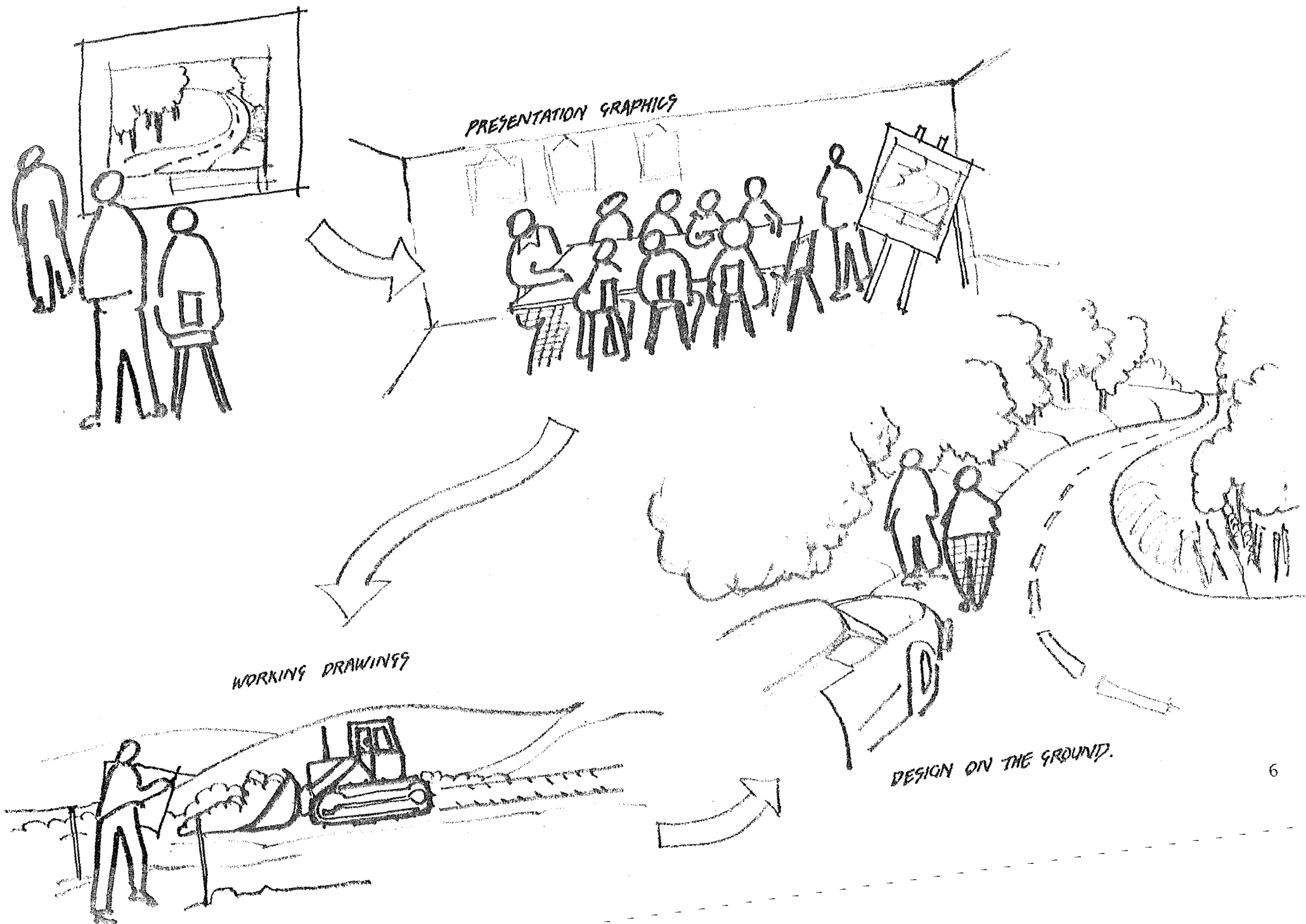
Self graphics or schematic drawings are the analytical aid during the design evolution and problem-solving process. They are drawings, diagrams, notes and sketches done very quickly to record information and ideas or clarify information for the designer. These quick notes can also act as a visual storage system of information needed later.

Quick sketches are an invaluable tool for 'testing' design concepts or checking the accuracy of a mental visual image. The drawings are usually done freehand with very little detail. Colour can be used instead of tone and texture to clarify information.

Normally the drawings and sketches are for the designer's own use, but sometimes they may be needed to explain why a particular solution was arrived at. The drawings then become presentation drawings and should follow the compositional layout and guidelines as for presentation graphics.



Communication Between Designer and Client



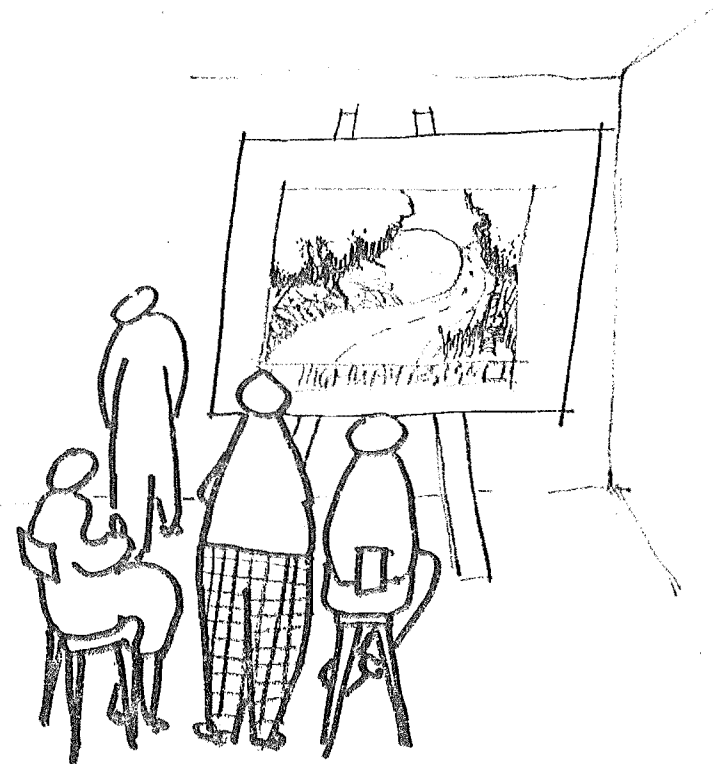
CHAPTER ONE

PRESENTATION GRAPHICS

Presentation drawings are the selling graphics of landscape architects and the vital link between the designer's ideas or proposals and the client's perception of those ideas.

The drawings are responsible for communicating the landscape character of a site which is intrinsically linked to any design solution, as well as showing the dimensional, organisational and structural nature of the design. They must also enable a client to envisage the future site when the design is implemented.

It is relatively simple to communicate spatial organisation in plan form and obvious visual images in sketch form by a set of standard graphic techniques and symbols. However, to communicate the elusive and subtle visual images that combine together to create a specific landscape character so relevant to a design's understanding, is less simply achieved. It is the integration of this information into the visual imagery presented to a client which is being considered.



Each landscape is unique and therefore each presentation drawing should have a unique set of drawn images to reflect that landscape's character. If not, the drawings should be pushed and pulled until they do, it is a vital selling element that may mean the difference between comprehension and acceptance of a design solution and non-understanding, with a negative response.

The client will read the drawings as they are drawn so it is necessary to emphasise certain aspects by utilising appropriate graphic techniques. Graphics must be as clear and concise as possible and be free from any ambiguity that would hinder the client's perception of the information being presented.

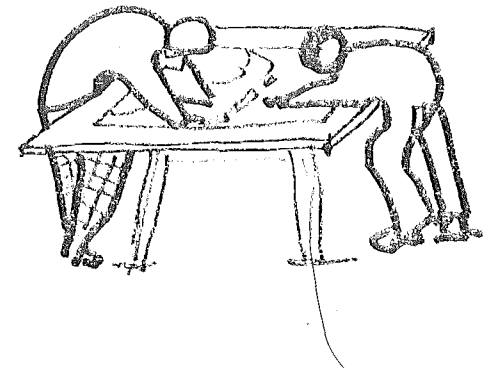
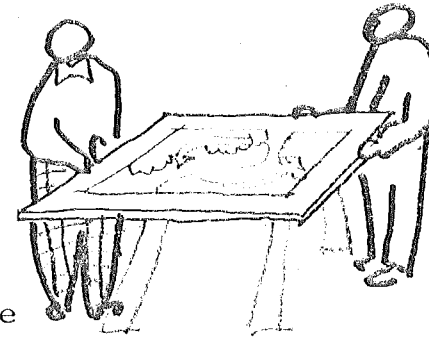
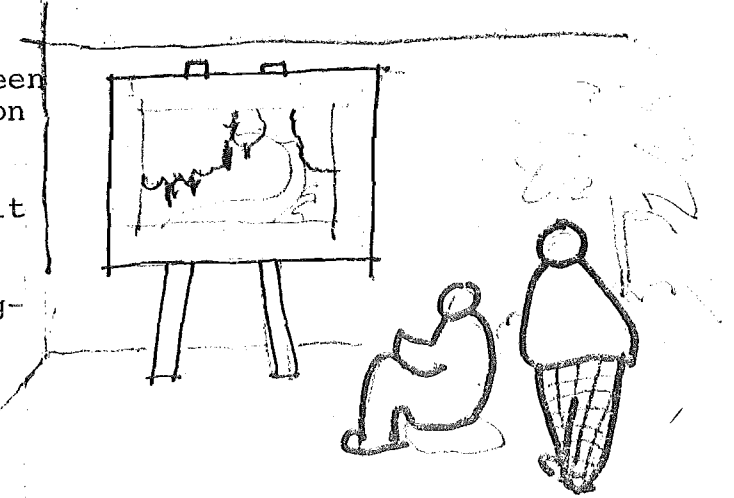
The final presentation drawings should be read at three different levels:

- 1) comprehensive overview,
- 2) linkages and relationships, and
- 3) detail elements.

Each view of the drawing should reflect the same landscape character, meaning and integrity from overview to detail.

Without a visual statement to communicate a particular image, a client will perceive a slightly different perspective of the same proposal as they will intuitively see what they want to see through their own disciplines of thinking and past experiences.

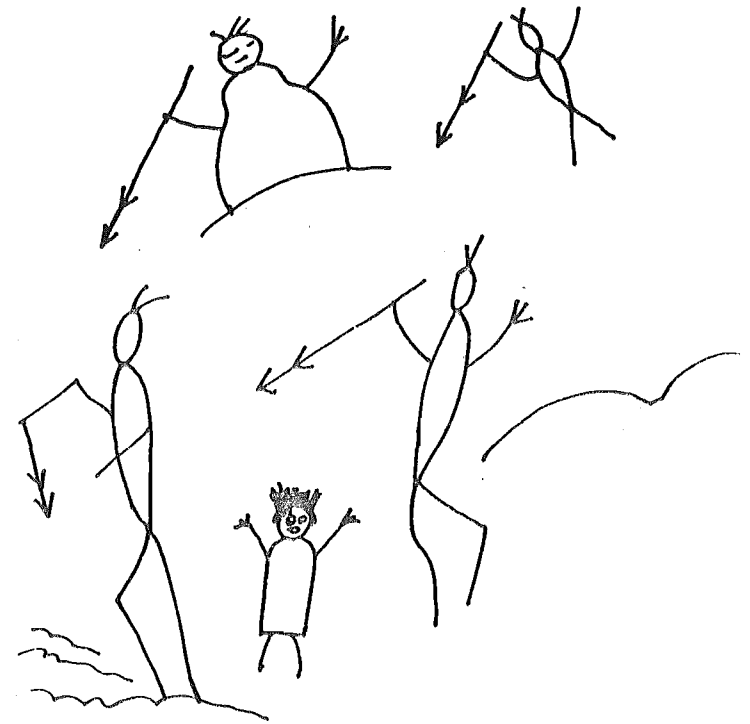
This point is effectively made in another way in Rudyard Kipling's 'How the First Letter was Written', one of the JUST SO STORIES.



In this story, a girl Toffimai, out fishing with her father Tegumai, attempts to send a message to her mother by an obliging stranger, who happens to pass by, to the effect that her father has broken his fishing spear and needs another one. Since the stranger, a Tawara (from another tribe), does not speak or understand her language, she draws him a picture which, to her, represents the situation and includes a map to guide him to her cave home.

To the stranger, the picture conveys the idea of an imminent battle and a call for help, and so he hastens to convey it to Tegumai's village; on his arrival there, however, the picture is interpreted by Toffimai's mother as meaning that the Tewara has killed Tegumai (the father) and terrified Toffimai.

Fortunately, the true situation is soon revealed by the return of father and daughter to their village and the Tewara escapes the retaliation threatened. The chief of Tegumai's tribe consoles the depressed Toffimai by saying that she has made a great invention but that 'pictures are not always properly understood'.



It is the responsibility of each designer to match the communication language and the message to the audience and their interpretation capabilities and the ultimate test is

the presentation graphics being so appropriate for the message (subject matter) and the client, that the graphics are not noticed at all.

CHAPTER TWO

LANDSCAPE CHARACTER - THE MESSAGE

In my stated hypothesis the message to be communicated by Presentation Graphics is landscape character and the question here is, How best do we (1) understand, and (2) organise this information so that it can be communicated by Presentation Graphics?

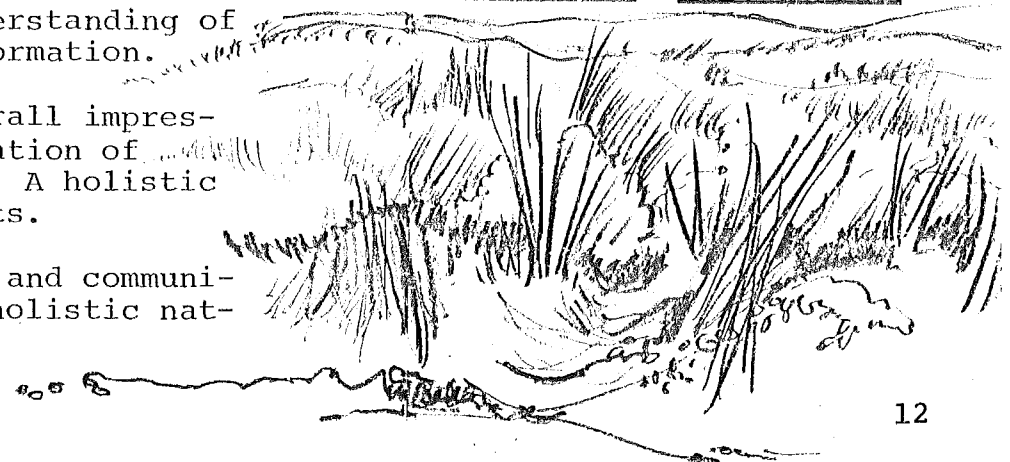
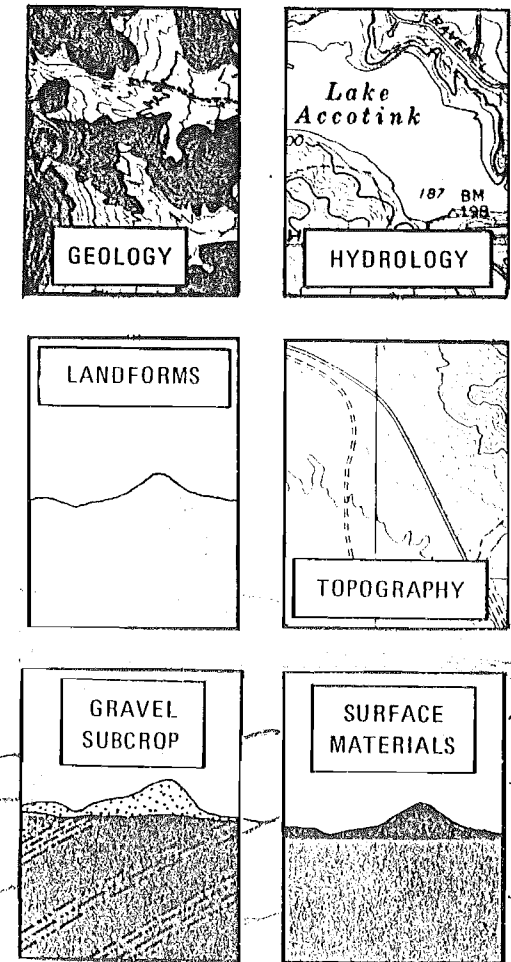
The complexity and relationships of landscape character can be drawn and communicated only to the extent to which they have been understood by the designer.

Leonardo De Vinci's drawings are remarkable because he thoroughly understood the build and function of the things he was depicting, and at the same time knew how to organise complex perceptual patterns with the greatest clarity.

The interpretations of the uninformed draftsman based on nothing but what he can see at the moment are likely to be wrong or vague, or at least limited to the extent of his own previous knowledge and experience. On the other hand, an intuitive interpretation based on a well developed awareness and understanding of the nature of landscapes is invaluable together with an understanding of the process to communicate the understood information.

I have defined landscape character as the overall impression created by the landscape's unique combination of visual features, both physical and cultural. A holistic subject with the total being a sum of its parts.

Many studies have been carried out to clarify and communicate the individual elements and outline the holistic nat-



ure of the landscape depending on the type of proposal and the required ultimate use of the information. Successful studies have been put together by R.B. Litton Jr. (1972), R. Kaplan (Lovejoy, 1973, pp 118-129) and S. Kaplan (Lovejoy, 1973, pp 92-101), K. Craik and E. Zube (1975), Elsner and Travis (1975).

Briefly, Rachel and Stephen Kaplan consider coherence, complexity, identifiability, mystery, texture and spaciousness as relevant landscape qualities. Craik and Zube see the understanding of landscape perception as coming from in-depth studies of both the perceived landscape qualities and the physical descriptions.

Gary Elsner, in his paper on Quantifying Landscape Dimensions for Landscape Planning, points out that most kinds of higher level quantitative landscape analysis can be usually thought of as complex operations based on the four dimensions of form, line colour and texture. Although the focus of his paper is on landscapes that are useful in land use planning, some of his techniques are relevant to the study of landscape character visual representation. From his land use planning basis, Elsner recognises that while the basic inherent characteristics and descriptors of the landscape as objectively quantifiable realities exist, the parameters are subsequently translated by the human mind into an entirely different set of descriptors that relate more to our experiences, needs and desires and less to the physical descriptions *per se*. Furthermore, whatever our interpretations are, they are based upon elemental factors of the landscape, some of which can be readily measured and some of which are nearly impossible to specify or measure, i.e. the subtle similarities and differences which make up the landscape character, but are very elusive and difficult to define adequately.

Elsner goes on to outline his approach by describing his basic landscape dimensions.

<u>FORM</u>	Considerations are	
	- LANDFORM,	elevation slope ridgeline relative and absolute relief ruggedness enclosure aspect
		VEGETATION PATTERN WATERFORM
<u>LINE</u>	- EDGE	border lines between vegetation result of visual contrast
<u>COLOUR</u>	- SEASONAL VARIATIONS SPATIAL VARIATIONS ATMOSPHERIC CHANGES	
<u>TEXTURE</u>	- TOPOGRAPHIC TEXTURE GRAIN CONTRAST	degree of direction of the land surface difference in size of individual elements of land patterns.

Elsner further suggests that it may be helpful to identify specific localised landscapes (compositional types, for example forest or grassland) within planning areas which are precisely measured and used to monitor both natural and man-caused changes in the visual environment.

Elsner already has his individual landscape dimensions or physical descriptors of the landscape and his need to identify specific localised landscapes is a recognit-

ion of the overview of physical and cultural elements needed to complete the understanding of the holistic nature of landscape character.

R.B. Litton, in a paper, Aesthetic Dimensions of the Landscape, uses similar landscape descriptors as Elsner, but from the viewpoint of the landscape as a resource in its own right. He concentrates on ways of recognising and evaluating the landscape as something that is seen as a visual experience. Litton starts with ways of recognising what he calls Attributes of the Landscape - his factors of recognition and compositional types.

Primary factors are form, space and time variability. Secondary recognition factors are observer position, distance and sequence.

From these means of recognition and their combinations, Litton says it becomes possible to identify compositions and to suggest classification types.

The six landscape types on compositional units, he outlines, consist of:

- 1) Panoramic landscape.
- 2) Feature "
- 3) Enclosed "
- 4) Focal "
- 5) Forest (canopied)
- 6) Detail.

Litton is concerned with positive aesthetic qualities of the landscape rather than descriptions of visual dimensions, but his initial classifications are useful as he further outlines his approach.

He says,

"That form and space are the two overriding factors that help describe the structure of landscape within the confines of visual composition. General modes of design organisation involving space and form include three other basics: lines, surfaces and colour. Lines and surfaces have direction and attitude; surfaces are further distinguished by colour and texture. Colour is expressed by its own special qualities, such as hue and value. In short order, it is apparent that an infinite number of relationships are possible and normal".

With this in mind, it is convenient to simplify the whole by discussing the individual parts that make up the whole.

To describe the individual elements, both Litton and Elsner have used similar landscape dimensions of Form, Line, Colour and Texture based essentially on physical elements and land use change. These dimensions are readily understood and when applied to the physical and cultural elements that make up the landscape's character are useful and comprehensive.

Recognising these landscape qualities, a visual survey that will identify adequate perceptual patterns in the landscape has been formulated in order to understand, analyse and communicate the landscape character of specific areas by visual means.

The visual survey formulated encompasses the basic site data of any landscape (see Appendix 1 for basic site data). The basic site data is organised under the two fundamental categories of physical elements and cultural elements and used as an overview before the information, appropriate and relevant to the site and the study, is

selected and described in terms of the landscape dimensions of form, line, colour and texture that best communicate the intrinsic qualities of the individual elements.

The importance and emphasis of the individual elements will vary with each landscape's unique character and the visual survey must be flexible and sensitive enough to record all the necessary information for understanding, analysing and communicating the landscape character of an area.

Outlined on the next page is a visual survey and analysis with the landscape parameters listed under the landscape overview of physical and cultural elements and landscape dimensions of form, line, colour and texture.

SURVEY AND ANALYSIS FORMAT

Recording information and looking at the landscape in terms of form, line, colour and texture.

DATA SOURCES

Site visits, basic site survey, historic documents, photos, topographical maps, research information.

RECORDING METHODS

Idea or self-graphics, notes, sketches, photos, diagrams.

PHYSICAL INFORMATION	FORM	LINE
<u>Geology</u>	*Land formation processes/building/erosion Elevation, mass Slope soil structure	*Boundaries margins edge
<u>Vegetation</u>	*Variations	*Edge, growth direction
<u>Light</u>	*Emphasise 3D form Shadow	*Skyline highlight Silhouette
<u>Climate</u>	*Water bodies rivers, lakes, canals, streams, sea	*Water edge Movement/direction
CULTURAL INFORMATION		
Historic Landuse Ag. Settlement Recreation-al Manmade Earth-works	*Forms for specific ages Types of Communities Man-made Forms dams, buildings, roadings	*Communication corridors Transport lines

PHYSICAL INFORMATION	COLOUR	TEXTURE
<u>Geology</u>	*Natural hue, tone, contrast	*Surface cover patterns
<u>Vegetation</u>	*Variations colour	*Tactile quality patterns
<u>Light</u>	*Absorption and reflection of light reveals colour of environment	*Light/dark texture patterns Shadow surface texture
<u>Climate</u>	*Contrast material contrast reflection change	*Surface texture Still-moving pattern
CULTURAL INFORMATION		
Historic Landuse Ag. Settlement Recreational	*Introduced colour combinations of colour natural- un-natural	*Cultural patterns Surface texture Introduced man-made material

SUMMARY

The study recognises the holistic nature of landscape character and the individual parts that make up the whole. The method has been formulated to survey and analyse the overview concepts of dynamic physical and cultural elements and then express them by the landscape dimensions of Form, Line, Colour and Texture.

CHAPTER THREE

GRAPHICS - THE MEDIA

The information to be expressed in this study is landscape character - it is the message. This message is composed with a purpose, to tell, express, explain, direct, inspire, effect, and the message cannot be separated from the media or the audience. The other basic aspects of communication are:

The message - information or content to be communicated.

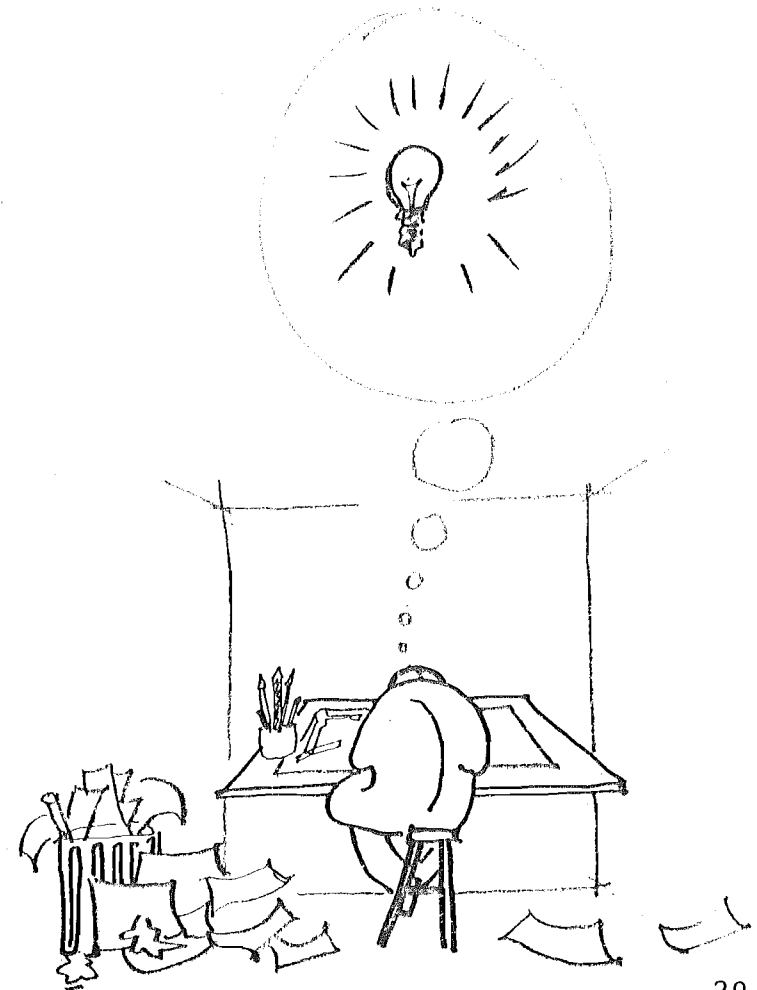
The media - method and materials of communication.

The receiver - the audience to whom the information is intended.

Visual images and subtles cannot be comprehensively defined by verbal and literary languages, so we need to look carefully at the potentials of a visual language for communication to complement them, and in particular, graphics as an effective tool.

Successful graphic communications are the result of a working understanding of the various holistic concepts and the individual parts of an image such as graphic elements and expressive techniques used in presenting information visually, in other words, becoming visually literate.

Visual literacy means easier understanding of the whole form and the parts which take visual form so that the image can be used as a tool to convey a message.



Donis Dondis, in her book¹ 'Visual Literacy', says that language is simply a communication resource natural to man, which evolved from its pure and basic aural form into literacy, reading and writing.

To be considered verbally literate, one must learn the basic components of written language. Once in command of the skill, any individual can produce not only an endless variety of creative solutions to verbal communication problems but also a personal style. The structural discipline lies in the basic verbal structure - The Syntax, and Donis Dondis suggests that there is a Visual Syntax.

Visual communication is a complex subject, but Donis Dondis suggests that this Visual Syntax, a visual language with recognisable elements and techniques for structure, can be learnt so that any person is able to say clearly and concisely what they want to say by visual images.

Literacy means that a group shares the visually assigned meaning of a common body of information. Even though visual language is more complex than verbal, Donis Dondis suggests it must operate somewhere within the same boundaries. Visual Syntax has the same purpose - to construct a basic system for learning, recognising, making and understanding visual messages that are negotiable by all people, not just the specially trained like a designer.

The possibilities are interesting. The visual language is a whole body of information that could be used like language, for composing and understanding messages at many different scales from simple to complex information. For landscape architects, this implies the ability to evolve a visual style related not to self but to place.

¹Dondis, D. 'A Primer of Visual Literacy'.

Some of the significant graphic elements within the visual syntax are colour, line, shape and texture together with the expressive powers of proportion, symmetry, repetition and accent.

Choices are made. Basic elements are linked with techniques for emphasis, contrast and subtleties. Choices are meant to reinforce and strengthen the meaning of the landscape described.

"Composition is the interpretative means for controlling the re-interpretation of the visual message by those who experience it. The receivers of the information. The audience."

- Dondis.

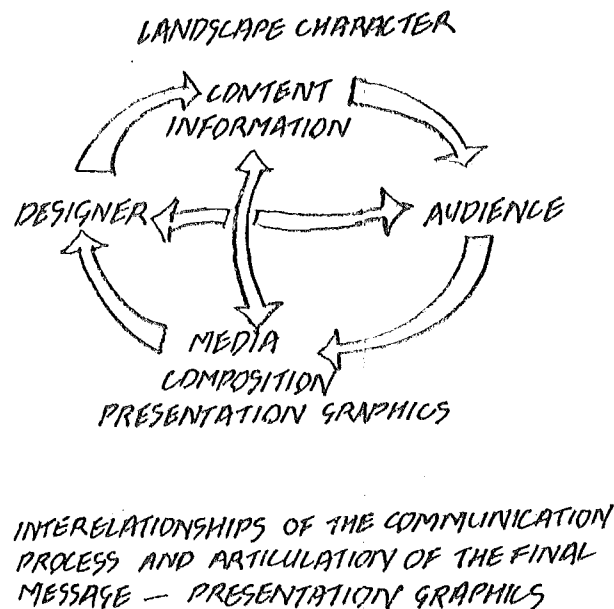
The media, such as presentation graphics, serves as the setting for design decision and descriptions.

The final concern of visual literacy, suggested by Donis Dondis, is the whole force. The cumulative effect of the combination of selected elements, the manipulation of the basic elements through expressive techniques, and their formal compositional relationships to intended meaning. The communication in the presentation drawing format for interpretation by an audience.

Donis Dondis says,

"That the end result of all visual experience in nature, but primarily in design, lies in the interaction of duplex polarities; first the forces of content (message and meaning) and form (design, medium plans, and arrangement), and secondly, the effect on each other of the articulator (designer, artist, etc.) and the receiver".

These forces can be put to good use for visual impacts. In either case, one cannot be separated from the other. Composition or arrangement is affected by the content/information and the content is affected by the composition and media. The message is drawn up by the creator and modified by the observer/receiver.



A HOLISTIC PROCESS

Paul Stern also deals with this same problem of relationships in his essay, On the Problems of Artistic Form.

He writes¹,

"It is only when all the factors of an image, all their individual efforts are completely attuned to the one intrinsic vital feeling that is expressed in the whole - when so to speak, the clarity of the image coincides with the clarity of the inner content - that a truly artistic 'form' is achieved".

GRAPHIC ELEMENTS

The essential tools of all visual images are the basic elements. These elements make up the compositional source for all kinds of visual materials and messages, objects and experiences. They are the traditional art techniques of the dot, line, tone, shape, direction, texture, colour, form. The dot is a single visual unit, complete in itself, it is the starting point of all visual images, a single mark in space uncomplicated by direction.

In contrast, the simplest line suggests direction, divides space, has length, width, tone and texture, and may describe contour. As soon as line begins to change direction it becomes the fluid, restless articulator of form. Casual and free in a sketch, formal and tighter in a technical plan.

Utilising line, direction is the thrust of movement, diagonal, vertically or horizontally.

Shape and form are thought to be the same thing, but shape can be defined as the 2-dimensional spatial aspects of appearance - form is more to do with 3-dimensional content, the basis of which are the square, circle and triangle.

Tone is the presence or absence of light. It can be described as a value, e.g. relationships of light and

¹In Reflections on Art, Susanne K. Langer.

GRAPHIC ELEMENTS

THE DOT

LINE - DIRECTION FACTOR

FORM

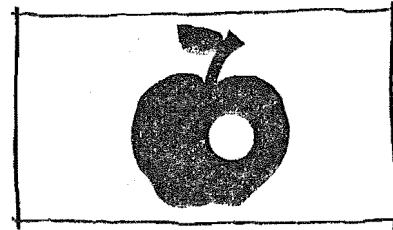
SHAPE

TONE

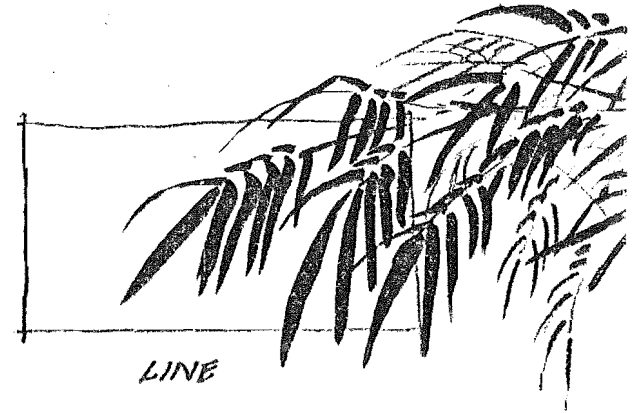
COLOUR

TEXTURE

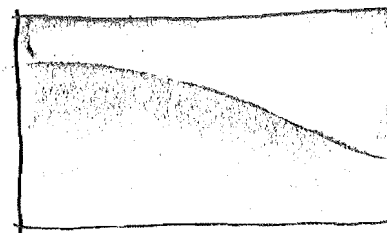
SCALE AND PROPORTION



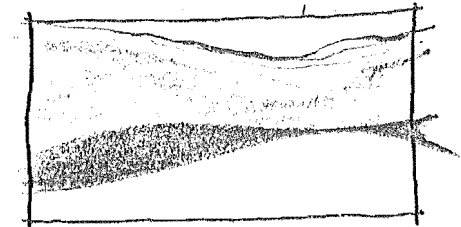
THE DOT



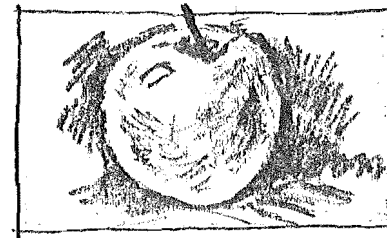
LINE



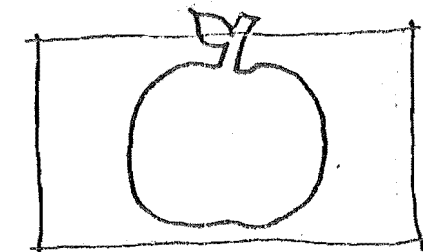
COLOUR



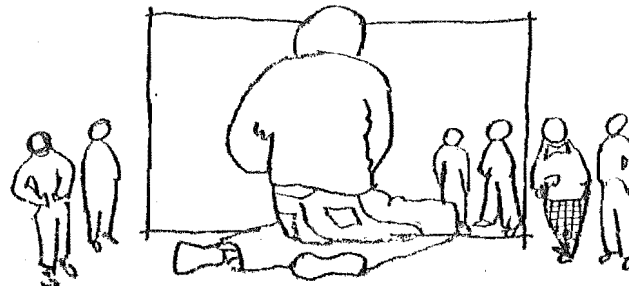
TONE



FORM



SHAPE



SCALE AND PROPORTION



TEXTURE

and dark. Variations in light or tone are the means by which we optically distinguish the complicated visual information in the environment. The environment is three-dimensional and tone is one of the best tools for indicating and expressing that dimension.

The co-ordinate of tone is colour with the addition of chroma. Chroma is the name given to the different 'colours' or reflected rays that are not absorbed by an object - this is colour in the visual environment - the sensations we perceive from surface reflections. Artists' colours represent a translation of the transparent colours of light into the opaque medium of pigment. Colour in pigment form is what we use to colour up our plans with. Colour as reflected rays is what we perceive in the environment around us.

Texture refers to the tactile qualities of our environment. The surface characteristics of materials.

Scale and proportion, the relative size and measurement of all visual elements and their juxtaposition with each other. Invaluable descriptors for understanding other elements.

"From all these visual elements we draw the raw material of all levels of visual intelligence, and from them all varieties of visual statements, objects, environments and experiences are planned and expressed".¹

¹Dondis, D. - A Primer of Visual Literacy.

EXPRESSIVE TECHNIQUES

The graphic elements are manipulated with shifting emphasis by the expressive techniques of visual communications. The manipulation should come in direct response to the character of what is being designed and the message to be communicated.

Contrast is the most dynamic of the visual techniques. It operates on the basis of polarities. The use of contrasts does not always need to operate in extremes but can be expanded into subtleties between the two poles.

There are main expressive techniques that can be used to give emphasis and meaning to a visual image. Some of the easily identifiable and useful techniques for manipulating the basic elements are listed:

<u>CONTRAST</u>	<u>HARMONY</u>
instability	balance
asymmetry	symmetry
complexity	simplicity
exaggeration	understatement
fragmentation	unity
activeness	
boldness	subtlety
variation	consistency
depth	flatness
transparency	opacity
irregularity	regularity

The expressive techniques are the agents in the visual communication process. It is through their energy that the character of a visual solution builds up.

EXPRESSIVE TECHNIQUES

CONTRAST

Transparency

Activeness

Boldness

Fragmentation

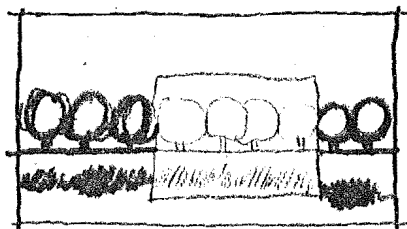
HARMONY

Opacity

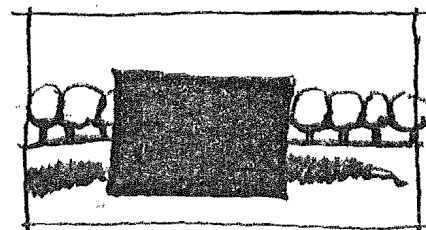
Stasis

Subtlety

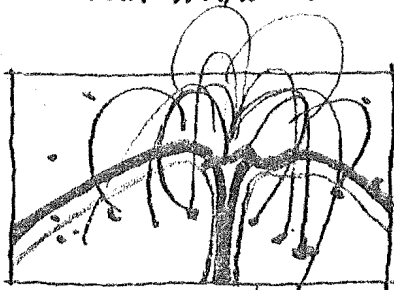
Unity



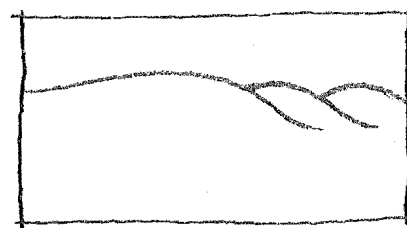
TRANSPARENCY



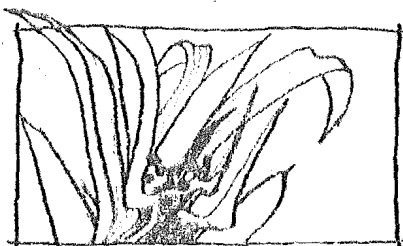
OPACITY



ACTIVENESS



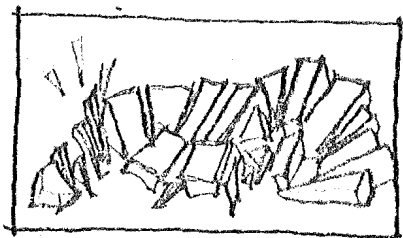
STASIS



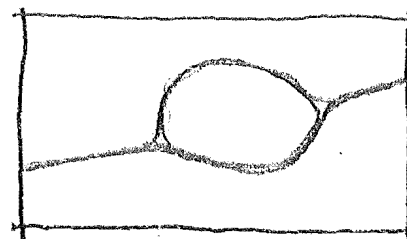
BOLDNESS



SUBTLETY



FRAGMENTATION



UNITY

COMPOSITION

Composition and arrangement of the modified basic elements is the next most important step in creating a successful visual statement.

Now is the greatest opportunity to express the landscape character as the overall impression created by its unique combination of physical and cultural elements.

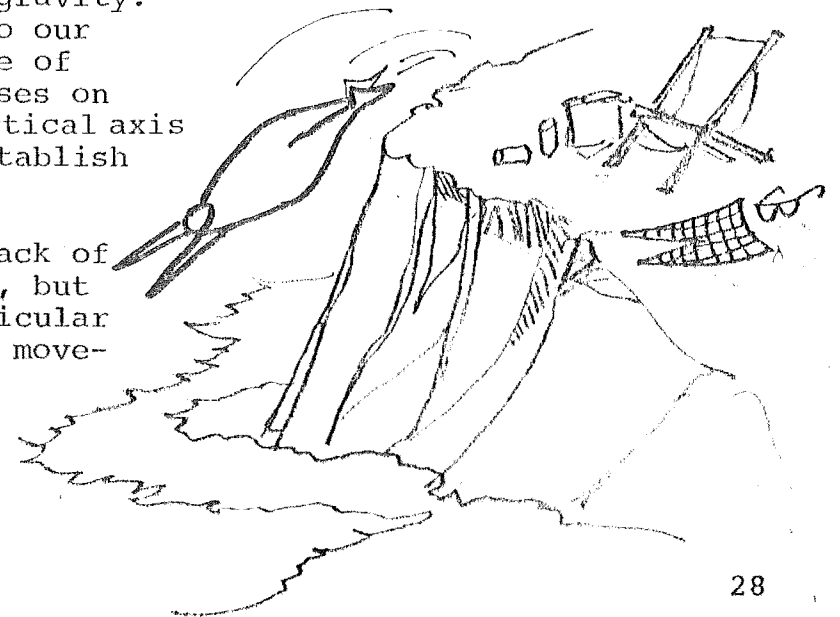
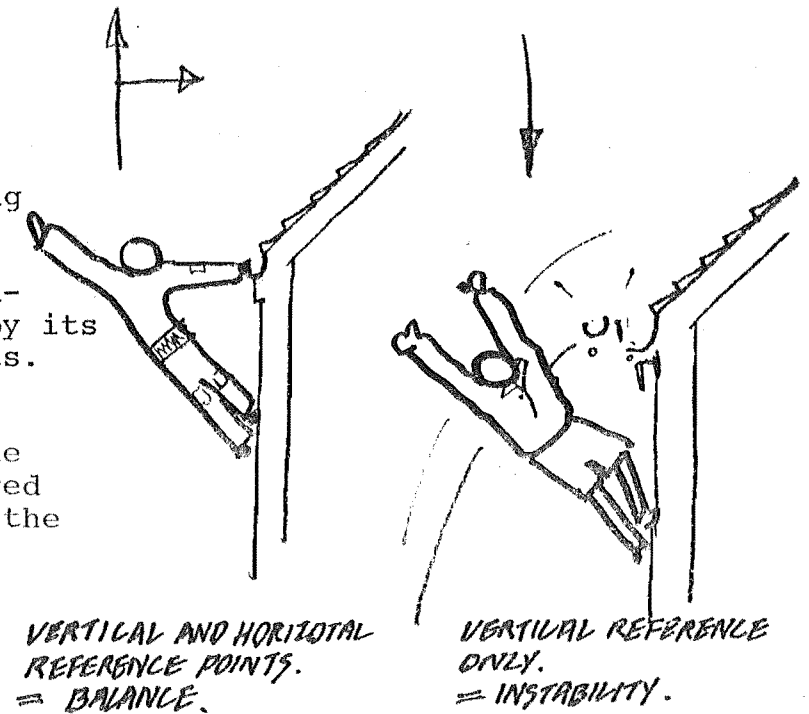
Composition starts with the selection of the basic elements. The relationships of the elements to one another, dictates the composition so that the required logical meaning will be evident and appropriate to the medium used, e.g. Presentation Graphics.

COMPOSITIONAL TECHNIQUES

Balance and Equilibrium

All visual patterns have a centre of gravity which can be seen and felt by everyone. It is an unconscious response to the vertical and horizontal logic of gravity. A quickly perceived alignment that is important to our sense of equilibrium in the environment. A sense of stabilisation or interpretation process that imposes on all things seen and planned. It is usually a vertical axis with a horizontal secondary reference point to establish structural factors that measure balance.

Stress is the opposite to balance. Visually a lack of balance or regularity is a disorienting factor, but can be manipulated to create a response to a particular visual message, e.g. highlight excitement, speed, movement. Movement being the most important.



PREFERENCE FOR LOWER LEFT

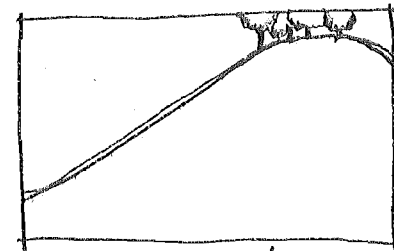
Studies¹ have shown that the eye favours the left hand and lower area of any visual field. The primary scanning pattern is the vertical and horizontal balance orientation and then secondary scanning pattern from lower left to right.

It is thought that left to right scanning has some relationship with Western writing and reading left to right, but has yet to be confirmed.

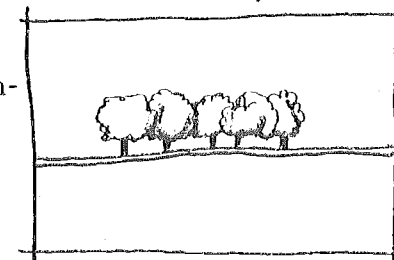
Knowledge of these preferences can be used to manipulate the images on the drawing sheet to emphasise intended meaning of the visual message.

The eye will be under less stress if the dominant visual element is in a position that conforms to expectations. Alternatively, greater impact can be achieved if the dominant element is in a less expected position, e.g. upper right hand corner.

To communicate the message visually, the basic tools of graphic communication: individual graphic elements (dot, line); expressive techniques (bold, subtle); and composition (preference for lower left) must be physically recorded by the most relevant and appropriate graphic techniques for the subject matter. Following the holistic format and its parts, each landscape parameter will have its own appropriate graphic method to best describe its intrinsic nature in a logical manner. Listed below are some appropriate graphic techniques to record physical and cultural elements and form, line, colour and texture as outlined in Chapter Two.



EXCITEMENT / TENSION • UNEXPECTED



REPOSE • EXPECTED COMPOSITION

¹Arnheim, R. Art and Visual Perception.
Gestalt Psychology.

COMPOSITION

Seeing means sorting out the patterns, so any ambiguity must be avoided.

BALANCE

Equilibrium

Stability

Symmetrical

Clarity

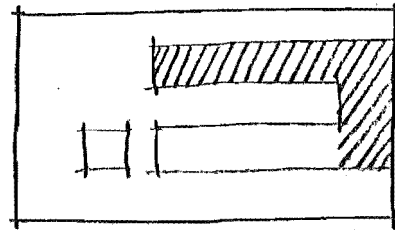
IMBALANCE

Stress

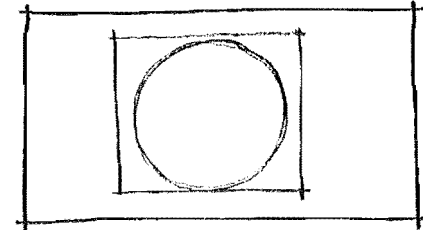
Instability

Asymmetrical

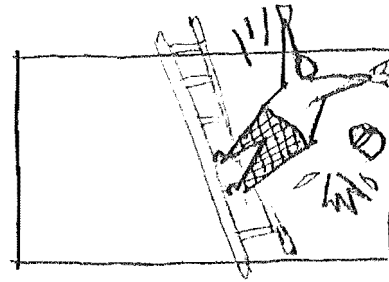
Confusion



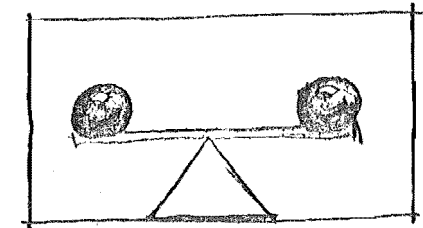
ASYMMETRICAL



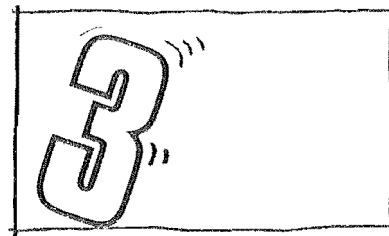
SYMMETRICAL



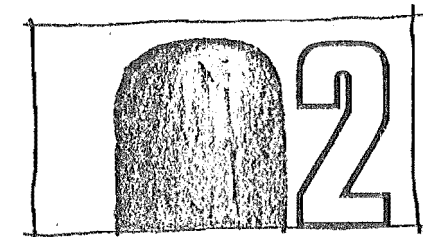
STRESS



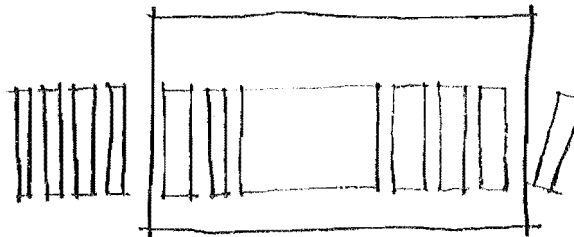
EQUILIBRIUM



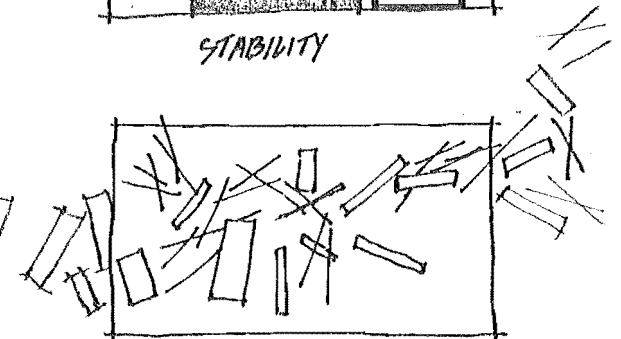
INSTABILITY



STABILITY



CLARITY



CONFUSION

INDIVIDUAL SHEETS OF PHYSICAL, CULTURAL, FORM, LINE, COLOUR AND TEXTURE

Each sheet using the most appropriate method of graphics to illustrate and record information as quickly and accurately as possible.

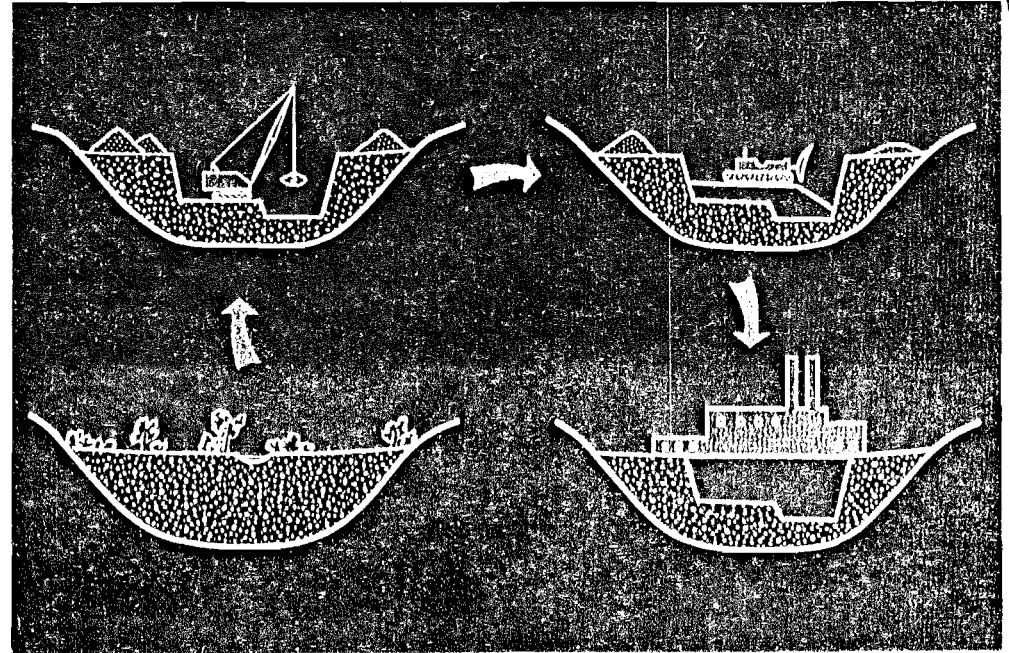
<u>PHYSICAL</u>	<u>CULTURAL</u>	<u>FORM</u>
- Sequential diagrams physical processes	- Topographic maps	- Contour plans
- Earth science maps	- Sketches, historic details	- Topographical maps
- Exploded diagrams	- Land use diagrams	- Earth science maps
- Topographic maps	- Population growth charts	- Diagram of earth building and erosion processes
- Graphs	- Settlement location plans	- Block diagrams
- Flow charts - overview of physical elements	- Architectural details	- Overlays
	- Existing historic photo- graphs, records	- Cross-sections
- Photographs - black and white and colour	- Computer graphics	- On site sketches

<u>LINE</u>	<u>COLOUR</u>	<u>TEXTURE</u>
- Outline sketches, drawn image	- Colour prints (photos)	- Soil texture, photos, sketches
- Pen and ink line drawings	- Colour sketches	- Rubbings/paper and pencil or crayon
- On site sketches	- Paint charts	- Black and white photos
- Directional lines, fixed and transient lines	- Samples, e.g. vegetation colours	- Sketches
- Perspective sketches	- Colour hue and tone identification charts	- Perspective sketches
- Left as a narrow space between forms - edge of coloured case, shape, etc.	- Colour relationships contrast/complementary	- Diagrams, repeated patterns
	- Colour notes, colour samples on-site	- Found examples required texture

CULTURAL ELEMENTS · GRAPHIC TECHNIQUES



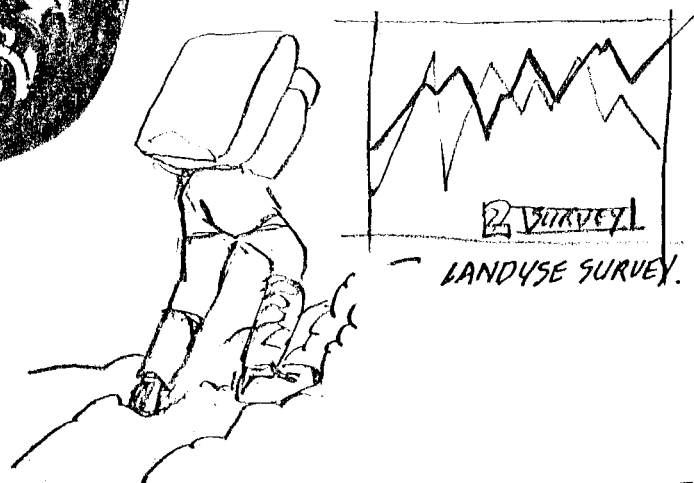
HISTORIC PHOTOGRAPHS AND SKETCHES



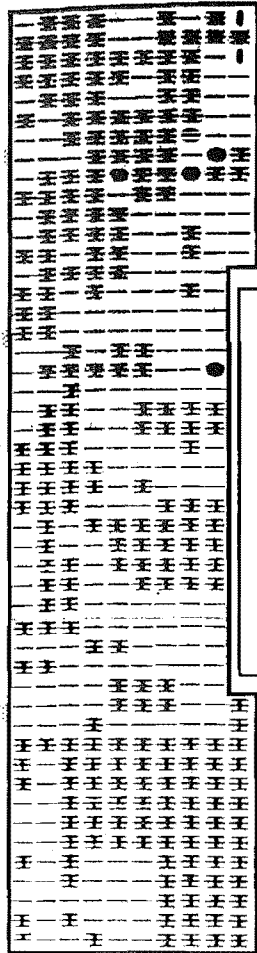
SEQUENTIAL LANDUSE DIAGRAMS.



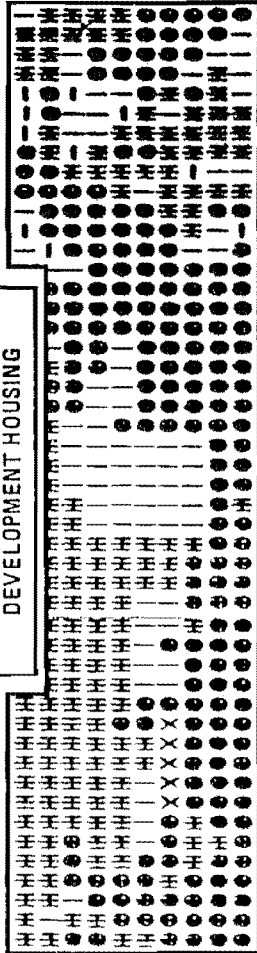
STYLISTED TRADITIONAL PATTERNS



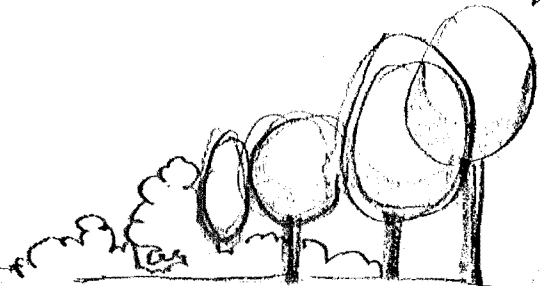
PHYSICAL ELEMENTS · GRAPHIC TECHNIQUES



CAPABILITY FOR PLANNED
DEVELOPMENT HOUSING



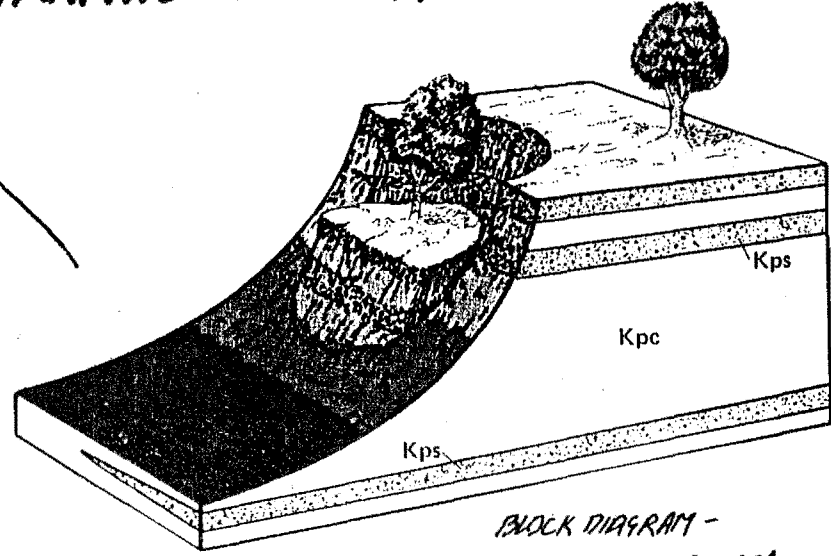
COMPUTER TECHNIQUES



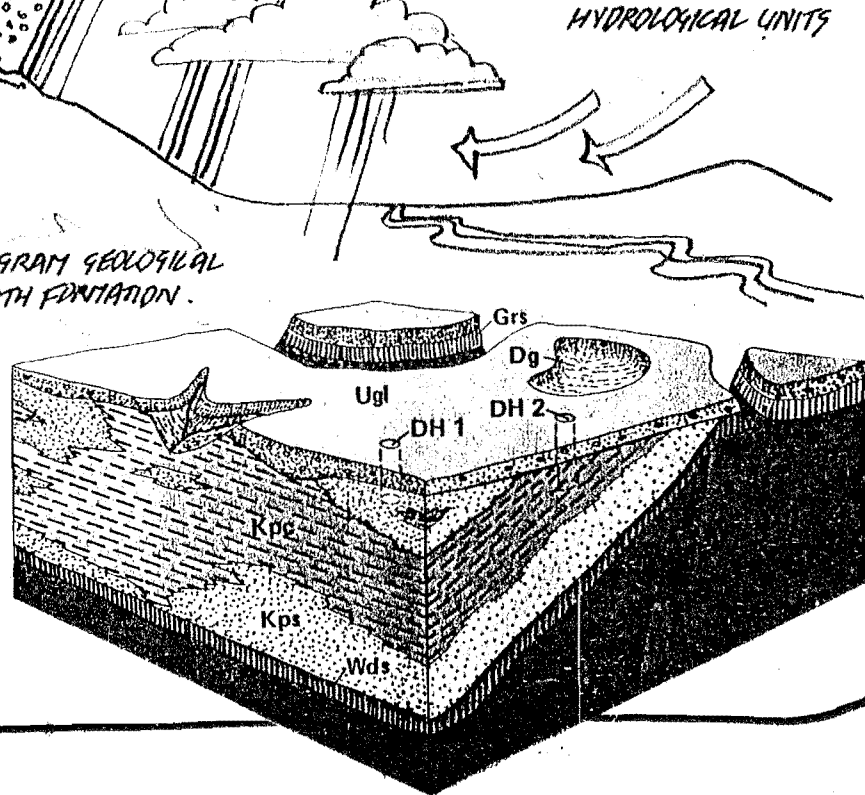
VEGETATION
GRADIENTS.



DIAGRAM GEOLOGICAL
EARTH FORMATION.



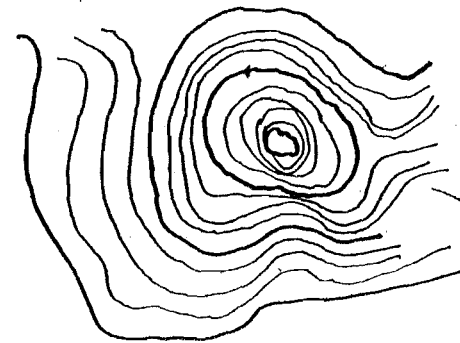
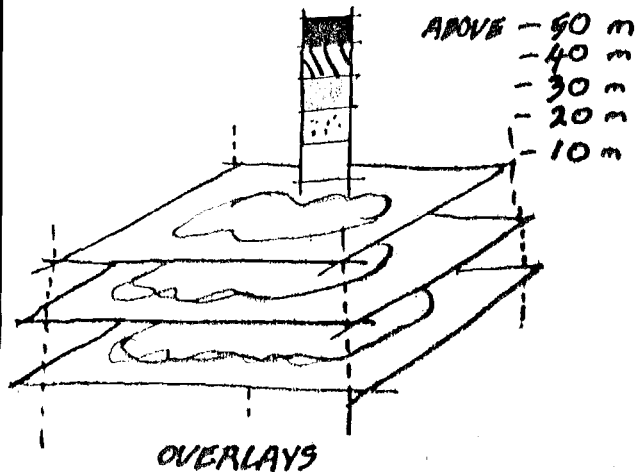
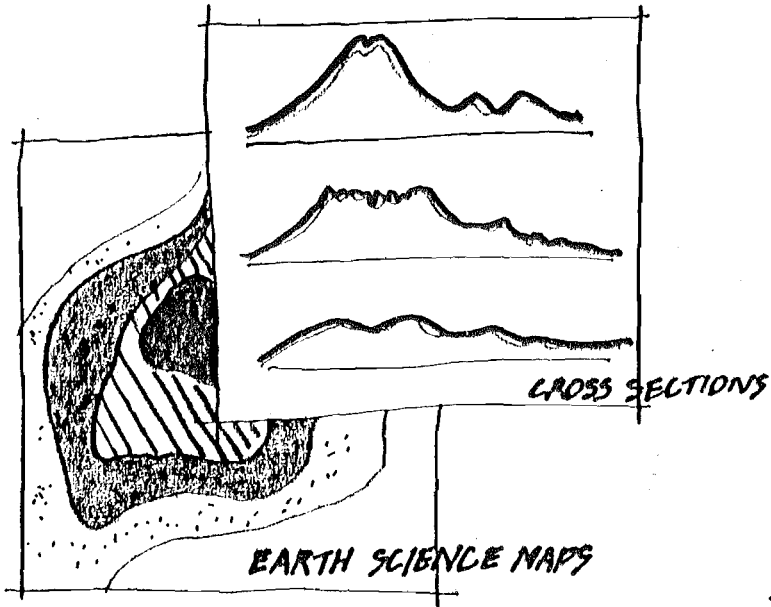
BLOCK DIAGRAM -
SOIL SCIENCE DATA.



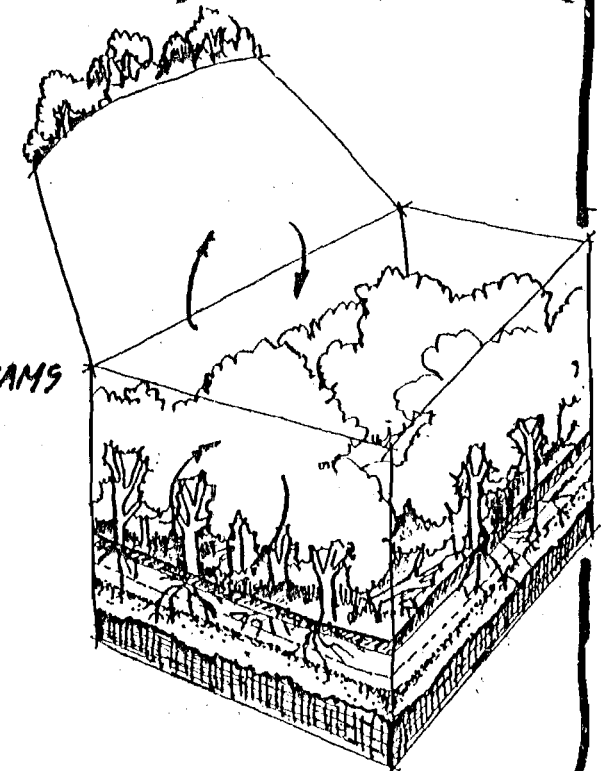
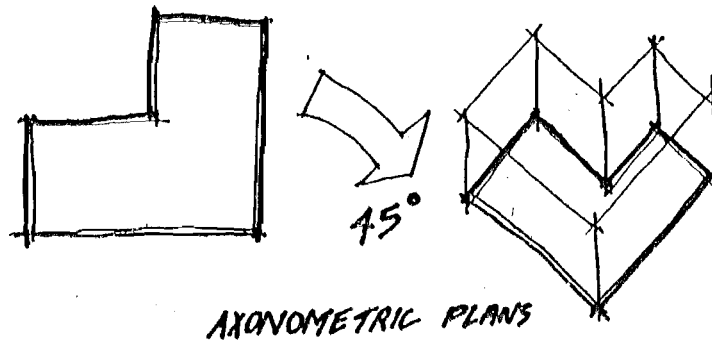
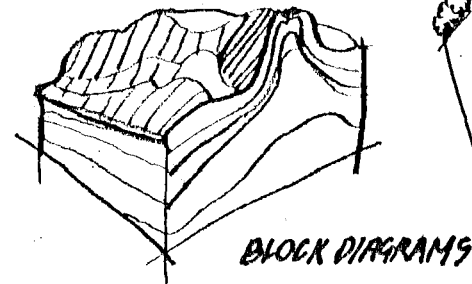
HYDROLOGICAL UNITS

FORM • GRAPHIC TECHNIQUES

GRAPHICS TO COMMUNICATE FORM.
(3D. COMMUNICATED IN A 2D. MEDIUM)

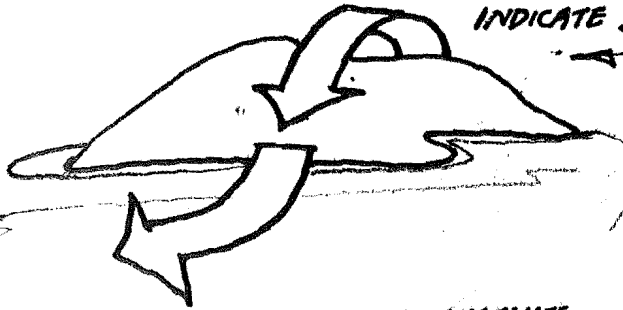


PERSPECTIVE SKETCHES

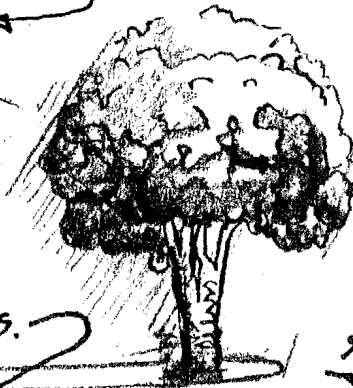


FORM · GRAPHIC TECHNIQUES

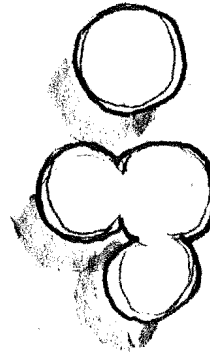
USE ARROWS TO
INDICATE 3D.



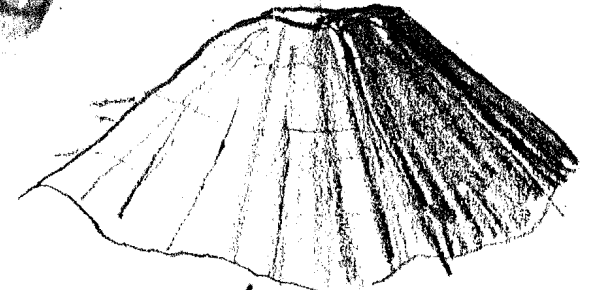
QUICK ON SITE SKETCHES
RECORD DIFFERENT LANDFORMS.



SHADOWS



SHADOWS LONG OR SHORT
DEPENDENT ON SUN ELEVATION
BUT ALL SHADOWS ON ONE PLAN
RELATIVE TO EACH OTHER.



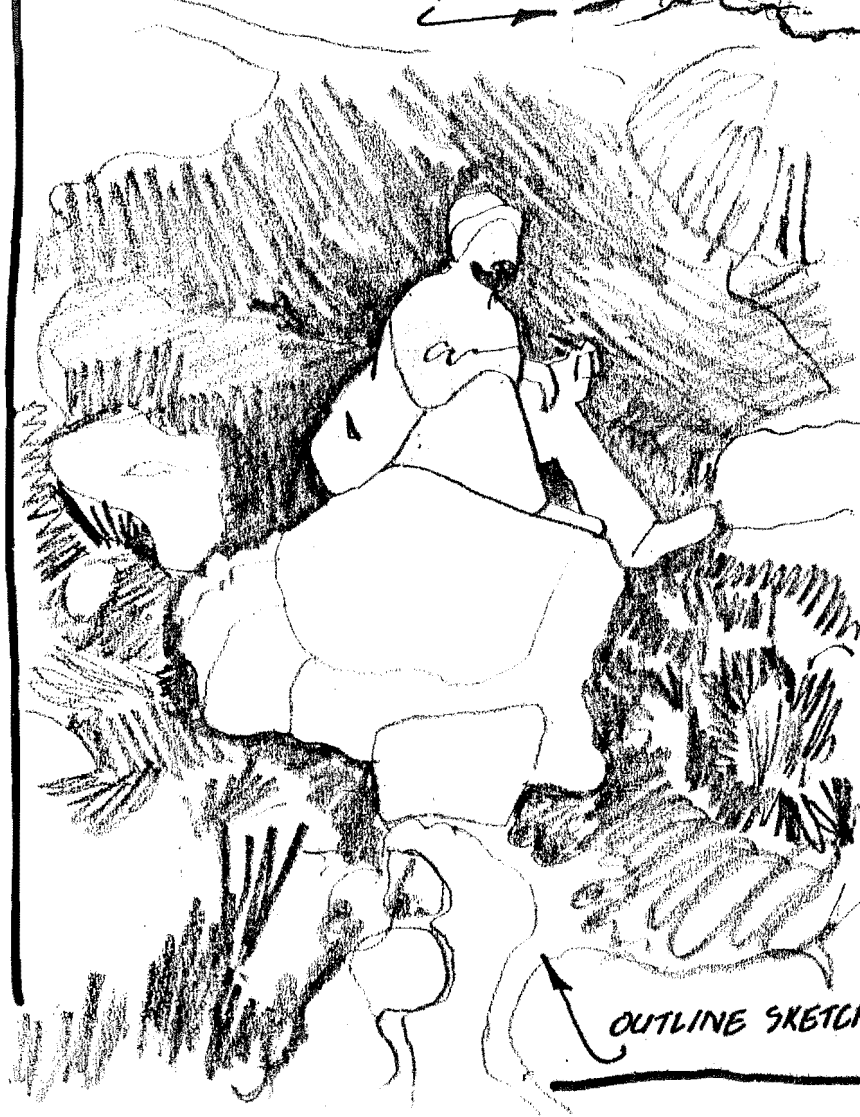
SHADING TO EMPHASISE FORM.



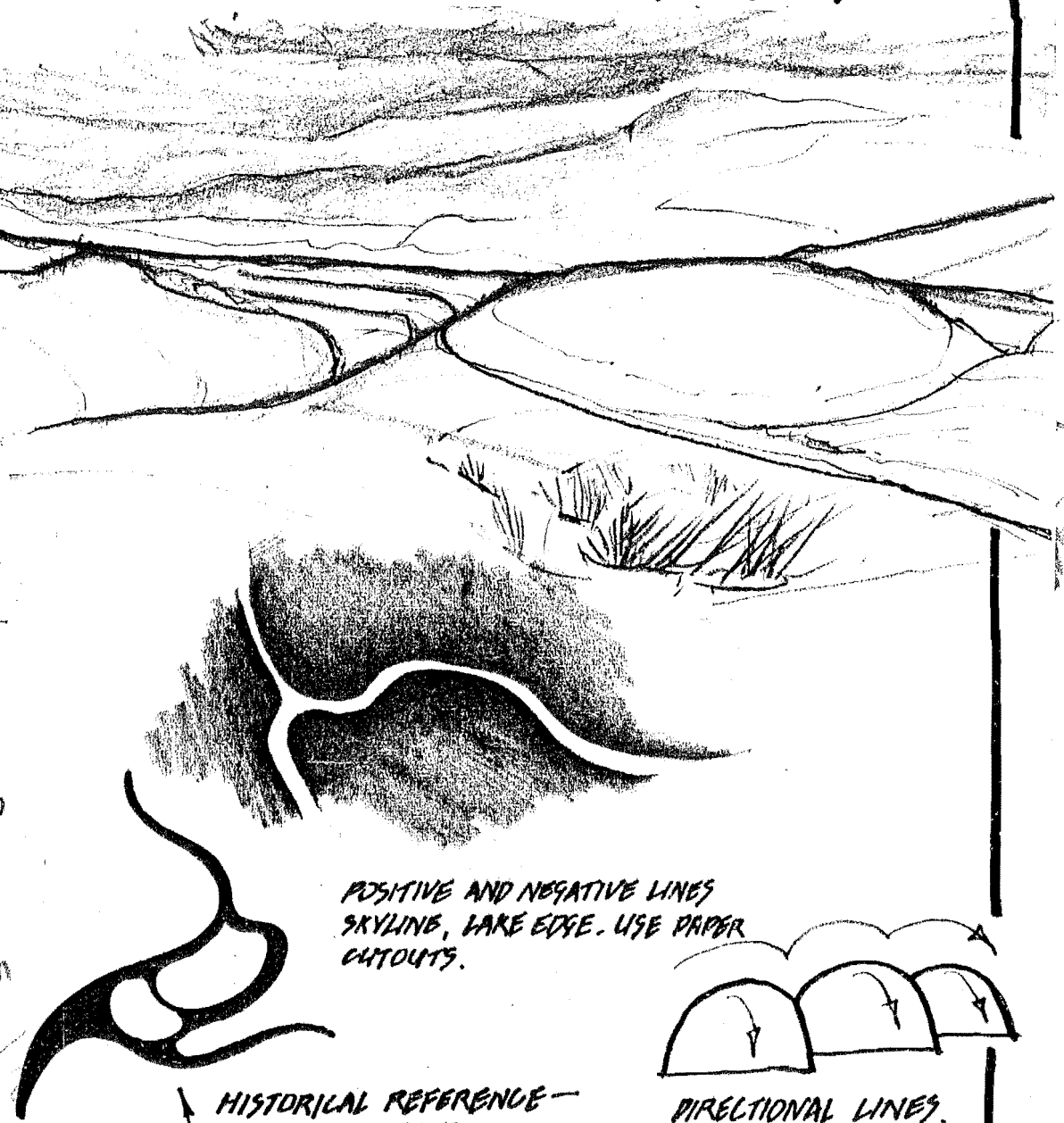
Whakapapa
Rock faces.
30/1/04.

LINE • GRAPHIC TECHNIQUES

ON SITE PENCIL AND
INK SKETCHES -
FIXED AND TRANSIENT
LINES.



OUTLINE SKETCHES



POSITIVE AND NEGATIVE LINES
SKYLINE, LAKE EDGE. USE PAPER
CUTOUTS.

HISTORICAL REFERENCE -
MADRI PATTERNS.



DIRECTIONAL LINES.

COLOUR. GRAPHIC TECHNIQUES

COLOUR NOTES ON SITE SKETCHES.

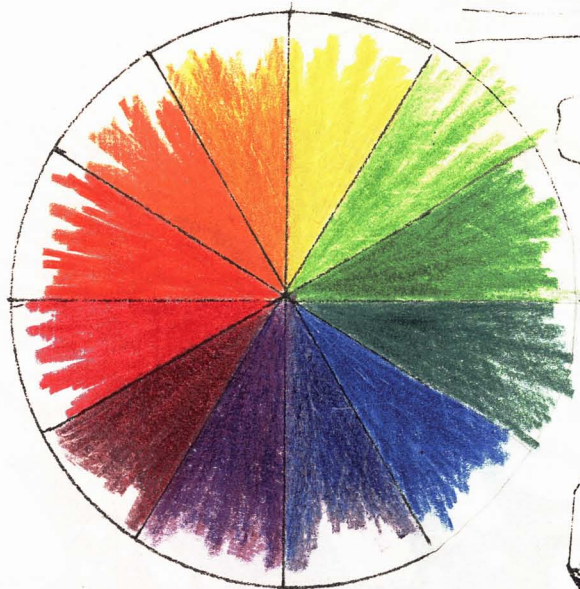
Water Ice Blue/
Grey. White in
Rapids.

Shadows
Dk. Brown/Black.

Grass Dk. green/brown.

Alpine veg.
Brown.

Smooth stones
Steady/Greys + light
Blue/pinks.



COLOUR (HUE) AND TONE
IDENTIFICATION CHARTS.

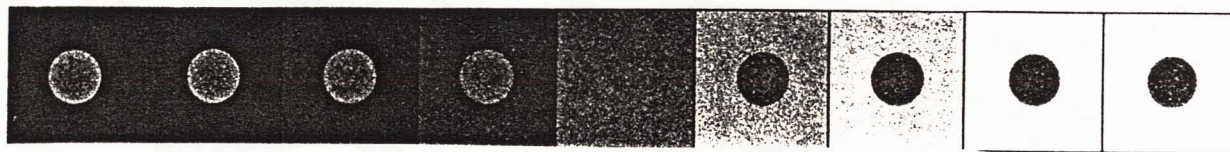
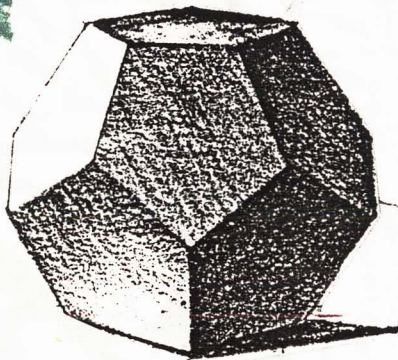
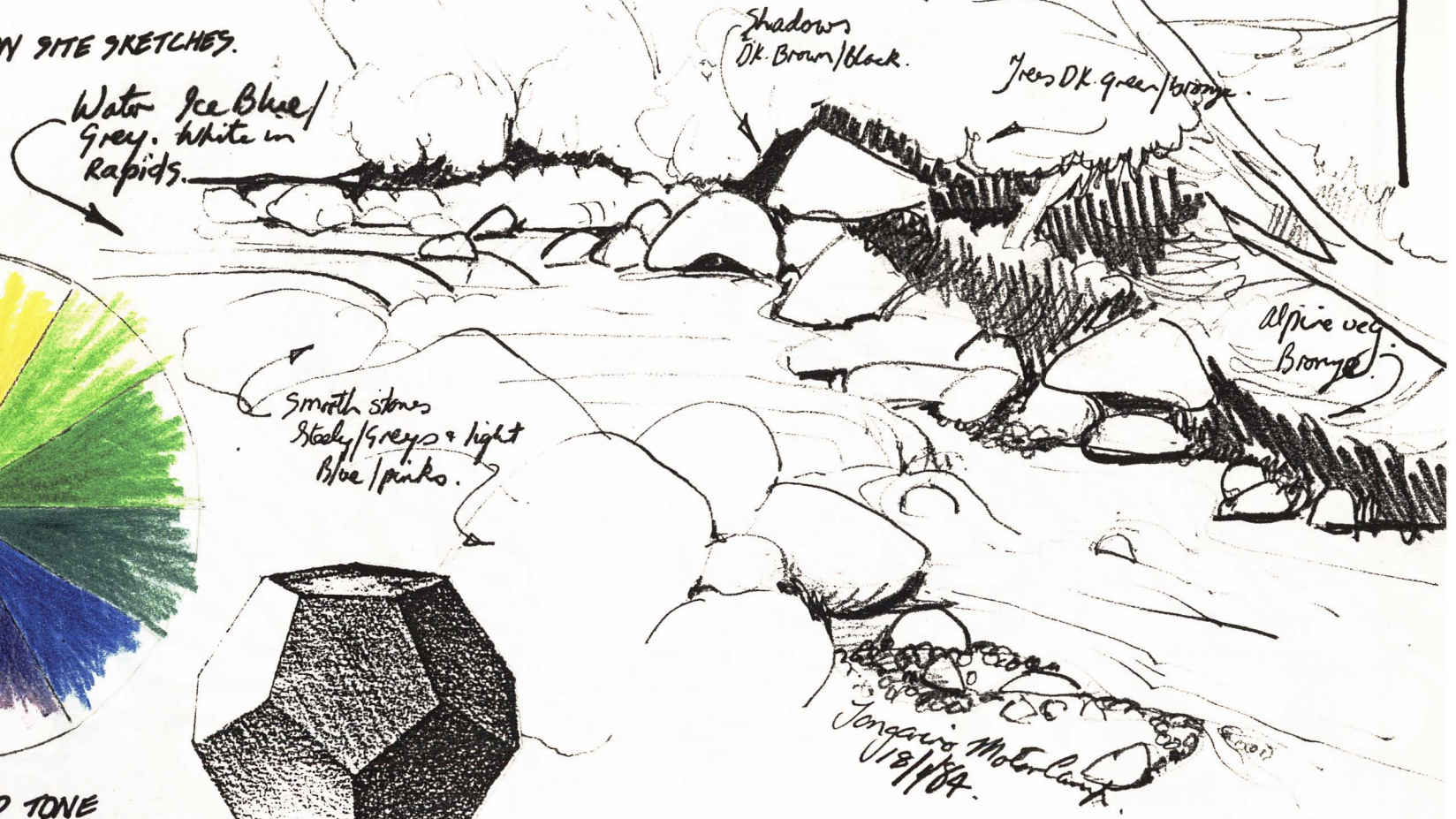


CHART SHOWING SEVEN GRADATIONS BETWEEN BLACK AND WHITE
WITH INNER CIRCLES OF IDENTICAL MIDDLE TONE.



Jongaini Motor Camp
1/8/84.

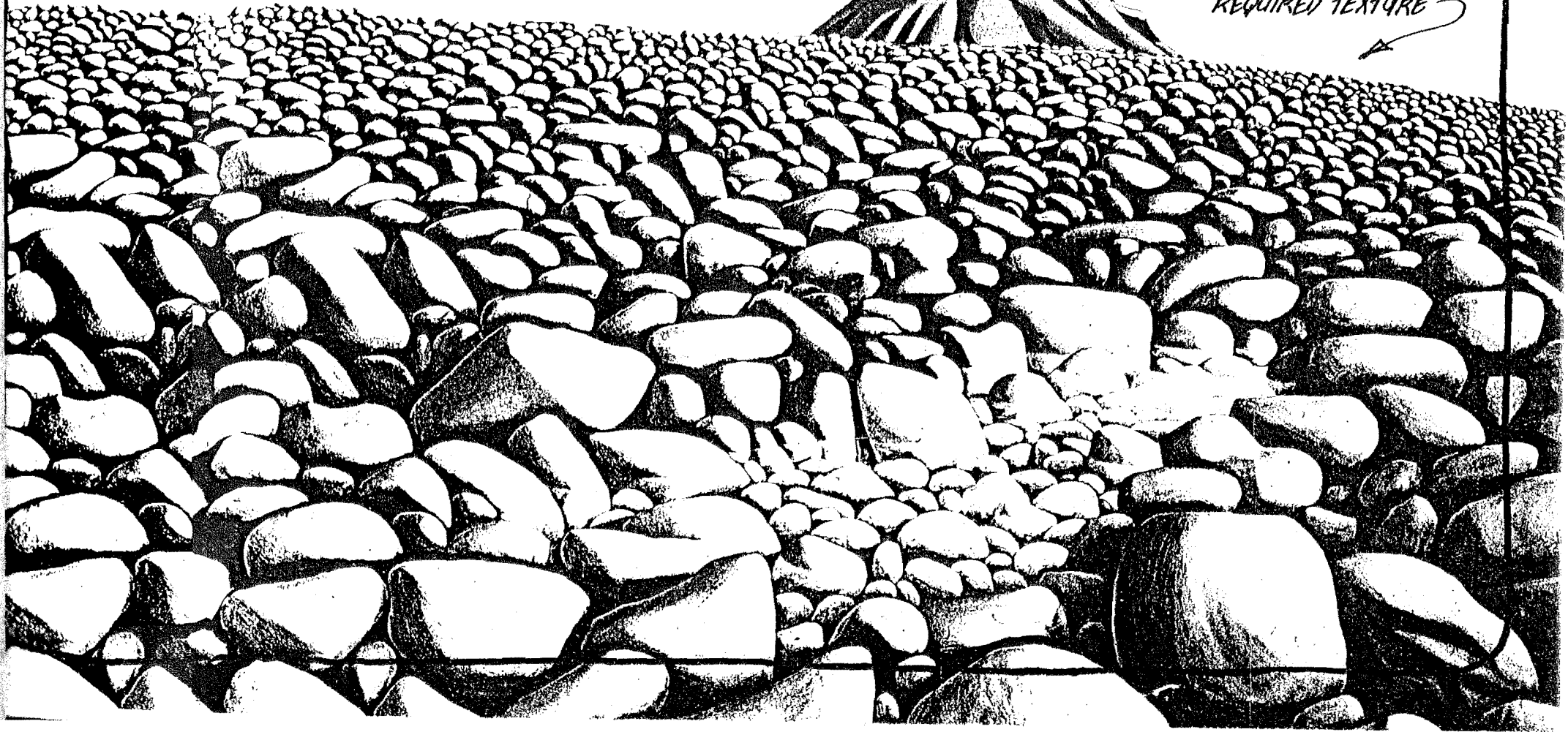
TEXTURE • GRAPHIC TECHNIQUES

TEXTURE IS ESSENTIALLY ANY SURFACE
SEEN IN PRESENCE OF LIGHT.

DIAGRAMS

PERSPECTIVE SKETCHES.

'FOUND' EXAMPLES OF
REQUIRED TEXTURE



SUMMARY

The graphic techniques to record and communicate landscape character follows the same holistic format of physical and cultural factors and their parts-form, line, colour and texture as outlined in Chapter 2, which reads as the overall visual message. This overall visual message utilises the individual graphic elements and expressive techniques of form, line, colour and texture to achieve and expand the visual message.

It is recorded as a composite on survey and analysis sheets of physical elements and cultural elements and the parts isolated on individual form, line, colour and texture sheets. Although there is some overlap, the composite sheets serve to reinforce the holistic record.

CHAPTER FOUR

STUDY METHODOLOGY

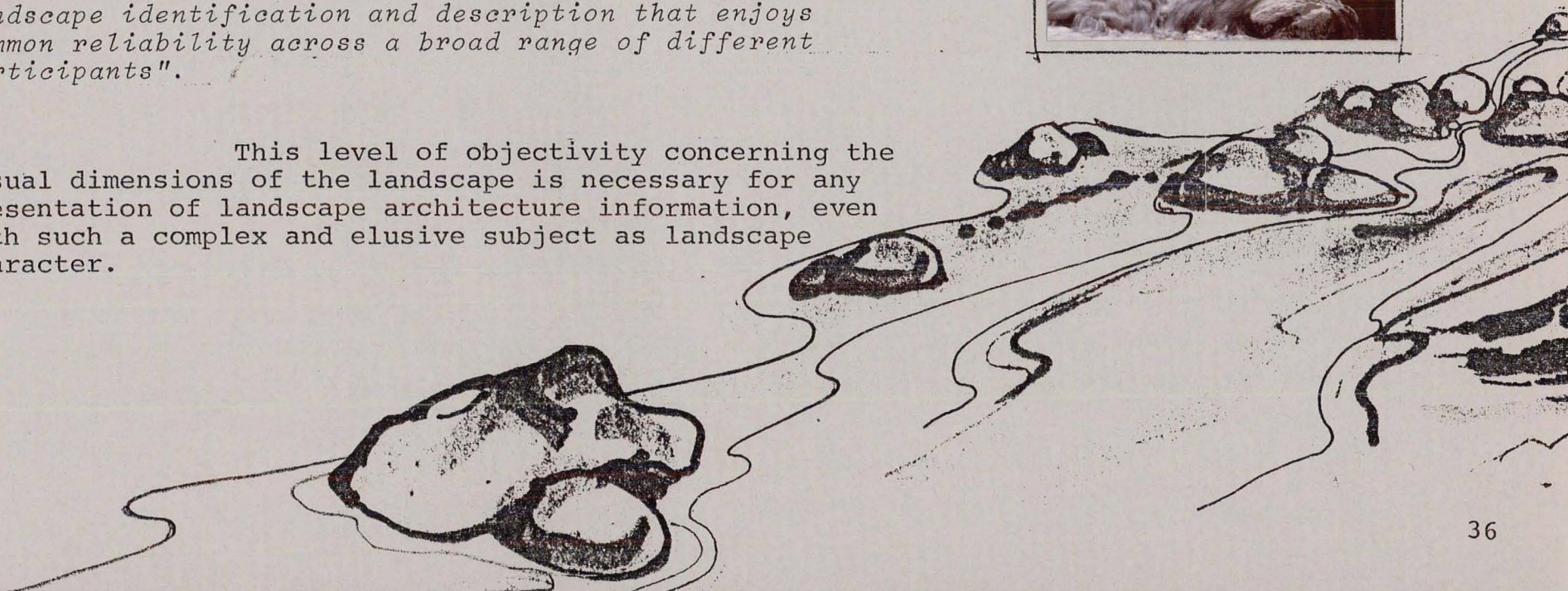
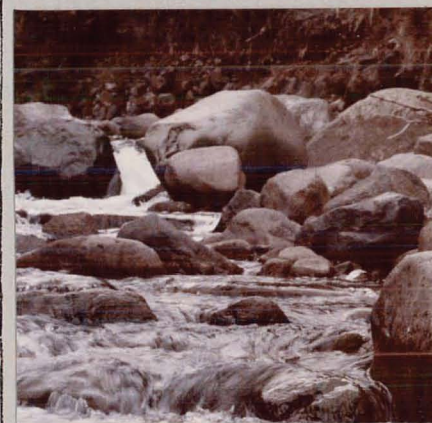
The message - landscape character, and the media - graphics, can be in this studies hypothesis, combined to further communication by the use of the two overall holistic premises and the parts of each. From Chapters 2 and 3 the factors to be considered have been isolated and must now be combined in such a way as to provide a method to clearly and accurately communicate the necessary information.

In theory, by making use of readily understood parameters it should be possible for everyone to come to some agreement about what landscape character is, and to visually document and communicate in a rational way.

Or, as Litton puts it,

"We are looking for a system of landscape identification and description that enjoys common reliability across a broad range of different participants".

This level of objectivity concerning the visual dimensions of the landscape is necessary for any presentation of landscape architecture information, even with such a complex and elusive subject as landscape character.



STUDY FORMAT

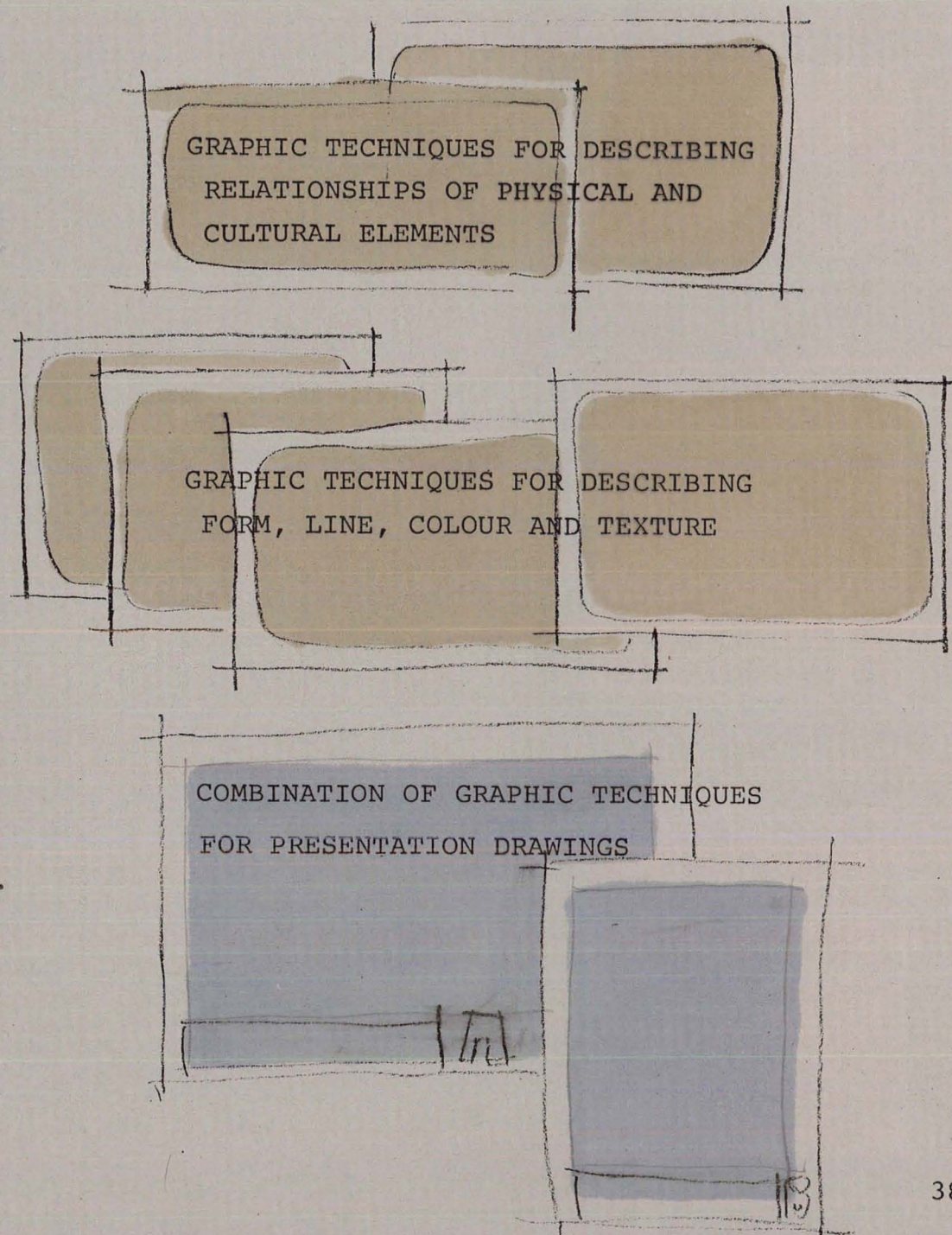
LANDSCAPE CHARACTER

GRAPHIC MEDIA

These two processes are combined in the study format to further visual communication of information.

STUDY FORMAT

- (1) Initial site data based on physical and cultural data (see Appendix 1).
- (2) Survey and analysis notes and overview of physical and cultural elements. Individual survey and analysis sheets, form, line, colour and texture.
- (3) Presentation drawings. Summary of all survey and analysis.



PART TWO



INTRODUCTION

To test the hypothesis using the methodology outlined in Part One, two different landscapes, but with distinct similarities were selected as case studies.

The landscape character parameters indicate two major influences - physical and cultural. To provide a comparison to illustrate if similarities of process could be conveyed by graphic communication it was essential that the two case studies have strong common links yet be areas of different landscape character.

The case studies were chosen so that their links were found in the basic physical data; that is, geology, and they are both volcanic landscapes, and to a degree the natural vegetation. The differences between the two landscapes was caused by climate and cultural influences of historic land use and man-made works, which evoke the special qualities of a unique landscape.

In both cases the methodology outlined in Part One was followed, isolating the component parts of physical and cultural information into their form, line, colour and texture (see Appendix). These were recorded on graphic survey and analysis sheets under the four main headings of graphic representation, form, line, colour and texture and also as overview survey and analysis sheets for physical elements and cultural elements. The graphic sheets using whatever technique was appropriate to the communication of the physical and cultural data.

From these sheets a composite presentation drawing for each case study was produced (see Appendix for full-sized copy).

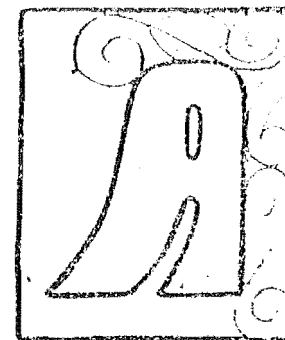
Finally, these case studies are critically analysed to show:

- 1) The successes and failures of the methodology and techniques in each individual case.
- 2) The successes and failures of the overall character portrayal in each individual case.
- 3) To compare the two case studies to show the subtler aspects of the communication of landscape character.

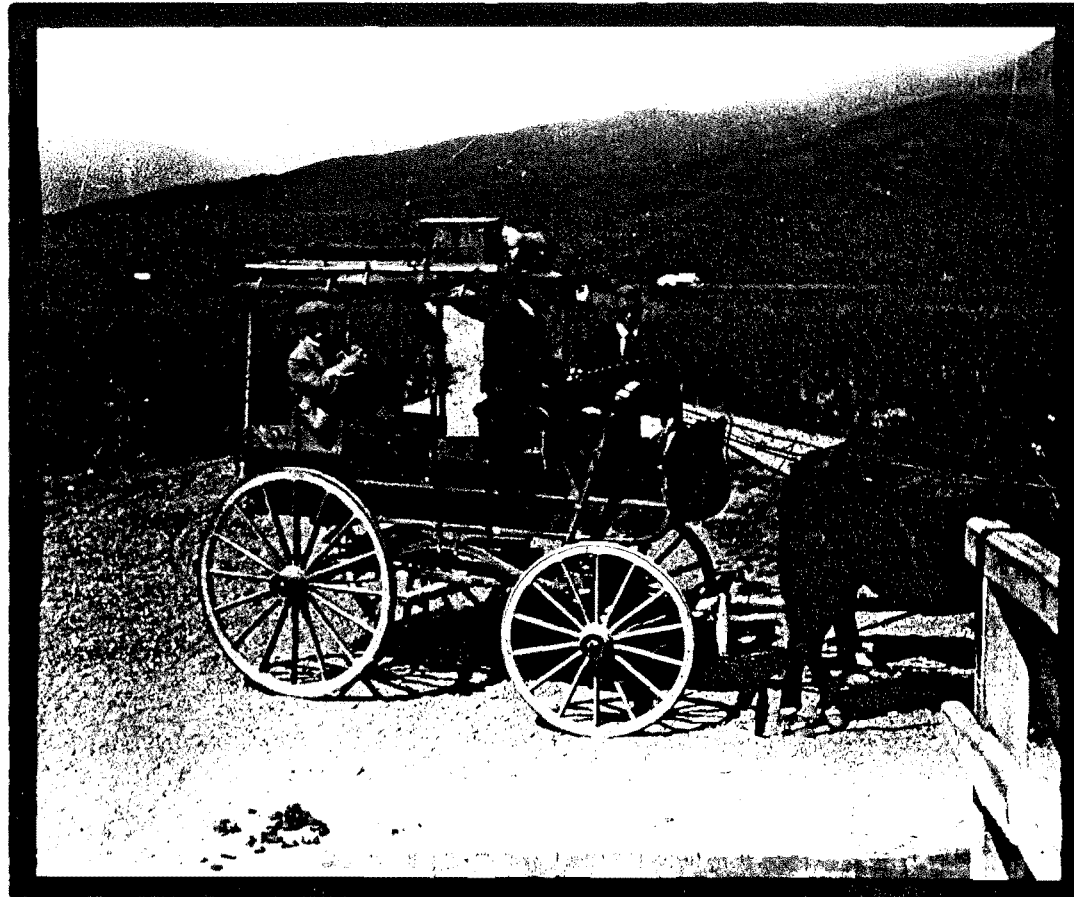


CHAPTER FIVE

CASE STUDY



CULTURAL ELEMENTS SURVEY AND ANALYSIS

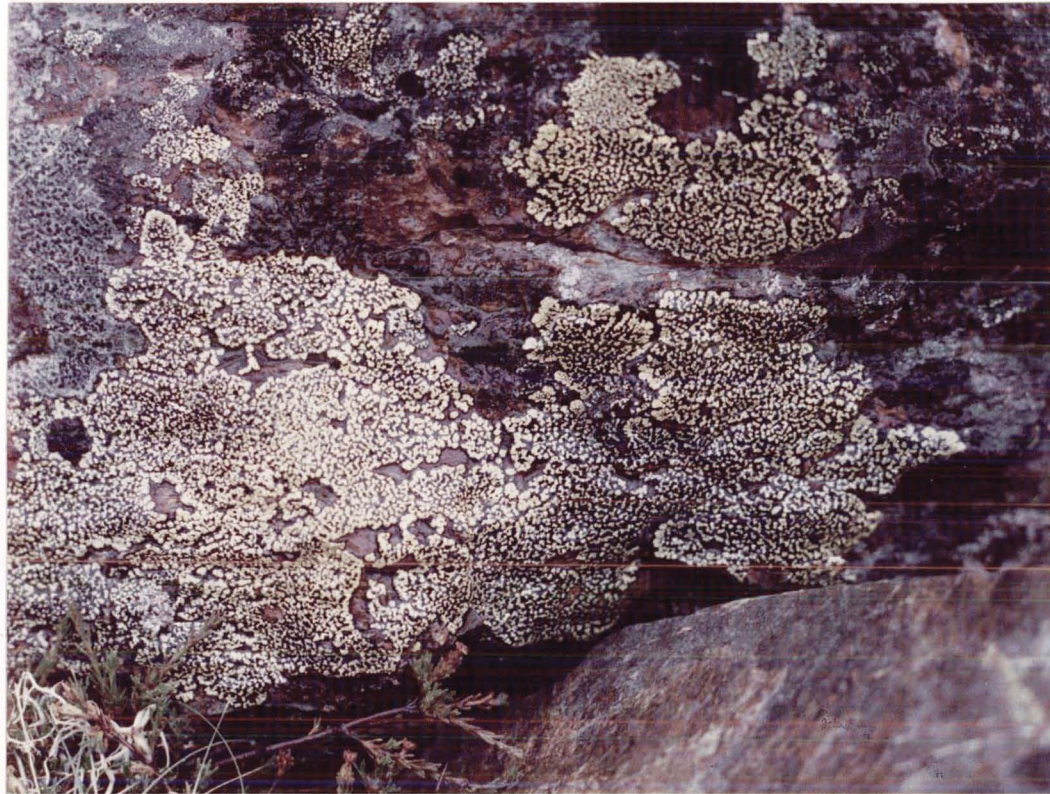


- MAORI SETTLEMENTS
- MAORI RESPECT AND REVERENCE FOR THE TONGARIRO MOUNTAINS
- TE HEU HEU GIFT OF THE SACRED MOUNTAINS TO THE PEOPLE OF N.Z. SEPTEMBER 1887 FOR A NATIONAL PARK.
- EARLY EUROPEANS - RECREATIONAL
- PRESENT DAY VISITORS - RECREATIONAL AND EDUCATIONAL.

PHYSICAL ELEMENTS • SURVEY AND ANALYSIS

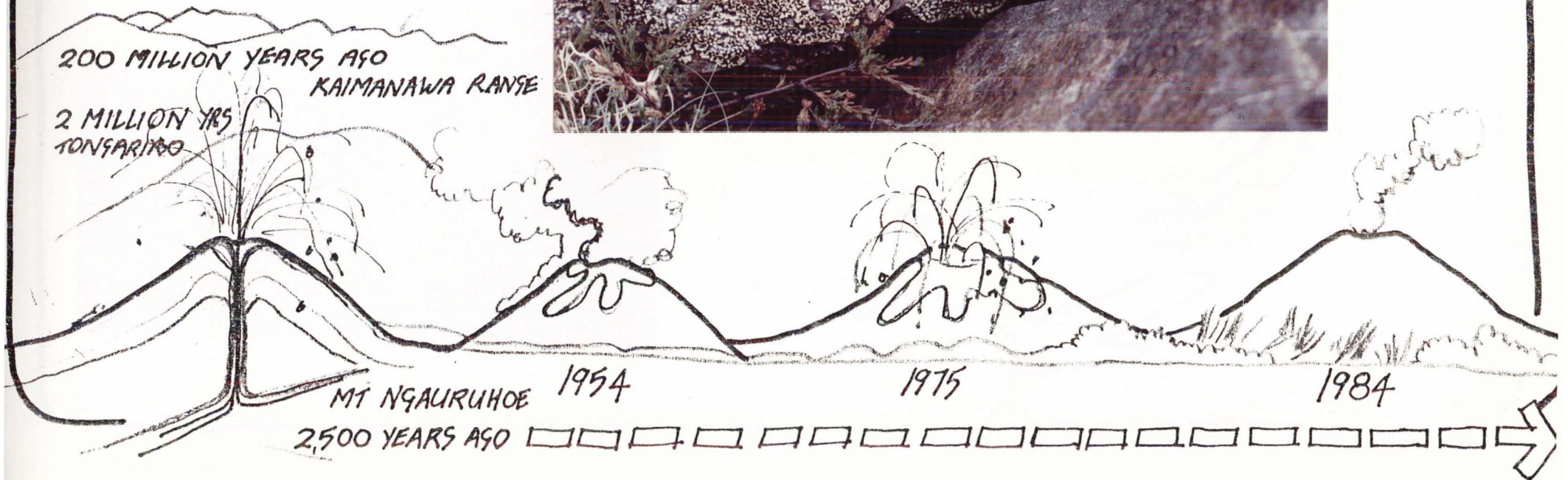
YOUNG LANDSCAPE • MAUNGATEPOFO

- STILL BUILDING - VOLCANIC ACTIVITY
- VEGETATION COVER - FIRST STAGES OF PLANT SUCCESSION
LICHENS, LOW GROUND COVER
TUSSOCK GRASSLANDS.



200 MILLION YEARS AGO
KAIMANAWA RANGE

2 MILLION YRS
TONGARUA



FORM

• SURVEY AND ANALYSIS



ALTERNATE ASH AND LAVA FLOWS
BUILD UP NEAR PERFECT CONE.

TONGARIRO -
OLD VOLCANO

MT. NGAUROHOE -
ACTIVE VOLCANO.

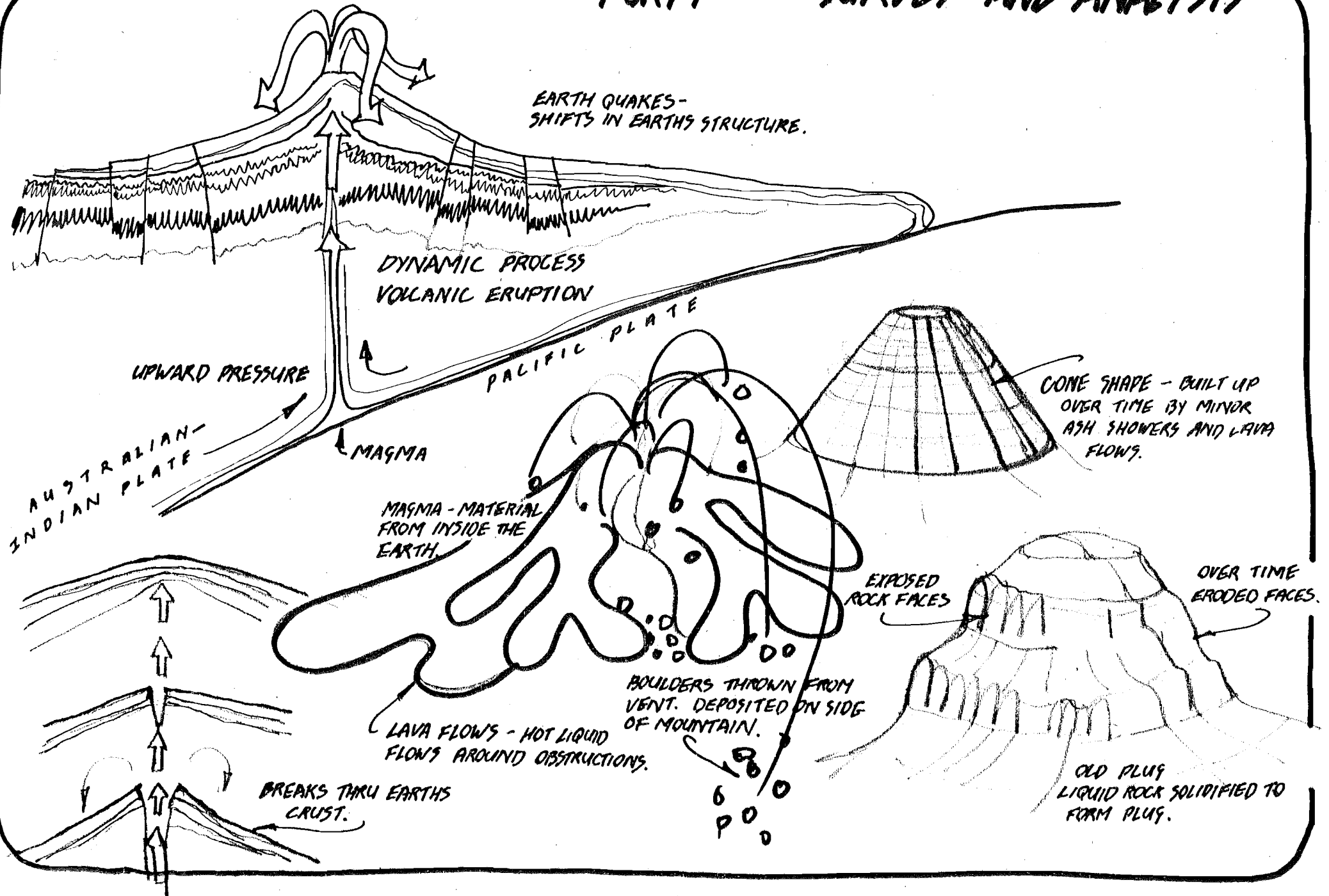
MAUNGATEPOPO VALLEY
VOLCANIC DEPOSITS - ASH
LAYERS, MOLTEN ROCK LAYERS.

PUKEKAIKIORE -
OLD VOLCANO
PLUG.

DURING LAST ICE AGE
VALLEY WAS GLACIATED.

OLD LAVA FLOWS
FILLED VALLEY.

FORM • SURVEY AND ANALYSIS



LINE • SURVEY AND ANALYSIS

EXPOSED ROCK FACES.
VERTICAL LINES —
VERTICAL THRUST OF
HOT MOLTEN
LAVA.



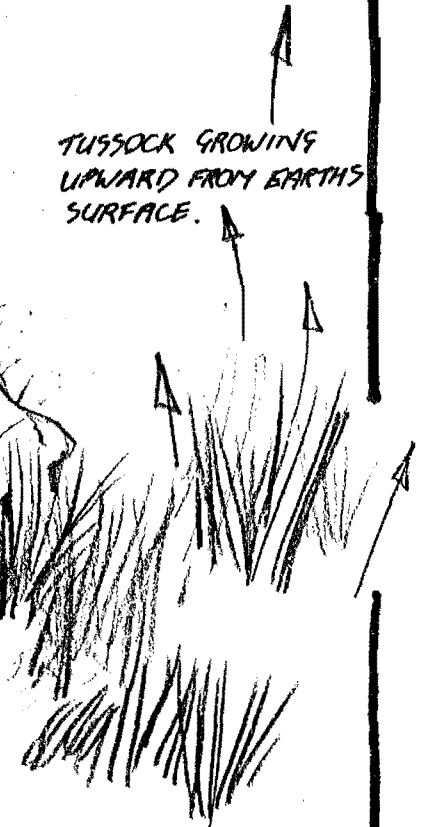
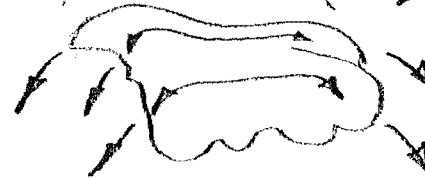
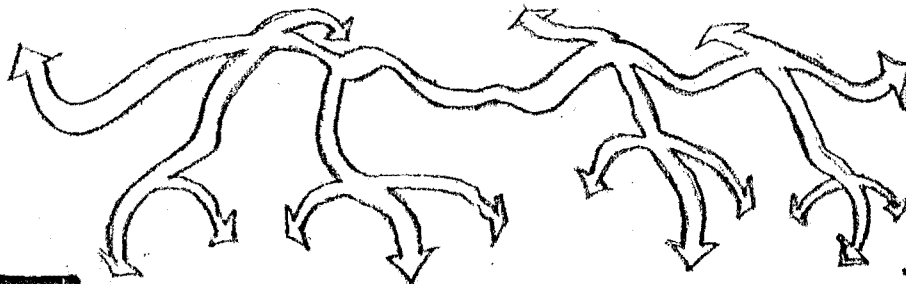
SURFACE OF HOT LAVA COOLS
IN ITS ORIGINAL FLOW
PATTERNS AND DIRECTION.

VOLCANIC ROCK FORMATIONS
HOLDING ONTO THE EARTH'S
SURFACE

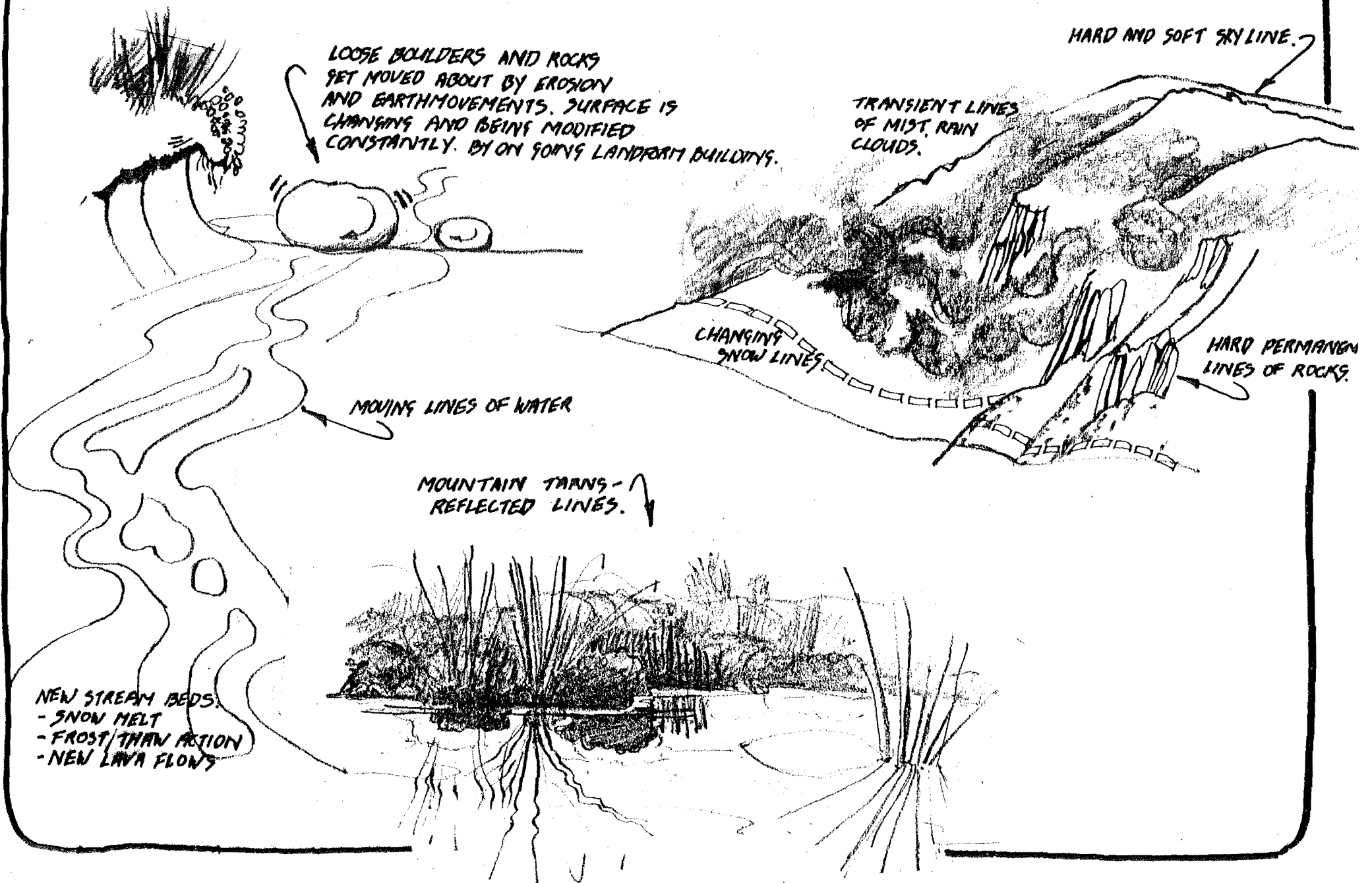
TUSsock GROWING
UPWARD FROM EARTH'S
SURFACE.

FLUID, ORGANIC LINES.
MOVING, RESTLESS

FLOWING ACROSS
SURFACE LANDFORM.



LINE · SURVEY AND ANALYSIS



COLOUR · SURVEY AND ANALYSIS

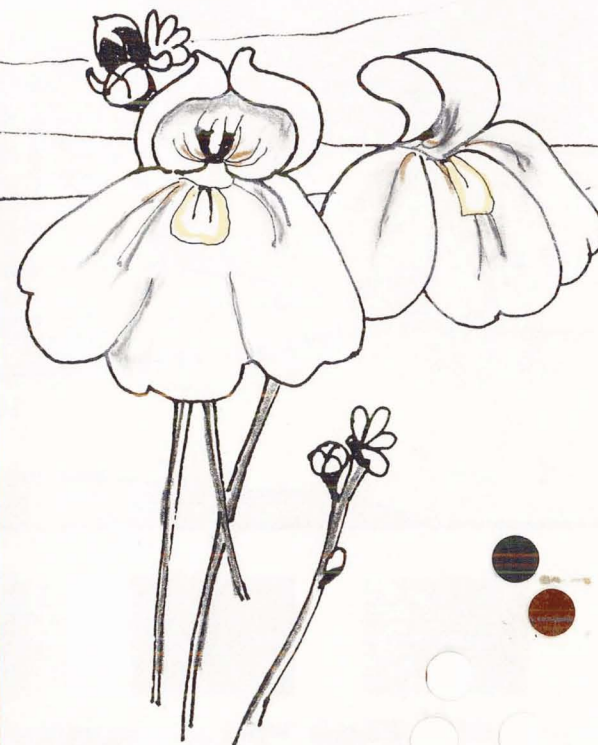
ALPINE VEGETATION

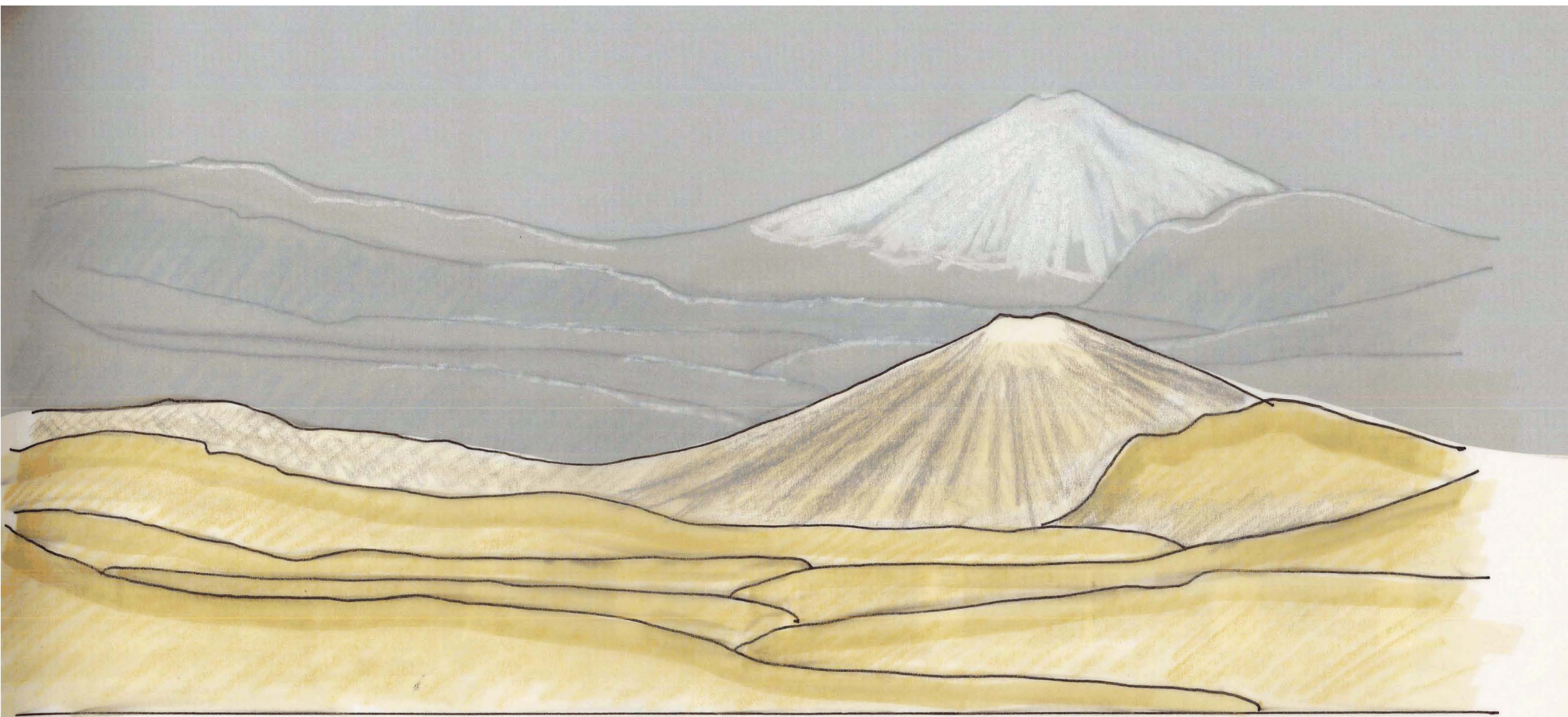
SMALL INSIGNIFICANT FLOWERS

WHITE OR PALE COLOURS

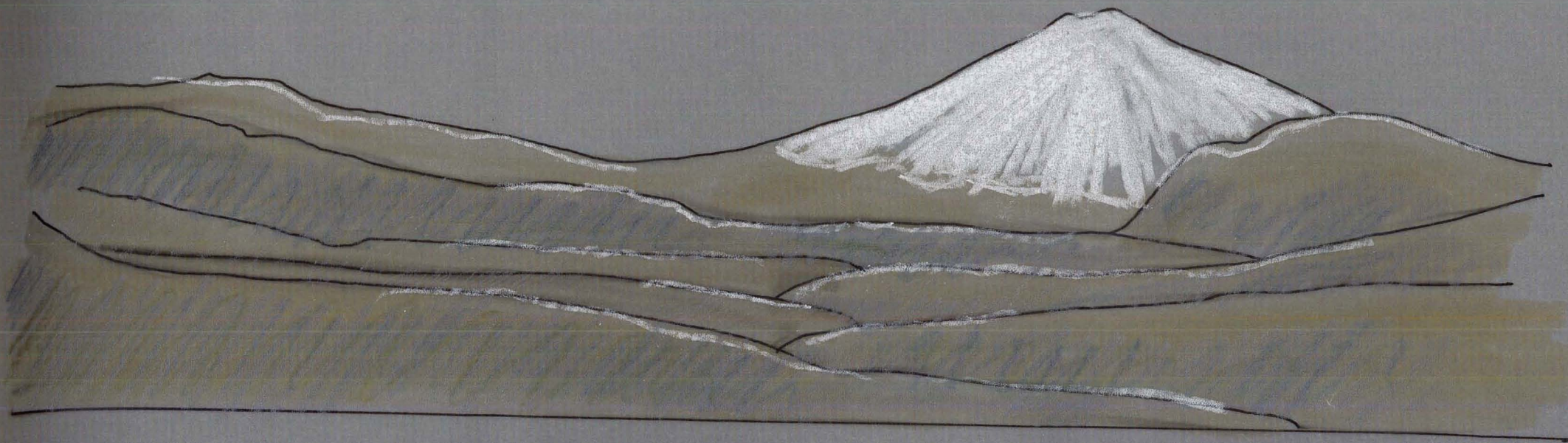
LEAVES DARK GREEN / BRONZE

GOLD / BROWN TUSSOCKS.





SUMMER SURFACE COLOUR. WARM GOLDS/BROWNS.



WINTER SURFACE COLOUR. COLD GREY/BLUES YELLOW/GREENS. WHITE SNOW/ICE.

TEXTURE • SURVEY AND ANALYSIS

SURFACE TEXTURE • DIVERSE

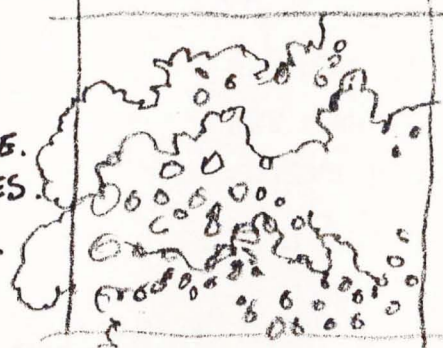
LAVA FLOWS

V. COARSE ROUGH SURFACE.

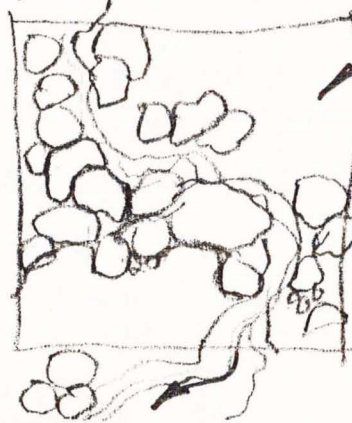
V. POROUS - TRAPPED GASES.



ALPINE HEBB FIELDS



GRAVEL FIELD + STONEFIELDS.



SHRUBLANDS. EXTREMES OF CLIMATE

LOW MOUNDS

LICHENS / PIONEER PLANT SPECIES.

TUSsock GRASSLANDS



SUMMARY OF SURVEY AND ANALYSIS NOTES

KEY LANDSCAPE CHARACTER: YOUNG UNSTABLE LANDSCAPE

ACTIVE VOLCANIC SYSTEM - STILL BUILDING UP LANDFORMS

DOMINANT LANDFORMS:

- 1) Active volcano - cone shape.
- 2) Lava flows down the valley floor - new surface covers.
- 3) Exposed rock walls along the side of the valley.
Vertical structure from volcanic pressures.

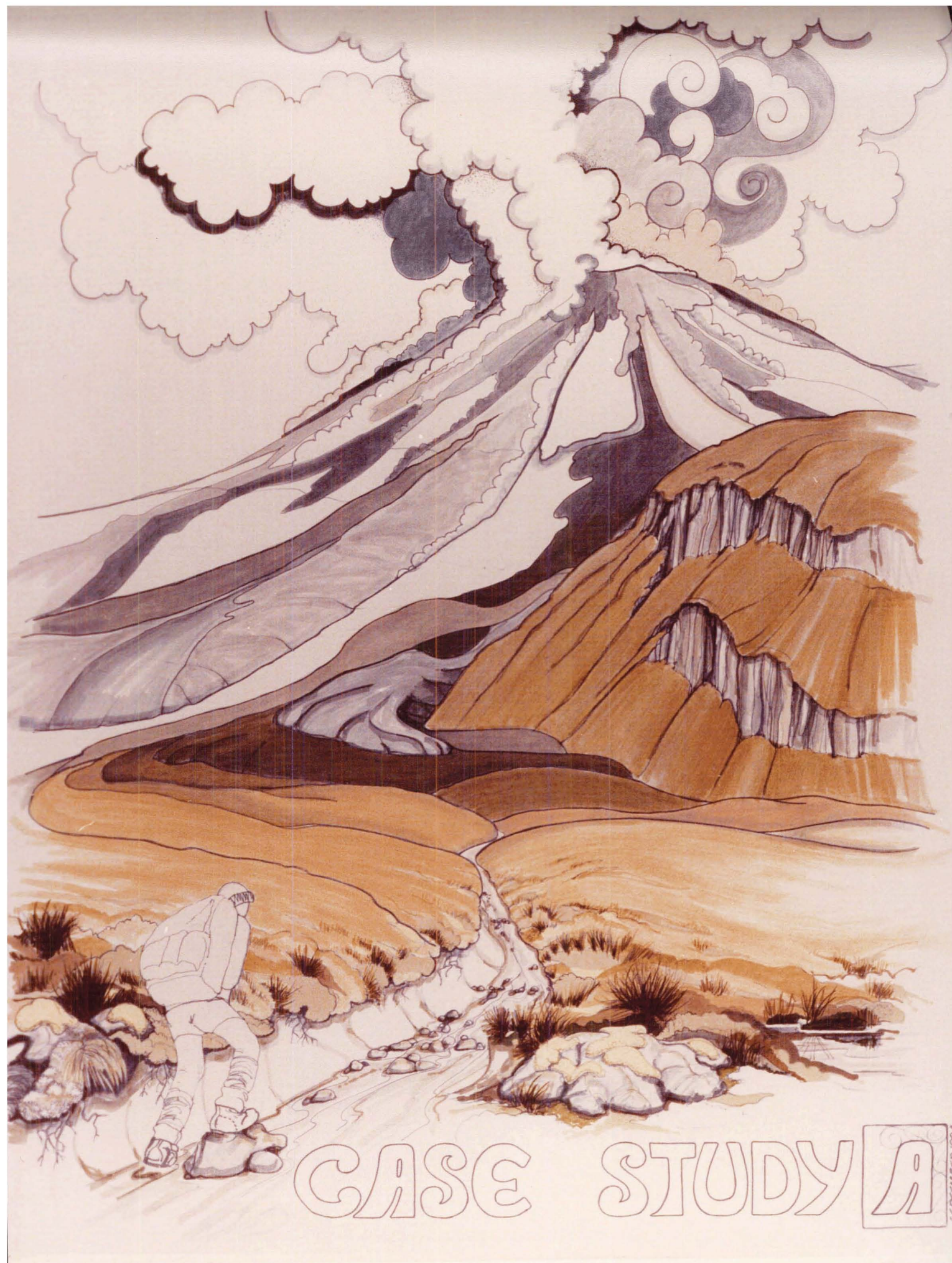
COLOUR:

- 1) Change with the seasons. Gold tussock colour in summer. Darker bronze/green in winter.
Snow cover in higher alpine zones.
- 2) Two major colour zones, i) vegetation and
ii) exposed volcanic rock/debris surfaces.

TEXTURE:

- 1) Unstable surface, constantly moving: volcanic activity.
- 2) Small-scale units on the surface, e.g. rocks and mounds of pioneer plant species and alpine vegetation - tussock.
- 3) Extremes of climate change surface texture, snow, ice, frost heave/thaw, rain, snow melt.
- 4) Unstable surface easily eroded by extremes of climate.

PRESENTATION GRAPHICS



CASE STUDY A



SIX

CHAPTER

CASE STUDY

B

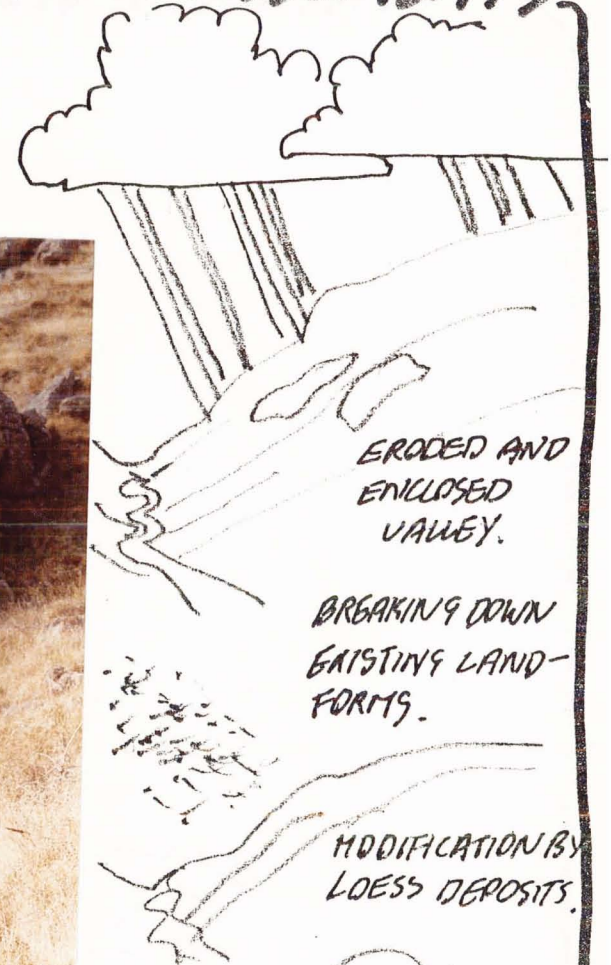
SEPTEMBER 1984

CULTURAL ELEMENTS • SURVEY AND ANALYSIS



SURVEY NOTES - PHYSICAL ELEMENTS

OLD LANDSCAPE - LYTTLETON VOLCANOE.



LICHENS

GROUND COVER

GRASSLANDS

SHRUBS

SMALL BROADLEAF MATURE FOREST.

VEGETATION COMPLETED CYCLE THROUGH TO MATURITY - HAS SINCE BEEN MODIFIED BY NATURAL FORCES eg. FIRES AND MORE RECENTLY BY MAN.

FORM • SURVEY AND ANALYSIS

ALTERNATE ASH AND
LAVA FLOWS.

CENTRAL PLUG

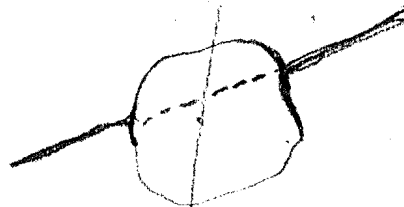
PLUG BLOWN
OUT.

MASSIVE ERUPTION
10-12 MILLION YRS AGO

HILLS WEATHERED OVER
TIME - CRATER RIM STILL
VISIBLE



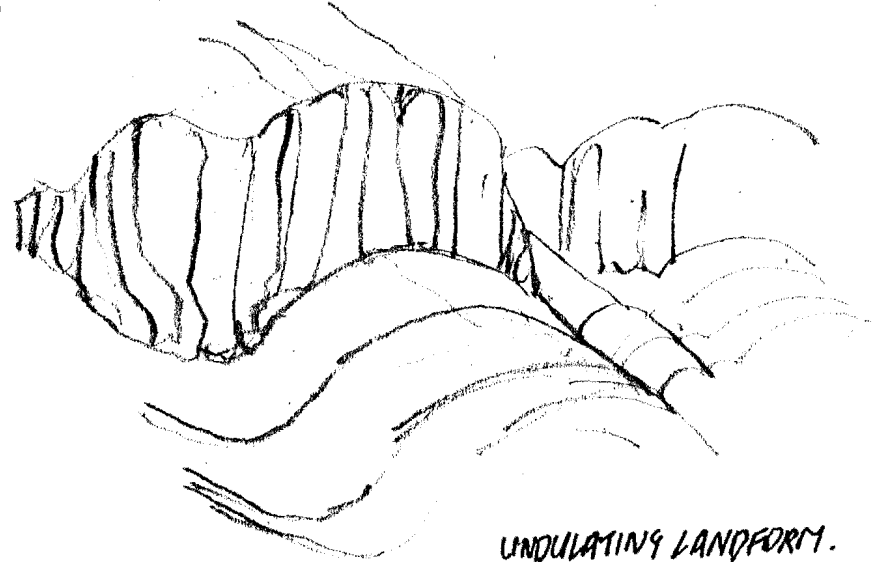
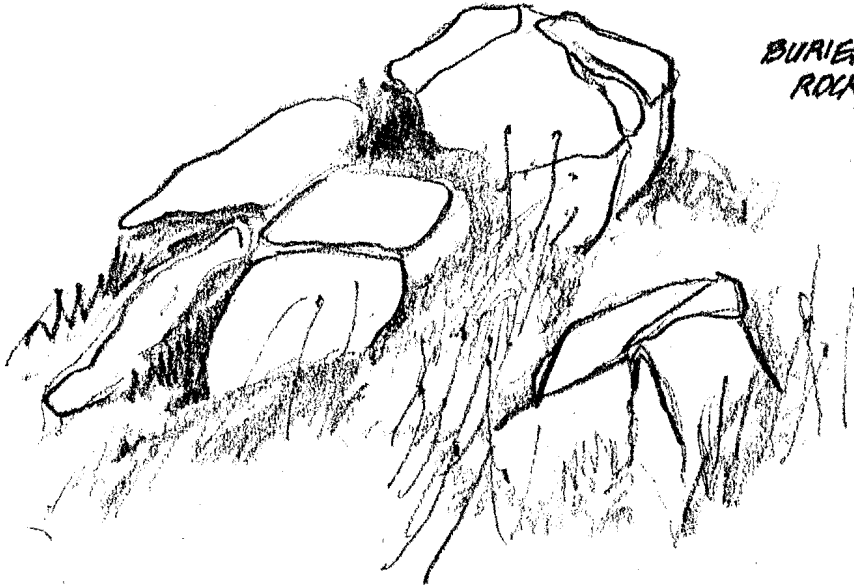
FORM · SURVEY AND ANALYSIS



BURIED
ROCKS - STABILITY

LOESS DEPOSITS

EXPOSED ROCK FACE.



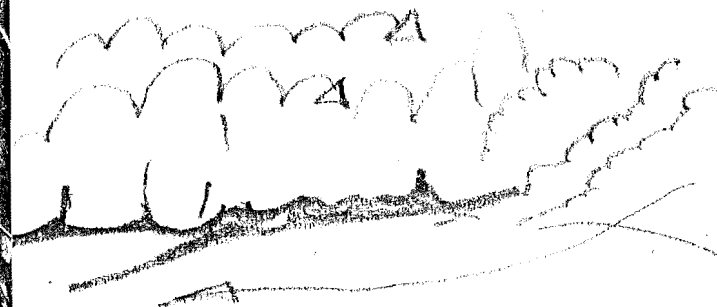
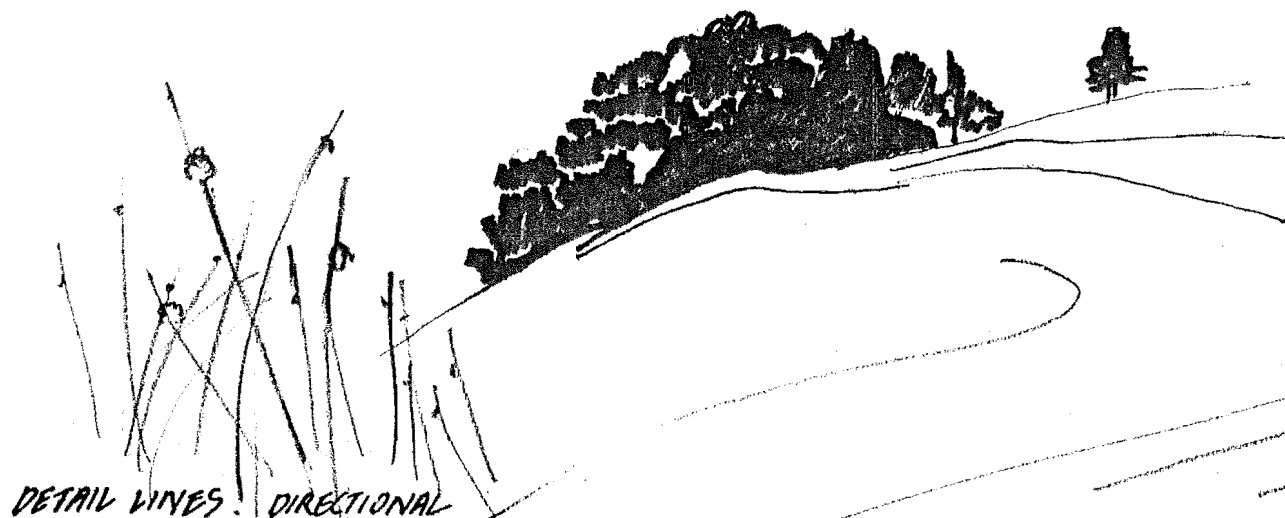
LIGHT AND DELICATE
GRASSES.

SOLID AND
BULKY.

VEGETATION FORM.
MOLD STRONG FORM OF DARK
GREEN BROADLEAF.

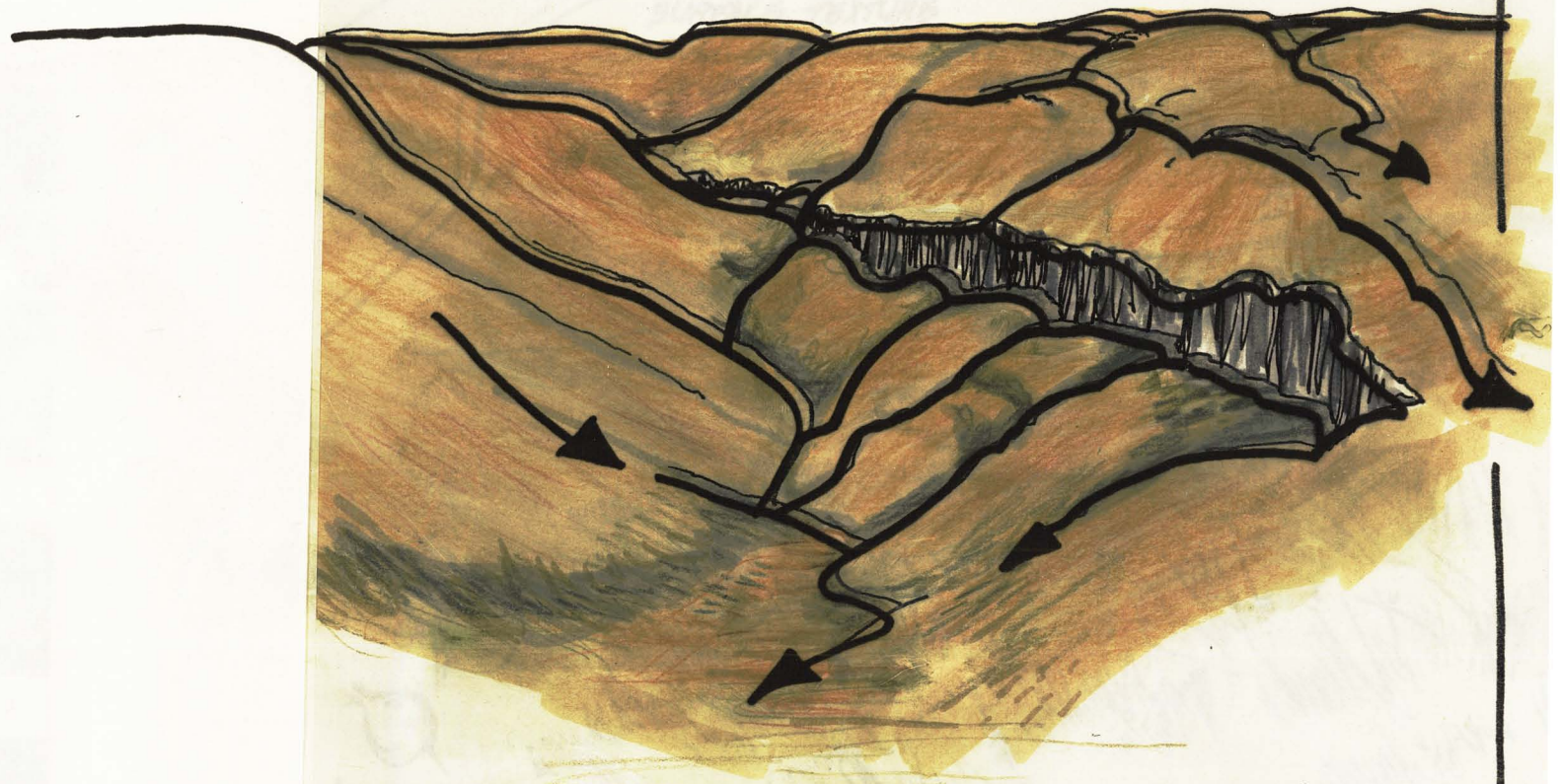
UNDULATING LANDFORM.
CONTRAST RIGID FORM OF EXPOSED
ROCK FACES UNDER VERTICAL
PRESSURE AND UNRESTRICTED
LAVA FLOW FORMATIONS.

LINE · SURVEY AND ANALYSIS



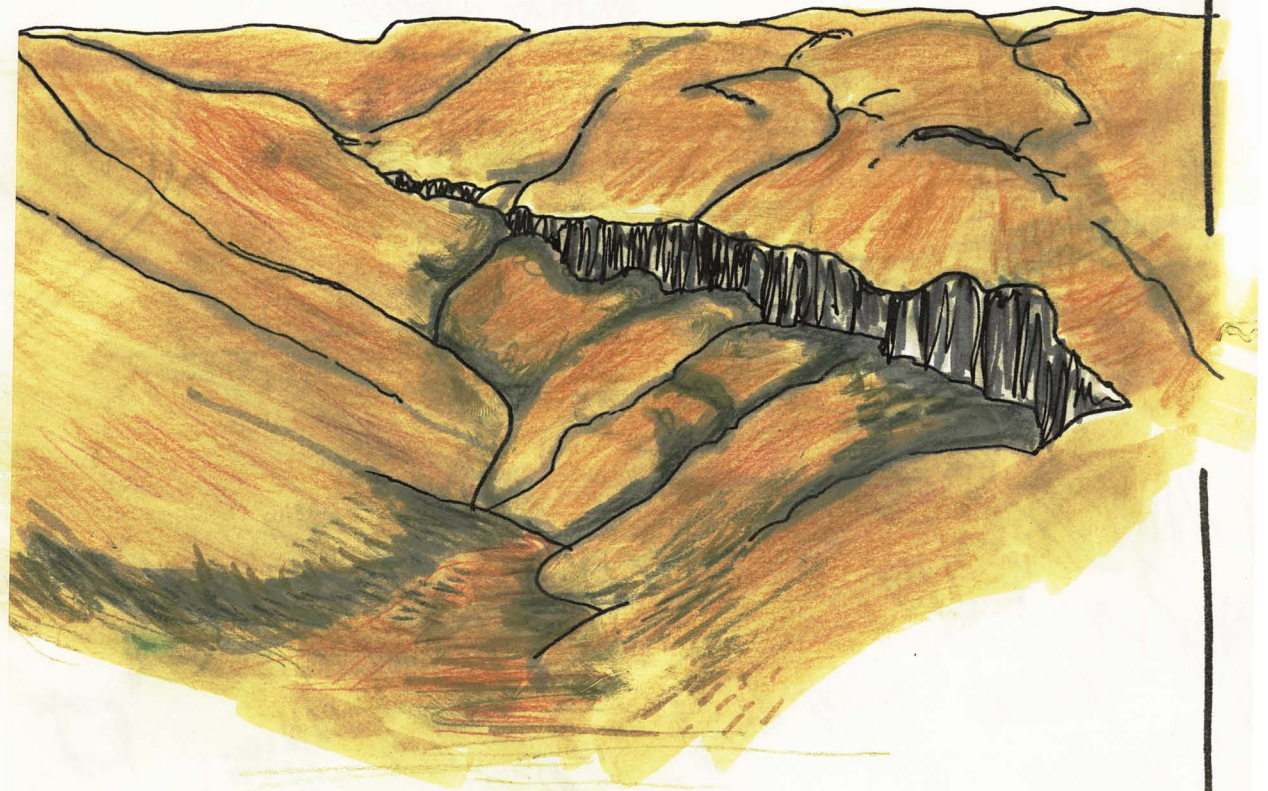
LINE

• SURVEY AND ANALYSIS



WINTER COLOUR

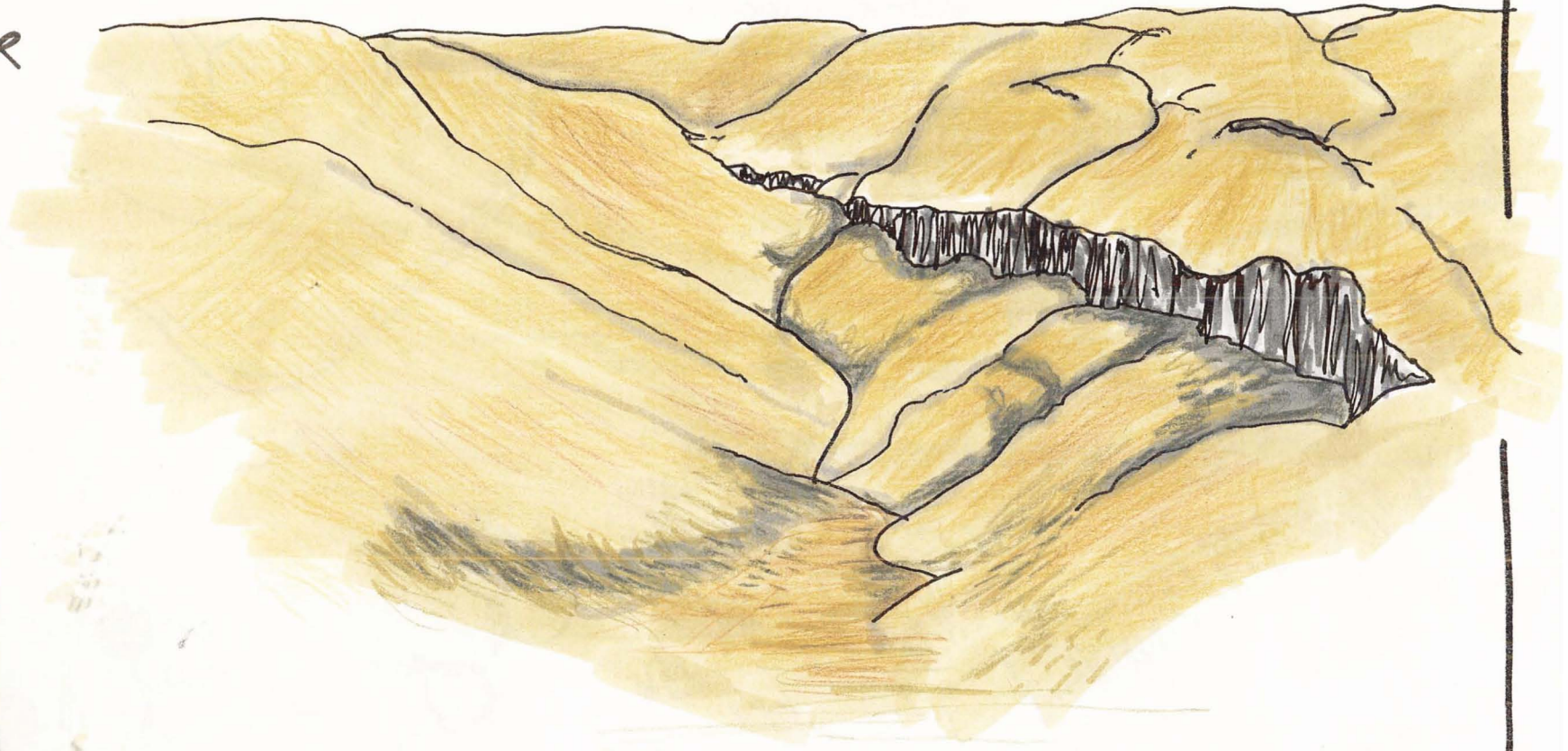
• SURVEY AND ANALYSIS



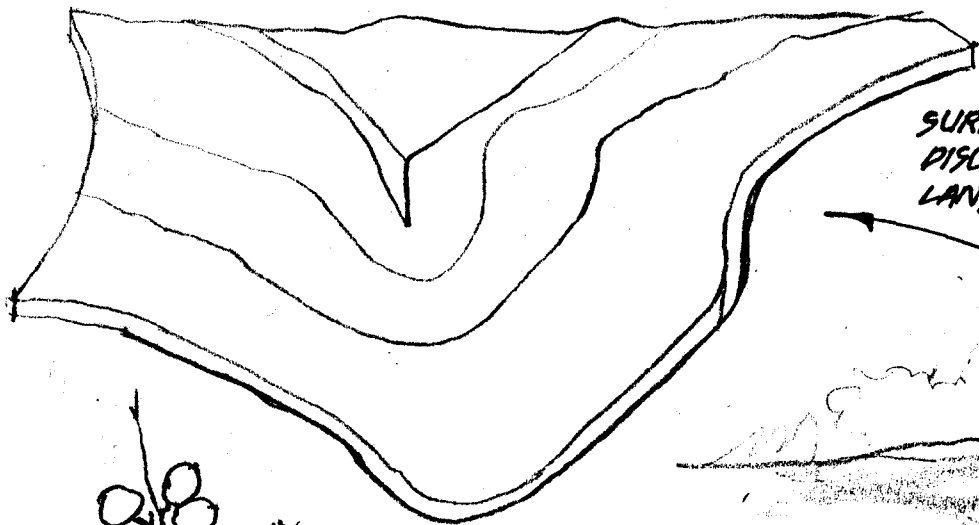
COLOUR

• SURVEY AND ANALYSIS

SUMMER



TEXTURE · SURVEY AND ANALYSIS



SURFACE TEXTURE
DESCRIBES UNDERLYING
LANDFORMATION.



SOFT GRASSLAND TEXTURE ·
WIND BLOWN - MOVING - RIPPLES.



STIFF, SHARP, UPRIGHT VEGETATION

SUMMARY OF SURVEY AND ANALYSIS NOTES

KEY LANDSCAPE CHARACTER: VERY OLD LANDSCAPE

Volcanic eruption 12 million years ago, evidence of old forest cover - remnant bush revegetation.

Dormant volcano.

Cultural landscape - coastal/adjacent to city.

DOMINANT LANDFORMS:

- 1) Old volcano with top of central crater blown off.
- 2) Dykes radiating out from central crater.
Vertical rock faces from internal pressures.
- 3) Volcanic form weathered over time.
- 4) Deposits of loess over original lava flows.
Buried rocks.

LINE:

- 1) Old established lines of eroded valley systems.
- 2) Dominant ridge line and skyline enclose the valley.
- 3) Less obvious vegetation and surface cover lines and texture.

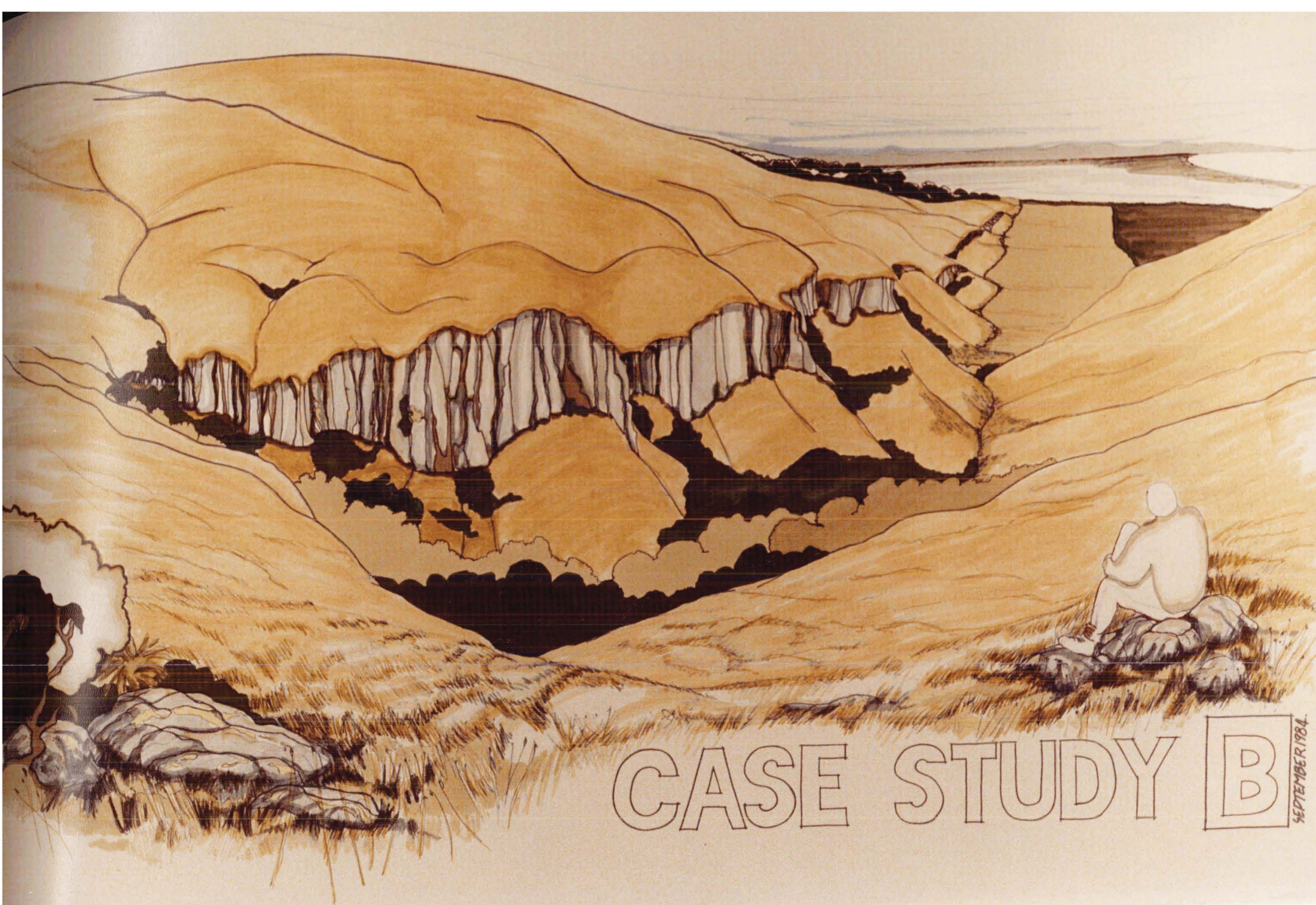
COLOUR:

- 1) Dominant colour of tussock and grassland vegetation.
- 2) Only very slight seasonal changes with the introduced grasses from gold/brown dry summer conditions to deeper greens in winter, with slightly more moisture.
- 3) Contrasts between revegetating shrubs, dark greens broadleaf, and grassland cover.

TEXTURE:

Even, fine-grained texture of grasses. Reveal underlying structure.

PRESENTATION GRAPHICS



CASE STUDY B

SEPTEMBER 1984

CHAPTER SEVEN

CRITICAL ANALYSIS OF CASE STUDIES AS
PRESENTATION DRAWINGS

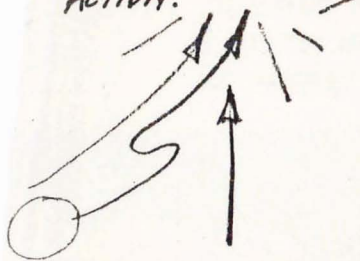


PHYSICAL ELEMENTS - CRITICAL ANALYSIS

VERTICAL COMPOSITION AND FORMAT. —

EXCITING, DYNAMIC UPWARD PRESSURE OF AN ACTIVE VOLCANO SHOWN BY VERTICAL FORMAT. DEFY GRAVITY.

LINES DIRECTED TOWARDS ACTION.



DRAWING INCORPORATES A KEY FIGURE IN THE LOWER LEFT HAND PREFERENCE POSITION TO ACT AS THE STARTING POINT FOR THE EYE TO 'SCAN' THE INFORMATION IN THE INTENDED BOTTOM TO TOP READING PATTERN — TO REINFORCE THE UNDERSTANDING OF THE VOLCANIC EARTHBUILDING PROCESSES.



LIMITED COMMUNICATION OF PROCESS AND INTERRELATIONSHIPS UNLESS TRAINED AS A GEOGRAPHER.

STATIC REPRESENTATION OF VISUAL SURFACES.

TIME AND PROCESS RELATED PHYSICAL ELEMENTS

VOLCANIC ACTIVITY - UNSTABLE
NO VEGETATION

OLD LANDFORMS, NATURE SURFACE
TUSSECK AND ALPINE HERB FIELD

CHANGE OF COLOUR
AND TECHNIQUES
TO CONTRAST

ASH SHOWERS AND LAVA FLOWS DRAWN IN THE VISUALLY LESS COMFORTABLE VIEWING POSITION OF UPPER RIGHT HAND CORNER TO COMMUNICATE FEELINGS OF APPREHENSION ASSOCIATED WITH RECENT VOLCANIC ACTIVITY



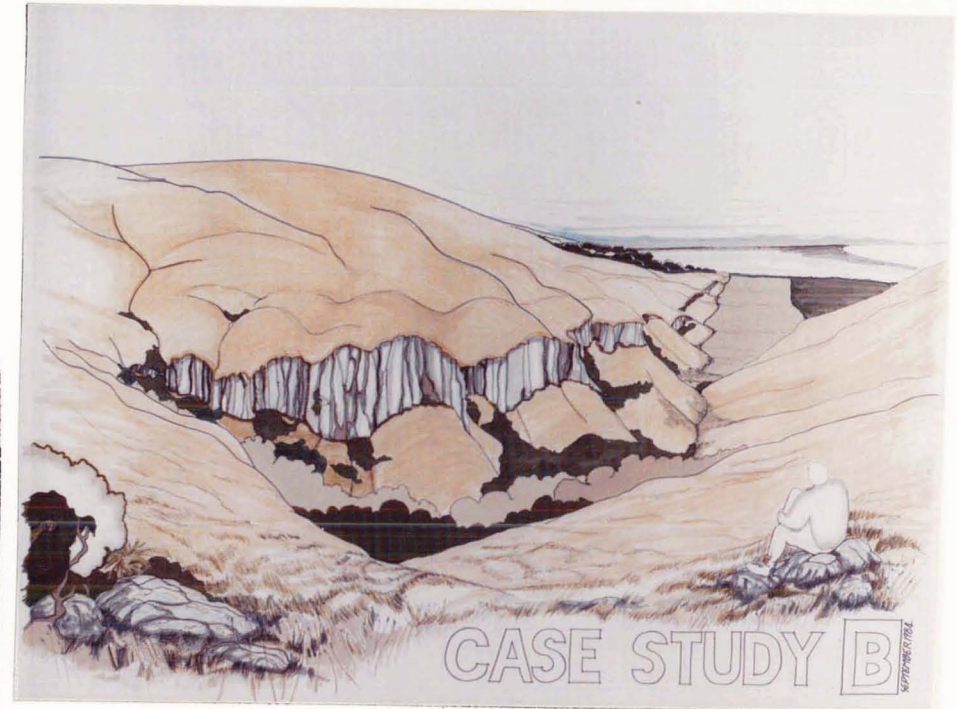
PHYSICAL ELEMENTS - CRITICAL ANALYSIS

OLD VOLCANIC LANDSCAPE - EXTINCT VOLCANO
WEATHERED LAVA FLOWS AND WORN CRATER
RIM. LAST ACTIVE 12 MILLION YRS AGO.

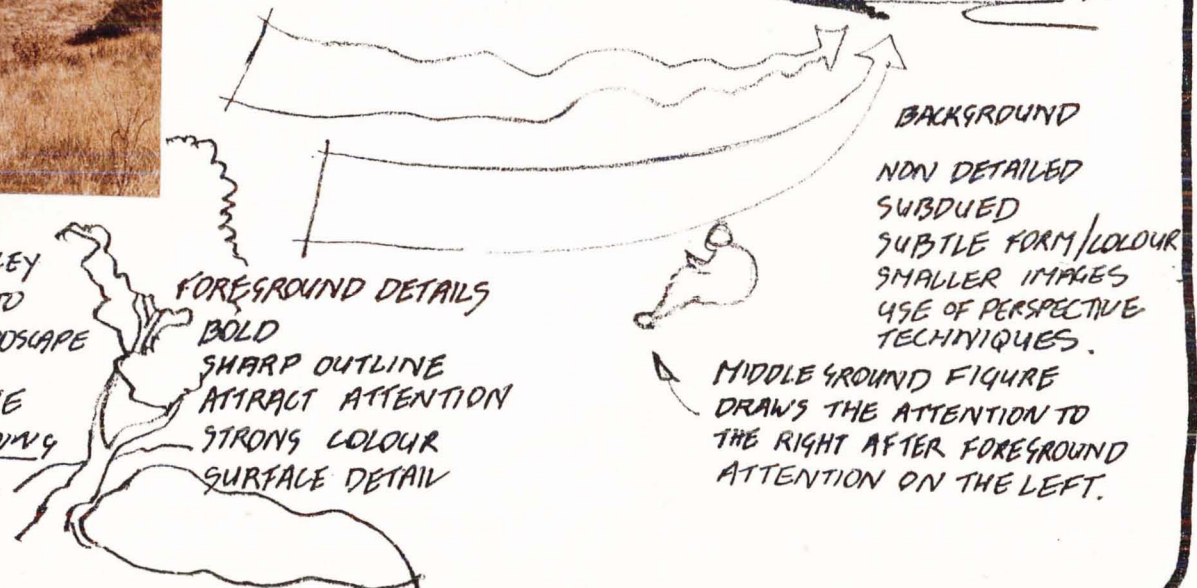
DRAWN - VERTICAL PATTERNS ON ROCK FACES AND FLUID
LINES OF SURFACE COVER REFLECT THE OLD
VOLCANIC PROCESS. NO DRAWN IMAGES OF
VOLCANIC ERUPTION TO SUGGEST RECENT ACTIVITY.
NO THREAT OF IMMEDIATE UPHEAVAL - STABILITY.



LOCATION OF VIEW POINT - LOOKING DOWN VALLEY
IN THE PRESENTATION DRAWING, SELECTED TO
HELP REINFORCE GEOLOGICAL PROCESS OF LANDSCAPE
WEATHERING - BREAKING DOWN.
SUBTLE MANIPULATION OF GRAPHIC EXPRESSIVE
TECHNIQUES. CASE STUDY 'A' EARTH BUILDING
PROCESS - UPWARD ORIENTATED VIEWPOINT.



TO COMMUNICATE STABILITY AND EQUILIBRIUM USE OF
HORIZONTAL FORMAT WITH TRADITIONAL LEFT TO RIGHT
SCANNING PATTERN. NO UNEAPECTED PATTERNS. USE OF
GRAPHIC EXPRESSIVE TECHNIQUES - OF HARMONY & STASIS.



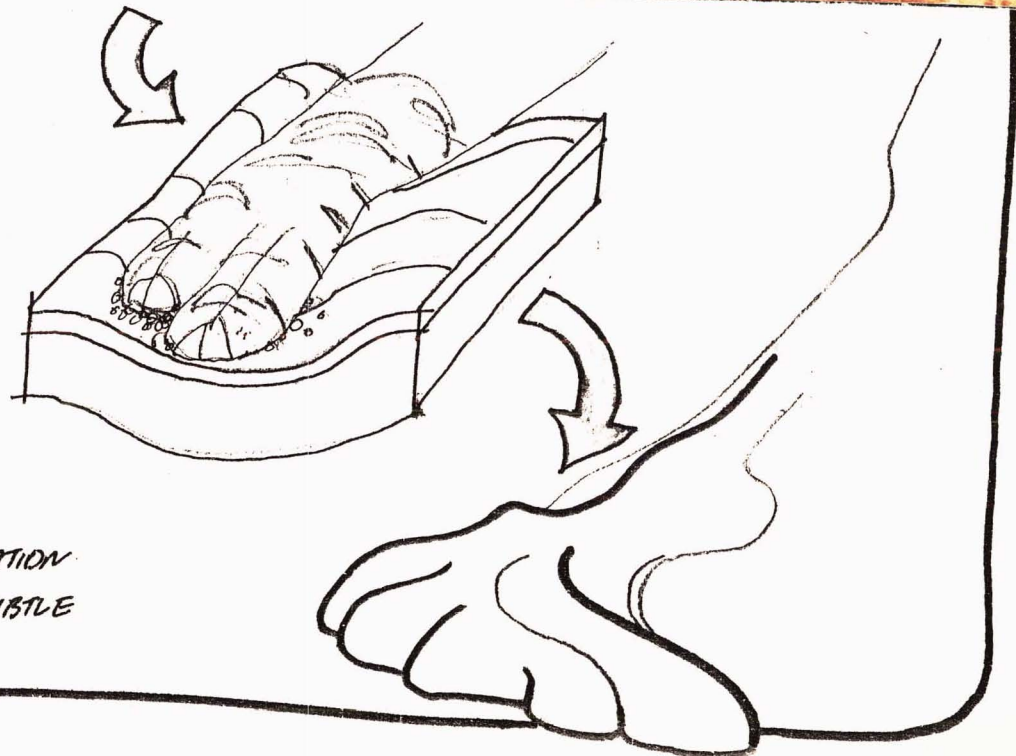
PHYSICAL ELEMENTS - CRITICAL ANALYSIS



BY KNOWING THE UNDERLYING PROCESS THE GRAPHIC TECHNIQUES CAN BE USED TO CHANGE THE APPEARANCE OF THE LAVA FLOW - PHOTO DETAIL INDICATES LUMPY/ROUGH TEXTURE, GRAPHICS TRANSLATE THE ROUGH TEXTURE INTO A SMOOTH TEXTURE, COMMUNICATING, NOT VISUAL APPEARANCE BUT - WHERE IT CAME FROM (TOP OF THE MOUNTAIN) AND HOW IT GOT THERE (FORCE OF GRAVITY).

IN THIS WAY THE INFORMATION IS PRESENTED FOR REINTERPRETATION AND UNDERSTANDING BY AN AUDIENCE PREVIOUSLY NOT FAMILIAR WITH GEOLOGICAL PROCESSES.

THE PHOTOGRAPH COMMUNICATES LIMITED INFORMATION UNLESS WE ARE TRAINED TO READ THE VERY SUBTLE VISUAL INDICATORS.



"E Kūiwai e! Haungaroa e! Ka riro au i te tonga! Hāria
mai he ahi moku!" ("O Kūiwai! O Haungaroa! I am borne
away in the cold south wind—I perish from the cold! Send me
fire to warm me!")

LEGENDARY NGATORO WAS CAUGHT IN A SNOWSTORM ON
TONGARIRO (A FRIGHTENING EXPERIENCE FOR AN IMMI-
GRANT FROM THE TROPICAL ISLANDS) SO HE CALLED
TO THE GODS FOR FIRE — FIRST VOLCANIC ERUPTION.

EARLY MAORI PEOPLE CREATED LEGENDS TO EXPLAIN
THE SPIRITS AND MYSTIQUE THEY ASSOCIATED WITH
THE VOLCANIC FIRE, AND ICE AND SNOW OF TONGARIRO.

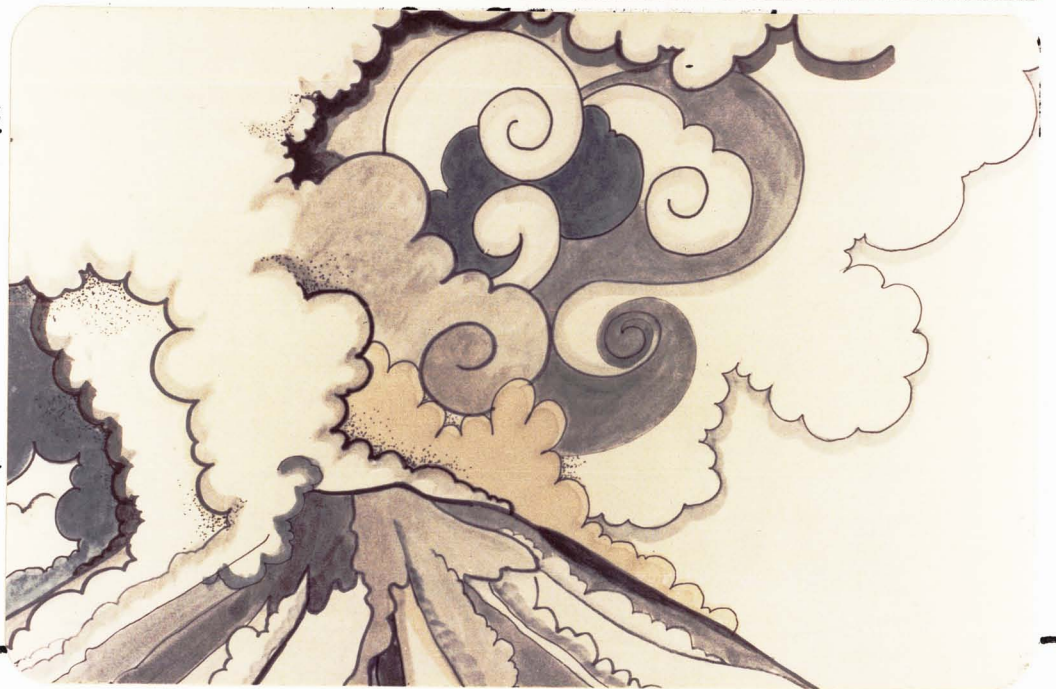
THE DRAWING USES TRADITIONAL, STYLISED MAORI SYMBOLS
FOR THE ASH SHOWER, TO HIGHLIGHT THIS SPIRITUAL
ASSOCIATION BETWEEN PEOPLE AND THE LANDSCAPE.



BASIC PATTERN USED IS THE
'KORU'. THE MAORI SYMBOL FOR
THE SHRUB PRATI A PHYSALOIDES.
MEANING FOLD, FOLDED.



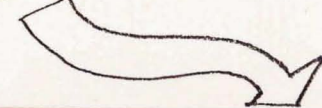
LETTERING FOR "CASE STUDY A" DESIGNED TO REINFORCE
THE MAORI PATTERNS. — BUT NOT SO SUCCESSFUL AS
THE MORE FAMILIAR KORU PATTERNS. IN THE
FINAL DRAWING.



CULTURAL ELEMENTS - CRITICAL ANALYSIS

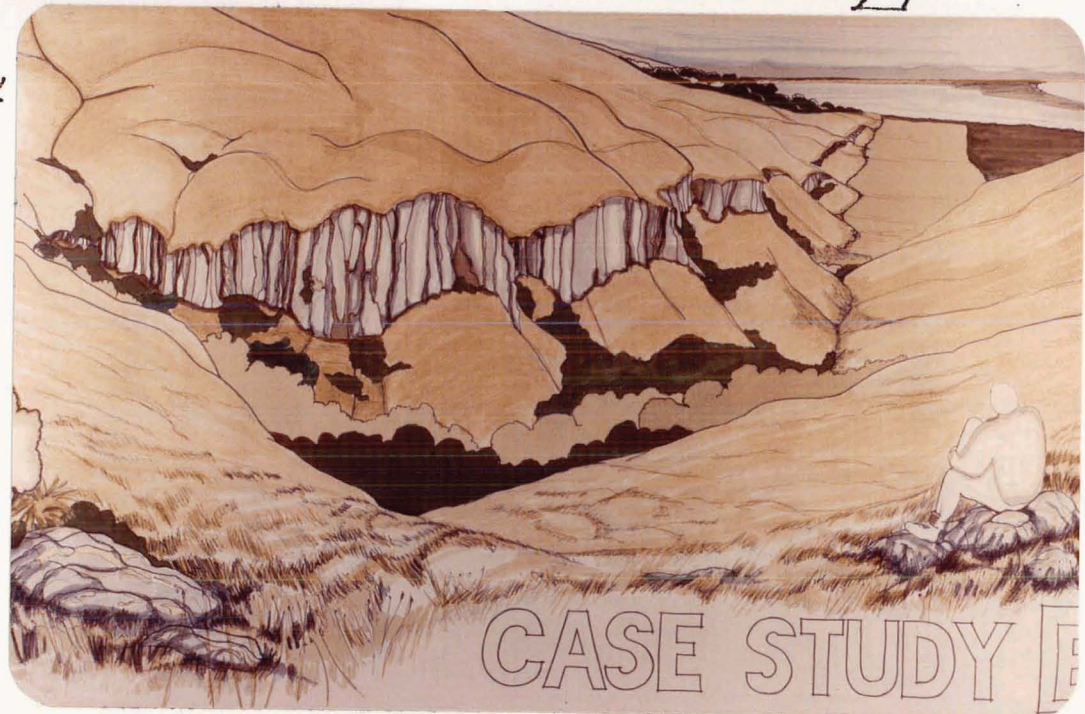


PORT HILLS - COASTAL LOCATION CLOSE TO A LARGE CITY. REFERENCE TO THIS COASTAL LOCATION BY USING ESTUARY AND A SMALL SECTION OF COASTLINE IN THE BACKGROUND. GRAPHIC TECHNIQUES UNCONVINCING - NEED CLEARER DEFINITION OF LINES AND COLOUR IN THIS AREA.



OLD MATURE LANDSCAPE - PASSIVE RECREATION. NEIGHBOURHOOD RESERVE, SHORT WALKS, PICNICS, FAMILY DAY TRIPS, SIGHTSEEING.

FIGURE IN RIGHT HAND CORNER PASSIVE POSITION. CONTEMPLATION. DAY WALKING FOOTWEAR AND CLOTHING.



CASE STUDY [E]

CULTURAL ELEMENTS - CRITICAL ANALYSIS

PRESENT DAY LANDUSE - RECREATION

- 1) TYPE OF RECREATION COMMUNICATES INFORMATION ABOUT THE LANDSLAPE.
- 2) EFFECT OF LANDUSE ON THE LANDSLAPE.



LARGE PACK. BOOTS. WET WEATHER GEAR, GAITERS.
WOOLLEN HAT

EXTENDED TRAMPS.
CLIMBING
WILDERNESS CAMPING.
MARGINAL WEATHER CONDITIONS.

- 1) TRAMPER WITH OUTDOOR GEAR, TRAMPING BOOTS AND LARGE PACK REFER TO THE RUSSEDNESS, EXPOSURE, ISOLATION OF THE LANDSLAPE. DYNAMIC LANDSLAPE SO TRAMPER IS ACTIVELY INVOLVED. MOVING, CHANGING LANDSLAPE WITH CONSTANT ACTIVITY. EROSION, ERUPTIONS SO ANY FIGURES MUST BE ACTIVE TO CARRY THROUGH THIS HOLISTIC CONCEPT.



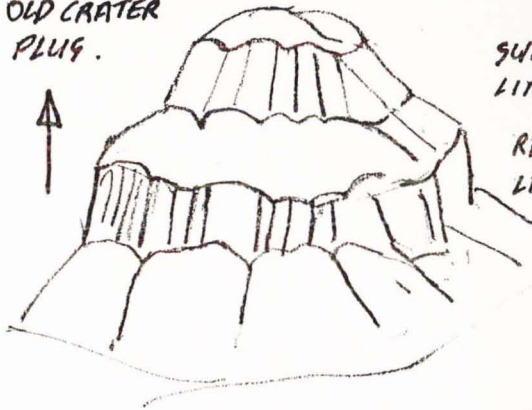
- 2) A VULNERABLE AND SENSITIVE LANDSLAPE TO ANY LANDUSE. EROSION PROBLEMS ALONG THE TRACKS. ANY DISTURBED SURFACE BECOMES A CHANNEL FOR WATER RUN OFF.

GRAPHIC DETAILS - EXPOSED ROOTS. DARK SHADOW TO SHOW OVERHANG, ERODED SOIL FROM UNDER EXISTING VEGETATION. WATER CUTTING THE TRACK SURFACE. ROCKS DEPOSITED ALONG THE TRACK. VARIATIONS IN THE DRAWN LINES OF THE PATH TO INDICATE WATER AND SOIL SURFACE.

FORM · CRITICAL ANALYSIS



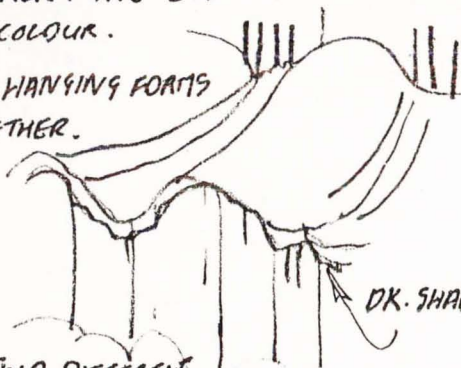
VERTICAL PRESSURES
OLD CRATER
PLUG.



GRAPHICS SIMPLIFY FORM TO SHOW THE BASIC
STRUCTURE AND EARTHBUILDING PROCESSES.

SURFACE STRUCTURE EMPHASISED BY DRAWN
LINE AND COLOUR.

RIGID AND HANGING FORMS
LINKED TOGETHER.



DESCRIBE TWO DIFFERENT
FORMS.



DARK



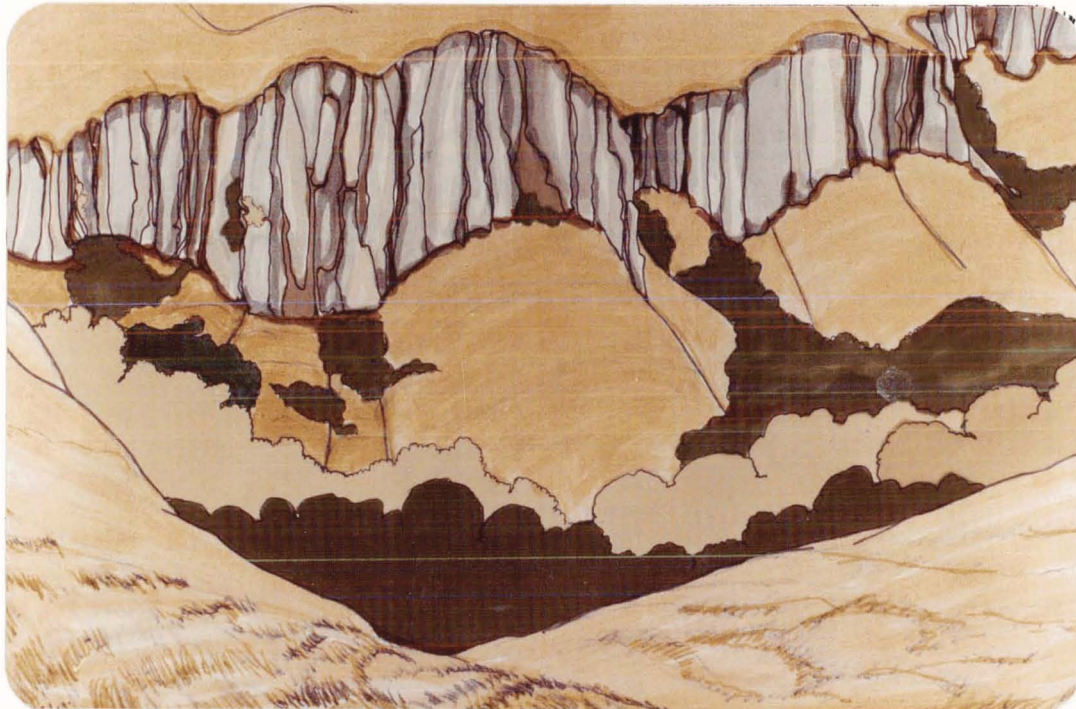
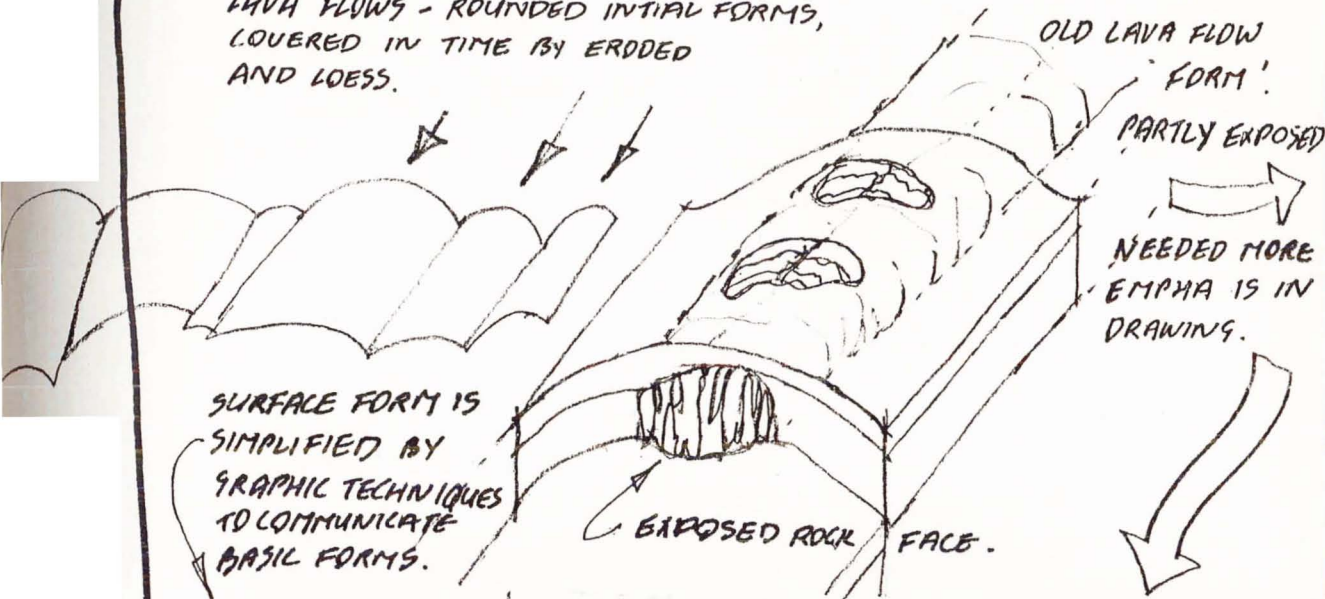
LIGHT

- COLOUR AND SHADING TO EMPHASISE 3D. QUALITY. THE FORM IS ROUND. HAS A DIFFERENT ORIENTATION TO THE LIGHT.
- PERSPECTIVE DRAWING. LARGER IMAGE IN FOREGROUND. SMALLER DETAILS IN BACKGROUND.

FORM · CRITICAL ANALYSIS

FORM IS THE 3 DIMENSIONAL ASPECT OF THE PHYSICAL LANDSCAPE.
THE BULK OR WEIGHT OF MATERIAL THAT IS REFLECTED IN THE SURFACE
STRUCTURE.

LAVA FLOWS - ROUNDED INITIAL FORMS,
COVERED IN TIME BY ERDED
AND LOESS.



ROCK FACES. - GRAPHICS COMMUNICATE VERTICAL PRESSURES
THAT BUILT UP THE LANDFORM. - NOT PHOTOGRAPHIC
RECORDING OF SURFACE DETAIL.

VINE · CRITICAL ANALYSIS

PROBLEM OF OVERLAP BECAUSE LINE OFTEN DESCRIBES FORM. AS WELL AS THE MORE USUAL DIRECTION.

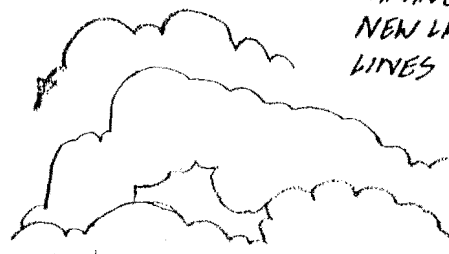
SIMILARITIES : BOTH VOLCANIC ORIGIN, THEREFORE SAME BASIC LINES. AND FORM. - SPREADING.



DIFFERENCES : TWO AREAS SEPARATED IN TIME. OLD AND NEW.

VISIBLE INDICATORS - SURFACE APPEARANCE.

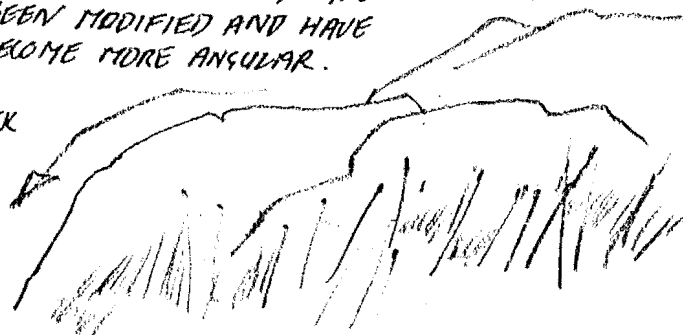
NEW LANDSCAPE - MORE PRONOUNCED LINES FROM VOLCANIC ORIGIN.



SURFACE OF LAVA COOLED INTO FLUID RESTLESS LINES.

OLD LANDSCAPE - LINES HAVE BEEN MODIFIED AND HAVE BECOME MORE ANGULAR.

ALPINE TUSsock
LINES FROM
BASE



SUBTLE VARIATIONS VEGETATION - COMPLEX VARIETY OF LINES. INDICATORS OF FURTHER INFORMATION.

MAT PLANTS - EXTREME CLIMATE EXOTIC
GRASSLAND - GRAZING LANDUSE.



LINE - CRITICAL ANALYSIS

REFLECTED LINES LIGHTER THAN ORIGINAL VEGETATION TO CONVEY QUALITY OF LIGHT AND THE TRANSIENT NATURE OF WATER SURFACE.

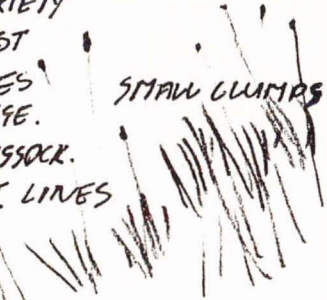
SHARPEST CONTRAST AT EDGE BETWEEN WATER AND VEGETATION.



TUSSOCK ISOLATED BY GREAT VARIETY OF OTHER VEGETATION - CONTRAST BETWEEN VERTICAL TUSSOCK LINES AND HORIZONTAL, BULKY MAT. VEGE.

DIFFERENT GROWTH HABIT OF TUSSOCK. SO CHANGE GRAPHIC TREATMENT. LINES CONCENTED OR SPACED OUT.

SMALL CLUMPS



BIG CLUMPS.

SUBTLE DIFFERENCES BETWEEN THE TWO ROCK SURFACES NEEDS MORE DEFINITION. STRONGER LINES ON OLDER ROCK FORMATION WITH THE HARDER SURFACE. SOFTER MOVING LINES ON MUCH YOUNGER ROCK.



STRONG, BOLD LINES FOR FOREGROUND EMPHASIS.



DARK, HEAVY FOLIAGE STRONG OUTLINE EMPHASIS.



CONTRAST LIGHT AND DARK LINES - SEED HEADS



COLOUR DETAIL

ALPINE PLANTS

COLOURS FROM THE SAME RANGE
ON THE COLOUR CHART.

WHITE, CREAM, BUFF, LIGHT TUSsock
DARK TUSsock, BROWN, GREEN.
BROWN, GOLD, ORANGE.

V. FEW BRIGHT COLOURS. BUT
COMPLEX VARIATIONS WITHIN THE
SAME RANGE - SUBTLE CHANGES.
(MIX COLOURS ON THE PAPER - USE TWO
COLOURS FROM THE SAME RANGE)
COLOUR CHANGES WITH TEXTURE
VARIATIONS AND QUALITY OF LIGHT.
(SAME COLOUR INK BUT CHANGES APPEARANCE
IF USED OVER DRAWN TEXTURE ON PRINT)

SURFACE ROCKS.

GREY, BLUE, WHITE, BUFF, BROWN
GOLD, COPPER STAINS.

VOLCANIC ORIGIN.

(GRAPHIC TECHNIQUES - HIGHLIGHT COLOURS.)
ONE SHADE DARKER FOR SUBTLE SURFACE
DIFFERENCES)

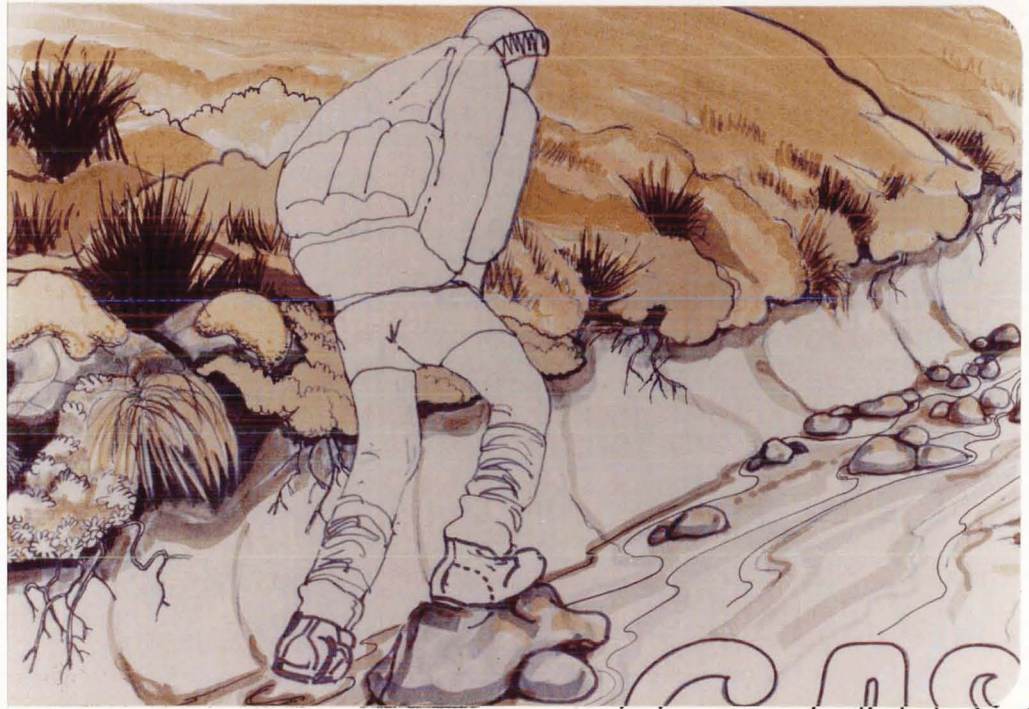
SEASONAL CHANGE OF COLOUR.
SNOW GROUND COVER.

SUMMER TUSsock COLOURS

WINTER BROWN AND GREENS
DOMINATE.

(LIMITATION OF GRAPHIC 2D MEDIA - CAN
ONLY COMMUNICATE ONE SEASON AT A TIME)
WITH INDICATORS OF OTHER SEASON. - TRACK
MARKERS FOR SNOW CONDITIONS.

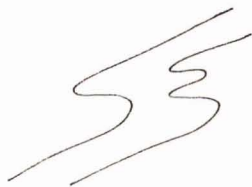
TEXTURE - CRITICAL ANALYSIS



TEXTURE · CRITICAL ANALYSIS

TEXTURE IS THE LANDSCAPE'S SURFACE QUALITY.
DESCRIBES UNDERLYING FORM BY THE SURFACE'S
ORIENTATION TO LIGHT. HIGHLIGHTS AND SHADOWS.

CONTRAST IN SURFACE COVER.
ALPINE VEGETATION AND
ROCKS. LOOSE SURFACE ROCKS
UNSTABLE, MOVING. DEPOSITED
BY WATER.



WATER PATTERNS - FLUID LINES,
BROAD COLOUR BANDS TO INDICATE
SMOOTH, REFLECTIVE SURFACE OF
WATER.

SUBDUED COLOURS. WATER MOVES
AROUND THE OBSTRUCTIONS.

COMPLEX RANGE OF VEGETATION TYPES.
CONTRAST IN GRAPHIC TECHNIQUE
FOR DIFFERENT TACTILE QUALITIES
FOR DIFFERENT ALPINE PLANTS.



LINE.

(BRITTLE, UPRIGHT)



DOT.

(SOFT, SPONGY)

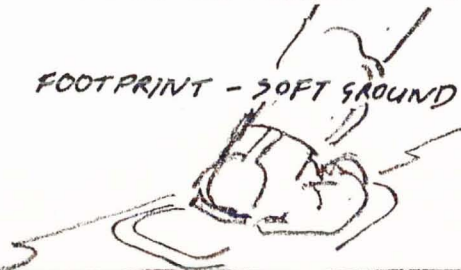


COLOUR.

(BROADLEAF
SOFT)

PERSPECTIVE DRAWING. DETAIL
VEGETATION IN THE FOREGROUND
COLOUR TO SUGGEST SAME VEGE-
TATION IN THE MIDDLE GROUND.

FOOTPRINT - SOFT GROUND



COLOUR DETAIL

TUSsock / GRASSLAND.

MONO COLOUR AND TEXTURE.
LIGHT, PROVIDES THE SUBTLE
CONTRASTS.

CONTRAST COLOUR OF INTRODUCED
SHELTER VEGETATION, AND NATIVE
PLANTS REVEGETATING IN THE
VALLEY.

TEXTURE · CRITICAL ANALYSIS



TEXTURE · CRITICAL ANALYSIS

CONTINUATION VEGETATION TYPE AND TEXTURE.

NATURE STABLE SURFACE COVER.

CONTINUOUS COVER WITH SOME EXPOSED
RIDGES OF UNDERLYING ROCKS.
ROCKS ARE PART OF THE LANDFORM.
SIT INTO THE TEXTURE.

TUSsock AND EXOTIC GRASSLAND.
MODIFIED BY MAN AND HIS LANDUSE. THE
LIGHT PUTS EMPHASIS
OF OLD LAVA FLOWS.

GRAPHIC TREATMENT ON PRESENTATION
DRAWINGS HAS NOT EMPHASISED THIS
ENOUGH.

TEXTURE IS IMPORTANT TECHNIQUE
FOR SHOWING LANDFORM.



CHAPTER EIGHT

STUDY FINDINGS

WHY DO WE NEED A VISUAL COMMUNICATION METHOD?

PRACTICAL APPLICATION OF STUDY METHODOLOGY

LIMITATIONS OF THE STUDY

SPECIALIST APPLICATION OF METHODOLOGY

ALTERNATIVE APPLICATION OF PRESENTATION GRAPHICS

LONG-TERM BENEFITS

STUDY FINDINGS

WHY DO WE NEED VISUAL COMMUNICATION METHOD

Visual language is a direct process of communicating visual images, so that no translation of written language or landscape jargon into mental images is necessary.

Visual images can be readily understood by a universal population and visual communication of these images facilitates a group sharing the same visually assigned meaning of a common body of information very relevant to landscape architect's work.

Many visual images cannot be conveyed successfully by the traditional written or verbal languages and need an alternative method of communication.

Landscape Architecture is a visually orientated profession and as such Landscape Architects are trained to be visually perceptive.

PRACTICAL APPLICATION OF THE STUDY METHODOLOGY

The study has practical application as a communication tool for conveying the design logic of a proposed scheme to both the client, for his understanding of his site and the proposal, and to the implementor so that the design logic is understood and implemented accurately on the ground. Presentation drawings can include plan graphics and both are traditional visual communications of information to the client and for the implementor. Both involve presentation graphic and visual communication techniques so the study methodology has practical application for either or for a combination of the two.

The study does require a certain level of graphic art skills to facilitate the drawing of the intended visual images on paper.

Technical dexterity can be learnt by an extension of the Landscape Architect's own intuitive design sense.

The ease and speed of the study methodology for worthwhile and extensive use, does imply a necessary level of visual literacy and graphic capability on the part of the designer.

Once the designer is familiar with the landscape dimensions and overview categories, the study methodology should not be more time-consuming than the traditional survey and analysis documentation through to final plan graphics. The study records the same basic material but organises and communicates this information in a different way.

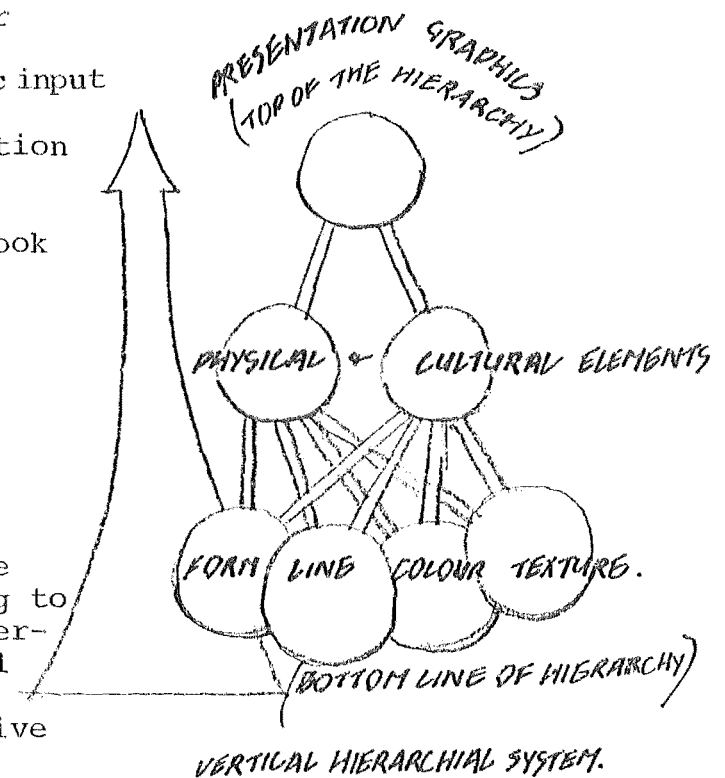
In theory, the study should take less time because the quick, self graphics provide a tangible image, without the need for any translation along the continuum from initial survey to final presentation drawings. This can be achieved by graphic input into the design process at different levels of detail and appropriateness with the final presentation being a compilation of all the previous images and indentified meaning.

In practical terms, it is difficult to assess the time it took to apply the study because of ongoing modification to the methodology as its limitations were discovered.

LIMITATIONS OF THE STUDY

A major limitation was the lack of any system for weighting or evaluating the importance of the individual elements and their relationships to the whole. The problem was overcome by an intuitive selection of the elements for each landscape descriptor and the assigning of a relatively equal weighting to each category of Form, Line, Colour and Texture with the overview categories, assuming a greater importance on a vertical hierarchial system.

This system, as it stands, is not objective enough for extensive use as it relies too heavily on individual intuitive skills based on some training in landscape awareness.



Technical difficulties and physical limitations were found in the study's attempt to communicate three-dimensional information by a two-dimensional media. The fixed viewpoints cannot successfully convey sequential experience, changes or movement through the proposed design or landscape. An alternative method of visual presentation, such as film or video, may need to be considered.

The study relies on mechanical reproduction of drawings by available plan printing machines. These machines have limited capacity to reproduce any graphic technique other than line drawing and some tone by mono-colour die line prints from tracings. The prints require hand colouring which is very time-consuming and requires a degree of colouring-up skill. Alternative methods of colour reproduction would be welcomed.

SPECIALIST APPLICATION OF METHODOLOGY BY LANDSCAPE ARCHITECTS

Listed below are some design situations where the particular attributes of the study methodology would be very valuable.

- 1) A client's site that was particularly sensitive to change and needed special considerations and management policies to preserve the existing character.
- 2) An area where the proposed scheme relies heavily on the quality of the existing landscape character for its continued of land use. For example, the development of a forest park for public access.
- 3) A proposal that requires integration into the existing landscape, such as an urban renewal scheme with existing historical buildings.

ALTERNATIVE APPLICATION OF PRESENTATION GRAPHICS

Some possible applications of presentation graphics by people involved with increasing public awareness of New Zealand landscapes. They may have available the specialist skills needed for applying the methodology or alternatively, commission the appropriate person to produce the presentation material.

NEW ZEALAND NATIONAL PARK AUTHORITY

Possible application on two levels:

- 1) Presentation graphics for visitor interpretation displays in the local visitor centres.
- 2) Self graphics as an aid for staff to identify landscape character and landscape types, as a basis for management guidelines and policy decision.

CONSERVATION GROUPS

To help communicate to the general public the visual qualities and wholistic meaning of endangered landscapes.

QUEEN ELIZBAETH II NATIONAL TRUST

To assist publications, such as the Waipa County Landscape Booklet, prepared to promote awareness of the local landscape and better equip landowners, councillors, and the general public for decision-making on the future changes in their area.

GOVERNMENT TOURIST PROMOTION AND PUBLICATIONS

To help increase awareness of New Zealand's unique landscape, at the international level.

LONG-TERM BENEFITS

As an education tool to increase awareness of landscape issues and influence policy-makers at the local level for appropriate changes of Statutory Regulations and Ordinances in the District Scheme.

Professional practice implications for input into political issues, as was the case for the proposed Aramoana Aluminium Smelter. Input would be through the visual impact reports, to accurately communicate the subtleness of an area, landscape character in controversial landscape development issues at both local and regional level.

It is often these unique and elusive characteristics that are at stake and prove to be the most difficult to prepare a strong and convincing case for. A visual presentation backed by a system of evaluation could assist in the decision-making.

Successful presentation graphics in a public relations exercise for the Landscape Architectural professional could act as a tangible answer to the Glossy Graphic Theory of stylistic images, without meaning or content.

Further long-term benefits may be as a teaching aid to introduce a new approach to 'seeing' the landscape, through a graphic methodology able to make visible the non-visible meaning that is an intrinsic part of a landscape's character.

CONCLUSION

To investigate the basic premise, this study examined in detail the two major components of the hypothesis, 1) landscape character, and 2) presentation graphics. Each subject was found to be a holistic process and in the formulated study methodology could be combined to further visual communication.

The two case studies, Tongariro and an area on the Port Hills, Christchurch, with similar geological backgrounds but separated by time and location, used the study methodology to test the hypothesis.

Part One discussed visual communication theories and investigated the use of graphics in Landscape Architectural communication. It was found that graphics perform three main functions:

- 1) They aid in the design process - Analytical Graphics.
- 2) Help to sell the design - Presentation Graphics.
- 3) Help show how it will be constructed - Working Drawings.

The self graphics are used as an analytical aid during the design process and, for this study, helped identify and communicate the individual elements. They were also used to analyse the complex holistic process of landscape character for the survey and analysis notes of each case study. These visual images recorded on the survey and analysis notes formed the reference material for the final presentation drawings.

Presentation Graphics are the selling graphics and must include all the necessary information to facilitate a client's accurate perception of the design logic and landscape character of a proposed scheme.

The study found that it was relatively simple to communicate spatial organisation in plan form and communicate obvious visual images, but difficult to communicate the elusive and

subtle visual images that are an intrinsic part of a landscape's holistic nature.

The detailed study of what constitutes landscape character, visual communication and visual literacy revealed the need for a comprehensive study methodology that would recognise both the whole and the parts, and be an appropriate structure for graphic communication techniques to convey this information.

In developing the methodology the descriptors of Form, Line, Colour and Texture proved comprehensive enough to record and communicate only the visible individual parts. Therefore, it was necessary to include two additional overview categories to record the non-visual elements of physical processes, sequential change, dynamic interrelationships and cultural and historical influences. It was this information that conveyed the intended depth of meaning of the whole visual statement, beyond the static surface representation of other graphic media, such as photography.

The wholistic process of landscape character definition was repeated for graphic techniques and the visual communication process with the component parts of:

- 1) individual graphic elements of dot, line, form, shape, tone, proportion and colour, and
- 2) the expressive techniques of contrast and harmony combined together to make up the whole visual statement.

By the use of these two parts, it was possible to have available a comprehensive range of graphic tools and individual component parts that could be manipulated into visual messages by compositional techniques.

It was found that the compositional techniques of preference for lower left, left to right scanning patterns, and vertical or horizontal format became the most powerful techniques for communicating the whole landscape character.

Composition of the final visual presentation has the potential and ability to communicate the visually assigned depth of meaning, for interpretation by a diverse audience.

The final and most important consideration of visual literacy was this concern for the whole form as the cumulative effect of the selected elements, being greater than the total sum of all the parts.

In the study methodology the two holistic subjects were combined by the use of the same visual descriptions of Form, Line, Colour and Texture and their appropriate graphic techniques to further communication of information.

Part Two uses the two case studies to put the study methodology into practice.

Each case study was completed and the findings from the critical analysis notes included in Chapter 8.

In brief, the study methodology was comprehensive enough to include all the landscape data necessary for the study. It provided a framework of continuity for the graphic visual communication and recording of this information from initial site survey to the final presentation graphics.

The critical analysis notes indicated that by using the study method, it was technically possible to communicate the subtle differences and similarities of the Port Hills and Tongariro by presentation graphics. However, the communication was limited by the level of knowledge, understanding and graphic skills of the designer. (You cannot communicate what you don't know.)

These skills can be learnt and throughout the compilation of this dissertation, they were rigorously extended by:

- 1) Increased personal knowledge and experience of landscape dimensions through the study of a wide range of landscape studies and classification references already available.

- 2) A rigorous study of the visual communication language with its visual syntax of recognisable elements and techniques for comparing and understanding messages at many different levels from simple to complex information.
- 3) Extending and developing graphic drawing board skills related not to self but to place. Note, each designer, because of past experience and art skills, will have a personal style of graphics, but this style is only the visual appearance of the drawn lines that articulate the content.

In the light of the study, the hypothesis is justifiable by the following points:

The absolute necessity for landscape architects to communicate the essential elements of landscape character, which were found to be a fundamental and integral part of the design solution and visual statement. These elements cannot be separated from the communicative statement if the whole message is to be understood by a client.

As an introduction to the potentials of a visual language and the implications for landscape architects working in a visually orientated profession. Because of the difficulty experienced by traditional verbal and literary languages to identify and communicate the elusive visual qualities of a landscape's unique character, we need to look carefully at the potentials of a visual language to complement them. Further studies in this direction are essential. It was found that Presentation Graphics could successfully communicate the subtle similarities and differences of a landscape's character. These subtleties have been combined together in such a way as to make visible the holistic and unique landscape character of each of these areas.

Graphic presentation is more than just seeing and making up symbols to represent visual features. It implies a depth of understanding of the subject to be communicated and an understanding of visual communication for seeing and sharing this meaning with some level of predictable universality.

To accomplish this understanding and communication, Donis Dondis suggests,

"We need to reach beyond the innate visual powers of the human organisation, reach beyond the intuitive capabilities programmed into us for making visual decisions on a more or less common basis and reach beyond personal preference and individual taste".

This is the direction and challenge that we as Landscape Architects should respond to.

BIBLIOGRAPHY

- Arnheim, R. (1972). *Art and Visual Perception*. Faber and Faber Ltd, London.
- Brown, S. 1981. *Visual assessment and environmental impact reporting*. Dissertation, Lincoln College.
- Dalley, Terence. (1980). *The Complete Guide to Illustration and Design*. Phaidon Press Ltd, Oxford.
- Dondis, Donis. (1973). *A Primer of Visual Literacy*. MIT Press.
- Elsner, G. (1976). *Quantifying Landscape Dimensions for Land Use Planning*. Article from XVI JUFRO World Congress Proc.(Div.6), Oslo: 28-38.
- Glaser, Mklton. (1976). *Graphic Design*. The Overlook Press. Woodstock, N.Y.
- Hartman, Robert R. (1976). *Graphics for Designers*. The Iowa State University Press, Ames, Iowa.
- Litton, R.B. Jr. (1973). *Landscape Control Points: a procedure for predicting and monitoring visual impacts*. Pacific Southwest Forest and Range Exp. Stn. Berkley, Calif. 22 p. (USDA Forest Serv. Res. Paper PSW-91).

Moorhouse, C.E. (1974). *Visual Education*. Pitman Australia

Tuan Yi-Fu. (1977). *Space and Place. The Perspective of Experience*. Edward Arnold Pub., London.

Walker, Derek. (1981). *The Architecture and Planning of Milton Keynes*. Architectural Press Ltd, London.

Walker, Theodore D. (1977). *Perspective Sketches*. P.D.A. Publishers, Indiana.

Webster, L. Think and Do Graphics. A Graphic Communication Workbook. Guelph Campus Co-op.

A Landscape Classification of Wabs (1980). Planning Services, Welsh Office, Crown Building, Cardiff C.F.I.

A New Zealand Landscape Character Study (1981). N.Z.I.L.A. Proceedings Conference.

National Forest Landscape Management Vol. 1 (1973). Forest Service U.S. Dept. of Agriculture. Agriculture Handbook 434.

Maungatepopo Walk (1967). Tongariro National Park. Botanic Committee, Tongariro National Park.

The Waipa County Landscape - An Introduction: Queen
Elizabeth II National Trust, 1982.

Tongariro National Park Handbook (1975). Tongariro National
Park Board, Wellington, N.Z.

APPENDIX

BASIC SITE SURVEY DATA

PHYSICAL ELEMENTS

Geological base
 Regional systems
 Local formation

Surface cover
 Rock
 Transported geology

Topography/relief
 Features/scale
 Ridge lines/valley bases
 Orientation
 Contours/datum/spot heights
 Slope

Soils
 Classification: types, evolution-
 ary process
 Presence/extent of artificial soils
 Erosion susceptibility
 Type: wind/water, etc.
 Frequency
 Result, slumping/subsidence,
 deposition

Water
 Surface type
 Sea and coastal
 Lakes, swamps, ponds
 Quantity/quality
 Accessibility/depth
 Shore line
 Quality, accessibility
 Watersheds and catchments
 Size
 Drainage

CULTURAL ELEMENTS

Buildings
 Commercial/service
 Residential
 Administration
 Educational
 Community services
 Historic
 Form and character
 Location, floor levels, elevation
 Materials and condition
 Access, visual linkages inside/outside
 Use-zoning and 'support' facilities
 Relationship to non-site support facilities
 Environmental problems
 Recreation
 Open space
 Parks/playing fields, type, value
 Reserves, beaches, lake and river access
 Golf courses, race courses

Recreation availability
 Type - formal/informal/active/passive
 Capacity/demand
 Compatibility with land uses/wildlife

Cultural facilities
 Libraries, museum, art galleries,
 Churches

Community services
 Restaurants/coffee bars/hotels
 Bars/social clubs
 Dance halls/indoor sports centres
 Community organisations

PHYSICAL ELEMENTS

- Artificial water
 - Dams/hydro schemes
 - Canals/irrigation
- Subsurface
 - Aquifers/water tables/springs
 - Depth
 - Capacity
 - Quality
 - Recharge capability/sources
- Climate
 - Regional data
 - Seasonal changes
 - Solar angle
 - Cloudiness
 - Temperature/frost
 - Precipitation/rain/snow/fog
 - Wind direction/force
 - Humidity
- Microclimates
 - Warm/cool
 - Air drainage
 - Wind deflection
 - Local exposure/shelter
 - Site shading
 - Heat reflection and storage
 - Plant indicators
- Vegetation Communities -
 - location and extent.
- Quality/value
 - Age
 - Health/disease
 - Spatial characteristics/impacts
 - Sensory values
- Environmental state

CULTURAL ELEMENTS

- Circulation facilities
 - Regional and local; access and systems
 - Site, existing
 - Pedestrian
 - Vehicular, including parking, mooring
 - Capacity, efficiency, access limitations
 - Site, potential and limitations
 - Fire access requirements
 - Pollution factors/visual/auditory/osphactory
 - Safety, segregation
- Services and Controls
 - Utilities
 - Power/communications
 - Water supply
 - Drainage
 - Sewerage
 - Refuse disposal
 - Types, location, levels, capacity, efficiency
 - Administration
 - Government and local controls
 - Planning controls and zoning
 - Legal
 - Ownership, cadastral surveys
 - Easements, rights of way
 - Valuation
 - Economic base
- Human Usage and Association
 - Resident and using population
 - Number and composition
 - Economic and social structure
 - Current problems, potential changes
- Behaviour settings
 - Nature, location, rhythm, participants
- Images, stability or conflicts
 - Identification, expressions, meanings at
 - Hopes, fears, preferences attached to site

PHYSICAL ELEMENTS

Ecological significance
 Sensitivity to change/stability
 Relationship to wildlife/food, shelter
 Community relationships: pioneer/climax
 Relationship to physical factors, erosion/water supply
Special values
 Specimen plants: location, spread, species, elevation at base
 Historical significance

Wildlife
 Type: Distribution and habitat
 Quality/value
 Visual/historical value
 Economic value
 Noxious or destructive effects/disease carriers
 Ecological significance
 Food-chain relationship
 Related life-cycles
 Movement patterns

CULTURAL ELEMENTS

Historic
 People, place, things
 Date, quality
 Significance and value

Aesthetic and Sensory Characters
 Features
 Spatial organisation
 Character and relation of visual spaces
 Viewpoints, vistas, visual focal points
 Character and rhythm of visual sequences
 Visual interpretation
 Scale
 Depth and distance
 Proportions
 Angle of view, viewer position, direction
 Types of visual opportunity

 Atmospheric light/shadow
 Other sensory perceptions - sound/smell/touch
 Intensity quality
 Value ranking system

¹Based on Site Survey Data, M.A. Robinson, 1984. Lincoln College.