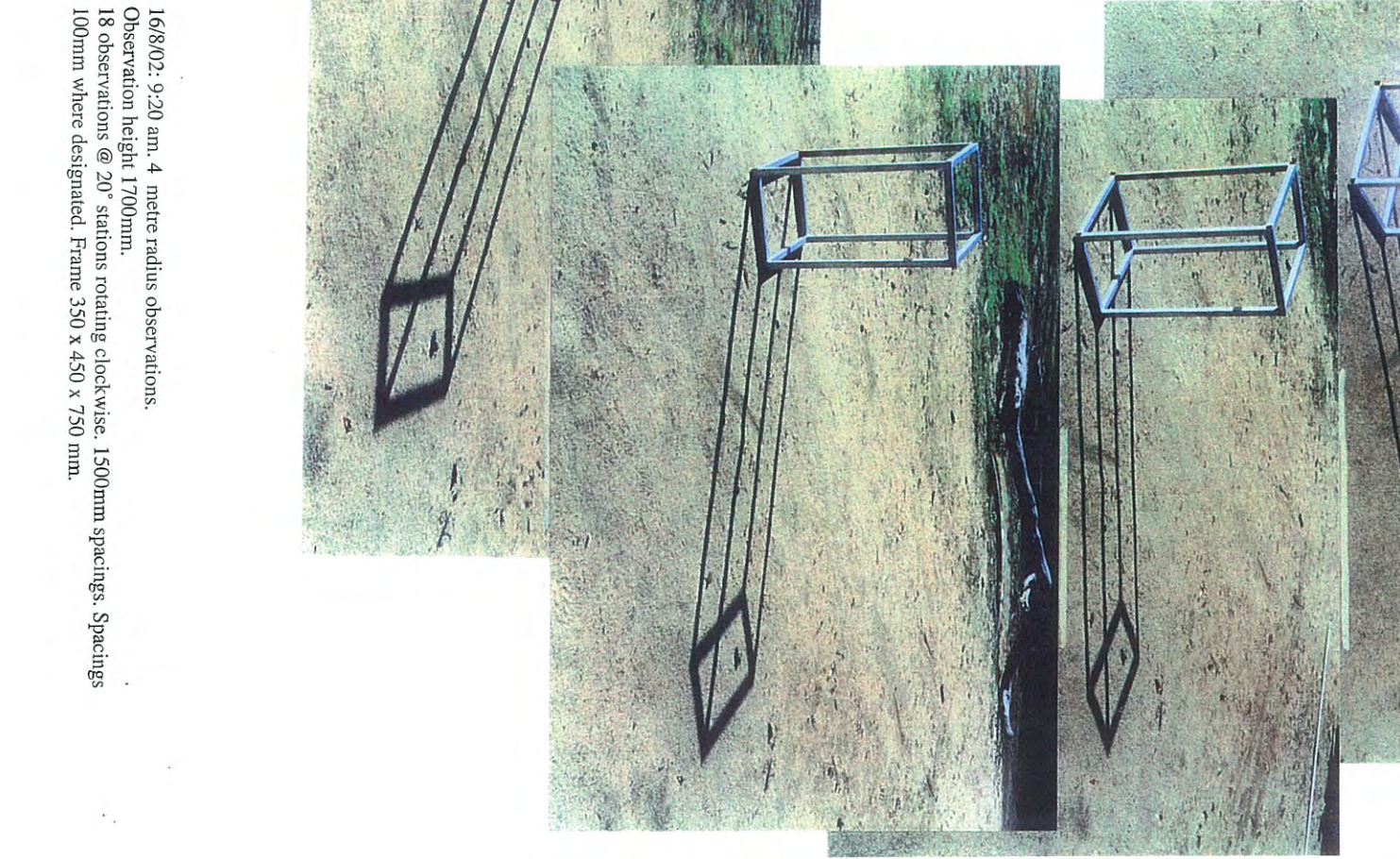


- 1st observation – shadow structure combined



- 100mm deviations

Divergent effect



16/8/02: 9:20 am. 4 metre radius observations.
Observation height 1700mm.
18 observations @ 20° stations rotating clockwise. 1500mm spacings. Spacings 100mm where designated. Frame 350 x 450 x 750 mm.

Discipline/Measurement

Recording / geometry and method

Object as Instrument

The question arises here of how much systematic data for a variety of conditions is required to enable accurate repetition in designed constructions or enhancing skills? By physical practice on site I could develop an intuitive knowledge of where to put things particularly as structures and the surfaces become more complex (i.e. curved rocks) by just doing more hands on work.

I suspect both strategies are productive if used together in a balanced way. I will need to be able to specify to others dimensions and specifically to get particular results so I need to develop a system to do that. However, the discipline of using intuition, knowing when to grasp it and its balance with conscious thinking is part of my method. In the early part of this project before the initial insight with the pyramid, I indicated that there were interests that I suspected were potentially relevant, or that I wanted to influence the project. These were intuitive decisions, how they might inform the project I did not know. I attempted to consciously reason some of these ideas into the project with varying and unresolved results.

An example of such an intuition was the interest in the idea of architecture as instrument, cited for example in the tradition of observatories and the huge moving mining machines in my immediate area, buildings on tractor tracks etc.

I suspect this sensitivity comes from my experience of making machines and Industrial Design. As a result, one thought amongst others, was of architecture that could move around the landscape, but this as yet has not been pursued. However, the intuitive choices, did prepare me for the insight that occurred after the "pyramid extended" experience and subsequent recording and measuring exercise. That insight being, that what I was making and using were already actually instruments, objects for observation.

These photographs are an example of a structured approach to measuring and recording, using a basic frame as a research instrument. The position of the observer's eyes relative to the object are documented at a particular time.

Measurements recorded are

- Distance from object
- Height above ground of observer's eyes
- Size of object

- Starting from a position of a straight line alignment from observer through object to the sun observations are made in 100mm increments rotating equidistant from the object.

The primary research strategy is placing available objects on the ground or selected surfaces to see what happens.

These frames and forms I left lying around on the land at varying distances from my regular patterns of occupation and are therefore visible at various times and weather conditions.

In further research I will design structures and objects for particular land forms, positions, time and weather conditions.

There is a need for structures of varying length and angles to experiment with distortion and correction.

There is a need for lengths of malleable material in structures (I've used lead) as do more experiments with complex contours on the land i.e. bent object/straight shadow.

The correction of light scattering as it passes the edge of an object to improve the fidelity of lines needs to be addressed particularly with remote objects (i.e. flying object / separate shadow). Also I have begun to consider the problem of generating form.

As I continue to make and be around instruments, vary them, rearrange them and have the patience to wait and experience different weather and times I will discover and refine more of these technical issues.

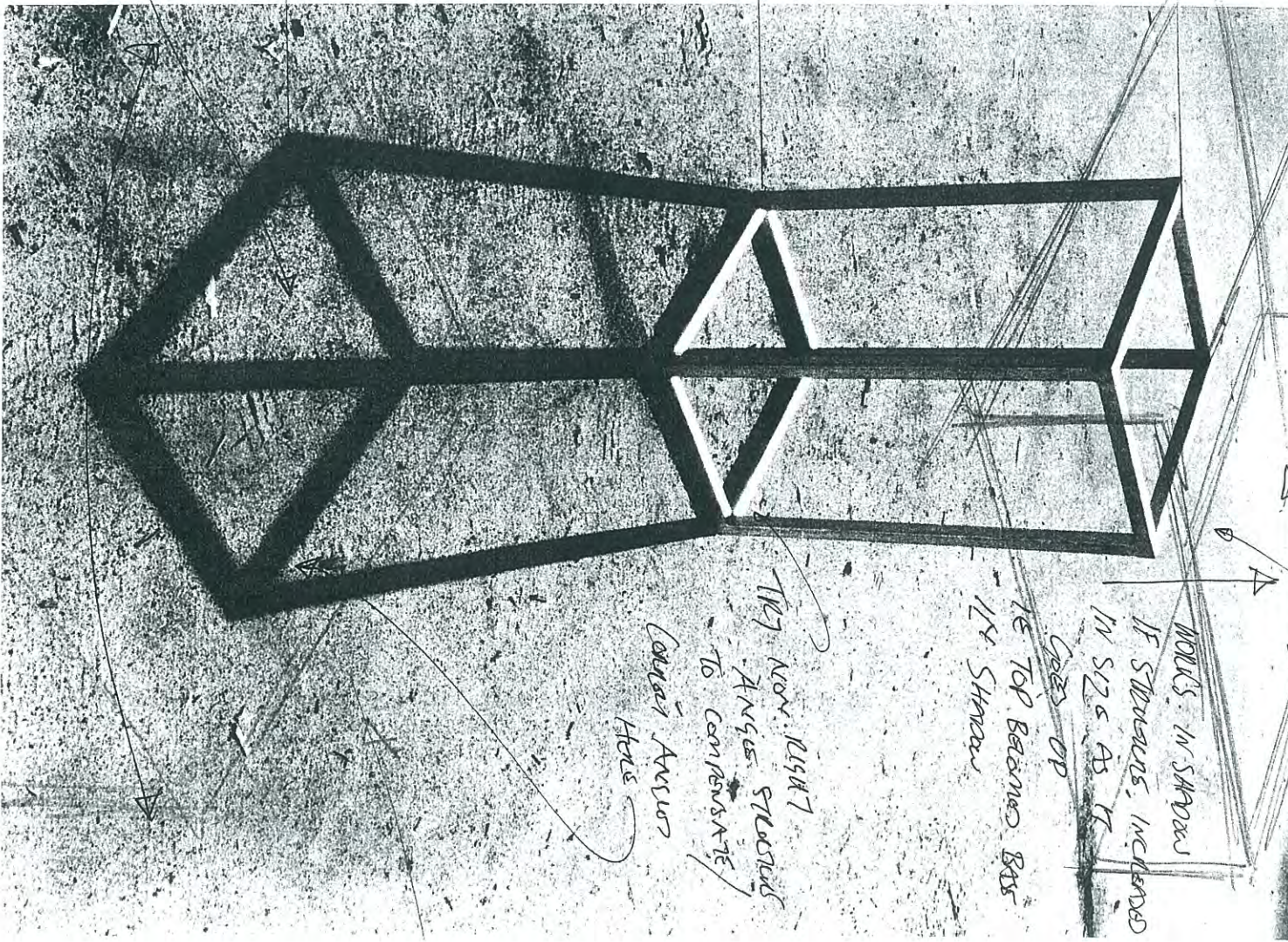
An intuition grasped and held and carried until a particular physical occurrence happens. A scenario in which the observer has deliberately placed themselves, can be put into context and clarified by physical activity, observed or experienced.

The apparently undisciplined intuitive method of placing one's self in a chosen environment and then moving found objects around or making things out on that environment in all weather is a productive strategy for learning and creativity. Observed structures hold only for the particular time and geometries. There is a point at which the deviation from straight line observation/alignment is such that the observer separates object from shadow again. Observing with the sun to the observer's back can construct frames within the existing frame with a similar deviation tolerance.

cut how in ground hole?
 to modify answers to keep with stream

THIS HEIGHT
 UNUSUALLY CHANGES
 MORE OBVIOUSLY DEPENDING
 ON OBJECTS POSITION
 DISTANCE IS DISTANCE
 FURTHER AWAY SHORTER
 BASE SHADOW.

THIS HEIGHT
 MORE FIXED
 (LESS OBVIOUSLY UNLICO
 WITH OBJECTS POSITION & HEIGHT)



TRY NOW: RIGHT
 ANGLES STRUCTURE
 TO COMPENSATE
 HEIGHT

IF STRUCTURES IN SHADOWS
 IN SIZE AS IT
 GOES UP
 IE TOP BEHIND BASE
 IN SHADOW

Objects at hand and initial reconstructions

I suspect that as I work physically and reflect mentally that in some cases I already had the knowledge. However this was just below the conscious surface and that my physical activity and being in landscape and watching more, actually helps the idea come into consciousness or action with material.

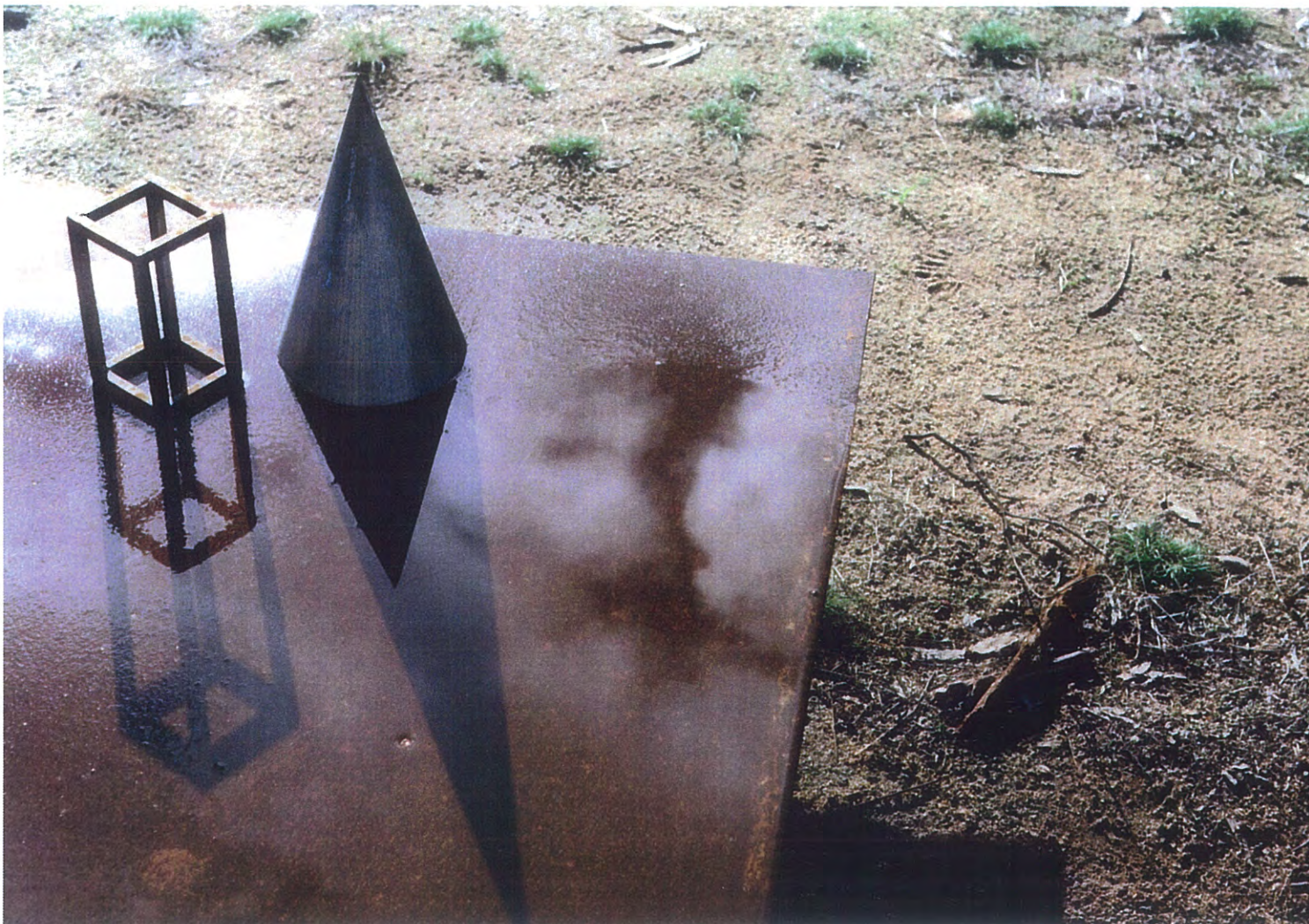
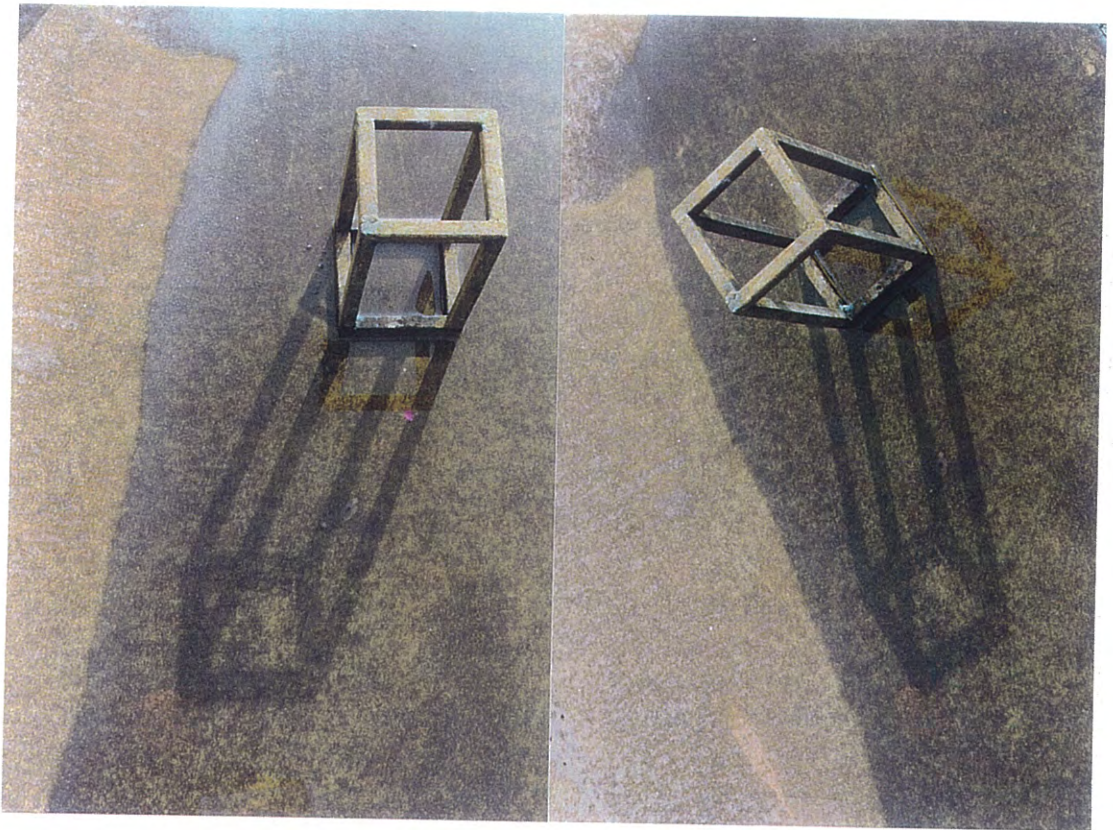
Apparently ad hoc activity leads to a discernable pattern.

Experimentation has been on going with a range of objects both at hand, and some fabricated within basic geometry.

It has been an intention to limit myself to simplicity and continue to work hands on, in situ as a method of tuning up my intuitive understanding of this system of designing and progressively develop more complex scenarios.

I am particularly interested in developing my skills to a level where I am capable of designing complex structures that interact with complex landscape and weather conditions at a more sophisticated level. I am yet to find out more. Already, through this practice the scope of the work has widened i.e. from working with sunlight and shadow to rain, natural reflective surfaces, to sharpening my senses in reading landscape form in different conditions.

Apparent ad hoc activity can lead to a discernable pattern or insight



Further ephemera/observations arising from being there

After the rain

By being on the land in various weather conditions, having objects at hand on the earth I am able to notice things further, in a similar way to the first pyramid insight. However as time passed I noticed that I was picking up on other natural events i.e. rain, as they altered the objects around me.

A wet steel reflection solved and connected an old interest of mine I thought was an aberration and not connected to this work. That is - "Mirrors in Landscapes".

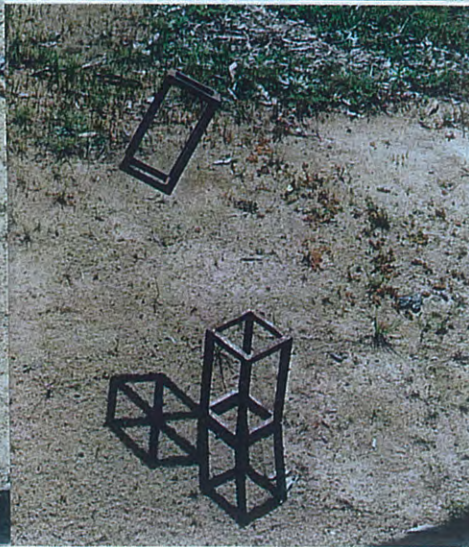
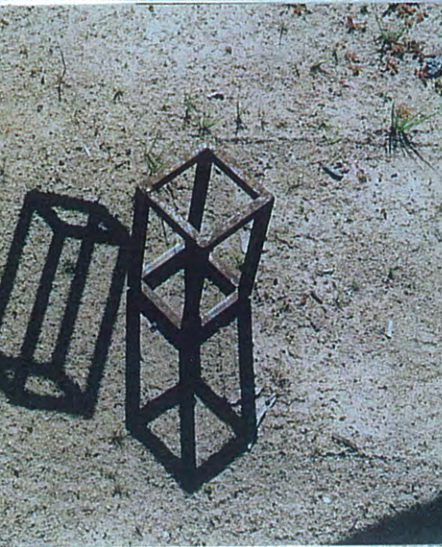
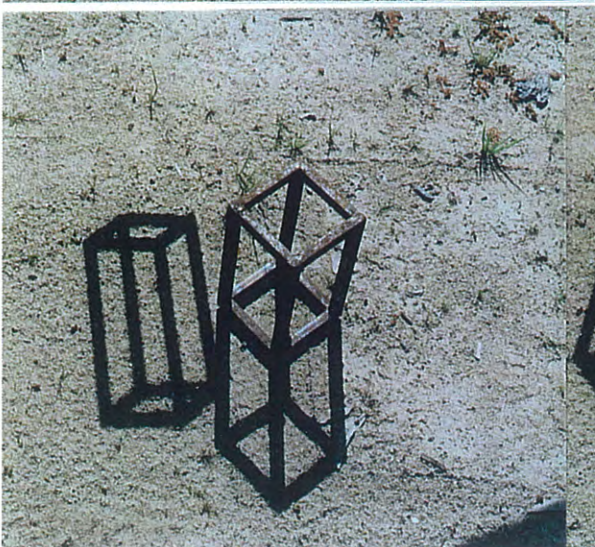
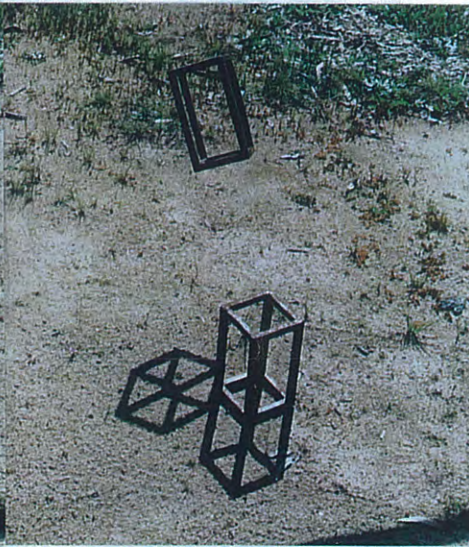
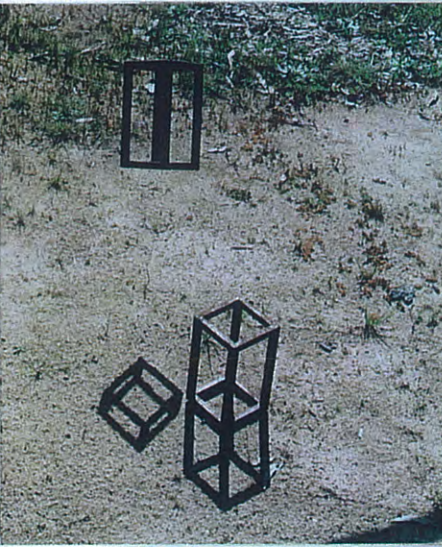
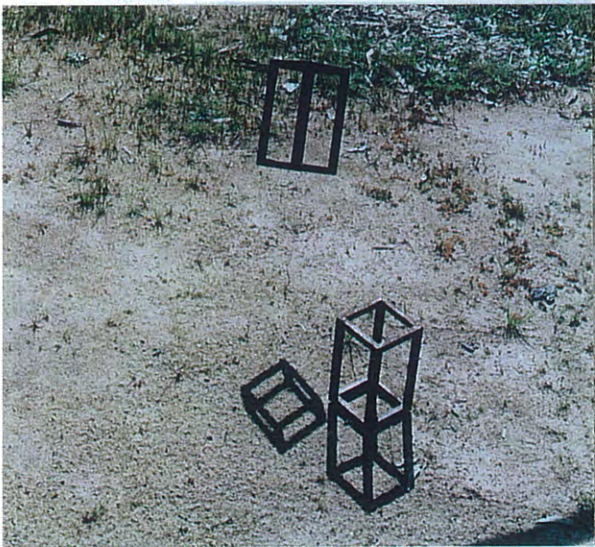
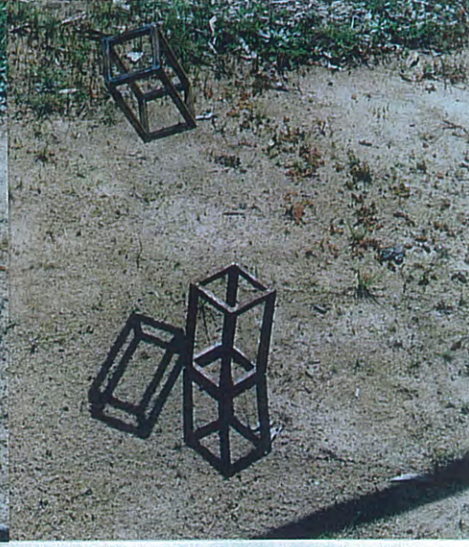
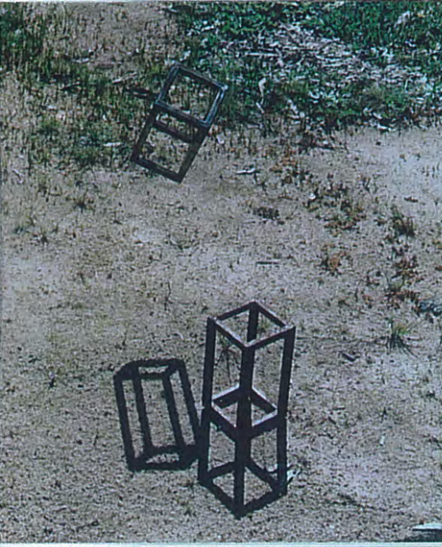
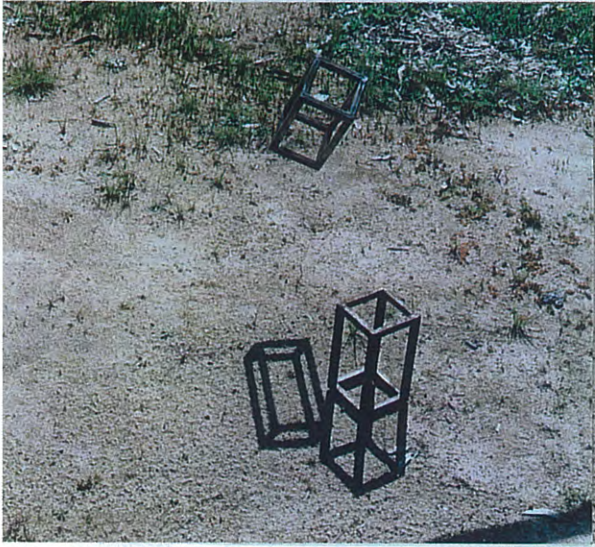
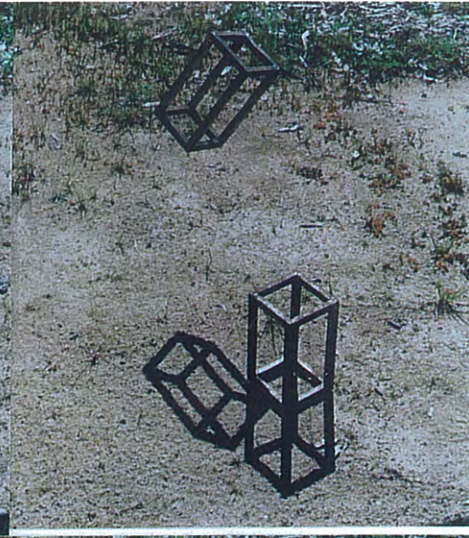
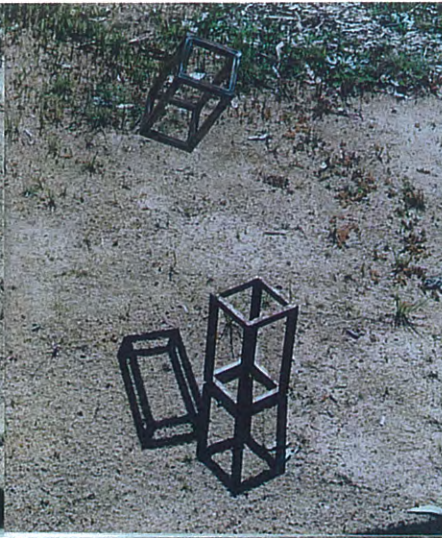
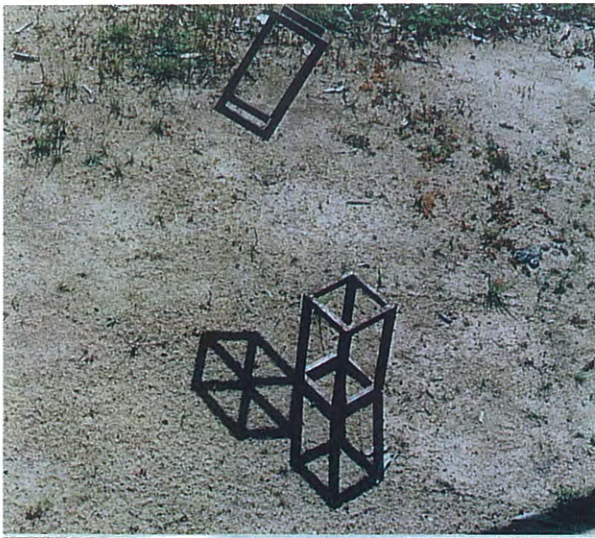
Glass being fragile and also worrying that mirrors smacked of gimmickry I had dismissed the idea. However the first hint of a natural, long lasting mirror came with a morning sun reflection on what I thought was shiny metal across the paddock but was in fact wet rock in the sun. At the time I thought this interesting but it was not until I saw the reflection in the wet surface plate on which a frame was sitting that I realised the potential for wet mirrors after rain. My point here regarding method, is that, I suspect that even when I research or acquire knowledge it doesn't mean that I will make, even obvious connections. That rather, physicality, in this case being out in the weather on the landscape, gives me insight.

This series of experiments combined the shadow projection with a reflective surface (on steel) that occurs after rain that is followed by clear sky and mild temperate sun.

The reflection of the frame is the same no matter the position of the observer so it can be combined with the extended shadow frame to form a third level of structure.

The first level is the frame itself, the second the frame plus the shadow; the third brings in the reflection as well.

The wet metal, wet rock mirror would be a long lasting element that also would have the timing of only occurring after, during rain. Again this has design and architectural potential for any surfaces on which water might flow or sit.



From flying mirrors to flying architecture

Balancing physical effort and being amongst the material, against sitting and reflecting and writing is also a practice I use.

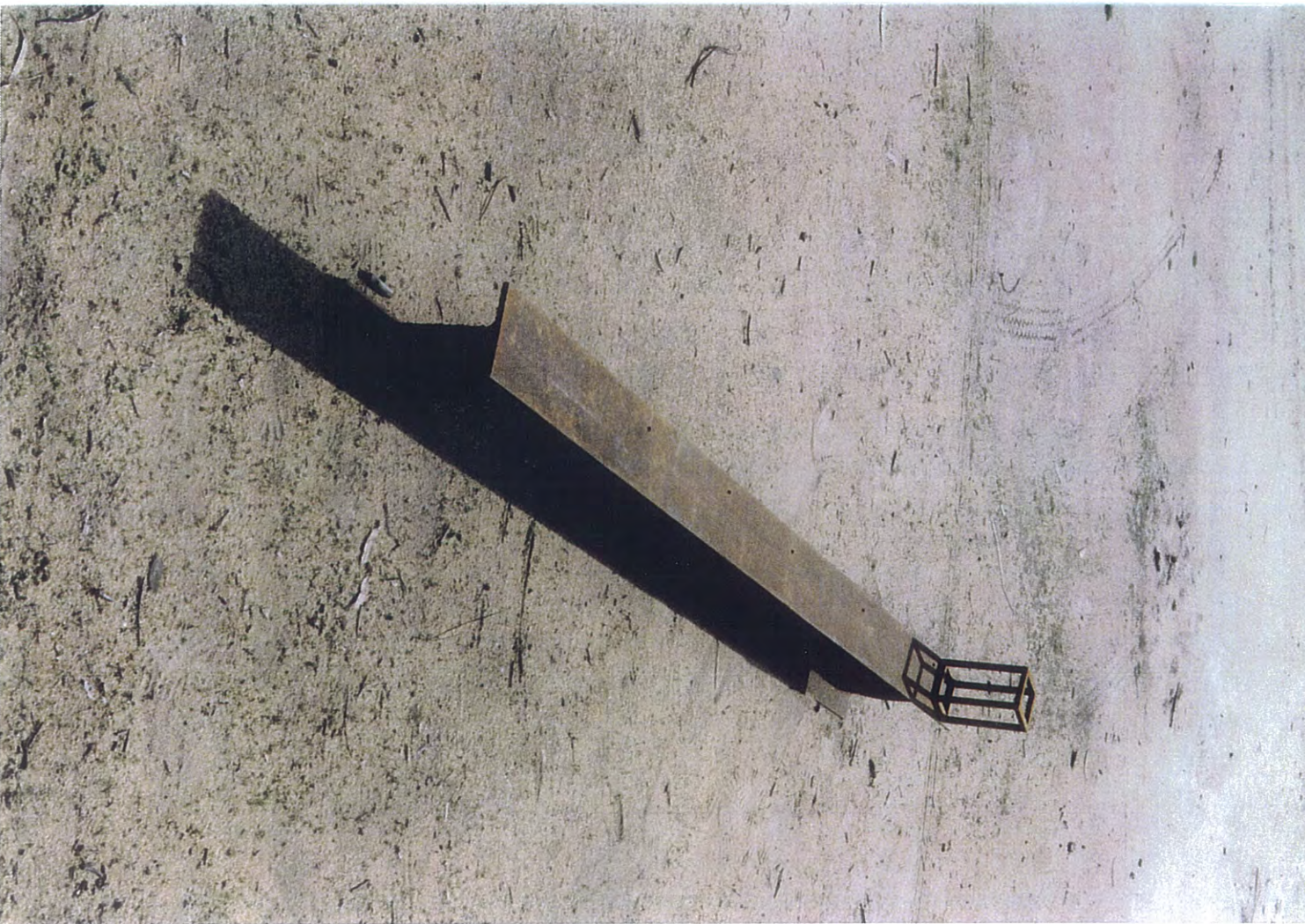
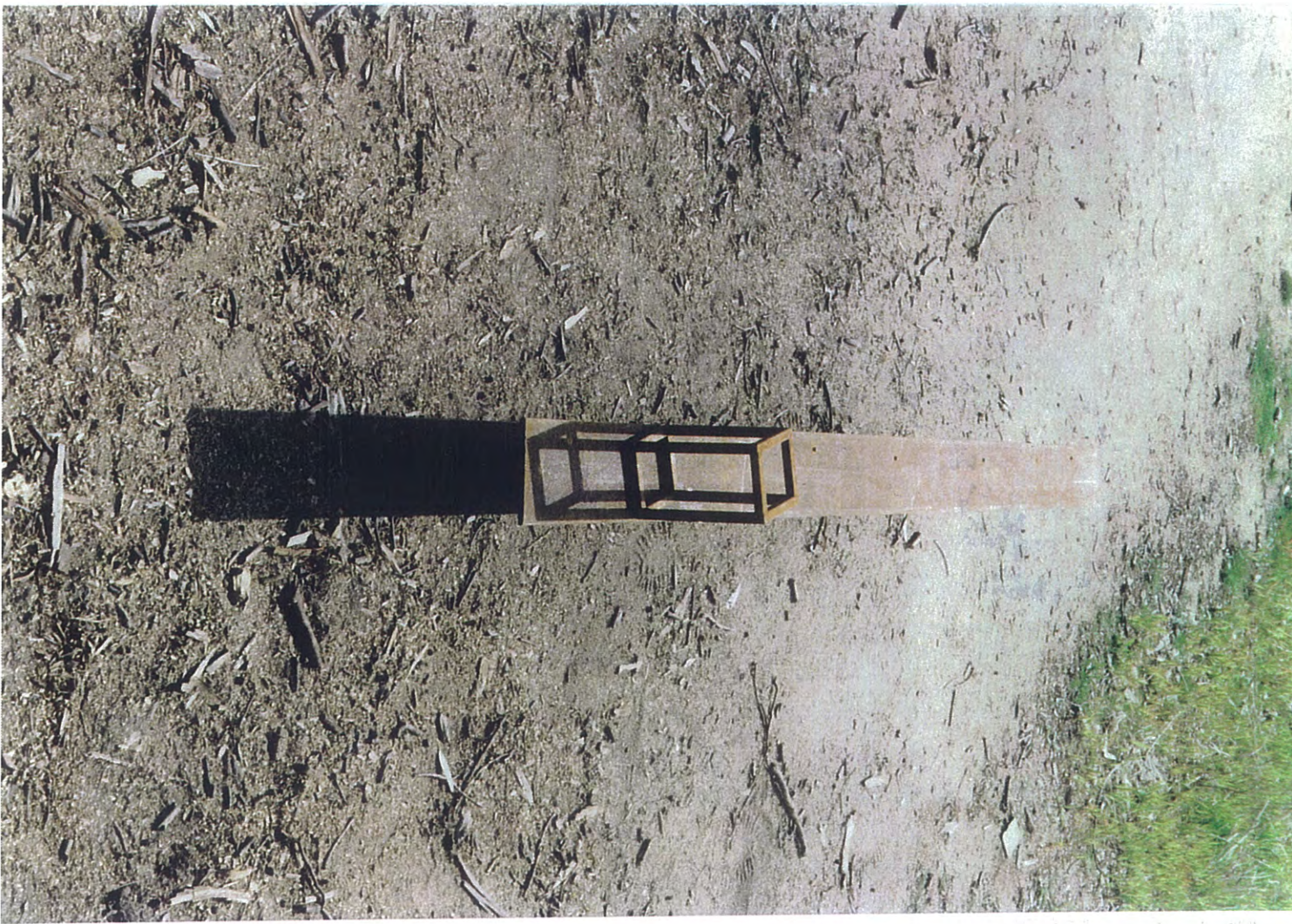
This experiment results from this. I will put significant single words or concepts of few words on single pages for focussing and highlighting. I will also write lists slightly changing words or move ideas to either side or opposites. This example is taking the line "Frame with connected shadow" (which was what I had been interested in), and then writing "Frame with disconnected shadow" etc. down a list.

I then went outside and orchestrated a frame with separate shadow. This tied in with an earlier observation that I held with me because I felt it was interesting, i.e. once it was pointed out to me (while watching) that I could ascertain the height of a landing aircraft from my viewpoint by looking at the projected shadow.

By suspending a frame off the ground rather than assuming that all this research was about being on the ground I noticed the effect of an apparent new frame. In this experiment, because the frame is elongated, the shortened projected shadow sometimes gives a perfect cube.

I have also combined real frames with frames projected from separate frames.

A building elsewhere. This opens up the possibility under the right conditions for a structure to apparently generate a structure elsewhere in space and also join with another.
Architecture beside itself. Suspended structures.



Alterations back onto structure

Juxtaposing objects and wandering by

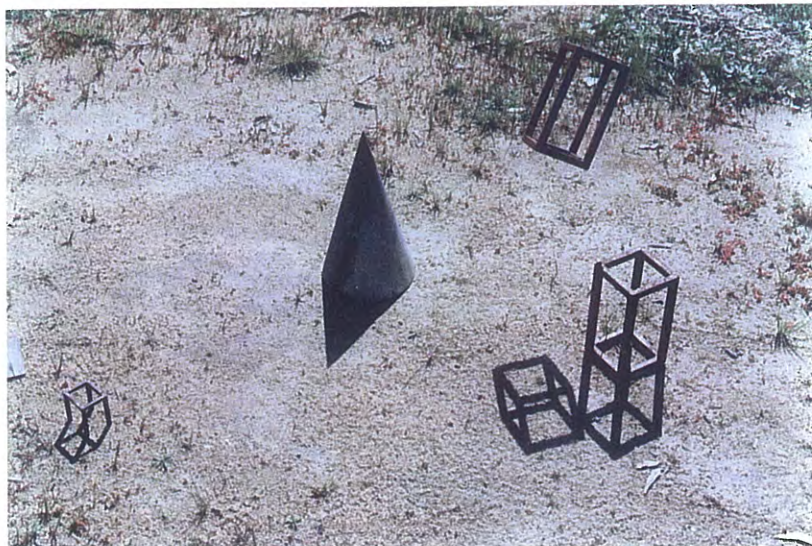
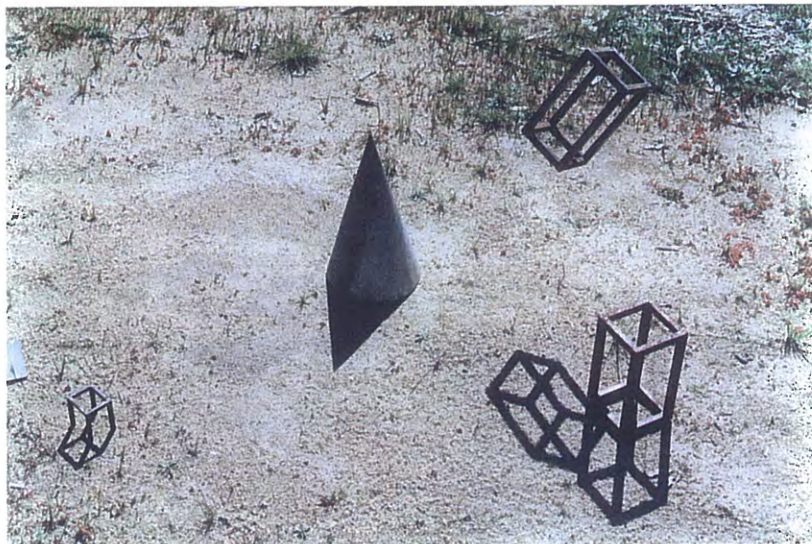
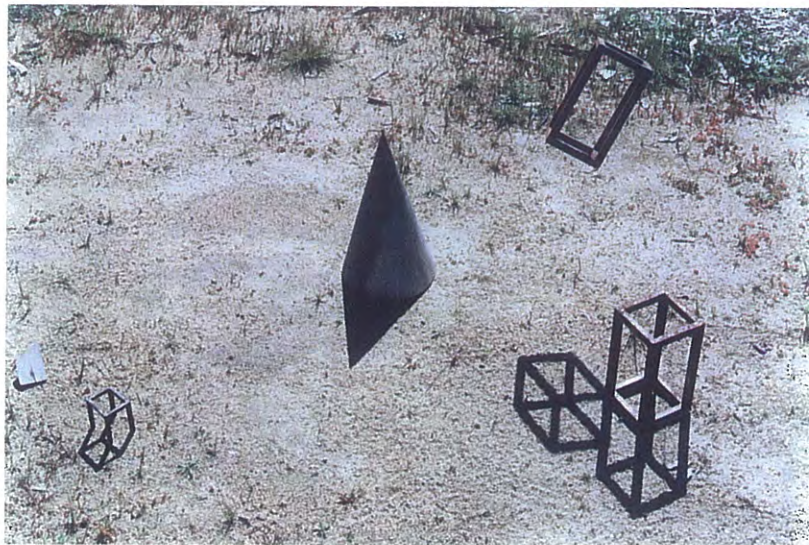
While in the process of using a metal beam to make something unrelated to the work I used a time-saving strategy that I often use to capture ideas; I combine things as I do other work and photograph what I do for future consideration when I have more time.

Also the process of searching and selecting from available material is a balanced and intuitive skill between what one wants and what material is available. Working with less than ideal is a reality, particularly in the remote Australian tradition, but unexpectedly can open up new directions, if we notice and are prepared to move from fixed expectations. It is also a strategy to continually graze material and devices, allowing the mind to store them for later, by using memory to trigger a use from awareness of them as we search..

In one case the intersection between two elements (the frame and the steel beam) is altered. The geometry of the actual physical connection can be disrupted producing contradictions. At another time the only available steel plate had an existing square hole, but-never-the-less was used as a surface plate for arranging objects or whatever on. Subsequently the observed interference of the hole into the frames opened up the potential to use this effect for ambiguous geometry, depth and floating surfaces and perhaps more.

This is another effect that could be used to construct Escher-type scenarios in real structures.

Expecting material to be of a particular form can prevent material from informing us.



Change of Scale

It was suggested from the 2.5 metre size frames that a change to larger objects with topographic measuring of the land may be fruitful. Although I agreed I also thought that reducing size might be helpful. In fact I made some very small (30mm x 30mm) table like frames.

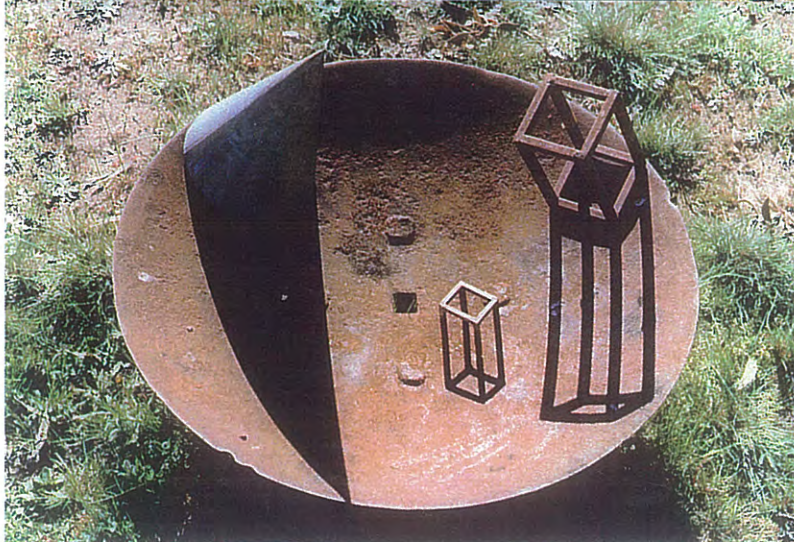
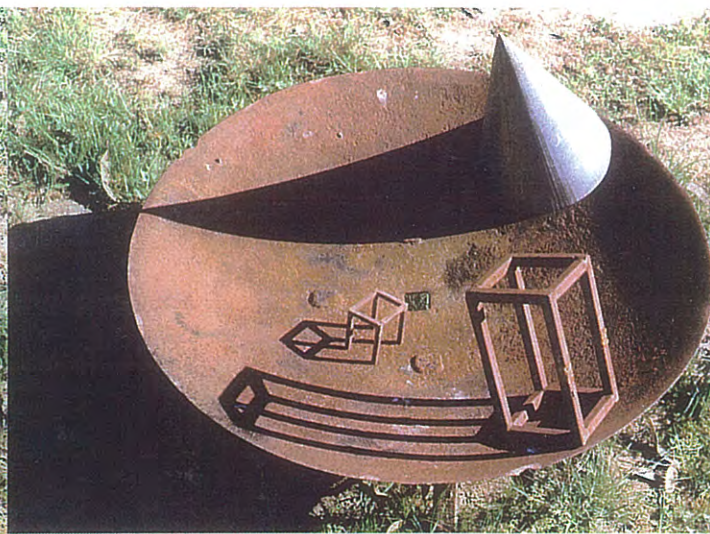
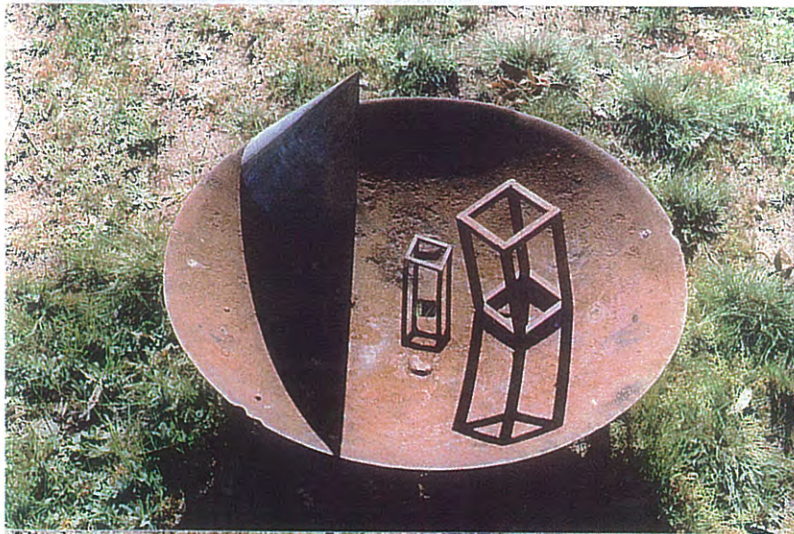
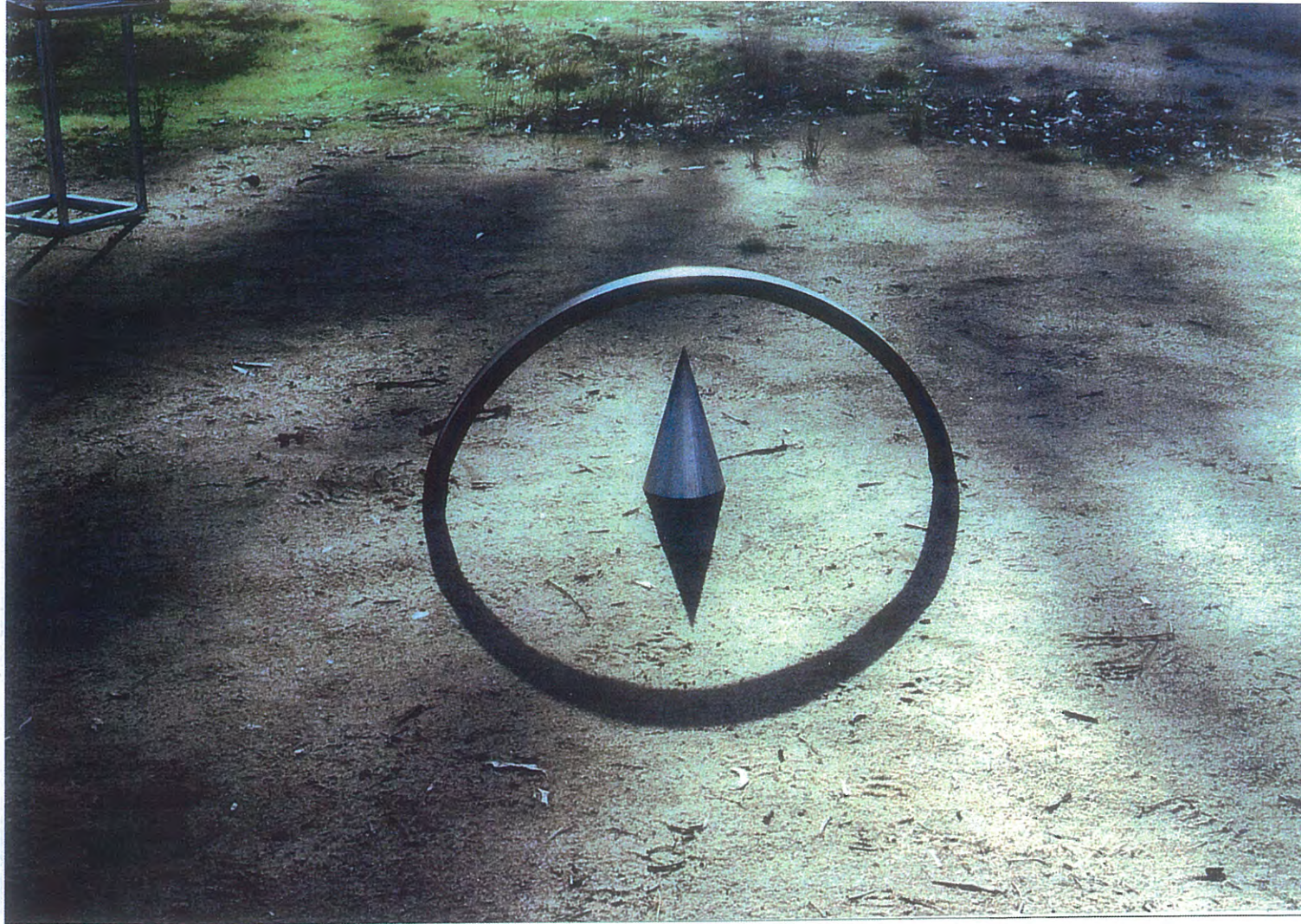
It also allowed me to first attempt what will be a much more complex task - that of forming structures to project onto surfaces other than just flat.

The experiments were accelerated by selecting smaller frames and making new smaller frames. This allowed an aerial perspective, and greater flexibility in positioning around the frame. It also easily allowed me to raise the object above the ground and record the results. This tied in with the note book realisation of separating object and shadow and also tied in with the past work pieces i.e. the flying mirror and the box kite montages and drawings. The object now not only had the ability to be extended but also to generate another elsewhere in space.

The change of scale also opened up the possibility to use a number of easily produced frames or repeat the same frame. This has led to the notion of an arrangement of similar frames but only one being perfectly square or aligned at any given time from the observer's view.

Flying and the right approach

Structures that change as you pass or fly over; structures that tell you that you are positioned correctly by their geometry. Complex structures that interact with compound natural forms and undulations forming new structures. Structures that tell you the time.



Form and curved structures

This experiment presented itself while considering the complexity of rock formations and complex undulations on the landscape. An available plow disc presented an easier first step - a simple concave surface with the intention of building up slowly to make complex surfaces.

The bulk of the work to date has primarily dealt with linear and right angle structures projecting onto flat land. The intention is to extend this research into dealing with surface and curved structure and curved and then irregular surfaces onto which shadows and reflections occur.

The experiments shown are the first attempted at dealing with this.

e.g. projecting objects onto a concave surface square.

- Projecting remote square objects on a curved surface.
- Cylinders and circular objects onto flat.
- Conical form onto flat

etc.

A curved line may be straightened
A straight line may be curved
An irregular 3D frame may be straightened with an irregular surface

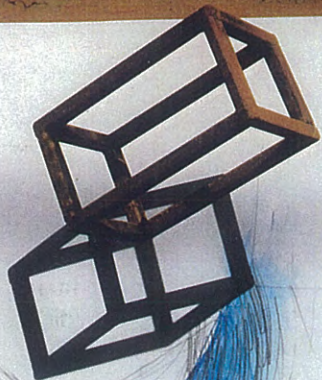
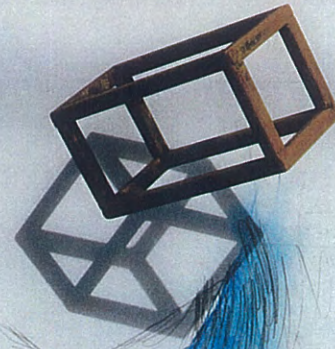
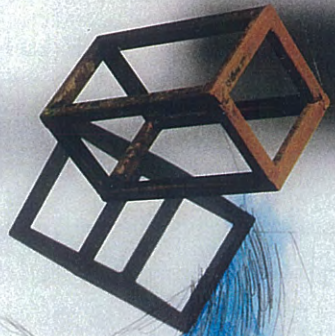
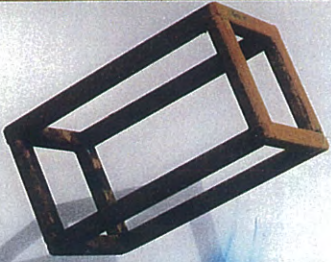
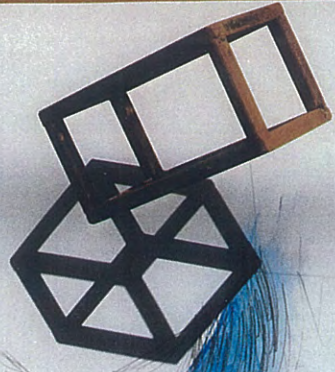
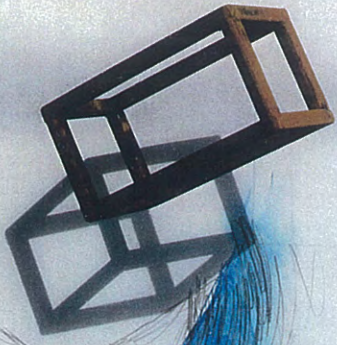


Chair revisited

I have also begun to introduce cut stone as a surface in these experiments and this will lead to etching patterns into stone that may also contribute to the construction of the completed structure. This brings up the possibility of stone carving on the landscape to integrate with an introduced object or structure.

Rather than using a generic Euclidean form this exercise is taking a known object of expected proportions to experiment with. The chair is my common device for this. It was found that with this known object that the height of the eye above the viewed object is just as critical to getting the correct proportion of lengths and spaces. The square frame is inserted as a reference which I have also done in other tests to display degrees of deviation away from the primary object. In this case chair and frame are correct in one arrangement but not the other. The variation in height of the observer or the height of the sun will affect the proportions of a simple geometric structure but it will still be regarded as proportioned as it's supposed to be. By choosing the chair to work with it was more obvious when height changed and that the consequence could make the object incorrect. The conditions for generating a known object of particular expected proportions a much more specific.

Viewing height and time is also a critical part of the geometry for correct proportions.



Parallel Directions

Drawing and pause for comment

During general conversation including various review discussions a criticism or comment has been raised which I find myself thinking about more so than other comments, that, what I was doing was drawing. I'm not sure whether that was said negatively or positively, nor did I spend much reflection on whether it was true or not.

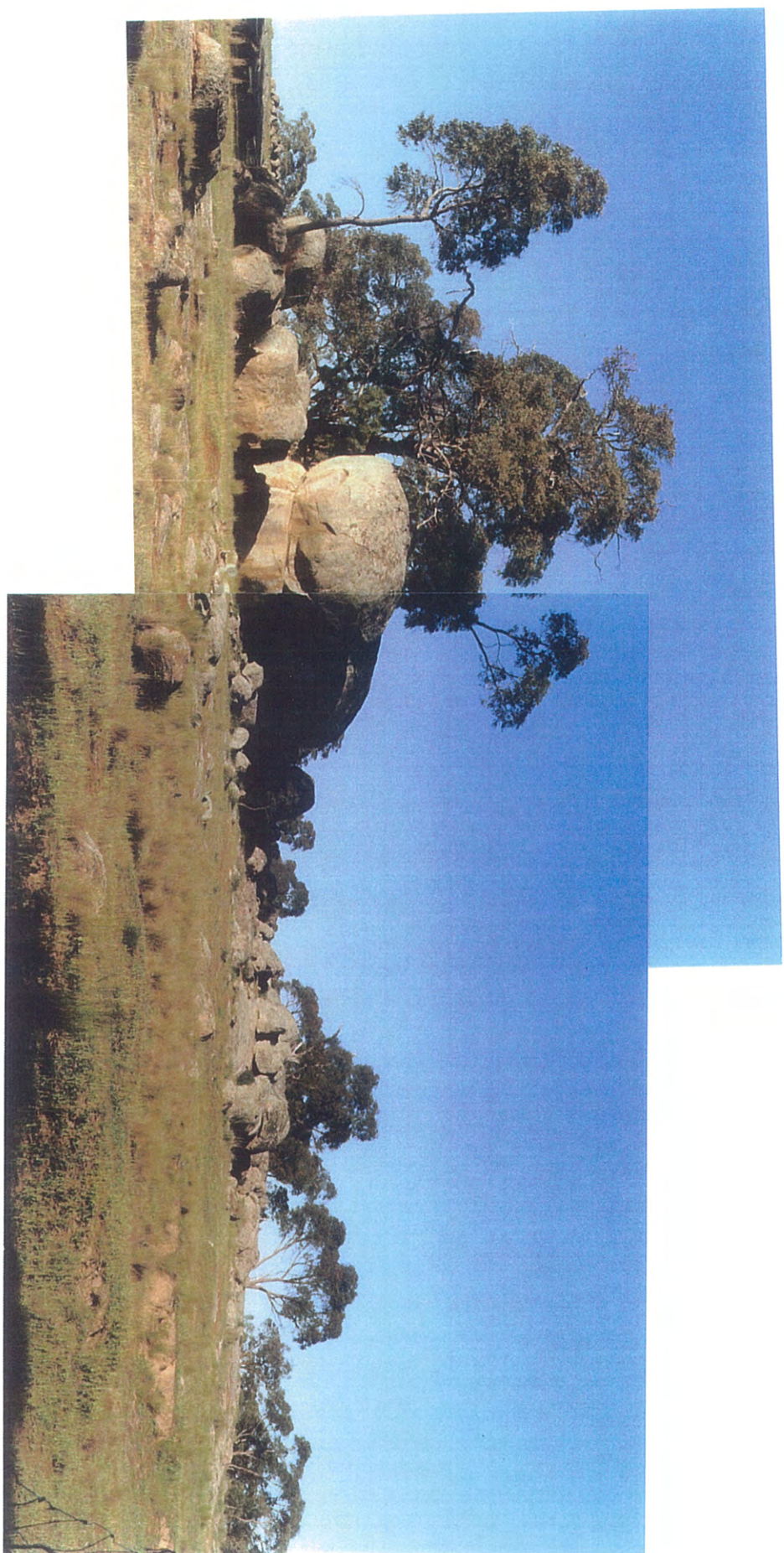
However it was a prompt to actually do drawing with the objects rather than perhaps be defensive and avoid drawing. A similar prompt happened with the suggestion that my approach to the land makes no account of the Aborigines of the area. Apart from raising issues of where I stand on such consideration, it was instrumental in opening up a direction of research that up till then, I had assumed I should stay away from, out of care for the land. That is, like Aborigines, can I explore carving into the rock and combining carving with this work?

Again this is another example of the prepared mind being open to triggers from any direction. Often it can be just one word or a particular combination or expression that stays with you and may only be connected later. This is one of the main reasons for holding such words in note books and listening to anybody.

These experimental drawings are done in a short time frame with a 3D frame on or near the paper. The resultant shadow is combined with the drawing using, in these quick examples, pencil and pastel.

The result is a drawing that is designed for a particular position within or on a building and completes itself at a particular time if the observer is positioned (seated?) in the right place.

I suspect there is potential here not only to produce framed drawings for particular positioning and timing but also for architectural application on floors and walls with drawings on their surfaces combining with frames and shadows from building elements that in turn may alter spacial perception.



CONCLUSION

Making, no idea and suspicion

The principle behind this work is the strategy of making, making directly with material, setting up systems or orchestrating events, based on intuitive choice. This is done with the suspicion that ultimately it could lead to a synthesis. It is also done with the acceptance that when and how this will occur, is not necessarily known before hand.

Puzzles and Not Telling

From the beginning, I had always called my work a " Method of Inquiry". That is, I would do something to think about, perhaps be puzzled by, rather than express or tell something that I thought I knew. This practice has positioned me to be receptive to particular perceptual shifts and insights. This approach has been applied to this project with results. The themes of the earlier work are being woven together with ever increasing cross connections. Initially this came about by noticing a very simple phenomena, but in a different way. The first dramatic step towards a synthesis. The subsequent experiments recorded in this project are the beginnings of exploration and application.

Transcending the Object

In this work, the focus has been shifted from the idea of the object as a separate, succinct entity or structure to something that occurs in particular geometry, environmental conditions, time and observer. Such a shift is relevant to Industrial Design and comes out of my Industrial Design experience.

Landscape, Instruments, Being and Pictures

During this project I came across a quote from John Ralston Saul (2001) " The indefinable moment out on the land". These words come very close to encapsulating what I have experienced and what I am interested in exploring. My physical presence in landscape. making and watching, is my method of Inquiry, reflection and further action. These are pivotal in achieving those moments. This practice is evolving slowly. It allows me to be in landscape in a different way, as an instrumental observer who is part of a dynamic system. A system of geometry, solidity an ephemera. This is not in the tradition of the picturesque with its notion of detachment and objectivity. There is certainly the pleasure of looking but as an observer who is part of something more complex. The focus then is not on the image but on a larger transitional event. grasping a moment in space, when one least expects it.

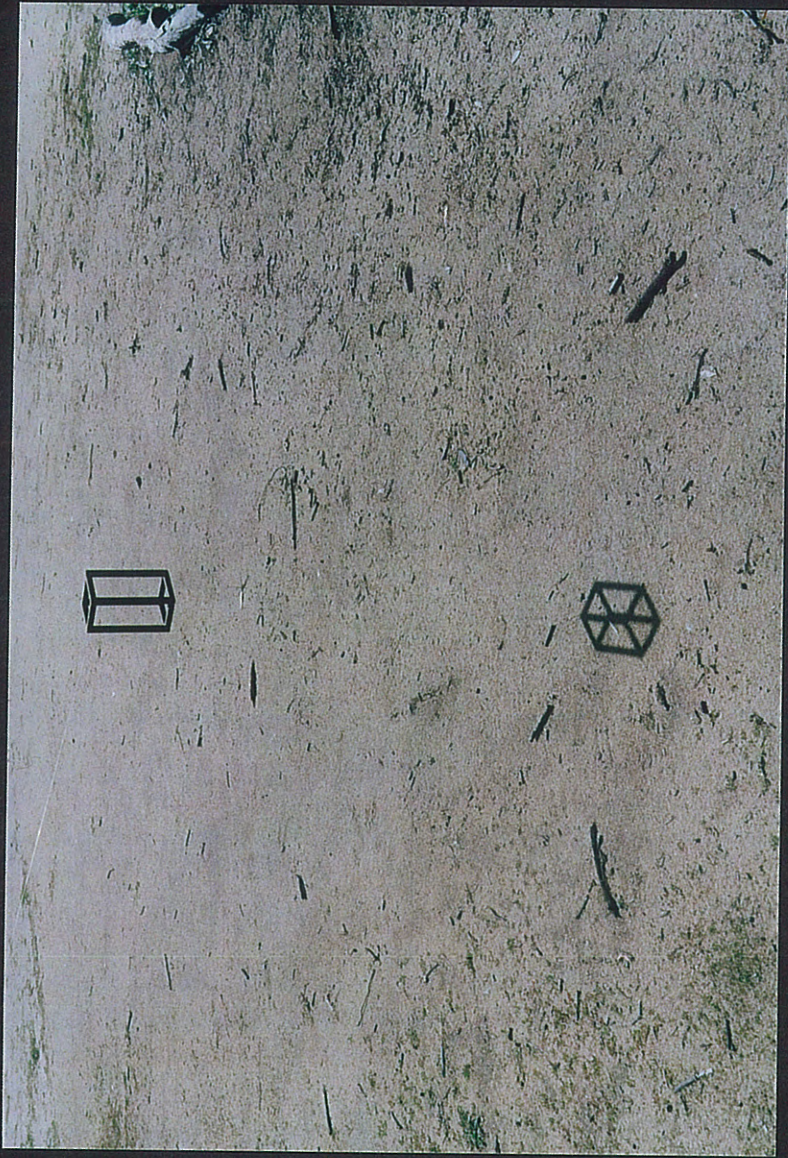
Historically landscape has been conducive to human insight. ¹ This has also been my experience. The Australian landscape leaves one alone with plenty of time for reflection and developing patience, this I use in my creative strategy. I have been able to watch something out on the land, rather than in the studio or workshop, at various times in various conditions, waiting to see if I notice something I have not noticed before. The structures and objects that I use are consequently instruments for this possibility. Instruments for observation, hopefully revelation and then application.

Development

This Masters by Project has been the clarification of content and process and has achieved what I had primarily set out to do - a synthesis, as shown in the project work. It allows me to reconsider Architecture as an instrument in a system that is equally constructed by the observer and the conditions of the landscape. I intend also to apply these findings to Industrial Design, Landscape Design and Sculpture. Particularly for work requiring significant time and place. I shall also broaden my use of Photography and explore drawing as a timed event.

At the completion of this Masters the work has arrived at a position which has potential for further research, development and refinement.

¹ Nietzsche said his best ideas came while walking near the local mountains. Tesla had an epiphany for the A.C. electric motor while walking and looking at a sunset. Theoretical physicist and co-founder of String Theory Michio Kaku makes the point (New Scientist 2005) that many mathematicians and physicists would stare out a window, and usually at a landscape, a great portion of the time.



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FURTHER INFLUENCES

Sol Lewitt

Don Judd

Richard Long

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