An Architecture of A Place and Its People

Orkney Agri-Cultural Center
Drumheller, Alberta, Canada

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"The existential purpose of building (architecture) is therefore to make a site become a place, that is to uncover the meanings potentially present in the given environment."

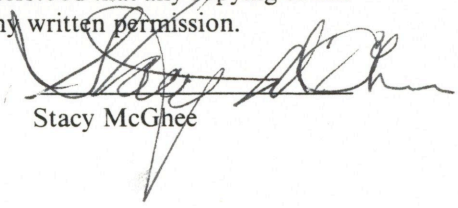
Christian Norberg Schultz
Architectural Educator

"There isn't a Prairie Architecture as such."

Clifford Wiens
Canadian Architect

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Stacy McGhee

An Architecture of A Place and Its People

Orkney Agri-Cultural Center
Drumheller, Alberta, Canada

Stacy S. McGhee

A professional paper submitted in partial fulfillment of the requirements for the degree Bachelor of Architecture

Approved

Advisor

Chairman Thesis Committee

Director, School of Architecture

Montana State University,
Bozeman, Montana March, 1986

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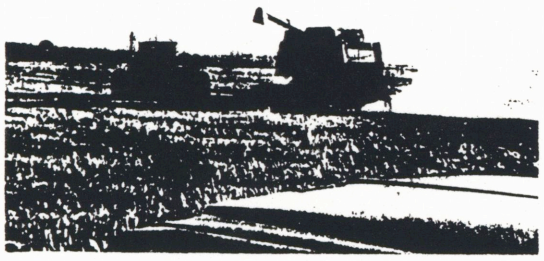
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Forward

With five years of formal education in architecture behind me, it is with great excitement and anticipation that I welcome the opportunity to put all my goals and aspirations into an endeavor that hopefully embodies them.

My thesis project will clarify and bring to fruition a realized buildable solution to what is purely huypothetical at the present time but certainly is the result of a real existing place and its people. The intent is to provide a link between my five years of professional architectural education and an environment of great personal familiarity where architectural services have never been previously considered.

For a small group of agriculturally based people whose community center is a school house and baseball diamond, I wish to create within that place, new built forms and landscape that represent with greater clarity and richness the culturally healthy and naturally unique condition of this place and its people.

For the first eighteen of my twenty five years I was a continuous resident amongst these people and most recently throughout my university career, a part timie resident and visitor there. My journeys have taken me over much of Canada and the United States, but my heart will always be amongst these people and places I know so well. I attended the local one room school for six years of elementary education as well as participating in the church, 4-H, and sports activities. It is from this background, and with recent experiences of living in diverse places such as Calgary, Alberta, Bozeman, Montana, and Cambridge, Massachusetts, that I am able to confidently say that this small rural place know as Orkney posesses many of the qualities and characteristics necessary in maintaining a unique and vital community.

It is with great pride that I share my love of this place and its people; those I warmly know as neighbors and friends, that which I call home.

Dedication

This project is dedicated with love to my family and all those past and present and future residents of Orkney.

Thesis Statement

The quality of an architectural place is the result of an attempt to thoughtfully identify and articulate existing and potential characteristics of a place and its people.

Thesis Project

The intent of the project is to architecturally identify and articulate with greater clarity and richness the present and potential characteristics of an established rural community located in the western Canadian prairie region. The proposed architectural program includes an agricultural research station, indoor and outdoor social/recreational amenities, residence for a single family and guests, and the preservation of an existing one room school house; all to be located on an existing community center site.

Project Synopsis

PROJECT - To design an agricultural research facility/social-recreational community center for a small group of farmers in a grain producing area of Western Canada.

SCOPE - The research facility is initiated wholely by the needs and desires of the concerned farmers.

- The basis for concern is a lack of quality data available for the local soil type. Although covering only 100 square miles in area, the soil is incredibly productive relative to surrounding areas. This is added incentive for unique and specific approaches to farming methods.
- Due to the independent nature of the community, it is important that the facility operate so as to nurture that independent spirit. The programs of research will thusly be nonstructured and flexible to accommodate the unique and changing challenges faced by this group of farmers.
- The research facility will include a wet lab and greenhouse, agricultural implement maintenance and research, grain storage, offices, and adjacency to outdoor display and demonstration areas.
- The communities' unique history, geography, and culture will hopefully be articulated into the social-recreational programs. These programs are initiated by present use patterns in the community. Present facilities are in need of expansion as well as accommodating new and potential programs.
- The program for social and recreational needs include a large assembly hall, lounge area, kitchen, information and display area, community offices and archives, indoor recreation, arts and crafts, outdoor recreation shelter, and adjacency to exterior social areas and baseball diamond.
- Additional user groups include those from neighboring agricultural communities and visitors. Some visitors may be totally unfamiliar with the agricultural environment.
- Outside support includes financial cost shared by two concerns; a genetic engineering firm and the government agricultural agency. Supplied by the government agency (Alberta Agriculture) is a full time staff person.
- Accommodating the full time staff person is a residence for a family of four and a guest unit providing short term independent living quarters for up to four individuals.
- The limited size of the program and the nature of the need for a detailed identification of local design determinants must force this thesis to explore specific architectural issues to a greater degree than merely offering suggestion. The direction must be toward a highly realizable solution, both in function and construction, if it is to incorporate the very pragmatic essences of the individuals concerned.

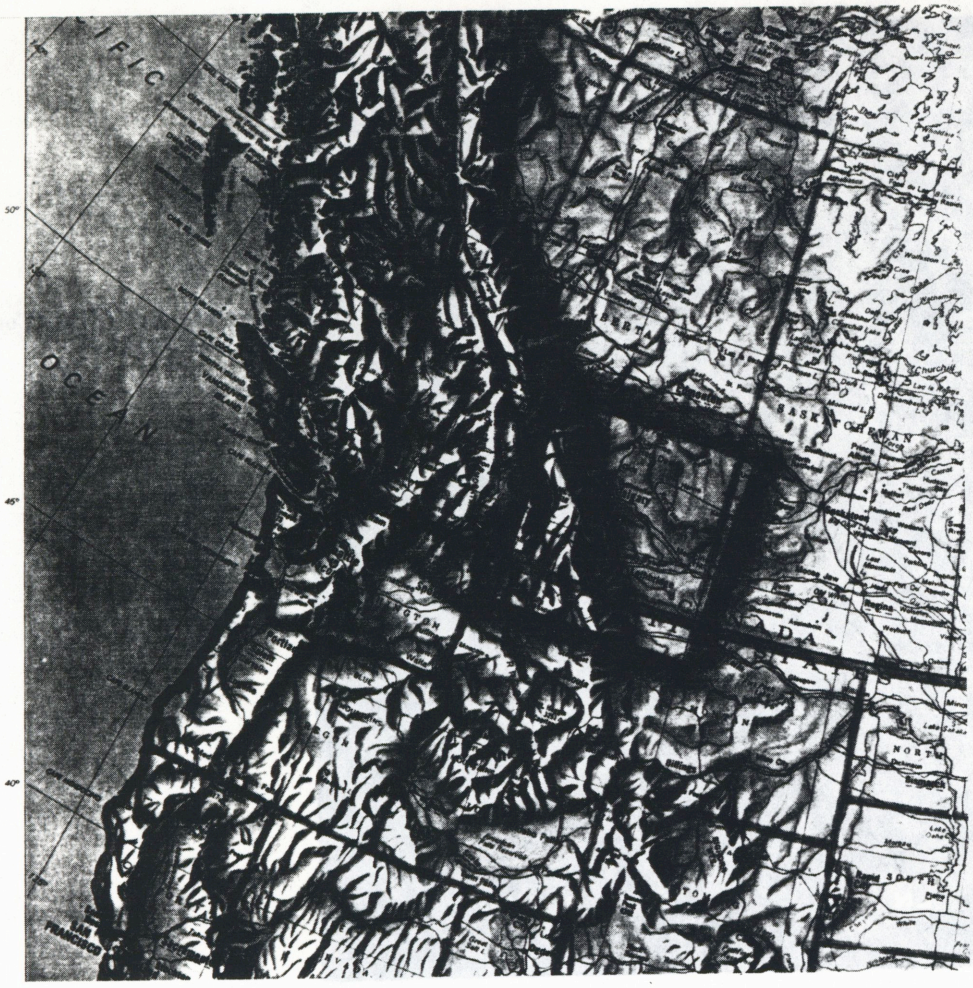
FOCUS — If the project goal is to realize a successful fit to this unique place and people, it must become essential for design to be sensitized towards the 'Genus Loci'. The solution will be realized only through an attitude that carefully articulates the very special essences of this community. Given the strong identity associated with this place and people, the architecture must nurture this identity and love of place. Ultimately, the design must suggest the familiar and its recognition within a fabric that articulates these with the new technologies and complexities inherent in the present and future agricultural environment.

METHODOLOGY — Given the lack of precedent and pattern in establishing a specific program for an agricultural research center, the need for unique classification and specialized use analysis is important. Several personal interviews with agricultural specialists and the users must be initiated if a feasible space program is to result. This lack of data and structure must be concretized to a level that speculates potential needs.

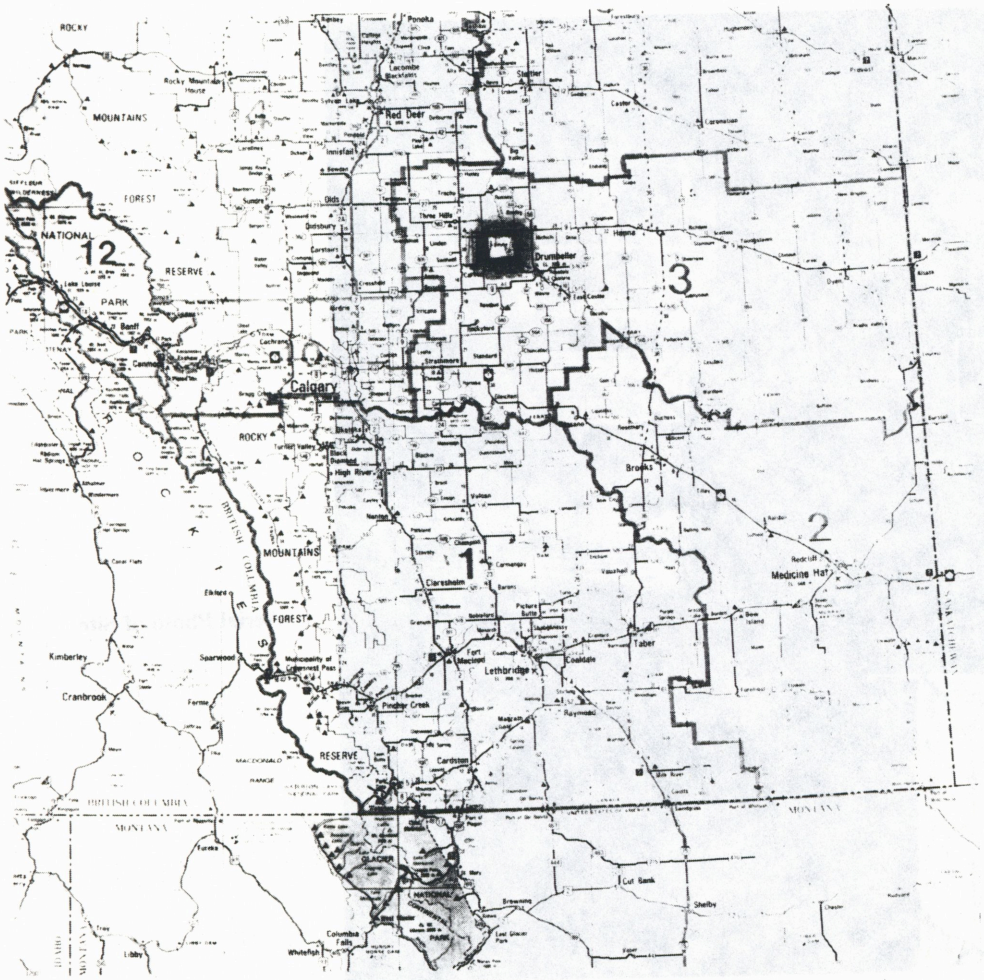
- The sensitivity toward the place will require identification and analysis of the community. History, precedent in use patterns, climate, local methods and attitudes toward building, analysis of the existing site, attitudes of the people, and present and potential directions of the community must be documented. It is fully intended that everything intrinsic to this place must be realized in the design. The analysis and identificaion will give answers to questions that compare relative merits of various possibilities. This is necessary due to the lack of concrete program structure inherent to the function and that a single 'community architecture' does not exist.

- Background research will document the various aspects of contextural architectural thought and design. The fact that current architectural trends in the profession are incorporating richer contextural vocabularies in design necessitates comparing present mainstream attitudes that do not understand such issues. However, the fact that the rural vernacular environment functions quite well must be considered.
- The synthesis of these outside and internal design influences will be articulated with the pragmatic requirements of program areas.
-Communication of this process will be through the use of extensive text documentation, three dimensional study "idea" models as well as a finished project model. The two ensuing jury presentations will incorporate the above along with slides and verbal presentation.

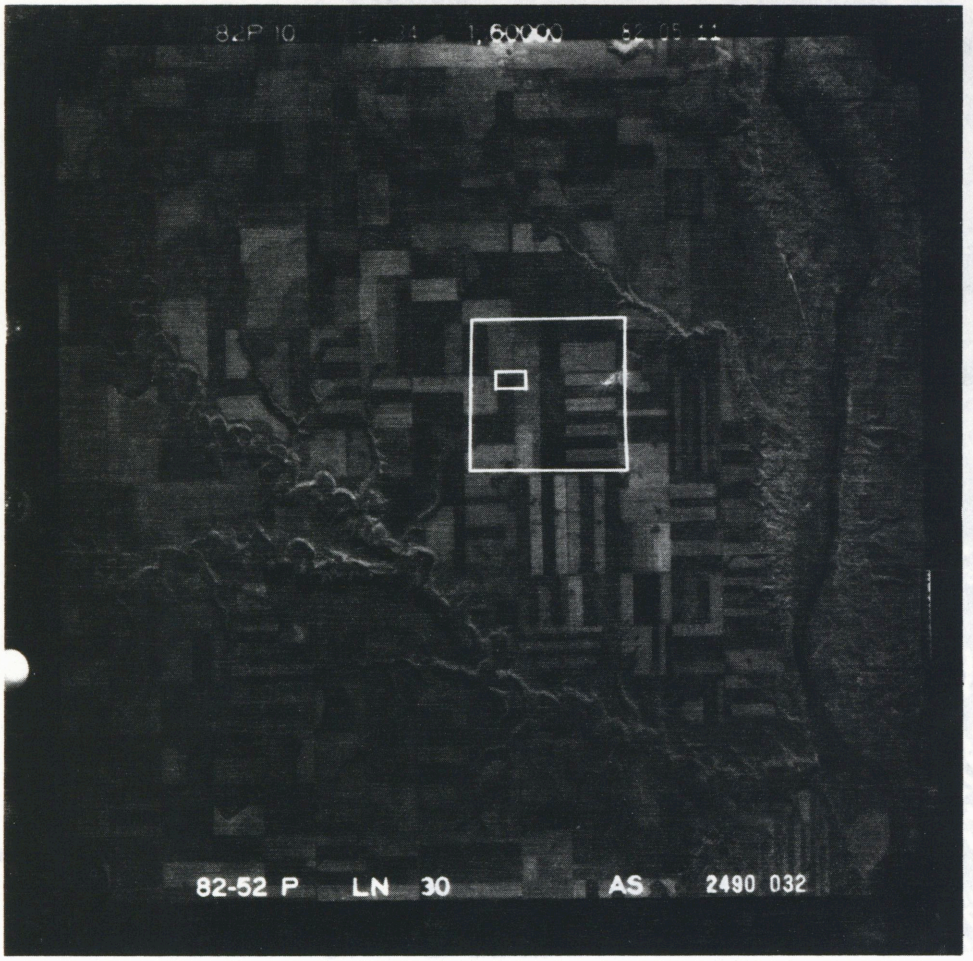
Location



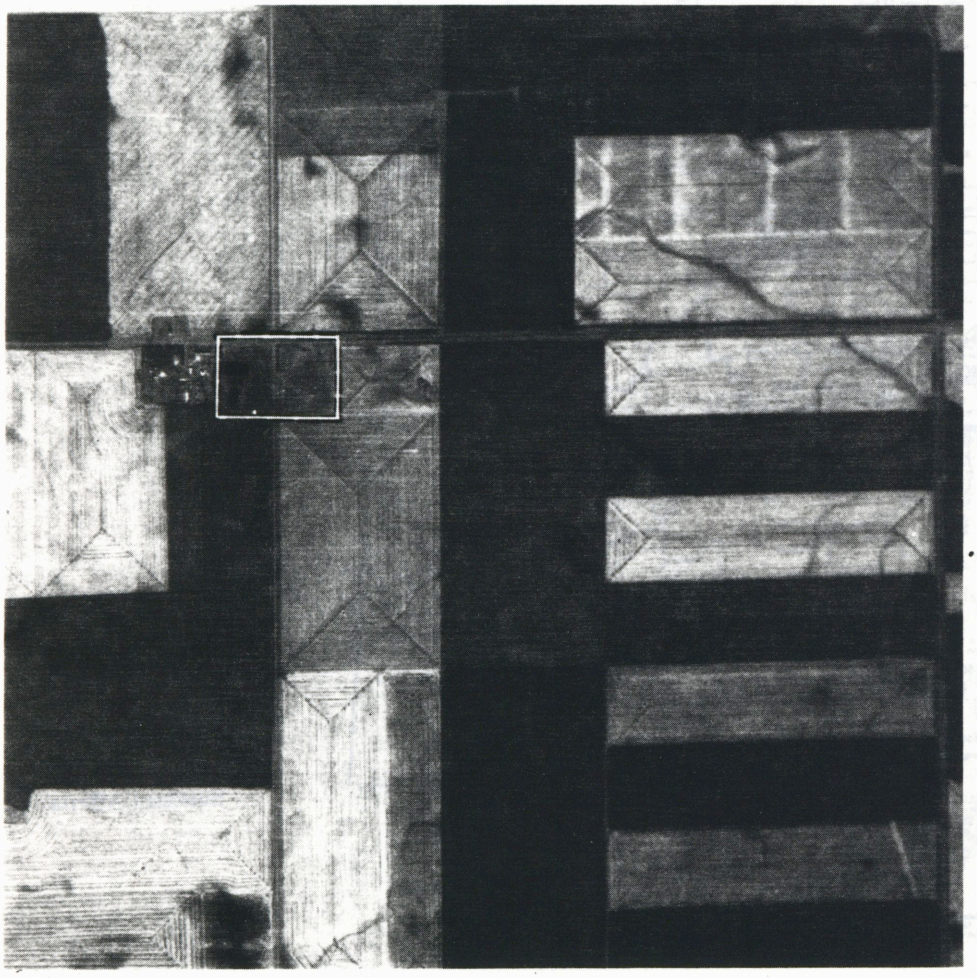
Northwest North America



Southern Alberta



Aerial Photo of Orkney Community note creeks and river



Aerial Photo of Site

Section 1 ; The Issue, Understanding Place and People

The Ideal

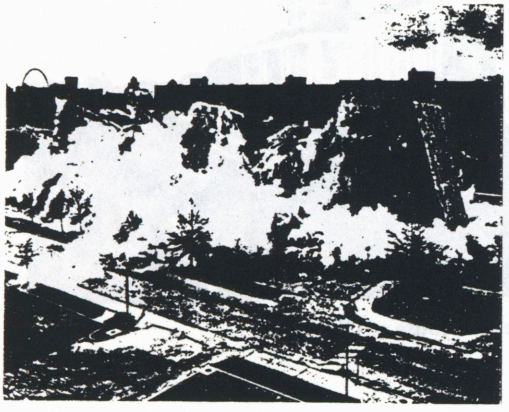
When the modern movement in architecture began to come under greater attack in the sixties, many were quick to pronounce its death and start afresh with a new revolution. The real disasters of urban renewal and particularly the St. Louis project Pruitt-Igoe for example, brought to question the "sheltering of the masses" idea. Was it perhaps that the failures were indicative of a lack of truly understanding the nature of modern man? More importantly who actually was this modern man?

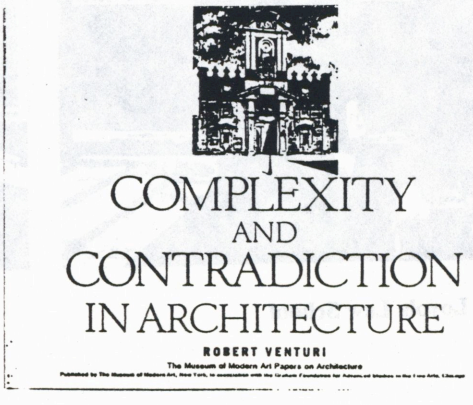
In the idealogical void that resulted, sociologists, behavior psychologists and environmental psychologists all began to point their fingers. The modern architect was to blame;

> Society cannot be remade through architecture and architects cannot solve problems of poverty, mental illness, or marital discord through design. Nor can they shape friendship choices, civic participation, community identity or social cohesion through site planning.[1]

The architects began to question what was lacking in their work. In his now famous discourse on the problem, Robert Venturi said modern architecture was too bland. It did not confront the complex and contradictory nature of our built environment. "More is not less" he insisted.[2] The rest is history, albeit an uneasy one Venturi's paper was to shake the idealogical notions of architecture. Suddenly, the alternatives were wide open and architectural design became to the architect, a more free expression; to the layman it was more eclectic. Adding to the already turmoiled time Venturi again gave the profession something to talk about. "Learning from Las Vegas" six years later, stirred many architects because it argued that roadside America with all its billboards, strip development, and signage was OK.

To encapsulate the result up to the present is to focus on that word "postmoderism". It represents a new attitude toward our built environment. It is true that individuals like Richard Meir continue to illustrate to us the many lessons to be learned from a strict modernism. For the most part however, the influential members of the profession are all dabbling in a form of modernism that is a hybridization of historical allusion and contextural reference. The notion that the architect is someone who withdraws from the complexity of the world and limits himself to a few pieces is gone. We are deriving a lot of our design inspiration from the environment we are in the midst of. The terms contexturalism and regionalism are widely used. In the year 1985, the AIA recognized two highly contextural projects in their annual parade of award winners. Cesar Pelli's Herring Hall and Robert Stern's house at Chilmark both illustrate richness that reflect local traditions and ideas. If ornament and style are obvious local traditions, then perhaps construction and form could also reflect the spirit of an area. The Los Angeles area work of Frank Gehry, is a good example. Illustrated is the Loyola Law School. Here, the placement of buildings and visula structural articulation seems "to distill the paradoxical city it is located in,"[4] as one critic puts it. We are also able to witness the promise of preservation and respect, as many of our finest community buildings are being saved and in many casers converted into wonderful, original, exciting places for work and leisure. In this eclectic atmosphere we are finding new and exciting sources for design. We have demonstrated some ability to learn from Las Vegas.



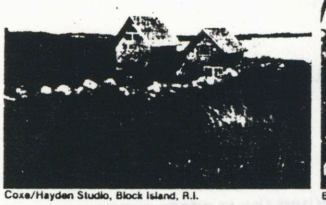


Eclecticism in modern design

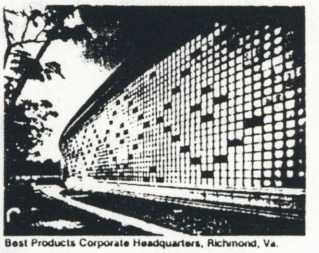
The American Institute of Architects awards

By Jane Holtz Kay

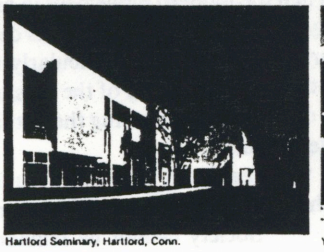
Buildings designed to do duty for church and state accounted for the bulk of the winners of this year's American Institute of Architects (AIA) honor awards. This often off-beat architecture in the service of government and God gleaned 8 out of 11 prizes to be given out at the AIA's national convention in New Orleans next weekend (May



Coxe/Hayden Studio, Block Island, R.I.



Best Products Corporate Headquarters, Richmond, Va.



Hartford Seminary, Hartford, Conn.



YWCA Masterson Branch and Office Building, Houston

the company.

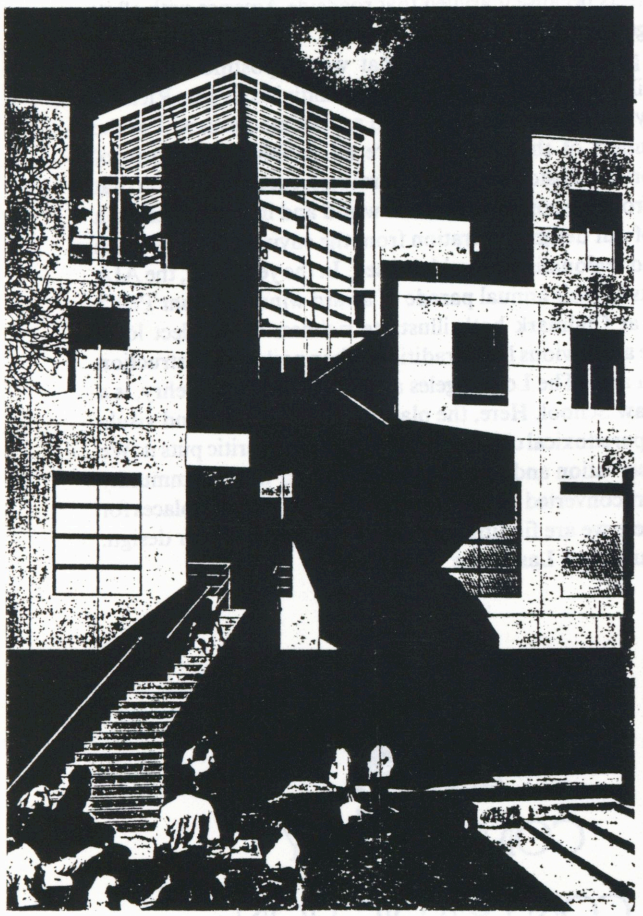
The building also boasts the insertion of the Rockefeller Center elevator cab, "two massive limestone eagles that once sat atop the Moderne 1939 Airlines Building" in New York City, and an art collection – all typical of the discount store's labors to patronize art and architecture in a vanguard fashion.

While a critic might say the Best building plunders the

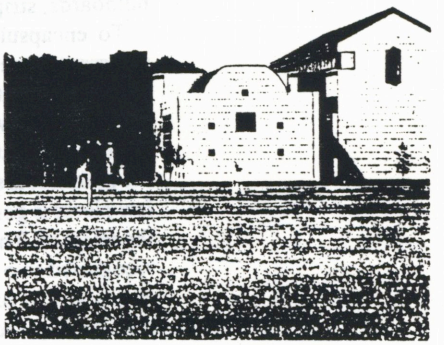
The jury comments: "By concentrating on the worshipful aspects of sunlight, the design creates a poetic interpretation of a rational theme."

Looking less for the rational than the vernacular – a fit into the context of the place they occupy – the last three awards go from high-tech tenting in a Saudi Arabian terminal to low-tech lyricism in a Block Island vacation home.

Pellis' Herring Hall



Gehrys' Loyola Law School



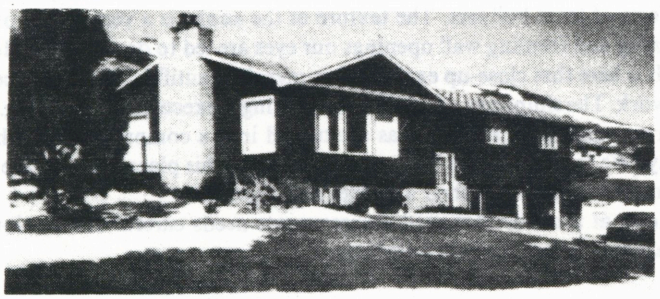


Sterns' House at Chilmark

The Real

From the point of view of the profession, our lessons from Las Vegas are tangible, however few. To mainstream culture however, the lessons are yet to be learned. There is as always "lag time". It may perhaps be years before we see "contextural results." In the past, when the layman wanted a new building he simply needed to look in the papers, magazines, or television for ideas. With the profession scrambling to understand context for inspiration the ability for the layman to be instructed on such design issues becomes more difficult. He has no pictures, no textbooks, no instruction.

The reality of today's mainstream design may be found in the still lingering notions of modern design. Modern architectures' goal was to solve social problems through design. Furthermore, its universal form-language is the logical outcome of a rational approach to design with new materials and techniques. Thus, we see two things. First, the universalist idea has produced structures that bear strong likenesses to one another city to city and even continent to continent. Secondly, materials and technology have given much of the construction industry a "kit of parts" mentality. The availability and type of building materials, and the ways that they are assembled appear to be a major determinant for mainstream design. What I cite as the major problem here though, even though these are legitimate forms of shelter, is the lack of consideration in design and construction of the location. Not only are architectural design sources from the locale not widely evident, but issues such as climate energy conscious design, solar, and site orientation and innovative construction applicaition missing as well. A good example is the split level ranch home. It is the most widely built housing type for single detached residential design. However, the design originated in California in the fifties and sixties as an attempt to accommodate the "California lifestyle". In Calgary, Alberta for exmaple, the split level is very popular as to indicate the flexibility of the California lifestyle to a western Canadian way of living. However, the climates of California and Alberta differ greatly, and yet we could never realize this by looking at each example, they are identical. Our concept of the built environment suffers by the false notion that design and construction need not be too different from area to area. Thus we lose our sense of location and identity. Also lost is the individual's ability to be unique and creative. The nature of our consumer society is to give limited variety within the larger scope of goods that are mass produced. Our incentive to create personal and unique places becomes lost in the barrage of products that make those decisions for us. How can we begin to focus our design inspiration on our surroundings?



New Directions; Spirit of Place, Character of People

We may begin to find inspiration in other examples for our argument. But perhaps we need to know how, we can obtain design inspiration from our environment, not what we can obtain.

Christian Norberg Schultz in his book, "Genuis Loci", says:

> The existential purpose of building (architecture) is therefore to make a site become a place, that is to uncover the meanings potentially present in the given environment.

He goes on to reason why we need to have this identity:

> To gain an existential foothold, man has to be able to orientate himself; he has to know where he is. But he also has to identify himself with the environment, that is he has to know how he is a certain place.[5]

It is clear that modern architecture forbade this notion of where man is. The steel and glass boxes in the canyons of a hundred cities in North America and around the world do not lend their images to a known particular place. They are all anonymous and bear much resemblance to each other, even from city to city.

Fortunately we are able to leave these anonymous boxes behind and journey to a few, yet special locations, where a sense of uniqueness and this place is particularly strong.

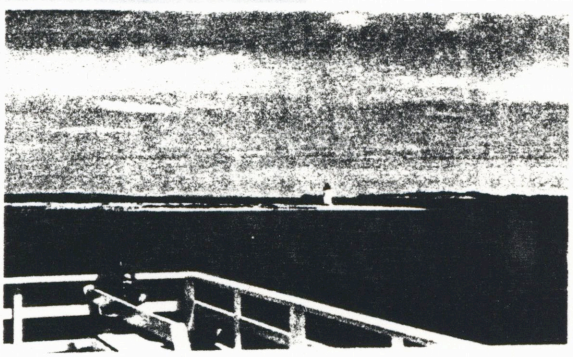
Two such places I have visited are Edgartown on Marthas Vineyard Massachusetts, and Santa Fe, New Mexico. Edgartown is a small seaport community that has preserved its character by strictly maintaining and adhering to traditional and historical elements of building. It is a year round vital community that works and although a tourist mecca, it is not a museum. Despite the obvious limitations of the variety of building materials (wood and clapboard siding are everywhere) there is not an incredible diversity in form and massing. Most structures are simple boxes. What is interesting though, is the richness of detail to be found. It is here that the place becomes very memorable. There is a general agreement and attempt to keep a coherent set of architectural elements; white painted trim, six over six windows, shutters, white picket fences, signage, landscaping, for example.

Charles Moore writes of Edgartown in "The Place of Houses":

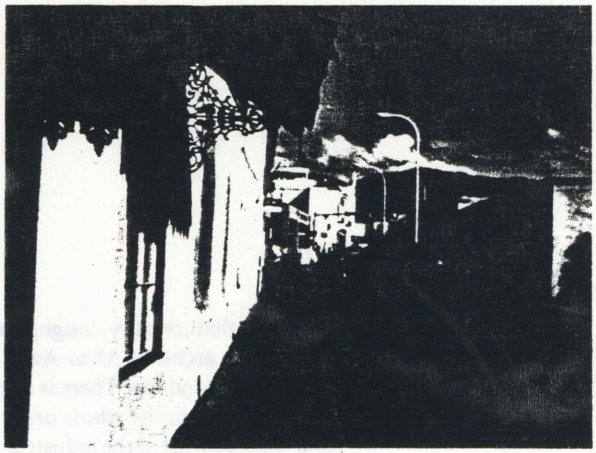
> It (Edgartown) is so pleasant, so memorable, so redolent of a sense of place that it rewards not only continuing visits, but detailed examination.[6]

The small capital city of New Mexico enjoys a pleasant climate and a spectacular setting. Santa Fe sits at the base of the Sangre de Cristo mountains and adjacent to the high desert of the Rio Grande River area. As in Edgartown the predominant building material is the fabric of everything built. In Santa Fe local earth is used in the making of adobe. The tan color is everywhere, but with it is an appreciation that results from such a simple material so easily molded by what is probably the efforts of local builders. The texture of the adobe is a very tactile one. Due to its nature of containing and framing wall openings our eyes are led to door and window frames, porches and signs. It is here that close-up examination reveals beautiful detailing, in ceramic tile as well as the woodwork. The simplicity with which everything is executed is refreshing. Materials in hand from the surrounding gullies and mesas are turned into a comprehensible whole, one of beauty and honesty. We feel that Santa Fe has a sensitivity to this place and that the local people created an environment that reflects their attitudes and character.

To look at architect designed environments needs careful observation to identify those that celebrate and reflect their surroundings.







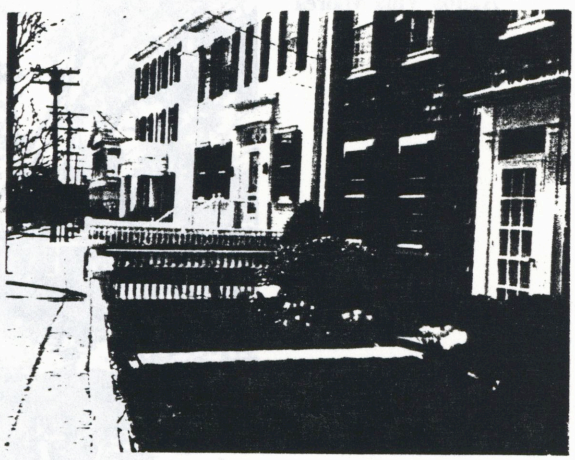


Street Scenes in Santa Fe



Edgartown on Marthas Vineyard





In twentieth century design, probably no other architect can give a better cause for study than the Finnish architect Alvar Aalto. Aalto's work is complex, but in terms of its basic composition some ideas stand out. There is a human quality derived from free form plans which accommodate exception within the whole order. Traditional materials of natural wood and red brick are built into simple forms of the industrial vocabulary of Modern Architecture. Aalto was deeply committed to the country of his nationality. Many have referred to him as a National Romanticist. Important to note however is that Aalto's work rarely illustrates a style of current architectural thought and avoids being labelled. It is unique and serving to the location and people but, it does not throw out local traditions. Historian Kenneth Frampton points out Aalto as being a patron to the Finnish timber industry.[7] Illustrated are two examples of innovative lyet simple applications of the detail that Aalto invested in his work. The Finnish love of their wooded countryside is clearly shown in Aalto's ability to achieve a scale that relates the relationship of earth to forest to sky. Aalto's work deserves greater study to which I will limit by quoting Norberg-Schultz: "In works such as Villa Mairia and the town hall at Saynatsalo the Finnish Genuis Loci is strongly present."[8]

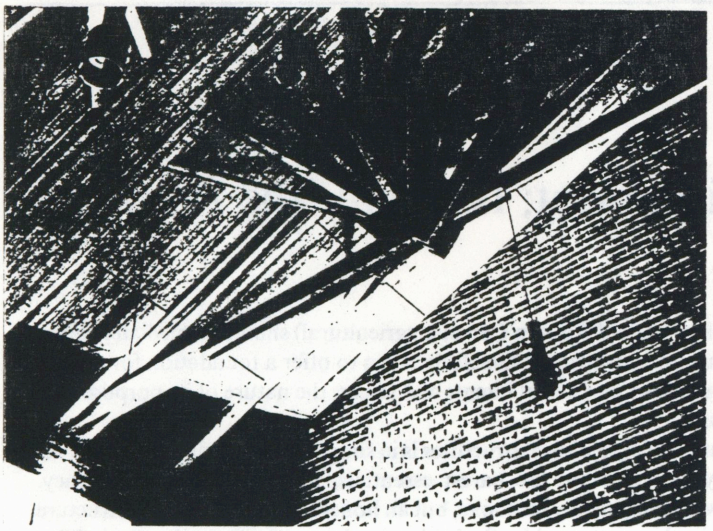
For a more contemporary example, Southern California architect Frank Gehry provides us with a unique energetic vision of an architecture that is making a big impact on the landscape it is being assembled in. Gehry's work is of a distinctive nature; small scale, low budget, cheap stock industrial materials, and the celebrated use of different textures, patterns and order. The works include various residences, office interiors, and an aerospace museum, and the Loyala Law School. Aside from their similiarities, the response these projects make to their southern California environment can be compared to the loose undisciplined way of life found there. Certainly Gehry's work embodies those notions. Critic John Pastier wrote of Gehry's Loyala Law School in *Architecture* last May:

> . . . the Loyala Law School is such an authentic Los Angeles building. The city is home to virtually every style of building because people here are not afraid to act out their fantasies and are relatively unconcerned over what others may think. Beyond this Gehry has achieved a contexturalism that transcends the mere mimicking of adjacent physical fabric or regional building forms.[9]

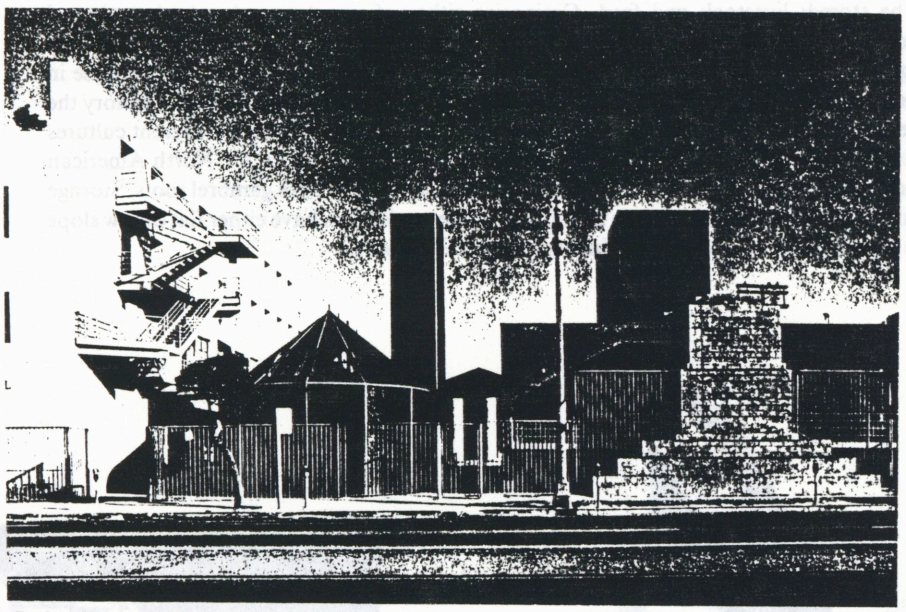
As much debate as Gehry's has initiated, it is quite clear that it is at home and particular to its region. He has instilled the unique cultural attitudes of a people, more amazingly into a somewhat rationalized low cost foremat.



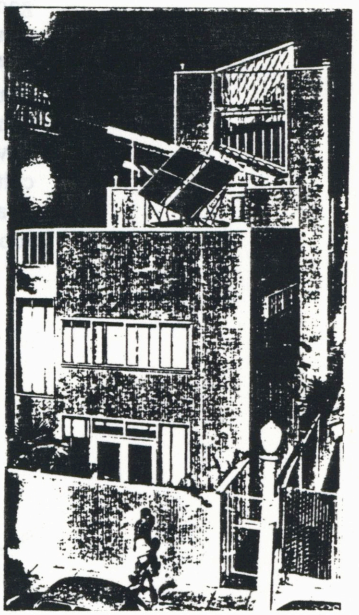
Aaltos' Villa Mairea



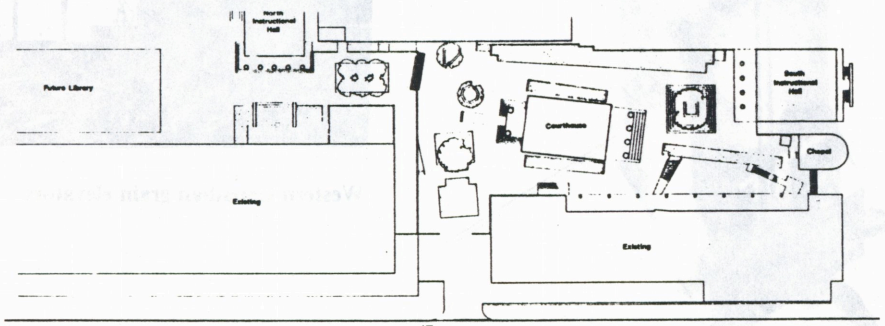
Ceiling Structure in Aaltos Saynatsalo Town Hall



Gehrys' Loyola Law School —Street View



Gehrys' Spiller Houses



—Plan

The Built Environment; Issues for the Project

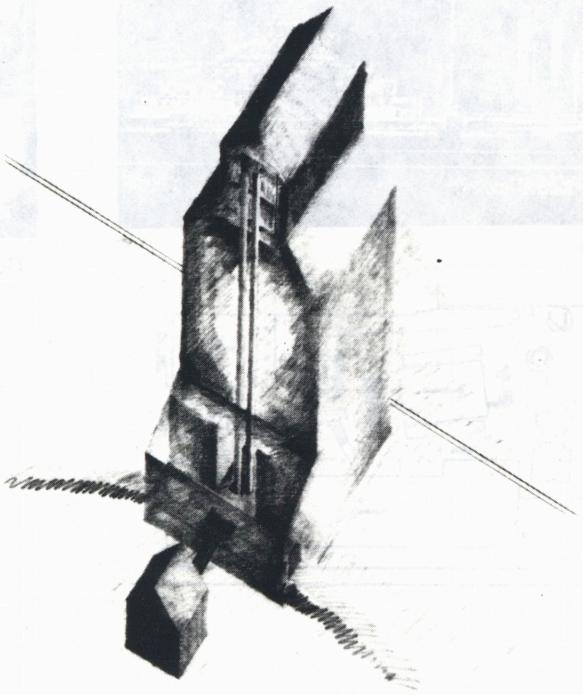
The type and location of this project (Western Canada, agricultural) should immediately bring to mind certain issues and images which would hopefully begin to offer a foundation for design. Although the project emcompasses many social intents and issues, the nature of its purpose is to serve an agricultural community.

Historically, the manifestation of agricultural structures is in simplicity and utilitarian construction. The forms are usually derived from the barest essentials, resulting in high efficiency. Consequently there is not a wrapping merely for looks, but an honest articulation of the structure itself. It is this honest simiplicity that prompted Le Corbusier to observe the Canadian Grain Silos in his "Towards a New Architecture".[10]

This attitude of simplicity and efficiency is prevalent in all areas of the agricultuiral industry. For example, in Western Canada, wood construction is the mode for ninety percent of all inland grain elevators. This is in contrast to many of the concrete grain terminals found throughout the midwest United States. The reason is primarily availability and cost when considerting the time that the Canadian elevators evolved; early 1900's. As illustrated the prairie grain elevator of Western Canada works on a single elevator shaft that transports the grain to the highest point thd then simply dumps the grain allowing it to be gravity fed to various holding bins. The construction is a balloon frame type with horizontal clapboard siding. The essence of the building is a shell enclosing a volumous need; in this case, grain storage.

This shell-like enclosure is central to many agricultural buildings. Barns enclose and protect goods to be stored; livestock and feed. Grainaries either of wood or galvanized steelpanel construction are voids when not filled with grain.

Although the history of agricultural building types may not be extremely rich and diverse in terms of development, there is a strong consistency in purpose and form. Throughout history the simple open gable form on a square or rectangular base can be readily found. Different cultures have produced many unique and exciting solutions to the problem but to the North American culture, the forms and construction are much the same. Many barns have gambrel roofs. Storage quansets are either half cylindrical or an arch form. Some workshops have either flat or low slope roofs. The steel bins are tall or short cylinders with pointed roofs.





Western Canadian grain elevators

For a specific look at Western Canadian vernaculor, an excellent example may be found in Calgary, Alberta. The following pictures are taken at Heritage Park. This facility includes 60 actual period structures dating 1880 up to 1914. The collection attempts to recreate an actual prairie settlement.

There is a consistency of the level of articulation of ornament and style. At best it may be characterized as somewhat bland, especially when compared to its American counterparts which at the same time were much richer stylistically (Richardsonian Romanesque) and infused with woodwork detailing (Victorian).

This consistent level of design however establishes a strong cohesive character. Elements such as double hung windows, clapboard siding, verandahs, boardwalks, false fronts, muted earth tone colors, gabled roofs and the presence of line, and horizontality contribute greatly and unify what is a typical collection of turn of the century Western Canadian architecture.

An interesting example of agricultural forms used in a more expressionistic manner may be found in a 1921 work by Konstantin Melnikov. A prominent constructivist architect, Melnikov's "Makhorka" pavillion housed displays for a Mosquito repellant manufacturing firm. Using traditional shed roof forms, Melnikov created an exciting little building that allowed people to travel on a sophisticated circulation path that ended with a spectacular spiral stairway at the corner of the building.[11]

An interest in this constructivist approach to architecture is able to direct us toward looking at the agricultural environment in a new manner. Prairie grain elevators have dazzling niches and spaces where beams and columns hold our interest by articulating more clearly to us the structure of the building. In this is a simple beauty that needs little or no ornament.

Looking at the present environment, high tech materials are most common. This is especially obvious in the equipment that has transformed what was a lot of heavy muscle work. Today, steamlined combines, tractors, and trucks roll across the grain lands in air conditioned, computerized comfort. The machinery is highly specialized and sophisticated. To look up close is to examine a fascinating array of spaces; chutes, belts, pulley, dense engine blocks, massive voids for grain movement and storage. Again our fascination with such objects is their complexity and yet simple purpose. Surely there is design inspiration to be found from such exciting utilitarian devices.

Three other current examples that I wish to include as sources for design include an office in Winnipeg, Manitoba, a greenhouse in Connecticut and the temporary facilities of the '84 Los Angeles Olympics.

The office of IKOY Architects appears to be high tech, and thus, expensive. At $35 per square foot however, the result is an exercise in economy of means with ordinary industrial objects from the catalogue. Also expedient was the construction time, 90 days. Not illustrated is the color of the many parts that are articulated with clever but simple ingenuity.

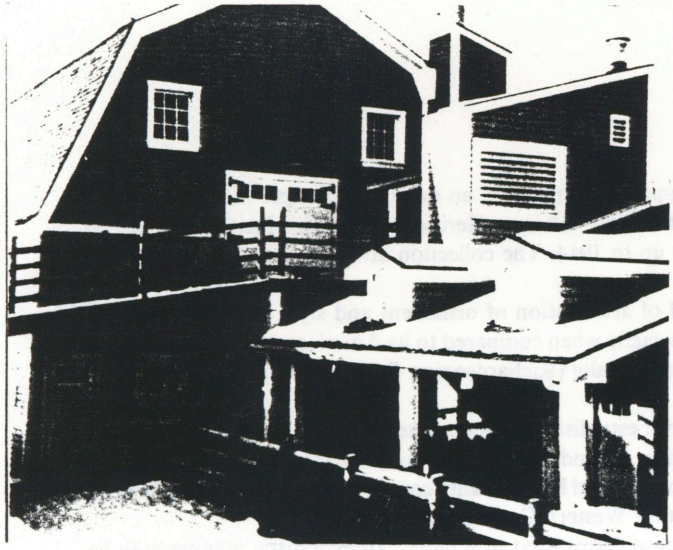
The New Canaan Nature Center by Buchanan/Watson architects combines a number of passive and active solar design strategies to provide a setting for large groups of visitors to study plant life and to educate them about the buildings energy-conscious design. The design is derived from local barn structures. The use of steel and glass is prominent but not too heavy handed against the plants and human scale.

In 1984 the Jerde Partnership along with Sussman/Prejza and Co. created a series of high spirited 'venue places' for the summer Olympics. In a riot of color and simple low cost materials the scattered sites became unified and incredibly festive. Working with construction scaffolding, sonotubes, and colored fabric the designers orchestrated a celebration of temporary place; The Olympic games, as well as the permanent place; Los Angeles and its quirky colorful culture.

The other issue central to my project is the location; Western Canada. For outsiders it seems very ordinary for North America. Not too many differences appear on the outset between this region and other similiar prairie regions. In the nature of the physical landscape, however the extreme regional severity of the climate must be considered. Otherwise we cannot see too many differences.

A personal observation after travelling over much of North America however is that the people and their attitudes are markedly different. Canada is a land of people from somewhere else. It does not share the melting pot patriotic enthusiasm of the United States. Canada rather, has an "ethnic mosaic". Canadians are first descended from another country; secondly they are Canadians. This has produced a generally conservative and humble people. In the west, this has resulted in a hard working thrifty economically-aware group of agriculturally based people. Always cautious about today, and living for a hopeful tomorrow, are the characteristics of most Western Canadians.

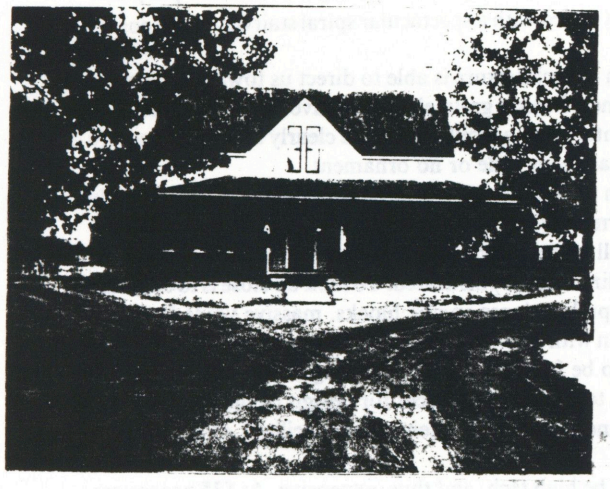
Heritage Park; Pre 1914 examples;



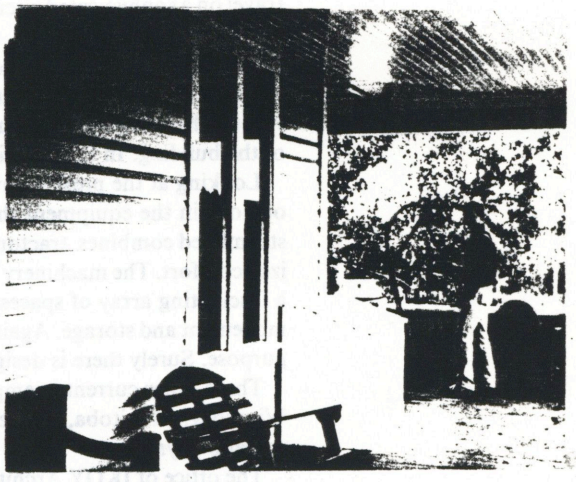
Barn



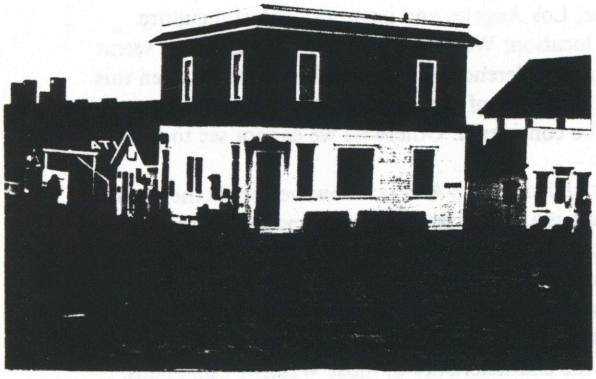
Railway Station



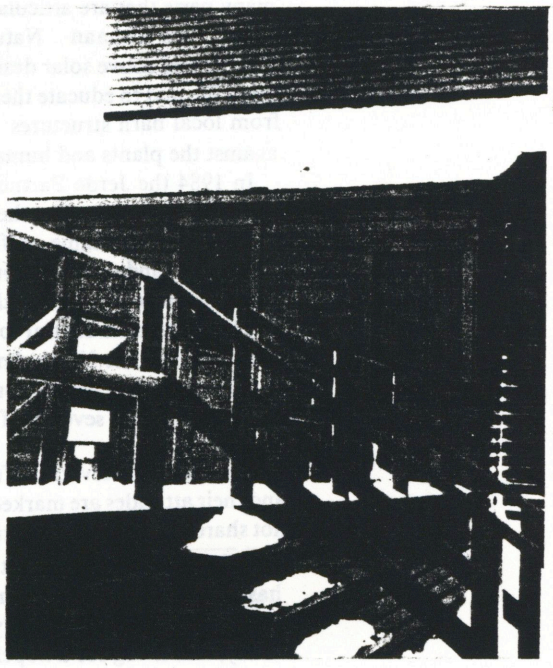
Farmhouse



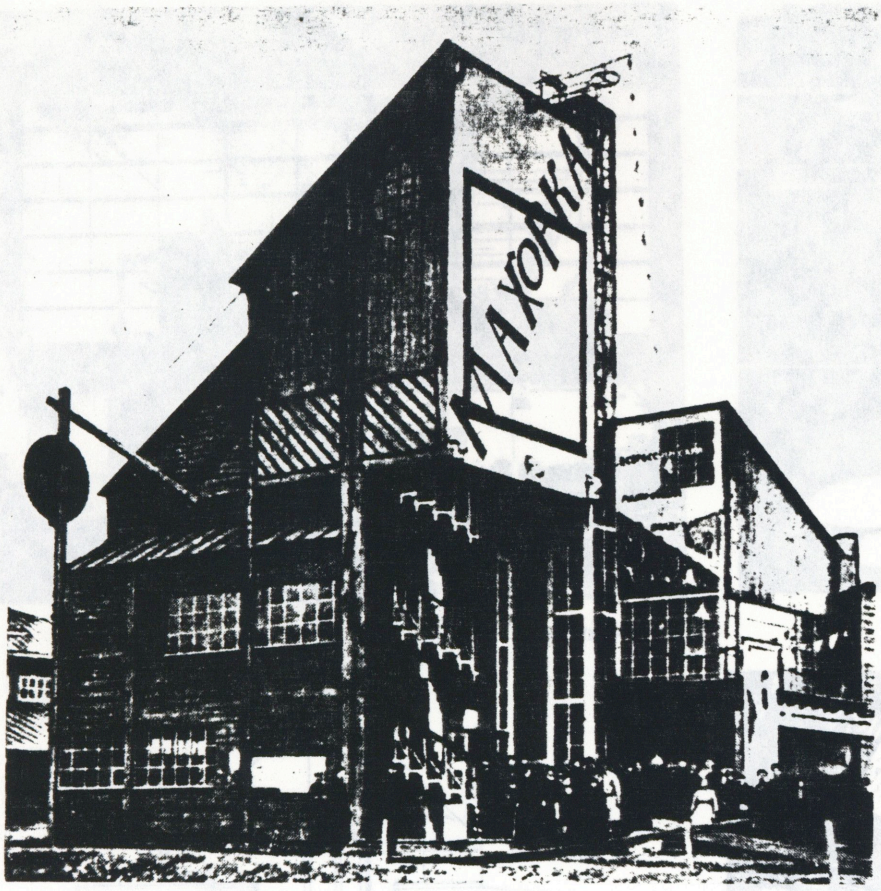
Farmhouse Verandah



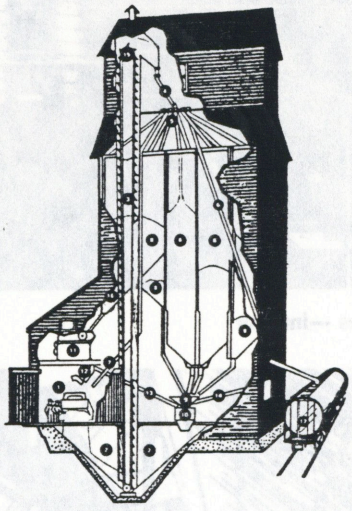
Bank



Grain Elevator



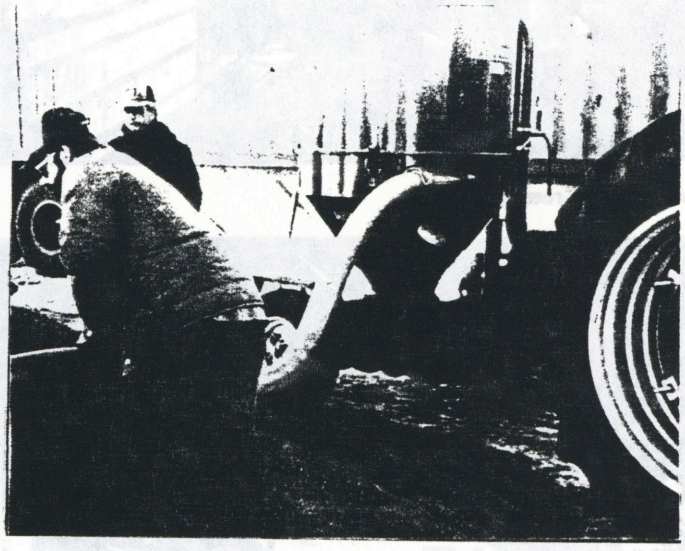
Melnikovs' 'Makhorka Pavillion'



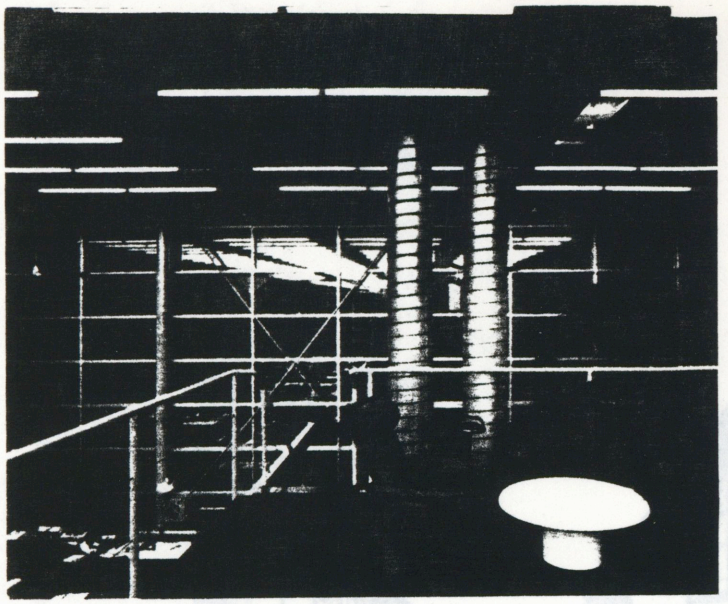
Cutaway of grain elevator



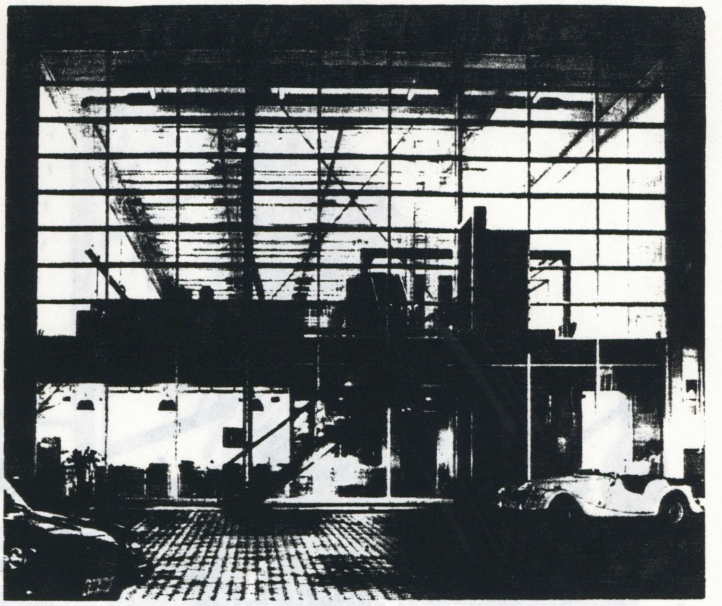
Deisel Engine on 4 wheel drive tractor



Grain vacuum



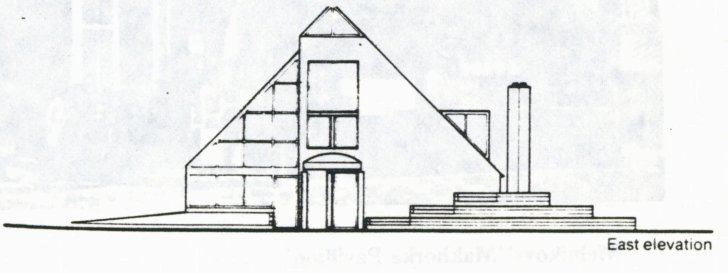
IKOY offices —interior



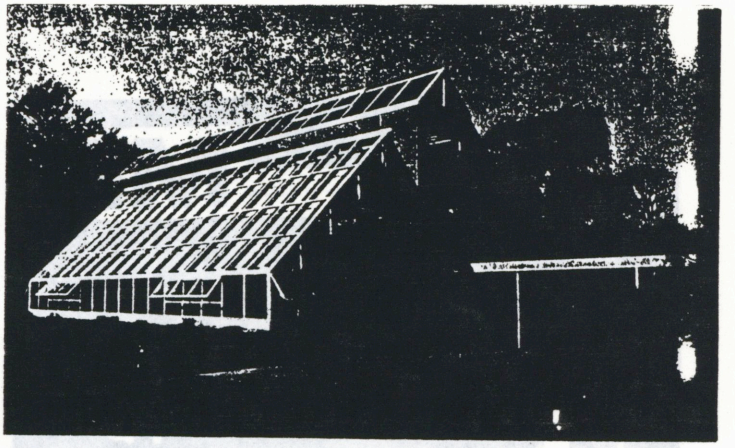
—exterior

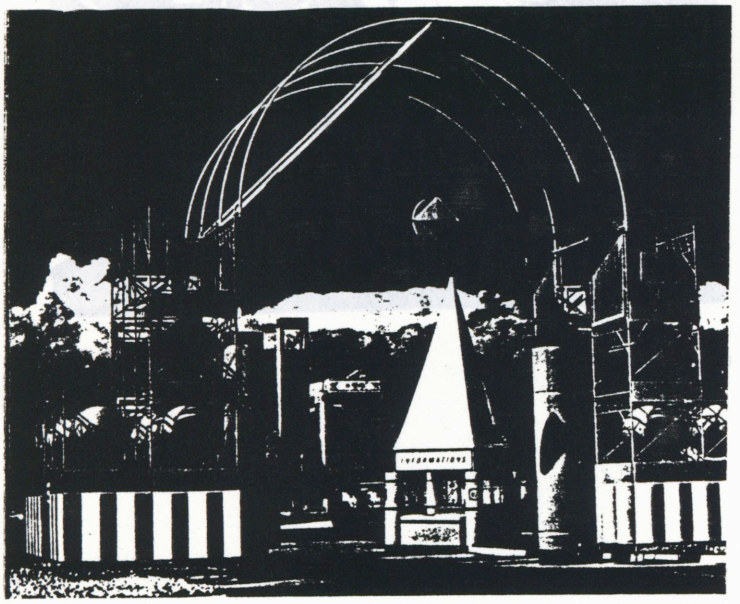


New Canaan Greenhouse



East elevation





1984 Olympic Venue Site

A reality found in the United States, but even more pronounced in Canada, is the attitude split between the wealthy east and the "deprived" west. Western Canadians are particularly critical of the east and yet in a situation that can best be described as trying not to bite the hands that feed, westerners are painfully aware that the east is where much of the country's economy is focused. There are other attitudes which are not filled with these mixed emotions, but rather result in acceptance. History, culture, and yes even architecture can be included here. It is an area that is far too culturally apathetic, this probably is due to agrarian economically efficient modes of thinking. A bare essential approach to living often excludes the niceties of life. Included in this, obviously, is the arts. All too often viewed as luxury and superfluous to the area, art and its various forms, architecture included, tend to be disregarded.

The result is not only a lack of art appreciation but a loss in a potential cultural identity. This identity could begin to instill regionalism in many ways, however this is not always the case.

Illustrated for example is Calgary, Alberta. It takes more pride in being likened to New York and its skyline that what the city could derive from its location.

"There isn't a prairie architect as such."

Cliff Weins, Regina architect.

The Canadian architectural profession until very recently has taken a somewhat indifferent attitude towards its role in articulating a Canadian regionalism. There are a few young progressive architects enjoying the play with post modernism that takes cues from their American counterparts. However as a group bent on solving regional issues there is little evidence. Perhaps the following quote may give some hint for the reasons;

> "The Canadian psyche deplores conspicuous or extravagent show. It is not widely original, radical or experimental. It is modest, and it is apt."[12]

Many Canadian architects view with disdain the architectural fads of many countries, especially the U.S.

A recent flourish of architectural interest in Canada was the Missausanga City Hall Competition, Open to only Canadian Architects. The competition attracted entries from every major firm in the country. It was a good accurate gauge of the design attitudes prevalent in the country.

As we wait to see results from such new work, there are however some good things that have been said by Canadian architects:

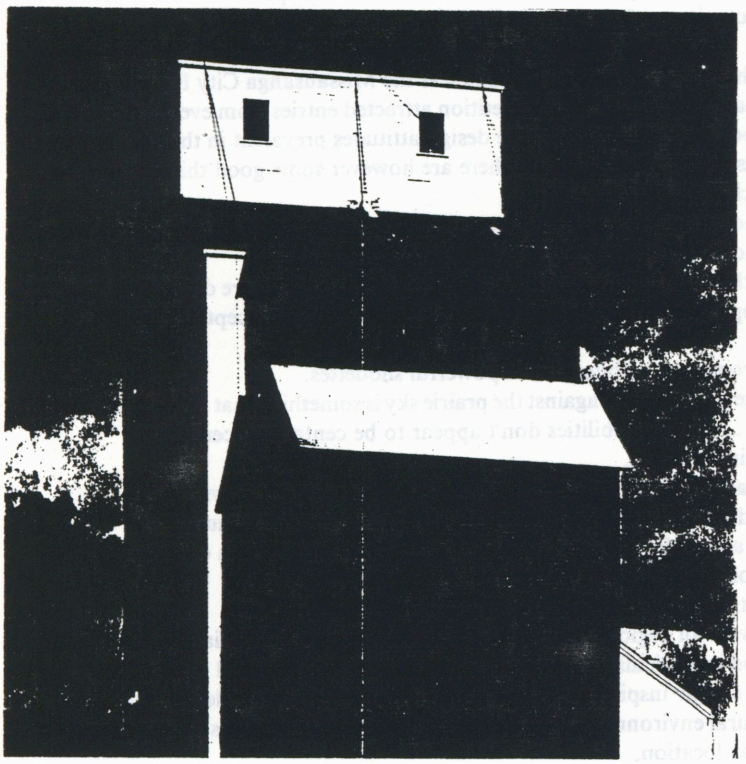
> Our habitat is most Canadian where the best solutions have been borrowed and adapted to the unique Canadian circumstances.
>
> The general truth that archetypal images we so imaginitively fuse are dreamed up elsewhere is applicable to most regions of Canada, with one exception, the prairies.
>
> Flat horizons prompt an architecture of powerful silouettes.
>
> The textural edge of the terrian against the prairie sky is something that requires poetic sensibilities ... such sensibilities don't appear to be central concerns with most clients or their architects.
>
> The prairie climate is unforgiving. Every little mistake in design shows up.
>
> Technological advances have been so rapid and the population continues to be so mobile that we are rapidly becoming insensitive to regionalism in a climatic sense, or in terms of scale.[13]

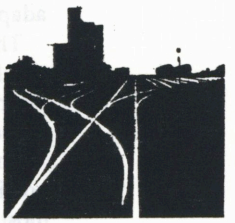
It is with these statements and the realization that:

(1) there is generally a void of regionalistic concerns in the western Canadian architectural profession and that this void is particularly acute to the mainstream culture; and 2) that there are many realistic sources of design inspiration to be gained through careful identification and observation of the agricultural environment; that I now feel more able to discuss the concerns of my project and its particular location.



Calgary, Alberta





Grain Elevator Silouettes

Section II; The Location; Where is Orkney?



The dedication of the Orkney Presbyterian Church
November 8, 1953

The Ideal; A Scenerio and Some Possibilities

The group of farmers who live in that area known as Orkney have for the past five years been gathering data on grain farming practices and the results for the intent of being able to compile them into a meaningful form. There is about thirty in number, each having an interest into the possibility of building a structure to house and compile all this data. At present, the records are scattered in various private individuals' hands.

At the meeting one cold November night in the school it is decided that a program needs to be drawn up for this potential project:

"And a residence too?" Elmer Currie questions. He obviously feels this is too far, too much expense. But then he is only echoeing everyones sentiments.

After illustrating on the blackboard, Les Bell turns and asks if there are any questions.

"Good grief!" retorts Ken Ferguson. "You've got a helluva place set up there. I mean we are suddenly faced with a big place and I don't know if we can begin to support it."

"Remember though this is just to get the ball rolling. If we're behind the principle of the thing perhaps the deal will come through."

"Mike Borwick has just hinted at this rumoured and seemingly impossible deal. A major investment firm in agricultural research from Calgary has shown interest. Also interest is Alberta Agriculture, mostly though to fund just a portion (30%) of the facility cost, and to provide one staff member.

After closing, the all too familiar odors of coffee and cigarette smoke fill the air. The conversation is slow and filled with voiced conclusions of "time will tell". They have all agreed to help finance 40% of total project cost. That total runs just over just half a million. It is a lot, but they are convinced that the need to be an agreeing united body. The past few years have been scary; too much uncertainty in agriculture. There is more excitement than ever in research and technology but that has always passed this area. Olds, Brooks, Lacombe supply much of the province with information, but it simply never applies to these heavy clay soils. This is a prosperous region as they all know, but it is highly conservative. Orkney is so conservative some old-timers wonder how it ever got to where it did. There are however, families who took their farming serious and made it a creative business. They have done well, actually very well, and for them this research station is not simply a way to maintain a solvent business but hopefully to put Orkney on the map. Pride in the community is something all of them have, but for some in their traditional European-in-Canada attitudes, pride is never publicly displayed much less built.

It is January 15 and the community is anxious for the news. Tonight, McGhees, Bells, Mike Borwick, and the Muellers will return from Calgary hopefully to announce that their presentation to Agri-Tech and Alberta Agriculture was successful. Most people are actually positive. It is not that they want to change the community, or their lives with some big 'set-up,' but simply to add something challenging to their livelyhood. The thought of farmers playing with data, soil samples, new strains of grain, computers, and new equipment is exciting for most. It's not like individuals are taking a big risk, the whole area is risking together. This fact soothes everyones' conscience. Most are familiar with the cooperative movement and feel comfortable with it. Orkney Cooperative Research, Inc. That makes it official.

The school is packed. It's a typical mild chinooky day in February. The talk is fast and excited, everyone now has a stake in an incredible future for the community. The Cooperatives bank account is gradually filling itself with donations and loans, and in turn, plans are being put forth to use it.

The program was presented to the board about two weeks ago. It is serious, but modest. The recommendation is that given the nature of the site, the wide open areas adjacent and south of the school, the research complex be not too volumous, so as to allow ease of circulation around what should be a series of structures, rather than one big blocky structure. Also that the outdoor display areas should be located near the main buildings so as to share such spaces on occasions like the Annual Sports Day. Agri-Tech suggests the increase of water supply on the site.

Blaine Ferguson offers to enlarge their dugouts adjacent to their farm. "Certainly that'll give 'em enough water."

"They'd be great if maybe one big dam were made" adds Clarence Currie. "Why I could even stock them with fish."

"Ya know, maybe we would consider some recreational and social things. I mean we now probably have the means to do some landscaping, tree planting and general fixing up. Ever since we got rid of the trees by the road the place has been kinda stark." replies Marcus Moar.

Jean McGhee begins to discuss the need for social amenitites. "I strongly feel if we're beginning to shape up the place into a real community center, we should first look at this. The Program talks a lot about all these meetings and show days. I know a meeting room is suggested, but what about social functions like dances and suppers? We need a lot more room just in the hall alone, but new bathrooms, entry, kitchen, storage, and offices could easily be justified too."

There is a murmur in the crowd that indicates support for her. John Watt bolts up.

"Ya know we need a good office for the historical society and I've always though it would be great if there was space to set stuff up for display. Kinda like our own archives."

It comes to general agreement that this project is necessary, but the ever present Orkney conservatism and humility presides over the excitement. For many, the fear that their humble community image is bowing to a "real lavish professional big time place" is too much. However the images of this community celebrating life together for the past seventy years is incentive to create something that allows them to continue that.

The people are poised for the future. Will this project enrich this place and these people, or will it come to represent something that no one in Orkney can relate to? "Time will tell."

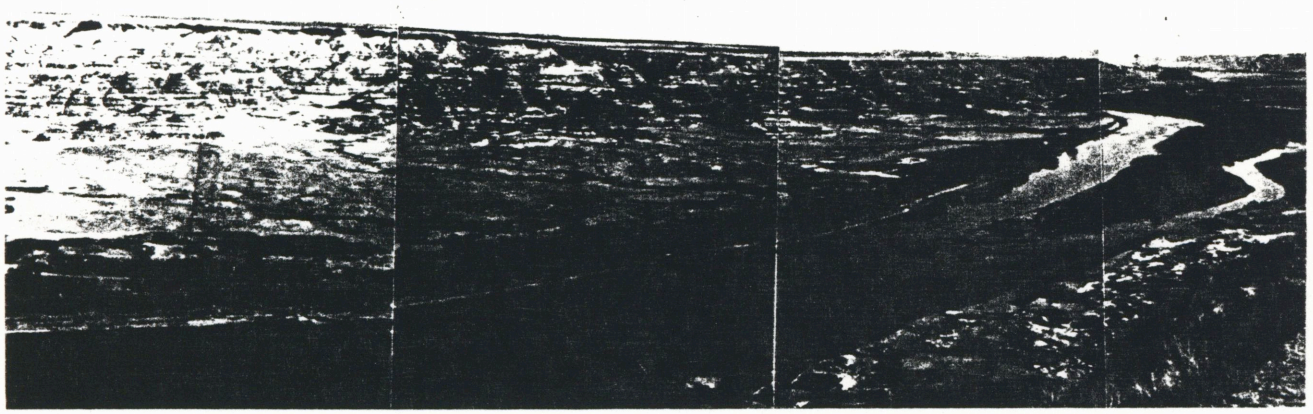
The Real; The Physical Nature of Orkney and The Site

The Western Canadian Prairie descends from the ramparts of the rockies and their foothills in the extreme western edge of Alberta to the lowlands surrounding the great lakes and the Hudson Bay on the eastern edges of Manitoba. In between is a terrain that can be characterized by the term 'billiard table flatness'. This typifies Saskatchewan especially and most regions of Alberta. The midcentral regions of Alberta are exceptions however, with long undulating hills and coulees that afford long picturesque vistas of the mountains in the west to the Handhills in the east. It is the Red Deer River however that marks the prairie simply ending and then to drop down shear edges. The valley below is a series of sculptured mounds of clay and sandstone, known as badlands. This area is the object of dinosaur bone hunters from the world over. The city of Drumheller, population 8000, is a summer tourist spot for thousands, and is home to the recently completed $30 million Tyrrell Museum of Paleontology. A picturesque scenic drive known as the Dinosaur Trail skirts the valley floor and rises to the prairie surface to be surrounded by what many consider to be one of the continents' most productive grain producing areas.

The nature of the agricultural success is certainly not from climate, but from the soil. It is a unique dark grey soil that has a heavy clay mixture that allows the soil to retain moisture for long dry summers.

The area known as the Orkney community is in the midst of this heavy soil region and also is part of the Dinosaur Trail route. On the eastern edge of the community, the prairie drops 400 feet to the river valley below. Many scenic viewpoints result. The uniqueness of the Orkney communities' topography however, comes not only from the eastern Red Deer River edge, but from similiar canyons and coulees on the south and the west, created by Three Hills and Ghost Pine creeks. The created land mass is a peninsula, though never really spoken of, it is the reason for the communities' unique character. Adding further distinction is the Sarcee Butte; a ridge running east and west, rising 200 feet above the undulating prairies below it. The effect of the butte adds to the isolation qualities the community enjoys.

The varied terrain has contributed greatly to the wealth of scenery that Orkneyites enjoy. The creek valley to the south is beautiful with large stands of coniferous trees and groves of poplar. The banks of the river have been favorite picnic and swimming spots. Many coulees that cut through the community are havens for wildlife. These have all added to the serenity and isolated lifestyle. Drainage has never been a problem with the exception of a few sloughs. For the most part, the land is excellent for grain growing and tillage. The soil is previously mentioned is a heavy clay type, that locally is fondly referred to as 'gumbo'. When wet, the soil tracks heavily, leaving large clumps. When dry the surface dries rock hard, something that makes farming practices unique and formidible.



Red Deer River Viewpoint

Before the tillage of the first acres of land around 1900, the community was an undulating sea of prairie sod that was covered with clumps of grass that deformed the soil into a series of wagon 'axle-damaging' bumps. Those were called "Turtle Backs". Other than these, there was not a tree in sight. Today trees distinguish farm sites, all being naturally planted of course. Some planted trees, especially ornamental and coniferous do not grow well. Poplars, low bush and especially the dense hedge Caragana fare much better. Due to the soil and harsh climate, the efforts of yard beautification are extremely difficult. Vegetable gardens do fairly well depending on moisture conditions, but big green lush lawns with lavish floral displays are deemed meager successes at best.

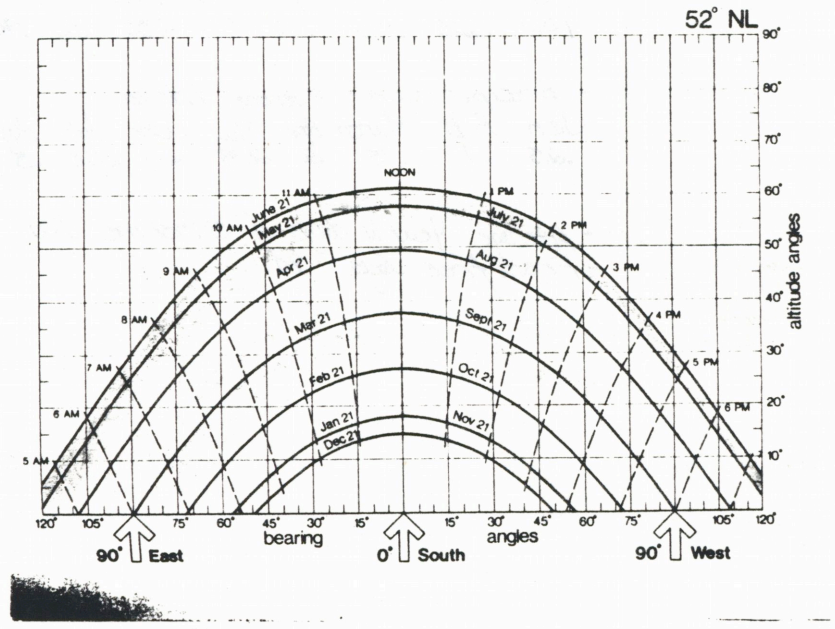
The Canadian Prairies are infamous for the extremes of climate. Summer days of 90° heat and winter lows of -40° are common. These along with other variables have probably had the biggest impact on lifestyle here. Humidity is typically extremely low (20-40%)

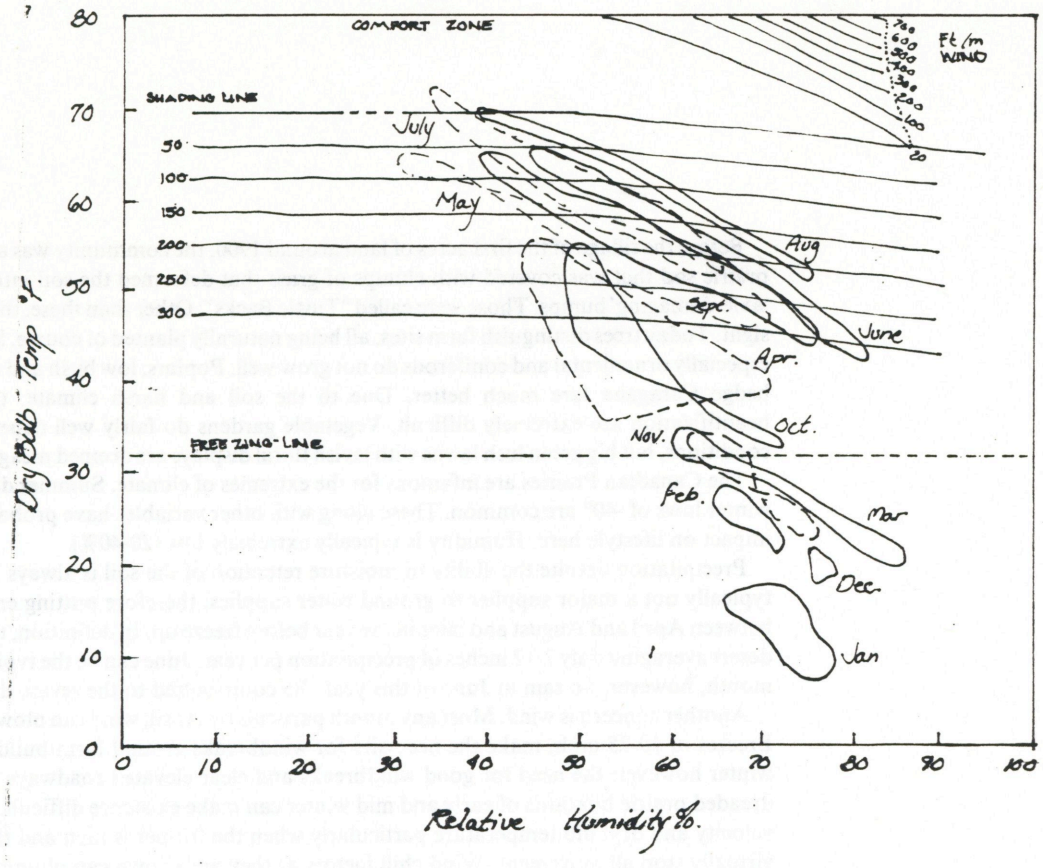
Precipitation despite the ability of moisture retention of the soil is always a concern. Snow is typically not a major supplier to ground water supplies, therefore putting emphasis on rainfall between April and August and later in the year before freeze up. In definition, the area is semi-arid desert averaging only 7-12 inches of precipitation per year. June can be the typical heavy moisture month, however, no rain in June of this year, '85 contributted to the severe drought.

Another concern is wind. Most any month particularly April, wind can blow strong and steady. Breezes of 10-25 mph, make the necessity for windbreaks around farm buildings important. In winter however, the need for good windbreaks and clear elevated roadways, is imperative. The dreaded prairie blizzards of early and mid winter can make existence difficult. The effect of wind velocity and drybulb temperature particularly when the former is high and the latter is low can virtually stop all movement. Wind chill factors as they are known can plummet to -100° F.

The atmospheric conditions are generally clear, resulting in 300 days a year on average of sunshine. Due to the northerly location sun angles are magnified at the yearly extremes. June 21 does not see the sun set until 10 p.m., resulting in long working days.

December 21 however, is an extremely short day, with sunset occuring around 4:30 p.m. As might also be expected the northerly location is typified by temperature extremes. Not only is the wide difference in seasons apparent but daily variables even in summer can be extreme. The bioclimatic analysis and timetable of climatic needs clearly illustrate the nature of this generally cool climate. This helps to understand the reasons behind sound energy efficient construction.





- degree days

Jan	Feb	March	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
1490	1320	1170	740	430	230	80	140	390	600	1070	1390	9130

- precipitation - Average inches

Jan	Feb	March	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
.25	.1	.15	2	2.5	4.0	2.0	.5	1.0	1.5	.5	.5	15

- Average Yearly days of sunshine 300
- Frost free days - 90.

The Site

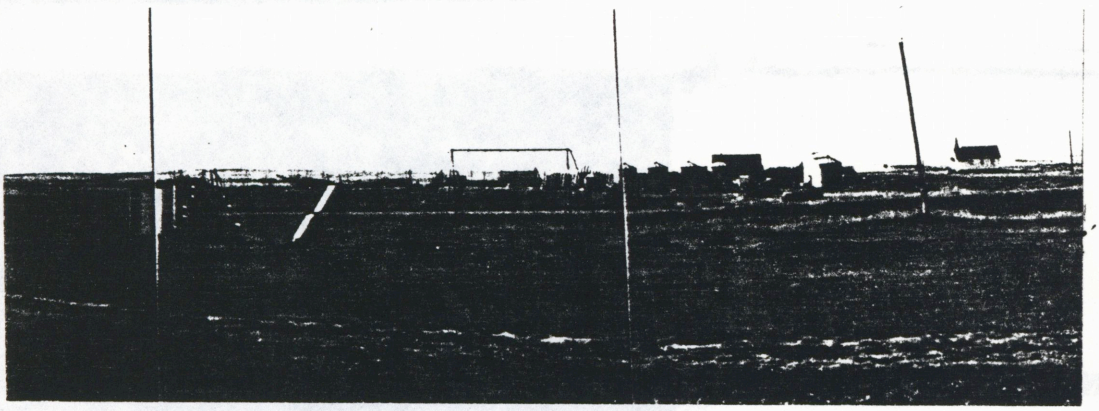
a) Natural Conditions

In 1912 a site was chosen for the local community school. It was located in as near a central geographical location as possible. As in most communities, the school building was on a site big enough to accommodate social and recreational needs not only for the school, but for the community as well. At the Orkney site, 5.6 acres was marked off the intersection of road allowances. The east west road allowance developed into the major road for the community. The school building was constructed near the road for ease of access. At this point there is a rise that marks a relative high point to the gently sloping lands around. On the site itself, this high point runs from the northeast corner down to the southwest corner, dropping about eight feet. At the northwest corner a manmade cut into the hill levelled off a large area that has been used as a hockey rink and more recently a playground. At this northwest corner stood until 1971, a wind break enclosure of dense caragana and poplar trees. In 1971 road construction removed these trees as well as raising the east-west road bed 7 feet. On the west side of the north south-road is a flat terrain that is punctuated by three man made dugouts (water reservoirs). Further west in the farm site of Ken Ferguson.

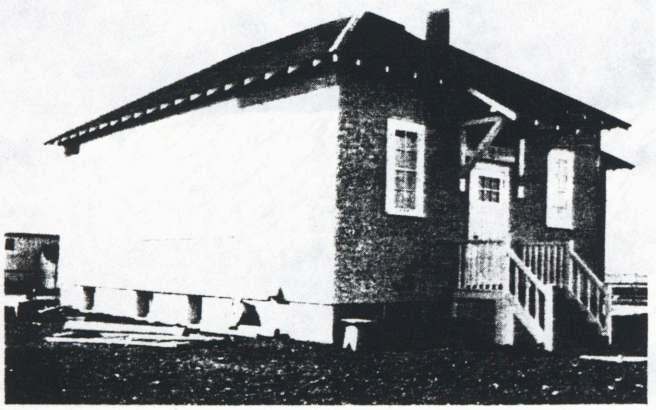
Taken as a whole (east and west sides of north south road) the consolidation of the site becomes visually and physically difficult. The north-south road rises 4-5 feet above both areas with deep narrow ditches on either side. This is a negative factor which must be dealt with if both sides are to be articulated into a single plot.

Soil and vegetation on the site are typical of the community. The dark grey heavy clay gumbo is the main type. It must be noted that the east-west road has a low grade pavement surfacing. Gravel surfacing is found in the east yard of the school, as well as on the north-south road. The vegetative covering is composed of natural grasses such as brome, crested wheat and alfalfa.

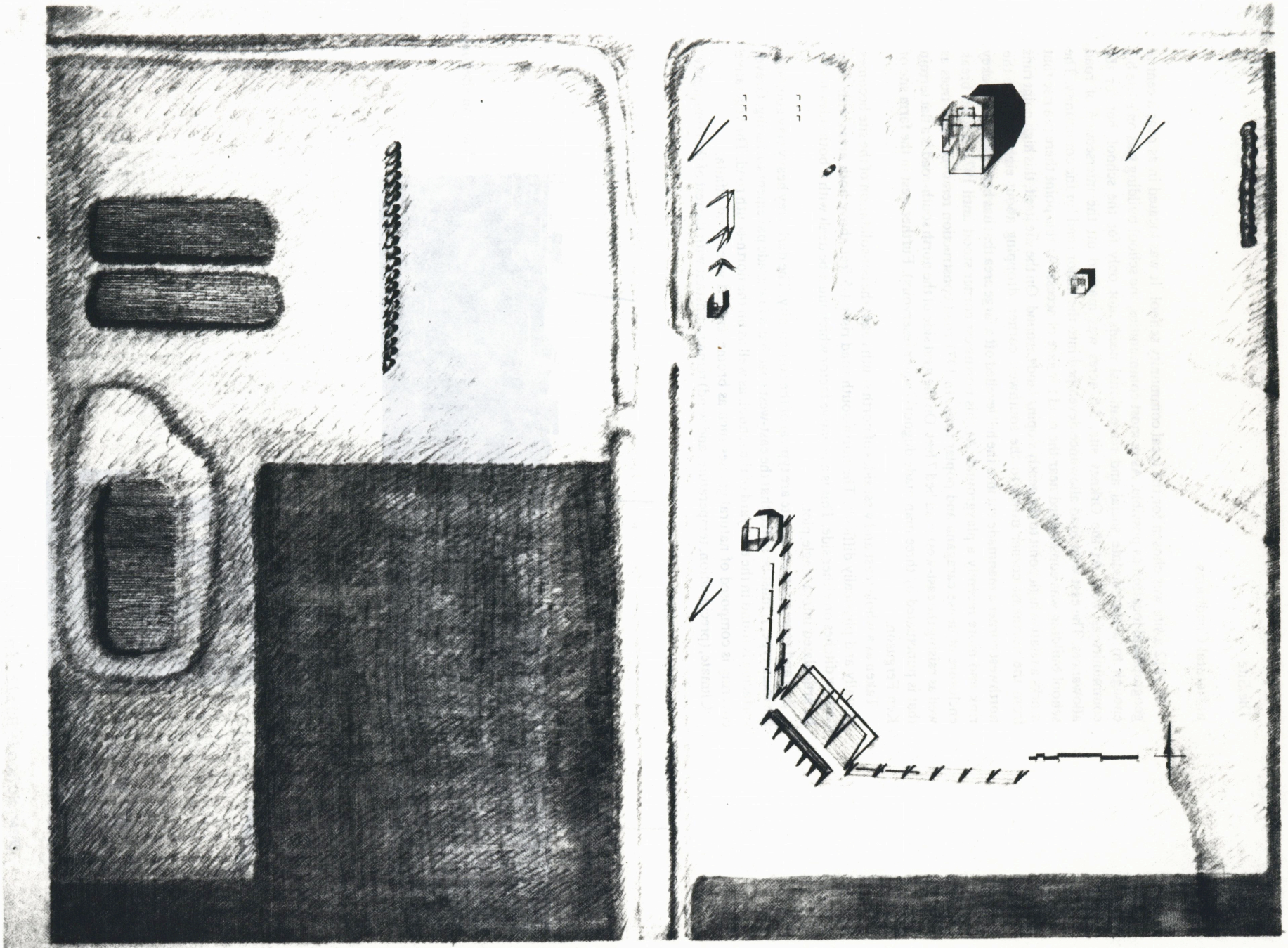
Climate, (precipitation, temperature, and wind) remain constant with the rest of the community.



View on site looking west



New School Built in 1929



ORKNEY AGRI-CULTURAL CENTER

EXISTING SITE

b) Sense

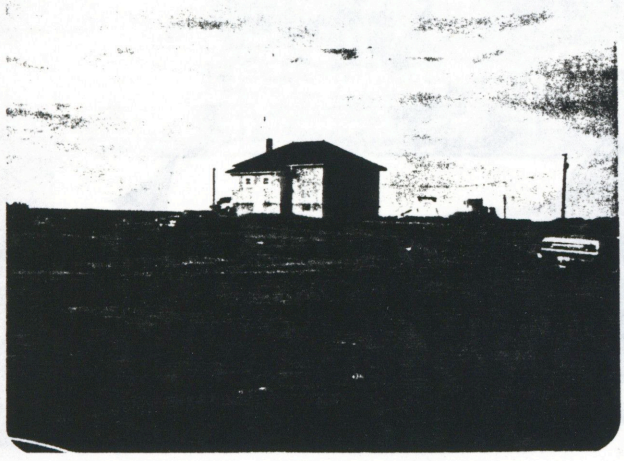
The physical properties of the site have given a loosely defined division of character to four areas. They can be perceived thusly; the high ground that the school site on, the north west corner playground, the ball diamond, and the dugouts on the west side.

The school is of relatively positive character. This is based on the evaluation of its success as a place that is well used and understood. Parking has always been on the east side of the building with entry from the north. The qualities of views to this area have given it a special prominence in the community and expecially the way the building forms a blocky volumous silouette, made all the more memorable by the roof profile, dark red shingles and the white gridded window mullions against the dirty white glass-impregnated stucco.

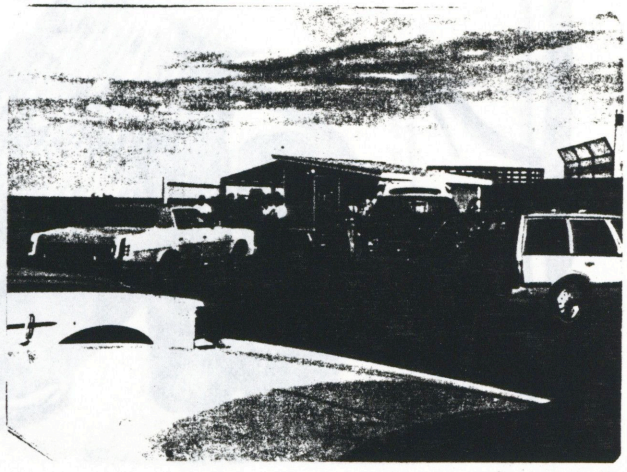
The playground area was perhaps the nicest area on the site before the trees were removed. Today the loss of foliage and wind break has made for a barren, uninviting place. Intended primarily as an area for children, the playground equipment helps to define a place for recreation. Horseshoe pitches and a firepit are also located here. Tree planting has been recently attempted but resulted in failure. Clearly more softening is needed; successful foliage planting is thus required.

The ball diamond is the focus of all recreational activities. The small grey 16 x 12 concession booth provides an anchor for the north and east wings of protective wire mesh screening. Amenities include a shelter over the east side of the concession, benches the length of the screen, and a recently built (1982) metal pipe seating stand directly behind home plate. Parking flanks the west and south sides of the ball diamond enclosure. The use of this facility is easily perceived and functions very well. An added plus is the upsloping ground toward the north east which provides a natural amphitheatre effect for those who watch from the viewing areas. The west side of the site is used for water storage purposes, as well as agricultural tillage for the farm of Ken Ferguson. The reservoirs lend themselves only to hockey and skating in the winter months. The rest of the year the site remains bare and unused. The relationship to the east side however is only proximity, and does not feel any additional functions from the other side.

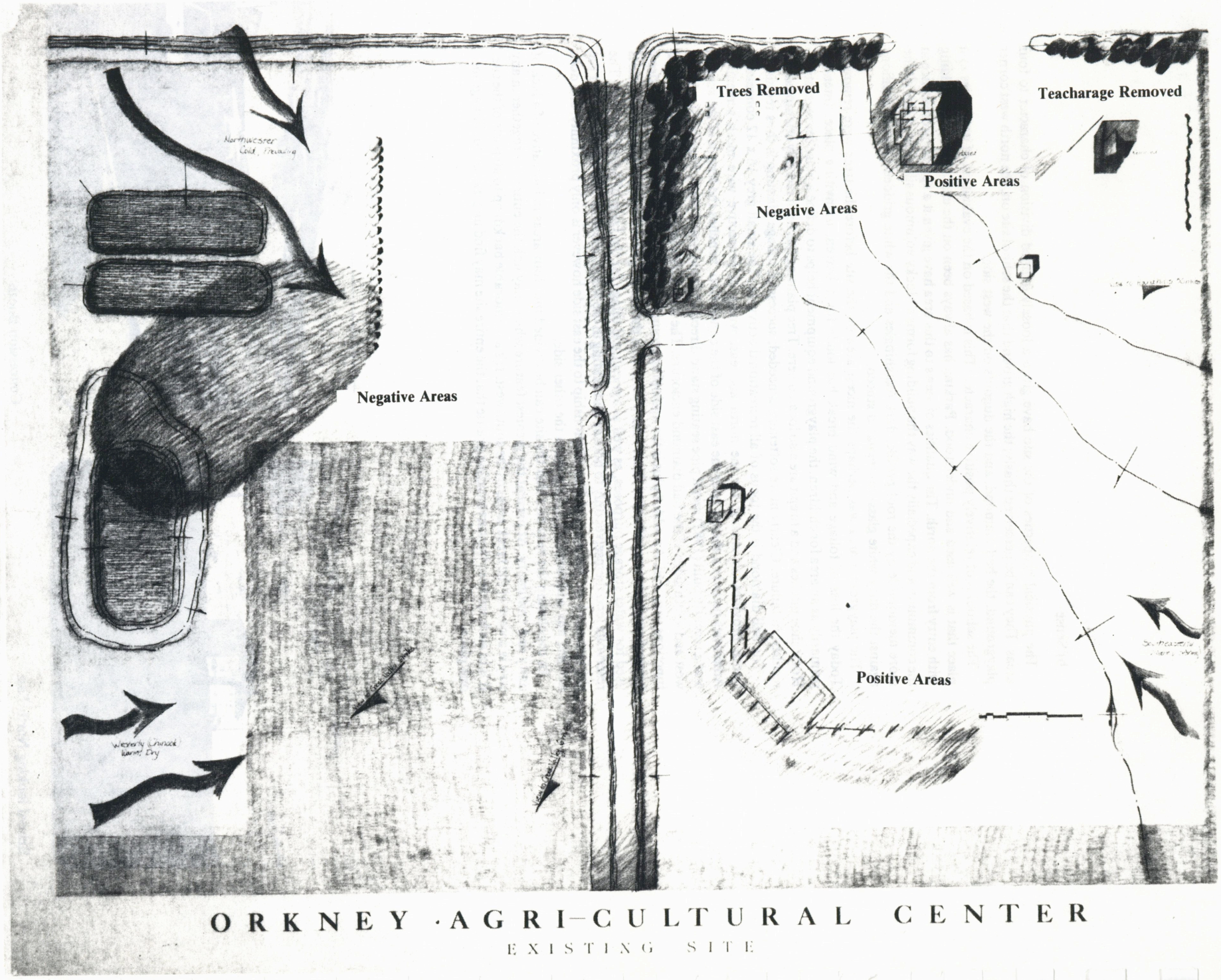
In conclusion the very fact that the site can be divided into four areas in indicative of a lack of unity and continuity. At present the greatest feature which may link the entire site together in any way is a view of the creek areas to the southwest. It's a memorable backdrop to all parts of the site. It is in such views to the surrounding prairie that the entire site may find inspiration for linkage into one place.



School looking North-East



Concession Booth



ORKNEY · AGRI–CULTURAL CENTER

EXISTING SITE

c) Functional Use

Although the site is the focus of the communities' recreational activities, it has always held notions of institutional qualities as well. The school of course functioned as an elementary education facility for sixty-two years. Since the closing of the educational facility in 1975 the building continues to operate as a center for socializing, recreation, and occasionally a workplace and meeting hall. The use of the building by non-community groups constitutes a fee that goes toward community social and recreational functions. Further funds are generated from vehicle entry onto the site on the annual Sports Day. When baseball games are held, the concession booth provides a small income for the Ladies Auxiliary.

Parking is never designated, and yet always functions quite well. Parking on the site either occurs at the school; on the east side of the building, or at the ball diamond; flanking the screens around the perimeter of the ball field.

The use of the site also sees a flow of changing activities throughout the day. Outdoor spaces tend to be used with available sunlight with perhaps a bonfire at the playground occuring just after sunset. Functions in the school include formal and informal gatherings day or night, but usually seeing major performances, dances and meetings occurring only at night.

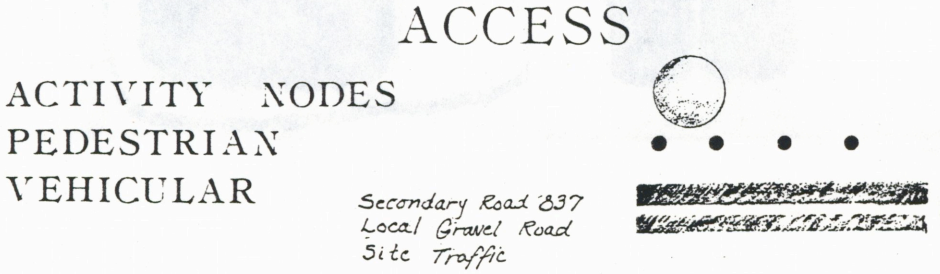
Utilities on the sight are not of high visual nature. Electricity and telephone lines are rarely noticed and make no physical changes to the site. Those that are more visible include a 10 x 10 x 5 concrete black incinerator near the school and a recently constructed (1984) 7 x 10 outhouse located adjacent to the playground.

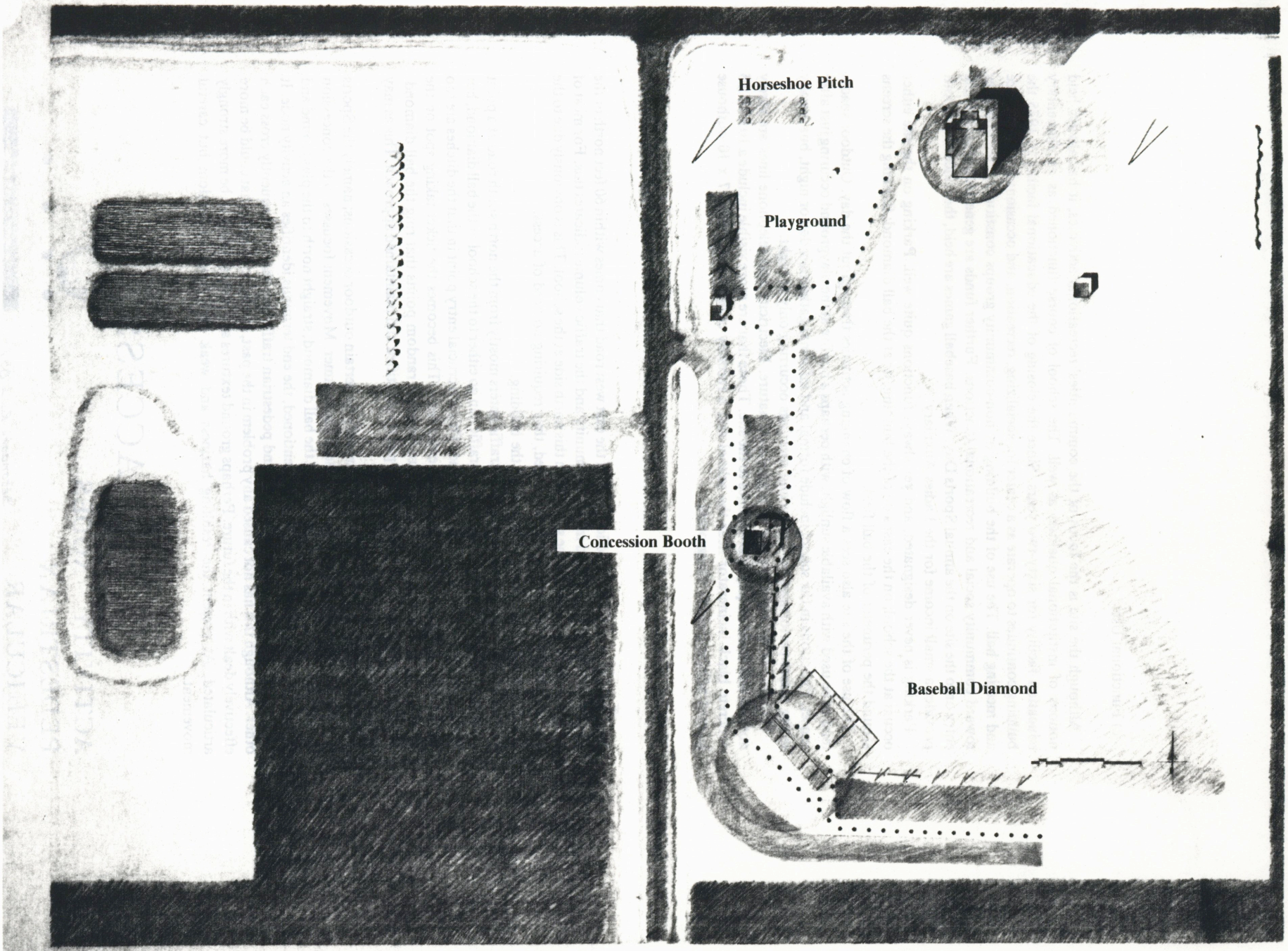
d) Access/Control

Alberta Highway 837 is the official title of the east west road that comes within 60 feet north or the school. This is the major road in the community and the traffic volume indicates this. For most of the year the traffic entering the site is from this north side at the school. This is obviously due to the fact that the ball diamond is snow covered, thus requiring no need of access.
Parking at this time congregates around the building.

During the warmer "baseball season", traffic enters mostly from the north south road at a point 130 feet north of the booth. It is here that traffic can go either to the school or the ball diamond, but most traffic by far goes to the ball diamond. This is a crucial entry point in that the ditches are too formindable to traverse; all traffic must enter here. This becomes the ticket taking spot on the Sports Day. From here, parking spots are found at random points that ring the ball diamond. Access to the western side of the site is at a poorly identified and maintained approach. This as may be surmized is rarely used.

Pedestrian traffic crossing the site occurs only on certain outdoor occasions; namely the Sports Day, and evening softball games throughout the summer. Movement focusses to the concession booth, fanning out to the viewing stand at the ball diamond, straight north to the playground and angling off north east to the school. As mentioned, the end terminus identifies an activity node. It may be seen when comparing vehicular and pedestrian traffic that the two frequently cross each other. Although this has not caused any problem in the past, it may be an issue that could be more effectively dealt with in the future. Perhaps ground textures and patterns need to be more strongly articulated. At present the resulting haziness and weak path result in random but careful movement.





ORKNEY AGRI–CULTURAL CENTER

EXISTING SITE

Learning from Orkney; Character of People

The community of Orkney derives its name from the homeland of the majority of homesteaders. These people heralded from the Orkney Islands of Scotland. They brought with them a heady mix of rugged Scottish individualism, romanticism, and tenacity. There were others; European, American and Canadians as well that helped to give a certain character to this ethnic smorgasboard.

There were many external physical influences that shaped the character of these people. The severe climate took a great deal to adjust to. Many simply weren't prepared. The unique heavy gumbo soil presented a different problem; travel and farming methods had to be altered. Another oft times discouraging fact was the lack of water. It was necessary to dig wells 180 to 300 feet deep to get what at times was a bitter soda mixture. Good potable water was hard to find.

The greatest single influence however, was and stil is, the geography. The fact that the east, south, and western edges are cliffs that drop 400 feet to canyons below has instilled a sense of isolation in the community. These are simply great formidable barriers that have slowed incoming and outgoing travel. Especially during the early years before any good roads were constructed (1908-1925) travel at certain times of the year was virtually impossible. Added to this was the fact that the major population centers were 25 miles away. A trip to town was a major event that took some planning. Ultimately the community adapted to these circumstances and developed its own networks of communication, aid, provision and assistance. Thus the community evolved into its own entity; functioning independent of many of the surrounding communities. The communities' own local church, school, power, telephone and gas co-op were born out of the reasons to effectively meet the needs of the people. Beyond these primary needs, a social fabric began to knit the people together. Informal gatherings in local homes fulfilled all the social needs until a school was built in 1912. By the early twenties the community felt a need to begin an annual outdoor sports event. The "Sports Day" was initiated in 1922 and still continues to this day. At this time (early '20s) the school property was deemed most appropriate for holding sports and recreation functions. A baseball diamond, hockey rink, playground, tennis court and playing field and various other informal sports have used the property extensively over the years. Community pride was intensified when local teams began to challenge other community teams. Over the years the community gained respect as a major contender in almost any sport.

Being in the center of the heavy gumbo soil, Orkney farmers gained respect as being successful conquerors of a difficult problem. Due to the moisture retention nature of the soil, many years saw bumper crops; an almost excessive yield. Surrounding areas looked on in envy as their lighter soils could not support such fantastic growth. The Orkney district has generally been more prosperous in this area. This became especially apparent during the Great Depression and "dirty thirties". Despite the fact that no one had any amount of money, all families in the district prospered and most importantly were able to feed and support themselves and each other. This was significant considering the great losses of the surrounding areas. Another time of trial followed the thirties; the Second World War. The community sent many men for the fight and great support was initiated by everyone. The '50s, '60s, and '70's have seen increased wealth and prosperity for most local people. Technology in local achievements during this time saw excellence in a wide diveresity of areas; grain yield and quality, livestock production in sheep, pig, and beef cattle. There has also been a keen interest in new equipment and farming trends.



The community has not only contributed to agriculture, but many local men and women have gone on to excel in many other fields. The local one room school was able to provide for 62 years, a very good basic education. As one can assume there were no great sports facilities (gymnasia of pool). It had a limited library, basic, even rudimentary science equipment and commonplace teaching aids. With much of what equipment was needed, a "making do" or ad hoc policy was necessary. This, as was to be proved over and over was not detrimental to the process but actually aided in creative adjustment.

This ad hoc quality characterizes not only school equipment, but much of the reality of life in Orkney. A temporary adjustment and sometimes even permanent fixture will result from the convenience and availability of an object. In Orkney this is even more pronounced due to lack of access and proximity to such need retail outlets.

After almost eighty years of existence however, the Orkney people are best characterized by a conservative, cautious point of view. Despite acheivements they are humble, harboring of an almost dormant pride and especially absent of arrogance. They will stand up for their rights but are more selfless and particularly giving to neighbors. This is a community that eagerly sticks together in hard times and has an incredible capacity to share and support one another. Said one outsider;

Indeed a community spirit prevailed which brought aid to any individual in need, as well as wholehearted support for local sports, social and school projects. [14]

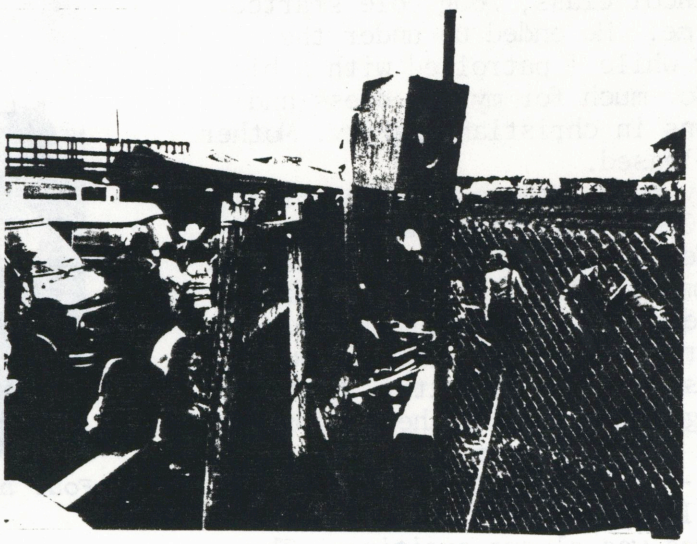
As we are now presently just over halfway through the eighties however, the spiritual condition of Orkneys' people has been some what dampened. Five families have vacated the district as well as many young people (myself included) having left in search of careers elsewhere. Of even more immediacy is the uncertain agricultural economic situation. Unstable grain prices, diminishing livestock markets and rising production costs have all contributed to a somewhat negative outlook. Adding to this is the disastrous results of the recent dry years. Fortunately the heavy gumbo soil has sustained a crop, although yields have been poor.

There are signs of hope, though. Many young men have returned to the farm in the last 2 years bringing excitement over new young families and renewed population growth. Agricultural technology is tending to allow the producer more control of his operation, through labor saving equipment and time saving processes. Computers, both in the form of typical visual display terminals as well as being integral components on the field machinery are now commonplace. Perhaps to initiate this humble community into the new technology and knowledge thus needed is to use its resources of giving and cooperation in a facility that could be of common use to all community people. Another positive sign is the desire to expand present social facilities. Despite the present situation, the community feels a need to expand the square footage of the school, thus to accommodate more functions. Visionary insight then could provide an agricultural facility. A single entity which brings agricultural research and ideas together with social/recreational functions. Because it would be primarily for the use of the community people, the facility would best reflect what qualities the people stand for; humility, sharing, cooperation, and yet due to the culturally unique position of the community it should make a statement that is in itself unique and not totally comprehensive to other communities and nearby regions.



1927 bumper crop





'Sports Day' Activities

Orkney Athletic Association

THE SECOND

ANNUAL SPORTS

At Orkney Athletic Association Grounds

Four Miles from Bleriott's Ferry

WEDNESDAY, JUNE 20

1923

Sports Will Commence at Twelve o'clock Sharp.

Two Baseball Games	Two Football Games
Orkney vs. Carbon, 1.30.	Winners vs. Three Hills, 3.30

T. R. HUGHES, Official Umpire

Orkney Football Team versus Drumheller United, at Six o'clock Sharp, followed by Orkney Selects versus Ghost Pine Creek

Admission to all games, 50c. Children under 14 free. Tickets on sale through the district at 40c. until the night before the sports.

A Dance at Night. Good Music

Admission Fifty Cents

Three Hills Band in Attendance. Refreshments on Grounds at Reasonable Prices

RICHARDSON NEAR, President ALBERT M. ANDERSON, Secretary

Easter Sunday, all dressed in a new organdy dress that she had sewn for me, I tried to be prim and proper. After Sunday School class, Doug Cole started to tease me. He ended up under the muddy car while I patrolled with a big stick. So much for my new dress and the lessons in christian charity. Mother was not pleased.

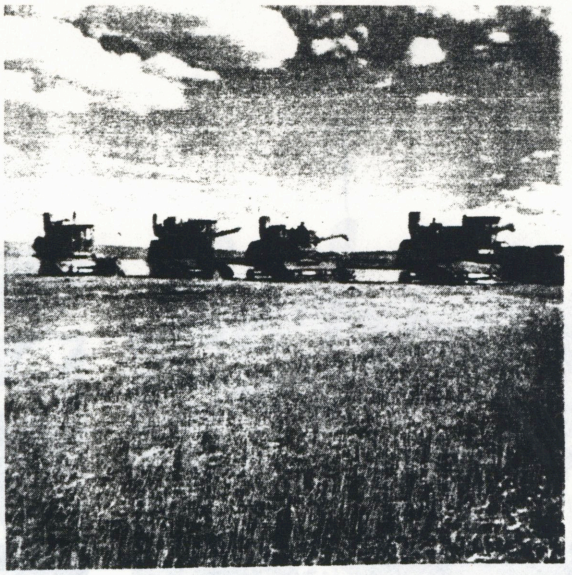
Actually my childhood was a glorious time and Orkney was the center of the world. Memories of family games, school picnics, music lessons, singing while we did the dishes, listening to Dad sing and recite while we churned butter, going to school in the cutter, hunting magpie eggs, picking out the constellations at chore time on bright winter evenings --- all come tumbling over me whenever I try to write this.

Christmas was always exciting. The season started, for me, right after Halloween. Friday afternoons were rehearsal time, evenings were spent pouring over the Eaton's catalogue and all the time singing carols. By the time the school concert arrived I'd be so excited I'd be ill. But then came the holidays. The days, no matter how cold, never seemed long enough. So many hills to ski, forts to build and always the ice needed to be cleaned before we could skate..

Having my own horse when I was five was a momentous occasion. Sally was a beautiful sway-back I rode till I must have even smelled like her. Finally - I could go anywhere Verna and Calvin did-so I went to school. Dan Porter and Elmer Currie, bless them, gave me a dictionary. I was dismayed to find no pictures. How the class roared!

However, that experience didn't dull my eagerness for school and books. School was a very rewarding time for me. Mr. Trimble, Mr. Coffin, Mr. Hansen, Mr. Dyer and Miss Kane all held keys to secrets I wanted. I have only good memories of great teachers at Orkney. My only problems seemed to have been making sure I kept up with Florence Currie and ahead of sister Lois in spelling and rapid calculation.

Excerpt from Orkney Book



Four neighbors combining together.





Spirit of Place; The Built Environment

Orkneys' built environment has no urban or industrial/commercial building types to use for study. With the exception of the school and church, the built environment is solely comprised of the tree silouetted, random scattering of farmsteads over the landscape. In the Orkney district this random location is further accentuated by the coulees and canyons that cut up the gentle, rolling landscape. In some cases, the physical barriers between farmsites necessitate great inconveniences of travelled distance around these barriers. The farmsites despite their randomness are held together through the fabric of the grid which overlays everything, including the topography. Tilled fields are at perfect right angles to each other. The most physical form resultant of the grid are the roads. These are barriers in themselves, having raised roadbeds of three to five feet above the prairie and with three to five feet deep drainage ditches on either side. Farmsites are always oriented to best take access from the roads. There are some common criteria found in most farmsites; (Refer to drawings). **(A, B, C, D)**

—An 'L' shaped shelter belt of dense Caragana and Poplar trees form a protected area from the North-West winds. In the protected area is found a rectilinear collection of separate buildings.

—Access is always off the main road into the farmyard from either the east or the west.

—The farm is clearly zoned; Residence and gardens, grain production storage, equipment storage, livestock, machine shop.

—The barn is the largest landmark. It enfronts the central farmyard space.

—Many areas are planned for ease of alteration/and or addition. There is a somewhat temporary quality here.

—Each zone is typified by scale and materials, e.g. barn is vertical wood siding. Grain bins are corrugated galvanized steel panels. Homes are stucco or horizontal aluminum siding.

—Vacated farmsites are distinguished by lack of shelterbelt and or maintained shelterbelt. Any occupied farmsites have well-maintained shelterbelts.

—Most farmsites (not all) have tall (50-100 foot) windmill towers that are the dominant vertical landmark.

—Manmade water reservoirs are not far from farmsites, although rarely directly adjacent.

—Most barns have gambrel roofs. Two noteable local exceptions have great curved peak roofs.

—Many of the homes in area are the result of two or more buildings brought together. This assymmetrical massing is a strong form determinant. There are no homes in the district that have formal symmetrical qualities.

—Most of the older homes, pre 1930, have porches that attach themselves to the entry side of the home. Some are screened for insect protection, but many are open.

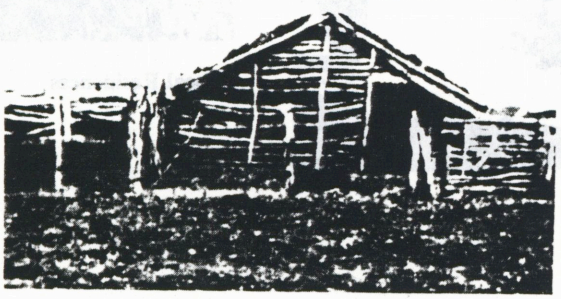
—Early homes were built on low concrete foundations as compared to later and recent homes which are on raised four foot foundations.

—There is somewhat of an adhoc quality to the planning and construction of some buildings. Gates, Doorways, and chutes for example are handmade; no store bought hardware here.

—Vehicle circulation although clearly understood is not always easily perceptible. Where the grass grows is usually indicative of a non-traffic path, or area.

—The pedestrian usage of the farmsite follows various paths. Often curved or diagonal, the path rarely conforms to the rectilinear layout.

—Newer structures on the farm are usually pre-fabricated. An industrial 'kit of parts' structure is the most popular type due to availability, construction time and cost. This includes most farm structures, even the residence.



Sod Shack 1906

—Newer residences are usually a catalogue-ordered variation of the 'L' plan. These residences have no connection with potential rural settings. Many look as if they were transported out of the city suburbs, with lawn, manicured hedge, and driveway.

Other examples from the farm environment include certain pieces and objects that are unique unto themselves. Pictured are a few random examples;

—Harvesting equipment is typified by a center mounted glass cab that is in front of the engine and drive train. In this example; a John Deere self-propelled swather. The most prominent element is the cylindrical swath bar mounted on the front. As with most equipment, there is visual excitement with the moving parts; belts, pulleys, hydraulic rams, rotating swath bar and canvas. There isn't anything that is superfluous to the operation of the machine. The visible appearance is of a bare bone entity that functions as we would assume.

Grain storage bins come in various shapes and sizes. These two hopper bottom bins are stark white cylinders as opposed to the corrugated galvanized steel bins (no hopper bottoms) that they sit next to. Their purity of form and structural articulation of base support legs is what makes them so distinguishable on the landscape.

Two side supporting wood members at 45 degrees on an unfinished log provide lateral stability. Symbolically one thinks of a tree and its branches. The detailing here is clean and honest, as there are no plates or bolts used.

The protective railing on the rear upper deck of a combine provides a balcony-like enclosure with steel pipe that is bolted and welded to the adjacent steel panels. The top horizontal welded pipe is attached to the vertical pipe by a bent steel clamp that is welded on top of the vertical pipe.

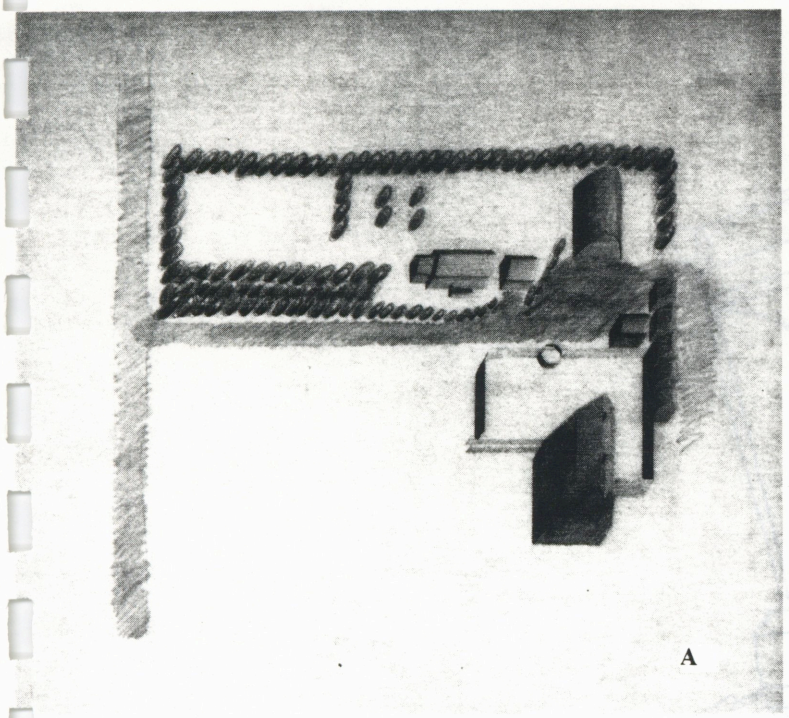
The simplicity of a homemade ladder is found in many wooden bins. In many instances the horizontal steps are merely nailed onto the 2x4 vertical support studs. The result is an economical solution that used existing conditions.

This random selection is by no means exhaustive, but begins to connect particular elements that I find valid to use for design content. The early wood grain bins were handmade solutions to the problem of storing grain. The problem that had to be overcome was the lateral forces exerted by the grain on the walls of these simple rectangular 2x4 stud framed structures. The result is a webbing of steel rods that are held end to end by a heavy wood member on the exterior that braces the bolted rods with a large steel (3" diameter) washer. Many of these sixty to seventy year old grainaries are still in use.

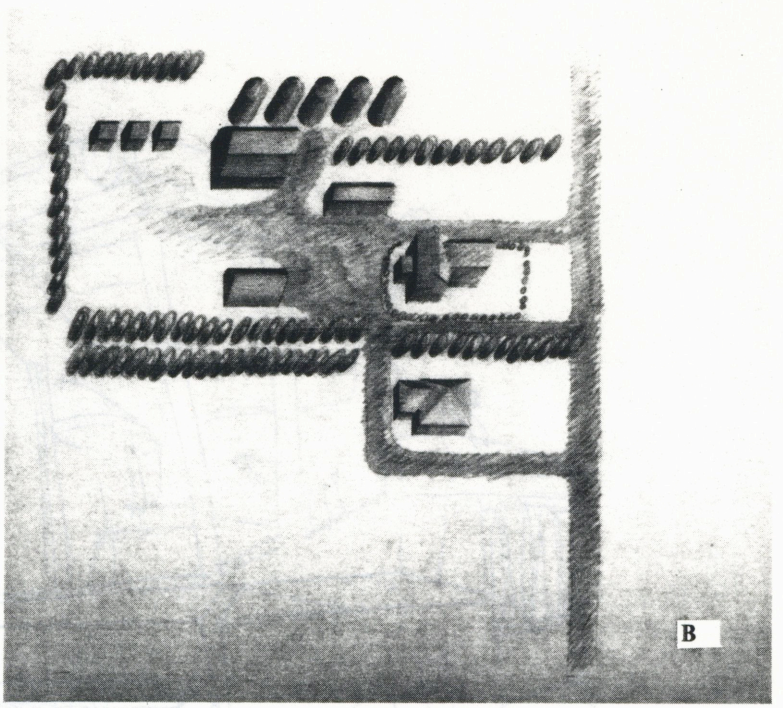




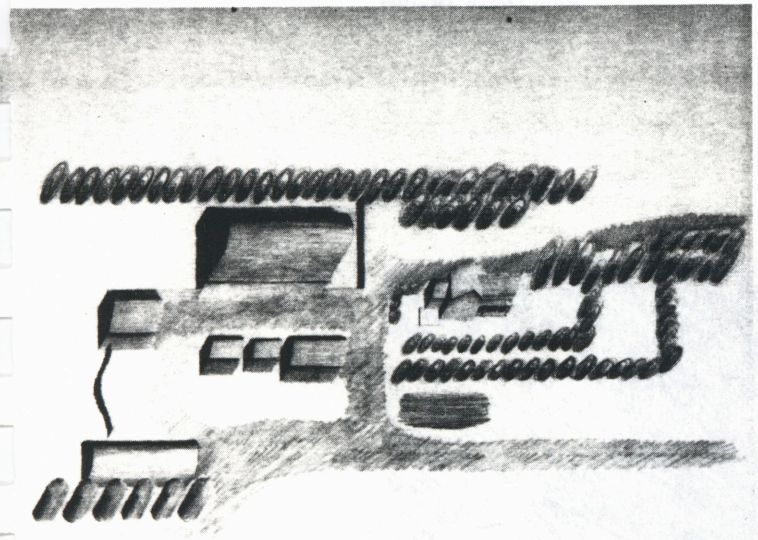
Local Residences



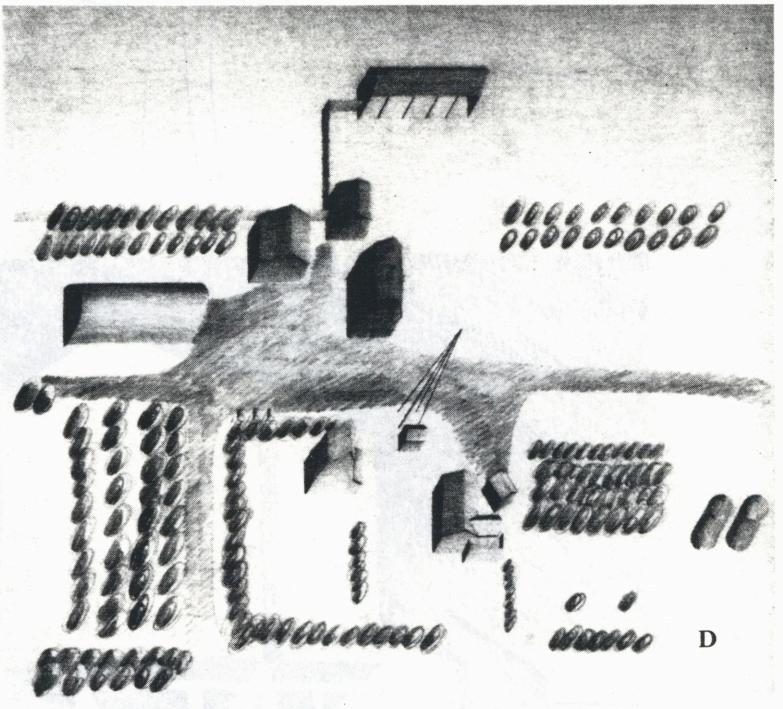
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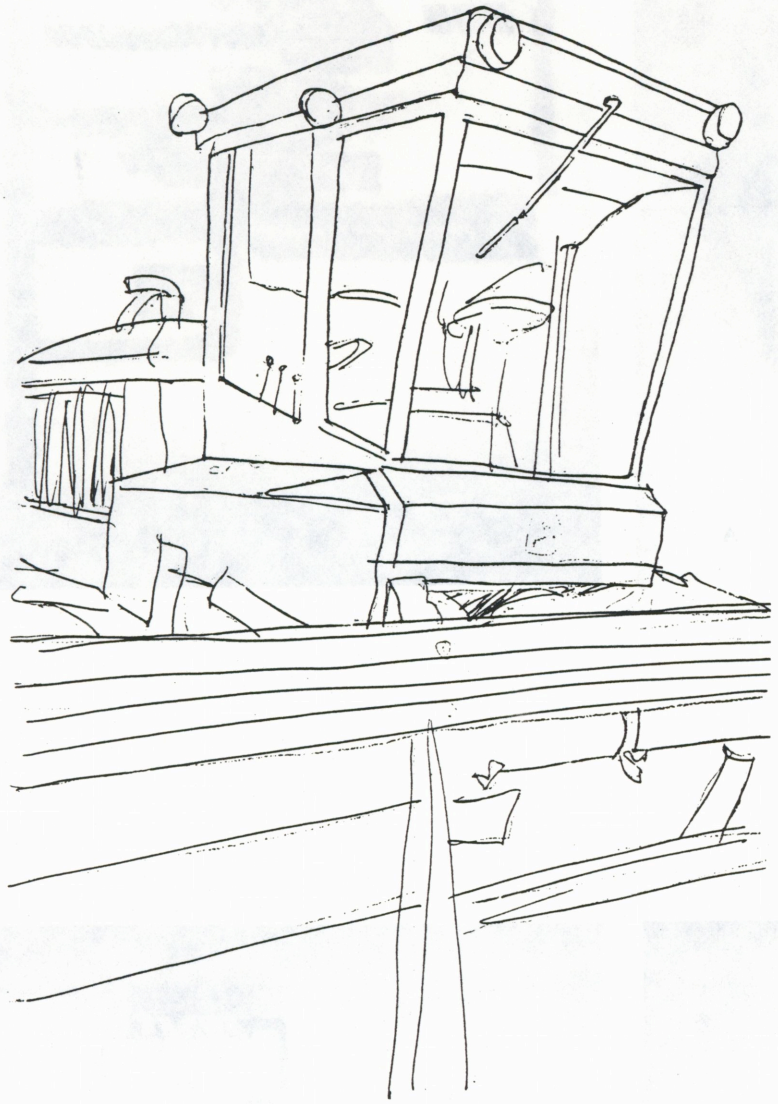
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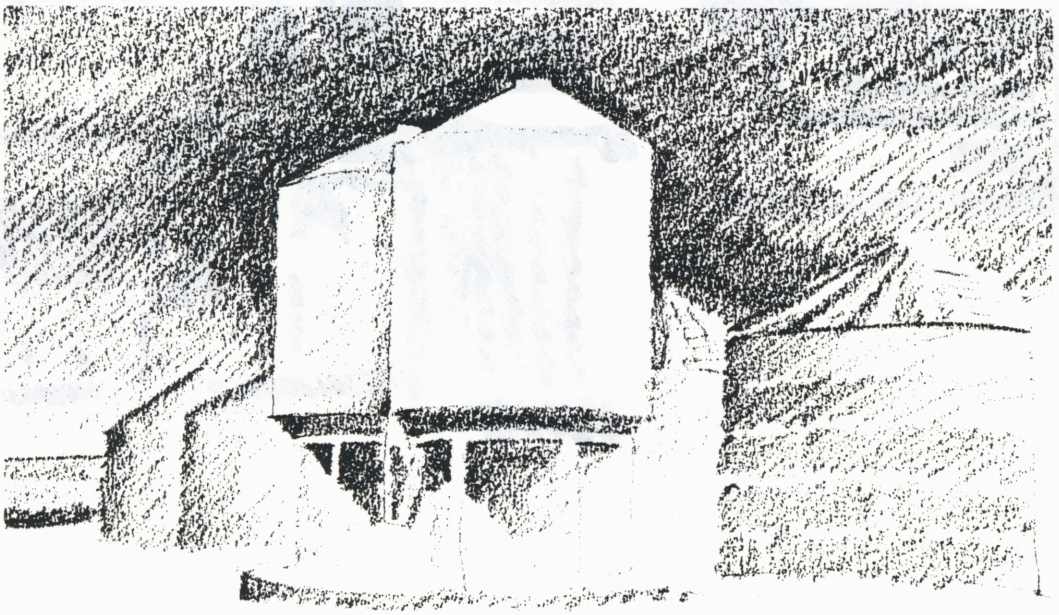
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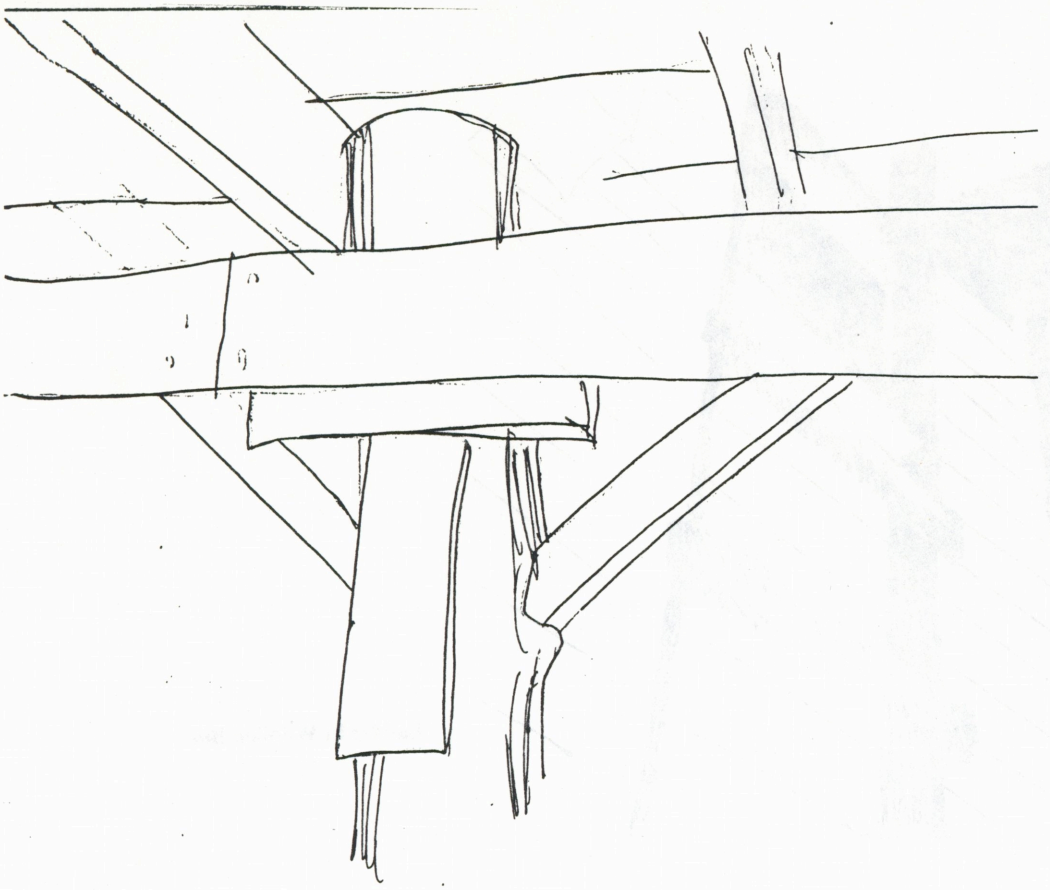
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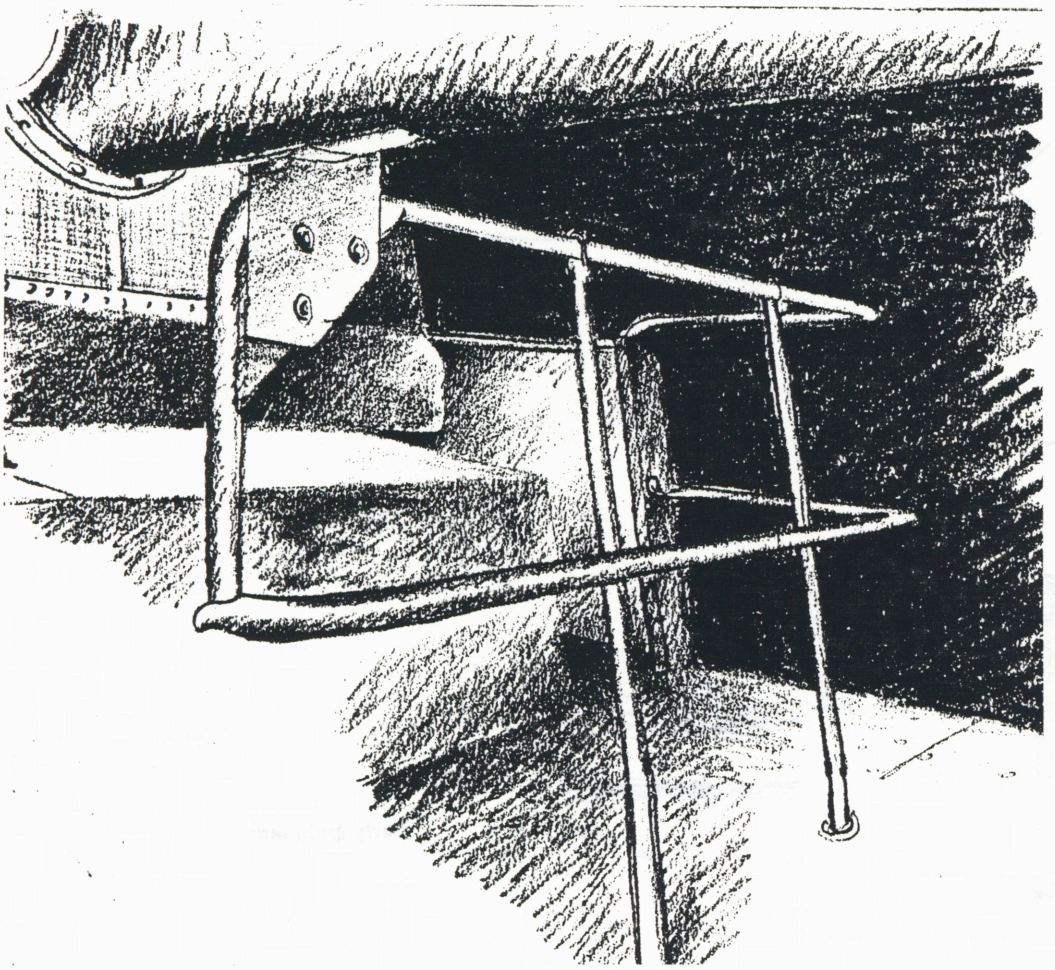
'John Deere' swather



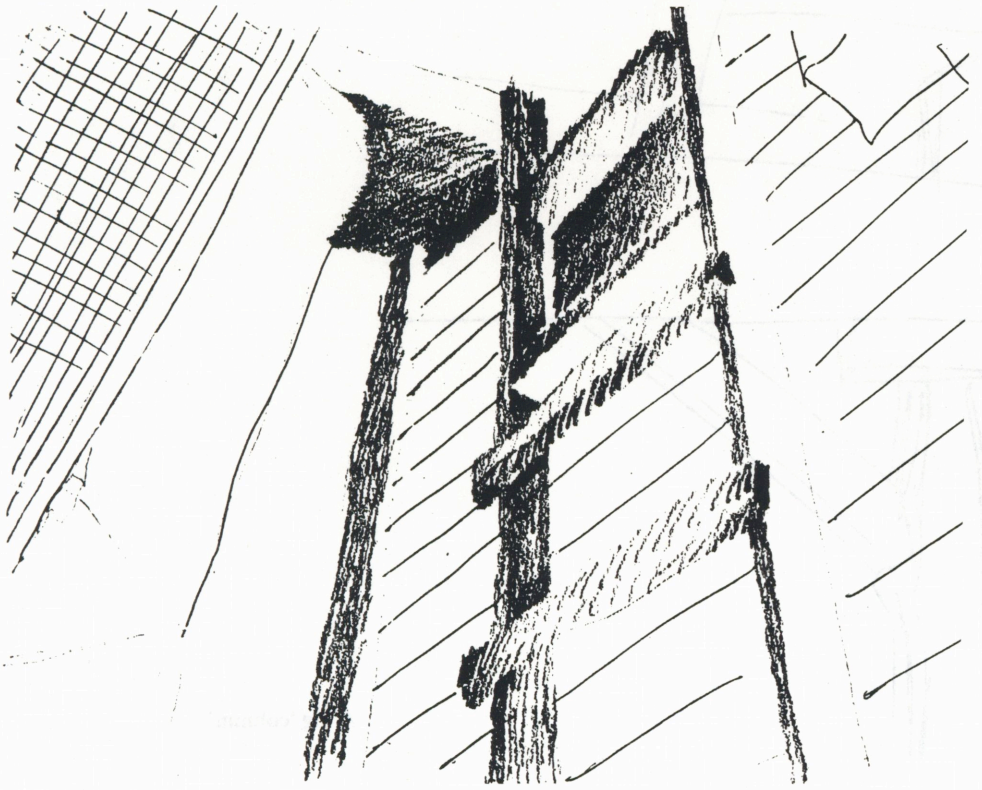
Contemporary Grain Bins



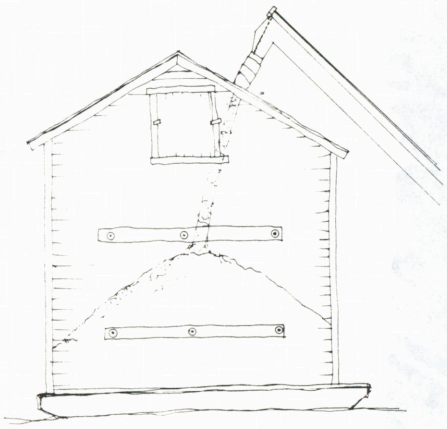
A log 'column'

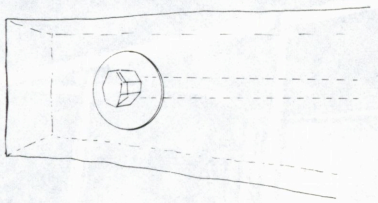


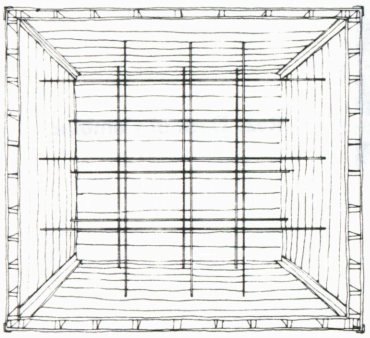
Rear Deck of Combine

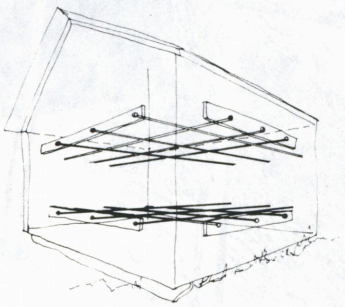


Ladder in Wooden Bin









Early grain bin

4) Programming

The bulk of statistical data has been presented earlier in this text under the project synopsis. The following briefly discusses where and how these figures were arrived at.

—To begin, a facility in the Orkney district must be prepared to handle a steady use of approximately 70-90 residents at the present and 120-140 residents in the future. Particular functions include typical social-recreational programs, now currently held in the school; 20-150 people for dances/receptions, 20-100 people for meetings. On the annual Sports Day in August which functions mostly outdoors, 200-1000 people may be expected. This rough outline, along with a non-written proposal and desire for some of agricultural data collection center was drawn up into an intuitive square footage format.

—As previously stated, precedents and case studies were unable to be readily found. My first interview (See Appendix A) was with Allan Taylor, a professor with the Agriculture faculty at MSU. The immediate reaction can be summed up by a "hands-in-the-air" gesture. Mr. Taylor quickly confirmed the fact that any research facility once built relies on the flexibility of its spaces to allow for success. The key then, is to design large flexible spaces around a potential program.

—Most research facilities are part of interdependent networks with a large volumous program that includes large buildings for the storage of all equipment and field implements. This obviously results in a huge amount of additional square footage. In addition is the need for adjacency to large tracts of land needed for the field test plots.

—In this facility, the above two conditions are nonexistant. The machinery to be used is stored on individual farmer participants' farms. The machinery is actually owned by the farmers but is shared as a cost-effective measure. Each research participant (a share holder in the cooperative) also provides a plot of land for experiments. On the average, each farmer may supply 50 acres at various points of his land so as to give more diverse, and hence more realistic information. The result is truly a community owned and operated entity.

—The built facility then, becomes a central resource center for maintenance, testing, and data storage. An adjacent 10 acres will be purchased for spectator demonstration of equipment, but may not necessarily include research test plots.

—With this intent established, I formulated the square footages into a speculative research building that I used for development in the school curriculum's working drawing class. Upon completion, the result was presented to Tom Krahn and Jack Hazelwood. (See interviews dated Octobver 1985) the response indicated a satisfactory result. Ample open space that is left with few fixed stations or work areas (as opposed to being movable), so as to be flexible with changing research programs.

—The square footages at the outset were arbitrary estimations, but the following hypothesis were deemed satisfactory given the size of the area to be served.

—Social functions were designed around existing precedents and needs. The school building is roughly 1500 feet of total usable space. That could easily be doubled and tripled in size in order to hold larger groups of people (presently 50-80 maximum; very overcrowded) that could more safely use the facility.)

—Other functions are understood as added amenities and not necessarily central to facility.

—The visual appearance of the facility is the key for a successful program articulation. Local residents should be able to 'read' the building; entry, circulation, researach, social areas, and outdoor amenities should be easily perceptible and not hidden. Thus, the building envelope that holds the various functions should allow those functions to assert themselves to exterior edges as much as possible.

—The facility must communicate community center as much as possible and yet the humble conservative nature of the users will turn the overall image away from the monumental, lavish, and opulent.

—Aside from local materials and methods of construction the facility should encourage a lived-in usage. An informality must prevail so as to avoid an overly pretentious sophisticated building.

—The building layout should offer protection of outdoor public spaces. The building needs to be sheltered to a degree, and yet must allow views to the surrounding prairie.

—Operating hours of the facility need to provide security for the research labs (8 a.m. -5 p.m.) and yet offer flexibility (9 a.m.-3 a.m.) for the social-recreational programs. This may be difficult considering that it is intended that there be one main entry lobby for the entire facility.

—To provide local residents and visitors with a sense of openness and availability, a circulation path that weaves through the entire facility could successfully give the users viewing access to the working facility. For visitors this may be an exciting element that more fully explains the purpose of the facility.

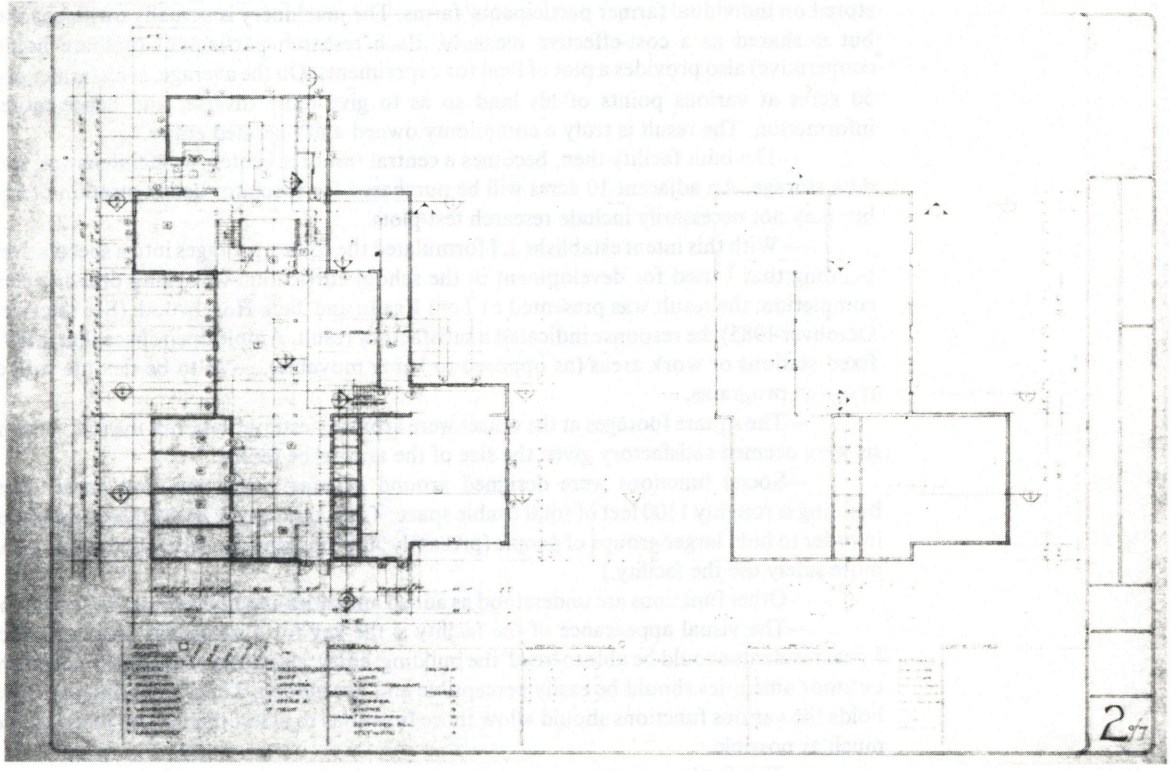
—Vehicle access should be easily understood from the driver's seat. Clear routes and ample room for parking will be necessary, especially on large functions.

—Interior spaces should allow clear directional cues. The less signage needed would indicate greater success of access and orientation provided by the designer.

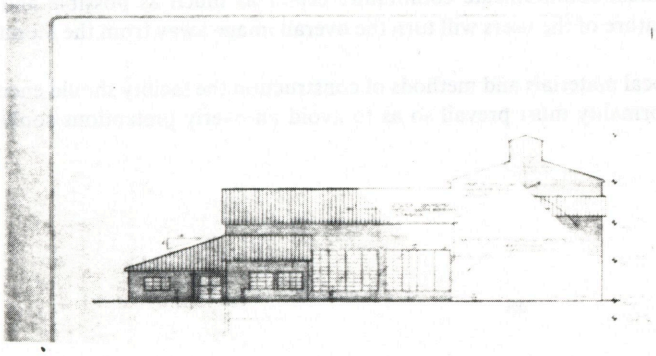
—Operating budgets are taxed from local residents and members of the research cooperative. Use of social-recreational programs provides additional funds.

—The resident staff person will oversee the physical operation of the facility as well as coordinate research programs. A full time secretary will aid in this.

—Temporary guests include summer students and visiting researchers.



From Working Drawing Set



Client: The rural farming community of Orkney, Alberta and its various organizations.

Location: The site is an existing community center site that is roughly geographically central to the community. The Orkney community itself is 20 miles northwest of Drumheller and 100 miles northeast of Calgary, Alberta.

Use Requirements: It is intended that the new facility expand the social, economical, and recreational needs of the community. Central to this is the notion of a public place whose use will become an integral part of the daily lives of the community people. The economical impetus is generated from the agricultural research station. Invested monies both saved and earned through research justify the operation, as well as the physical need to serve an area deficient in research data available. It is hoped that large and small scale assemblies of people will utilize this public facility for the shared and exchanged concerns of all areas related to agricultural rural life.

Program Areas:

School Preservation; converted use to Arts and Crafts facility **F**

2000 ft²

Agricultural Research Station: **A**

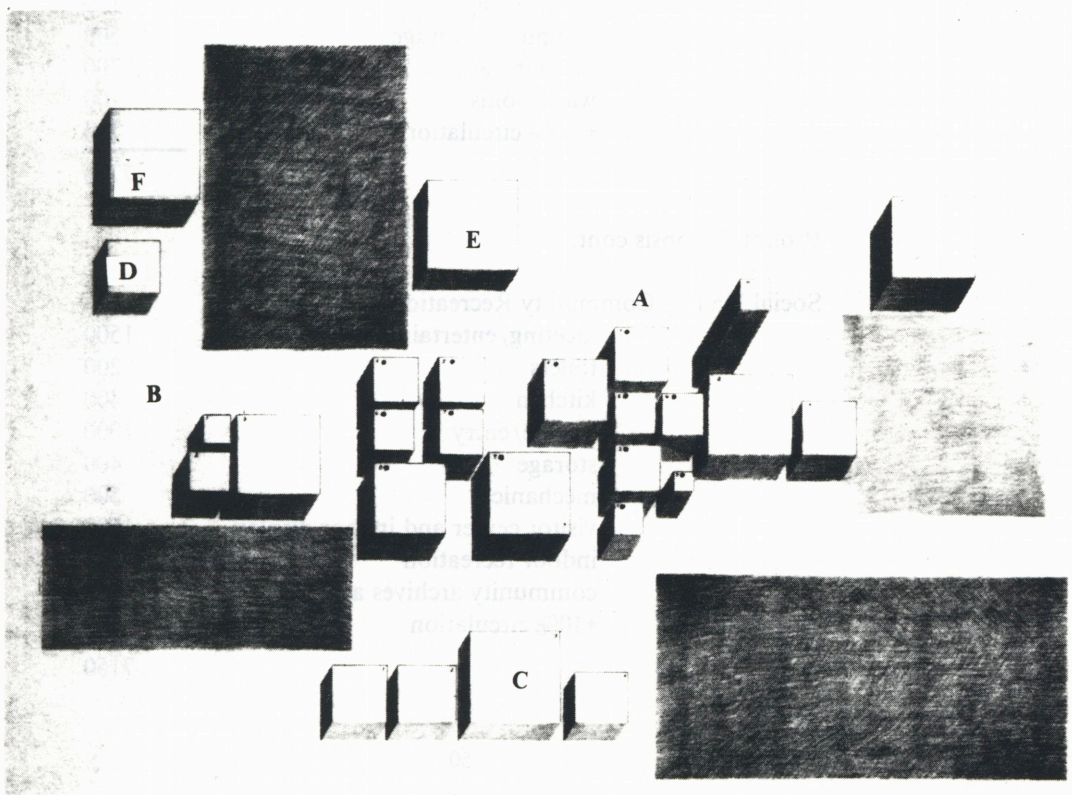
entry lobby	200
waiting/reception	500
conference	400
offices and computer	1000
wet lab	1400
greenhouses	700
shop	1600
grain storage	150
equipment storage	500
mechanical	700
washrooms	100
+ 10% circulation	700
	7700

Project Synopsis cont.

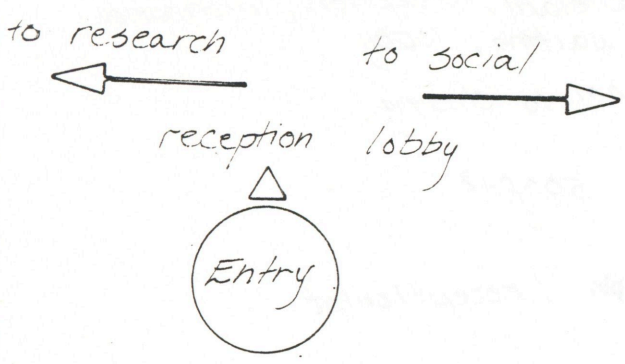
Social Hall — Community Recreation: **B**

meeting/entertainment hall	1500
toilets	200
kitchen	400
lounge/entry	1000
storage	400
mechanical	500
visitor center and indoor display	1500
indoor recreation	500
community archives and office	500
+10% circulation	650
	7150

Residence:	C	
	guest units	800
	living space for family of four	2000
	garage and yard storage	600
		4200
Outdoor Recreation:	D	
	storage	
	toilets	
	insulated shelter	
		700
Outdoor Display and Social:	E	
	concessions	
	toilets	
	bleachers	
	display	
		2000
Parking:		
	100 cars	40000
Heavy Equipment		10000
Existing Site Area		510000
Building Footprint Area		19700



Agricultural Research Station



Adjacency/Circulation

Activity - main entry into whole complex

Usetime - 9AM to closing

Area Required 200ft²

Number of People 50-200/day

Lighting incandescent, natural

Acoustics - low importance.

Plumbing - N/A

Mech/Elect - No Elect Outlets needed
- High volume diffuser

Security - High Importance, Locking and panic hardware needed.

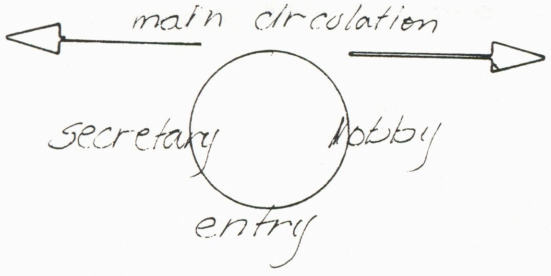
Equipment - Boot Shelves

Critical Dimensions 10 x 20 x 9

Quality: walls - high durability; washable covering
floors dirt catching mats.
ceilings - panels.

Comments - glass doors allowing views into building interiors and beyond to outdoor areas
- signage and graphics kept to a minimum and low key.

Agricultural Research Station



Adjacency/Circulation

Activity - Secretary, Reception / Information desk, waiting, lobby

Usetime 9 AM to closing

Area Required 500ft²

Number of People 1 receptionist

Lighting - incandescent, flourescent, natural

Acoustics - Panels on walls, ceilings

Plumbing N/A

Mech/Elect 4 Elect Outlets
- general air movement

Security - Secretary has limited access and should be lockable after hours.

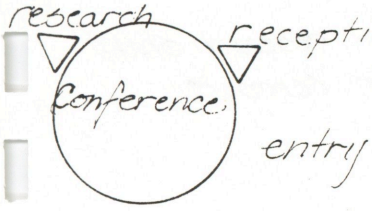
Equipment - office equipment for secretarial desk, cabinets, typing.

Critical Dimensions 20x25x9

Quality: walls - high durability, washable covering.
floors - high traffic carpeting
ceilings - acoustical panels over secretary
exposed over lobby

Comments - orientation point
- Ample glass to allow views into other building areas.
- Clear sense of access and circulation from this point.
- Exciting visually - perhaps structure is exposed to give sense of materials and structure

Agricultural Research Station



Activity - Conference room for small, medium size meetings.

Usetime - 9AM - 5PM

Area Required 400ft²

Number of People 10-20

Lighting - Incandescent, flouresecent for good task level

Acoustics - Ceiling & Wall Panels necessary

Plumbing N/A

Adjacency/Circulation

Mech/Elect - Elect. outlets reqd.
- general air movement

Security - Room able to be locked when necessary.

Equipment - Audiovisual eqpmt.
Tables and Chairs

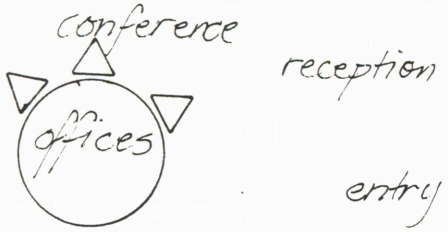
Critical Dimensions 20x20x9

Quality: walls - Acoustical Panels
floors - Carpet
ceilings - Acoustical Dropped Panels

Comments - good directional lighting
- soft colors

Agricultural Research Station

research



Adjacency/Circulation

Activity Seperate offices for research staff with open area for computer.

Usetime - 9AM-5PM

Area Required 1000ft²

Number of People 2-10

Lighting flourescent, incandescent, good level task lighting

Acoustics - Panels - ceiling, walls

Plumbing N/A

Mech/Elect general air movement
Elect needed for computers, office machines.

Security - High security locking hardware

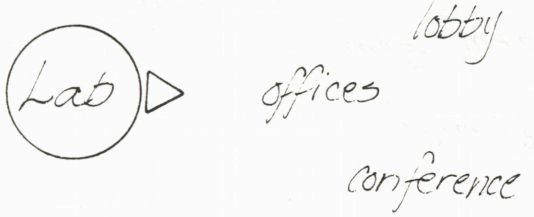
Equipment Storage units, filing cabinets computers, desks, chairs.

Critical Dimensions 30 x 33 x 9

Quality: walls - tackboards, panels
floors - lino
ceilings - acoustical panels

Comments - generous work area for layout, data collection, and storage
- low partitions for individual work areas.

Agricultural Research Station



Adjacency/Circulation

Activity - Collection and testing of samples of grain, plant material - storage and cleaning areas

Usetime 9am - 5pm

Area Required 1400ft²

Number of People 2-20

Lighting good task level, natural, directional incandescent, general flourescent.

Acoustics not important

Plumbing 4 Utility Basins, Emergency Shower and eye wash

Mech/Elect general air movement
gas outlets, variety of elect.

Security locking hardware

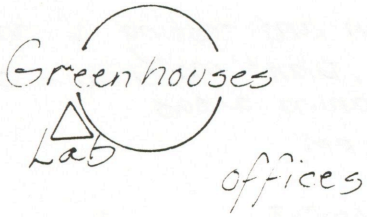
Equipment - Storage and collection bins, work tables, chairs, drying ovens

Critical Dimensions 30 x 37 x 15

Quality: **walls** rough unfinished
floors acid chemical resistant
ceilings exposed

Comments - industrial character, easy to clean surfaces
- Hi-Tech materials and construction.

Agricultural Research Station



Activity – Contained Chambers for plant growth and study

Usetime – 9am – 5pm

Area Required 760ft²

Number of People 2-4

Lighting natural
incandescent spots.

Acoustics Not necessary

Plumbing water outlets and drain in each chamber

Adjacency/Circulation

Mech/Elect Specialized air movement
High humidity possible

Security – Each chamber with moisture tight doors.

Equipment Soil Beds, Greenhouse tools

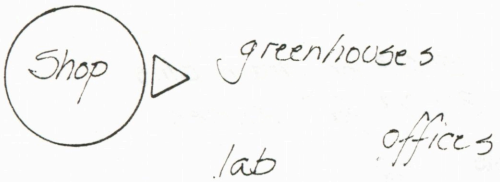
Critical Dimensions 4 Chambers, each 8x20x10

Quality: walls – glass
floors water resistant mat.
ceilings glass

Comments

flexibility of use – varying heights and sizes of planting beds.

Agricultural Research Station



Adjacency/Circulation

Activity - Repair, research, construction, & maintenance of farm implements

Usetime - 9 AM - 5 PM

Area Required 1600ft²

Number of People 9-20

Lighting - incandescent, flourescent, for high level task lighting

Acoustics - Heavy sound absorbing materials needed on walls, ceilings.

Plumbing - Hot/cold outlets, 2 washbasins

Mech/Elect Heavy duty circuitry for welding, shop tools
High volume ductwork - air handling

Security locking hardware on doors

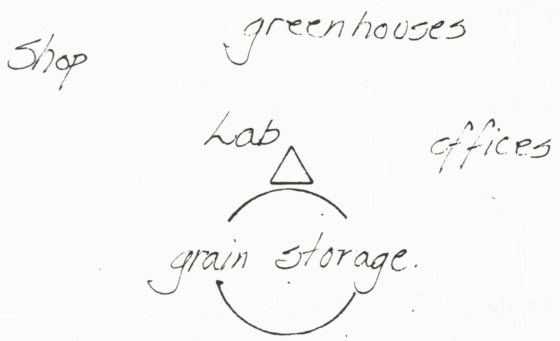
Equipment Storage units and shelving for various heavy machinery tools

Critical Dimensions 40x40x20

Quality: walls - painted white enamel
floors - surface treated concrete
ceilings - exposed

Comments - plenty of storage units for organized work area.
- largest single implement combine 25' length
12' height
12' width.

Agricultural Research Station



Adjacency/Circulation

Activity - Storage of grain to be used in lab for research

Usetime 9 am - 5 pm

Area Required 150 ft² for grain bins
300 ft² for vehicles

Number of People 1-2

Lighting - Sodium light over hopper

Acoustics N/A

Plumbing N/A

Mech/Elect No Mech
Elect needed for grain augers

Security N/A

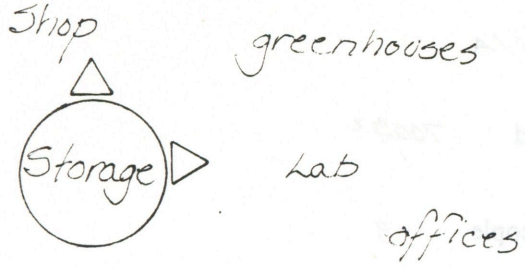
Equipment Hopper receptacle, grain auger system

Critical Dimensions 20 x 15 x 15 for vehicle

Quality: walls N/A
floors Concrete Pad
ceilings N/A

Comments Prefab bins and grain elevator equipment.

Agricultural Research Station



Adjacency/Circulation

Activity - Storage room used for equipment of lab, shop, and research.

Usetime - 9 AM - 5 PM

Area Required - 500 ft²

Number of People 2-4

Lighting flourescent

Acoustics N/A

Plumbing N/A

Mech/Elect 2 Elect. outlets
general air movement.

Security locking hardware on doors

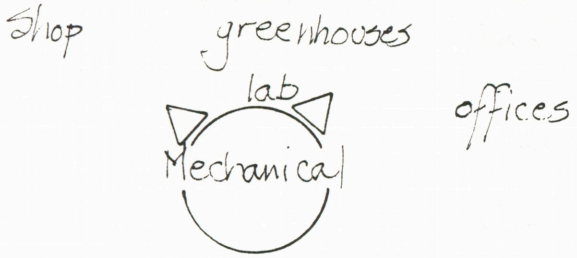
Equipment Storage bins, flexible shelving units

Critical Dimensions 25x20x10

Quality: walls - rough finish
floors - sorfaced concrete
ceilings exposed

Comments - 10' wide x 15' high overhead door for large unloading requirements

Agricultural Research Station



Activity - Mechanical Room

Usetime - N/A

Area Required - 700ft²

Number of People 1-3

Lighting incandescent spot
fluorescent general

Acoustics - wall panels + ceiling panels

Plumbing - Central units - Boiler + Reserve

Adjacency/Circulation

Mech/Elect - Central units

Security - Locking Door Hardware

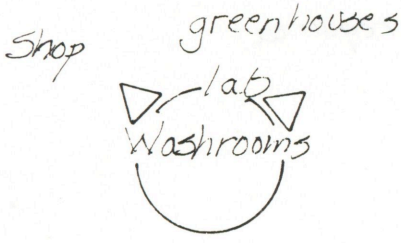
Equipment - Ladders and maintenance tools

Critical Dimensions 25 x 30 x 15

Quality: walls - Rough Unfinished
floors - Surface Treated
ceilings - Exposed

Comments
- HVAC, Elect. units positioned with ease of access.

Agricultural Research Station



Activity - Showers, Wash Basins, + toilets in central work area location

Usetime - 9 AM - 5 PM

Area Required - 100 ft²

Number of People 2-5

Lighting incandescent, flourescent

Acoustics ceiling panels

Plumbing 1 shower stall, 2 urinals, 1 toilet

Adjacency/Circulation

Mech/Elect 3 wash basins
2 Elect outlets
low volume air diffuser

Security non locking door

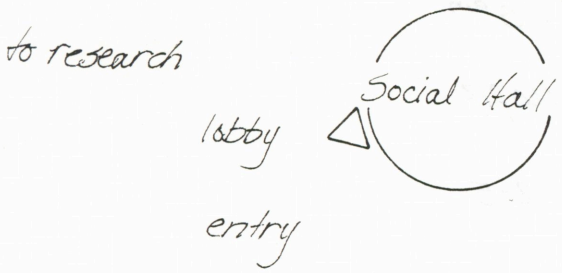
Equipment trash receptacle
air dryers mirrors
lockers

Critical Dimensions 10 x 10 x 9

Quality: walls tile
floors tile
ceilings panels dropped

Comments easy to clean and maintain surfaces.

Social Hall — Community Recreation



Adjacency/Circulation

Activity Social Hall for large scale community gatherings

Usetime 9AM - 3AM (when required)

Area Required - 1500ft²

Number of People 20 - 200

Lighting natural, general flourescent, incandescent spot.

Acoustics sound absorbing materials on walls, ceilings.

Plumbing - N/A

Mech/Elect - 10 - 15 Elect. outlets. High volume air circulation

Security - locking and panic hardware needed.

Equipment - Folding chairs and tables. Small stage for performance

Critical Dimensions 35 x 40 x 15

Quality: walls - sound absorbing panels
floors - hard wood
ceilings - exposed with flexibility of moving lights and panels

Comments
- Some large windows for views and ventilation.
- Access to adjacent outdoor areas through doors
Subdued interior, relaxed colors and materials.

Social Hall — Community Recreation

Activity male and female public toilets

Usetime 9am - 3am (when required)

Area Required 200ft²

Number of People 5-10

Lighting incandescent, flourescent.

Acoustics - panels in dropped ceiling

Plumbing men 2 urinals, 3 toilets & 4 washbasins
women 4 toilets & 4 washbasins

Mech/Elect - 2 Elect. outlets
general air movement.

Security men locking doors

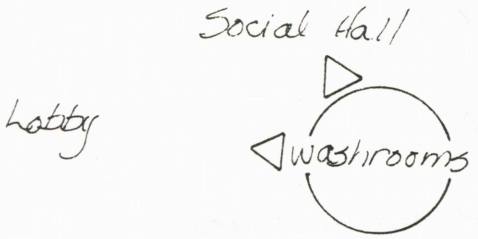
Equipment toilet partitions, trash receptacle
vanity w/ mirror, hand dryer.

Critical Dimensions 15x12x8

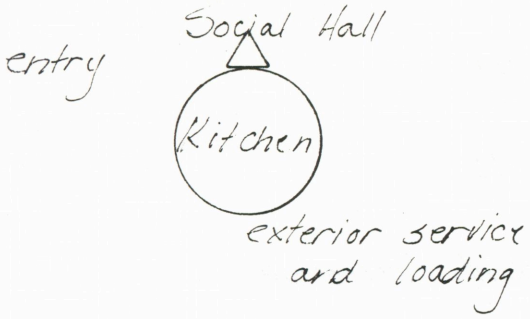
Quality: walls tile, wall paper
floors tile
ceilings acoustical panels

Comments - bright colorful.
- Easy to clean surfaces

Adjacency/Circulation



Social Hall — Community Recreation



Adjacency/Circulation

Activity - Food Preperation and storage

Usetime - 9AM - 3AM (when required)

Area Required - 400ft²

Number of People 4-10

Lighting - flourescent and incandescent

Acoustics - dropped ceiling panels

Plumbing 2 utility sinks, Dishwasher hook-up

Mech/Elect 5 Elect outlets, Stove, Fan, Refrigerator, Walk In Freezer

Security - Locking Door Hardware

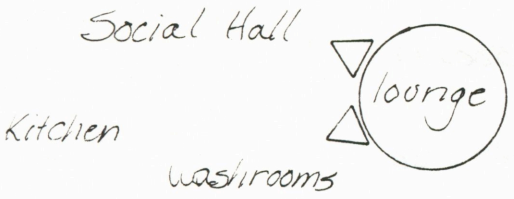
Equipment - Kitchen cabinets for storage, food preperation equpt. Gas stove + ovens

Critical Dimensions 20 x 20 x 10

Quality: walls Tile
floors Tile
ceilings Dropped Panels

Comments - Spacious and Convenient Layout
- Built in Cabinets and Walk in freezer

Social Hall — Community Recreation



Adjacency/Circulation

Activity - Loonge Area for more quiet conversation.

Usetime - 9 AM - 3 AM when necessary

Area Required 1000ft²

Number of People 10 - 30

Lighting - Natural, Incandescent, Flourescent.

Acoustics - Ceiling Panels

Plumbing - N/A

Mech/Elect - 10 Elect Outlets

Security - An open area off the main entry.

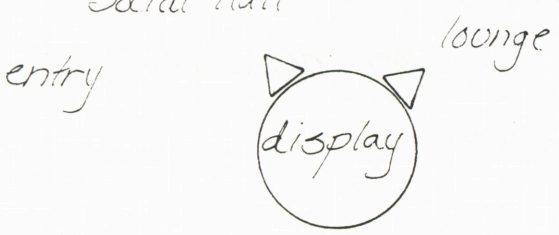
Equipment - low tables, chairs, sofas

Critical Dimensions 30 x 35 x 10

Quality: walls - painted gyp, wallboard
floors - carpet
ceilings - low dropped ceiling

Comments - Ample windows for exterior views
- Comfortable seating
- Pictures prints and paintings of locale
- Access through doors to exterior deck or balcony.

Social Hall — Community Recreation



Adjacency/Circulation

Activity - Visitor information and display area.

Usetime 9 AM - 5 PM

Area Required - 1500 ft²

Number of People 25 - 150

Lighting - natural, flourescent, track lighting, spot.

Acoustics not important

Plumbing N/A

Mech/Elect 10 Elect. outlets
- general air movement.

Security - Area open off of main entry with locking doors after 5 PM.

Equipment - flexible movable display units chairs, bench seating

Critical Dimensions 35 x 35 x 15

Quality: walls - durable wall covering
floors - hard wood or lino.
ceilings - exposed

Comments - adjustable ceiling height.
- variable display lighting
- ground level doors for access to outdoors.

Social Hall — Community Recreation

Activity - Storage for Hall, lounge, and display areas.

Usetime - All hours when required

Area Required 400 ft²

Number of People 2 - 4

Lighting flourescent

Acoustics N/A

Plumbing N/A

Mech/Elect 2 Elect Outlets

Security Locking Door Hardware.

Equipment Adjustable Racks and Shelving for Storage of Chairs, Tables, Displays.

Critical Dimensions - 20 x 20 x 15

Quality: walls - Rough Unfinished
floors lino
ceilings exposed

Comments - flexibility of shelving units impt.

Social Hall

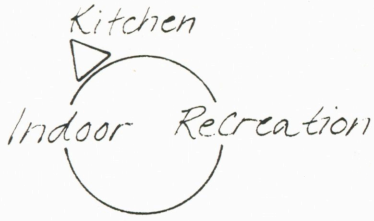


Adjacency/Circulation

Social Hall — Community Recreation

Social Hall

entry



Adjacency/Circulation

Activity - Indoor Recreation, Billiards, Ping Pong, Card Tables.

Usetime 9am - 3am (when required)

Area Required 500ft²

Number of People 10-20

Lighting - Incandescent, Flourescent for general Task Lighting

Acoustics - Ceiling Panels, Carpet.

Plumbing - 1 Bar Sink

Mech/Elect - General Air Movement
- 5 Elect Outlets

Security - Locking Hardware on doors.

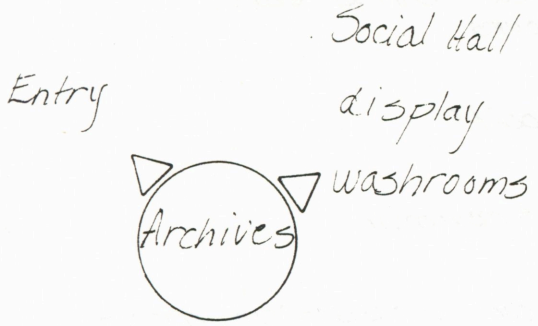
Equipment - Storage Cabinets, Stools, Couches, Ping Pong, Billiard Table, Folding Card Tables, Refrigerator

Critical Dimensions
25 x 20 x 8

Quality: walls - Scuff Resistant
floors - Indoor Outdoor Carpet.
ceilings - Dropped Panels

Comments - Party Room Atmosphere with durability of materials to match.

Social Hall — Community Recreation



Adjacency/Circulation

Activity - Storage and Display of community photos and artifacts; office for volunteer staff.

Usetime 9AM - 5PM

Area Required 500ft²

Number of People 2-20

Lighting Incandescent and natural

Acoustics not important

Plumbing N/A

Mech/Elect - general air movement. 5 Elect outlets.

Security - Locking Hardware on doors

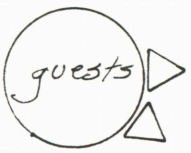
Equipment - Storage Cabinets, adjustable display units, secretarial area for typing and sorting

Critical Dimensions 20 x 25 x 8

Quality: walls Cloth tackboard for display
floors Carpet
ceilings Exposed for adjustable height and lighting flexibility

Comments
- light colors
- museum quality presentation
- desk to provide security point.

Residence



research

Adjacency/Circulation

Activity - Housing for temporary guests 2 seperate bedroom units off a shared central unit.

Usetime - all hours

Area Required - 800ft²

Number of People 4 maximum

Lighting - flourescent incandescent, natural

Acoustics - necessary if units are joined to residence

Plumbing - sink in kitchen, shower, toilet sink in bath

Mech/Elect - general air movement
10 Electrical outlets needed

Security - locking hardware on exterior doors and bathroom.

Equipment - furnishings in spaces. Kitchen with stove, refrigerator, storage units bedroom furniture.

Critical Dimensions 25' x 30' x 8'

Quality: walls - painted gyp, wood panelling
floors - carpet, lino.
ceilings - panels or stipple

Comments
- comfortable even tho only used on temporary basis.
- housed individuals will be during winter on weekends; during summer (4-5 months).
- these people involved directly with research facility.

Residence

Activity - Living eating, sleeping quarters for family of four.

Usetime All hours.

Area Required 2000ft²

Number of People 4-5



Lighting natural, incandescent, flourescent.

Acoustics necessary between adjoining guest units.

Plumbing Kitchen w/ sink, dishwasher, 3 bathrooms, (with sink toilet only others include shower, bath

Adjacency/Circulation

Mech/Elect - general air movement.
- max. 4 outlets per room

Security - locking hardware on exterior doors and bathrooms.

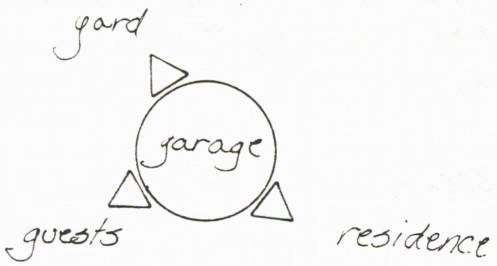
Equipment - Furnished bedroom and living units fireplace on main floor.

Critical Dimensions Kitchen 20x20
Living / Dining 20x30
3 Bedrooms 10x10

Quality: walls ptd gyp. wall panels, wallpaper
floors lino, carpet.
ceilings panels or stipple

Comments - Residence has farm home feel
- Porch wraps around entry
- fireplace centerpiece of open living area

Residence



Adjacency/Circulation

Activity Vehicle storage and storage of yard and garden tools

Usetime All hours

Area Required 600 ft²

Number of People 1-2

Lighting flourescent.

Acoustics not necessary

Plumbing N/A

Mech/Elect N/A

Security locking garage door

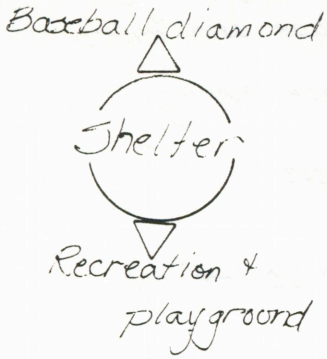
Equipment built-in shelves

Critical Dimensions 20 x 30 x 10

Quality: walls Rough finish
floors smooth concrete
ceilings exposed

Comments - simple utilitarian structure
- insulated with portable space heater when desired
- 1 vehicle stored

Outdoor Recreation



Activity outdoor shelter for year round use. Storage and toilets included.

Usetime 9 AM - late evening closing

Area Required 700ft²

Number of People 10 - 30

Lighting incandescent, natural

Acoustics not necessary

Plumbing hot/cold water, basins flush toilets

Adjacency/Circulation

Mech/Elect No mech reqmnts.
5 elect. outlets

Security not important - cabinets should be locking

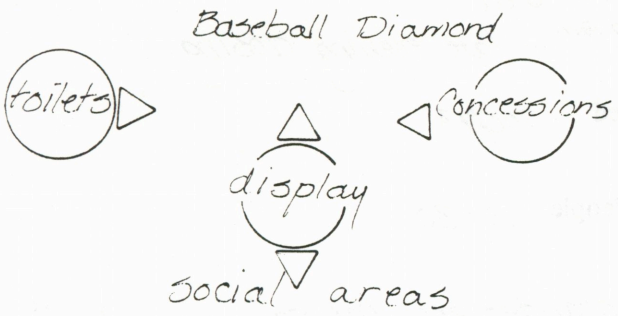
Equipment Tables & chairs
Built-in shelves

Critical Dimensions 23 x 30 x 10

Quality: **walls** Rough finished wood
floors Smooth concrete finish
ceilings exposed

Comments
- simple structure similiar to roadside camp kitchens.

Outdoor Display and Social



Adjacency/Circulation

Activity Outdoor Shelters for year round use. Storage and toilets included

Usetime 9AM - late evening

Area Required 2000ft²

Number of People 10-30 → 1000

Lighting incandescent, natural

Acoustics N/A

Plumbing N/A

Mech/Elect Elect outlets provided at booths and baseball diamond.

Security N/A

Equipment - Portable toilets, bleachers assembled concessions

Critical Dimensions Bleachers 16x15
Concessions 10x10

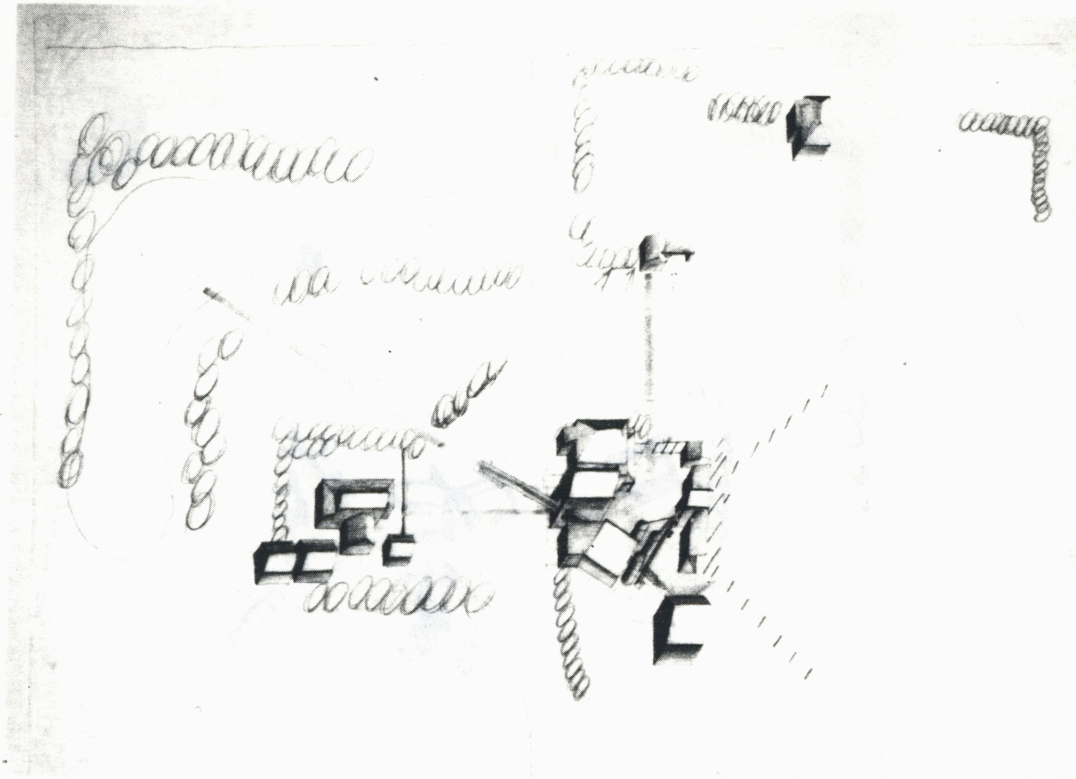
Quality: walls wood construction, metal siding
floors asphalt, concrete, earth
ceilings N/A

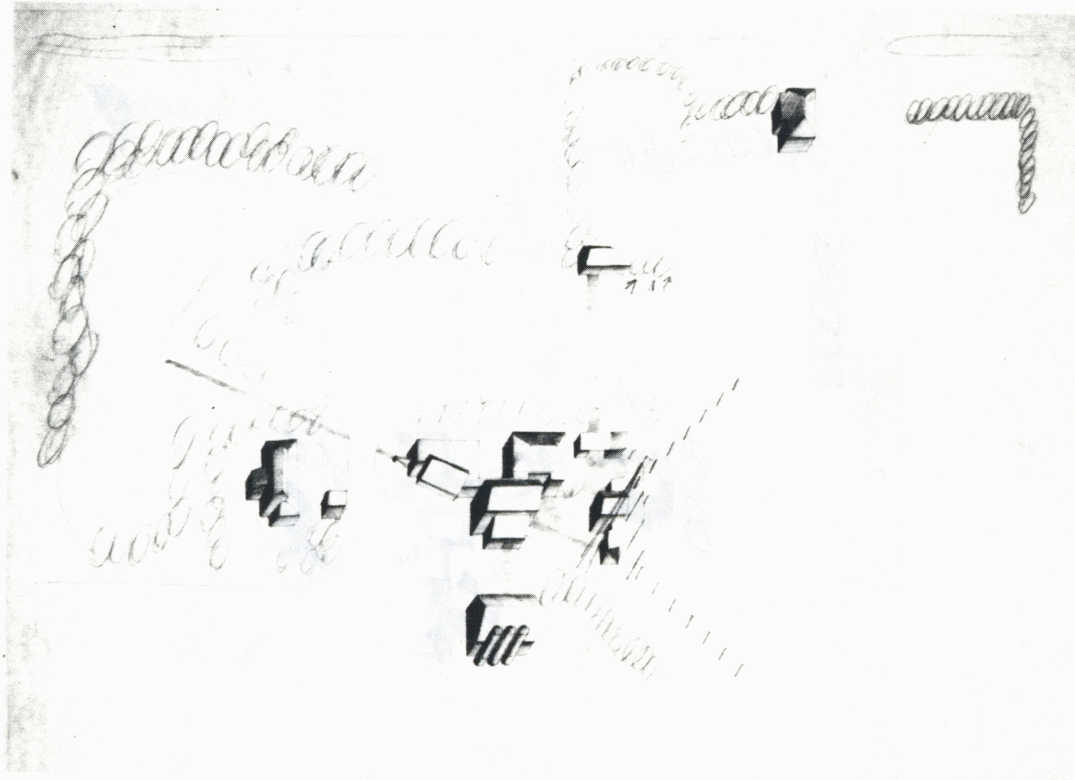
Comments - portable light weight structures
Concessions covered with canvas.

Schemes







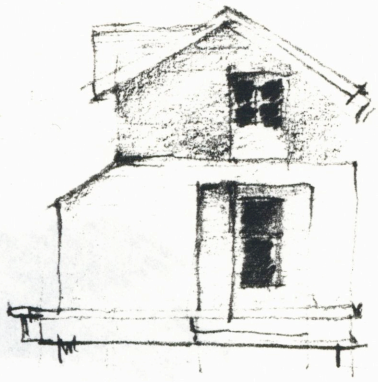


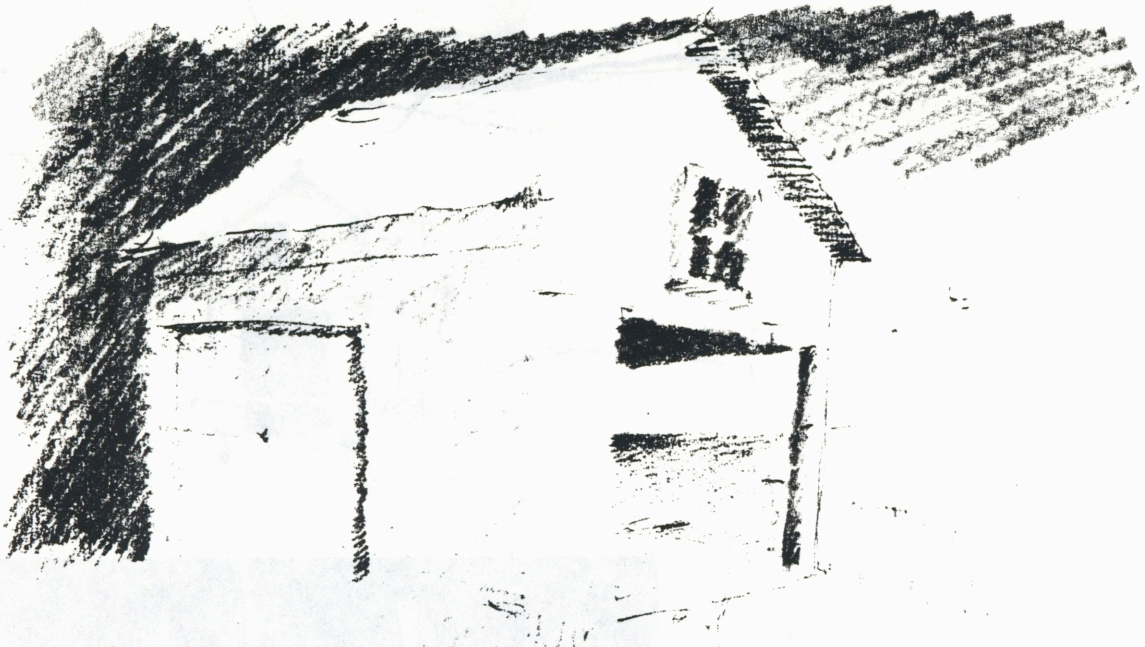


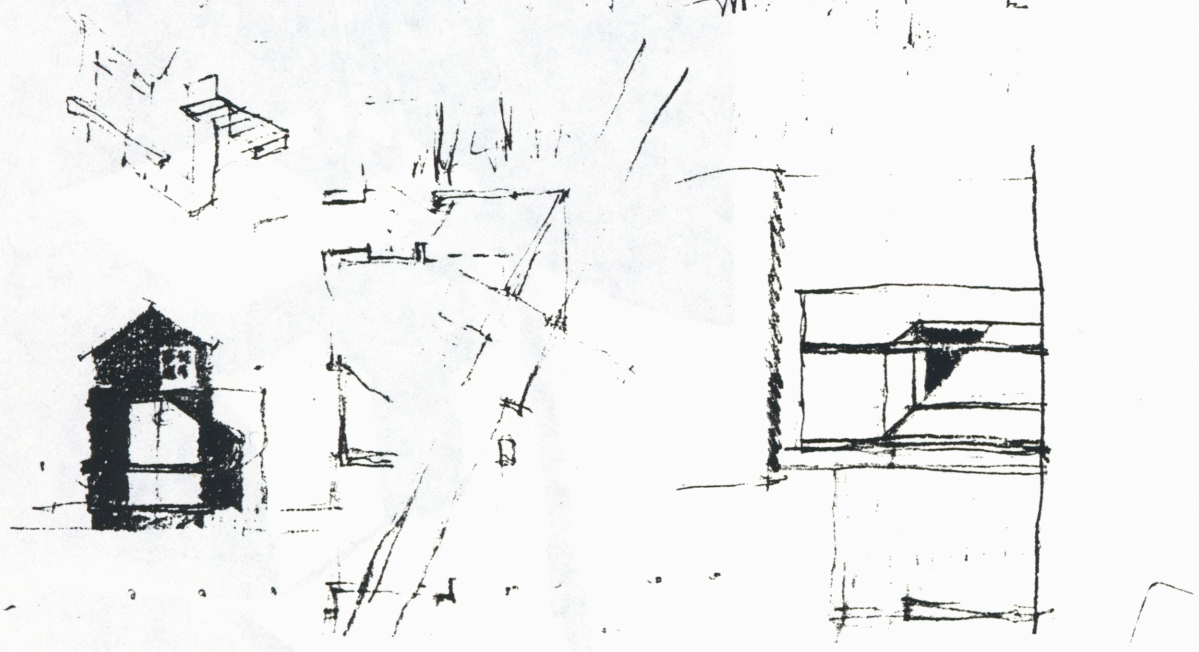
Design Process

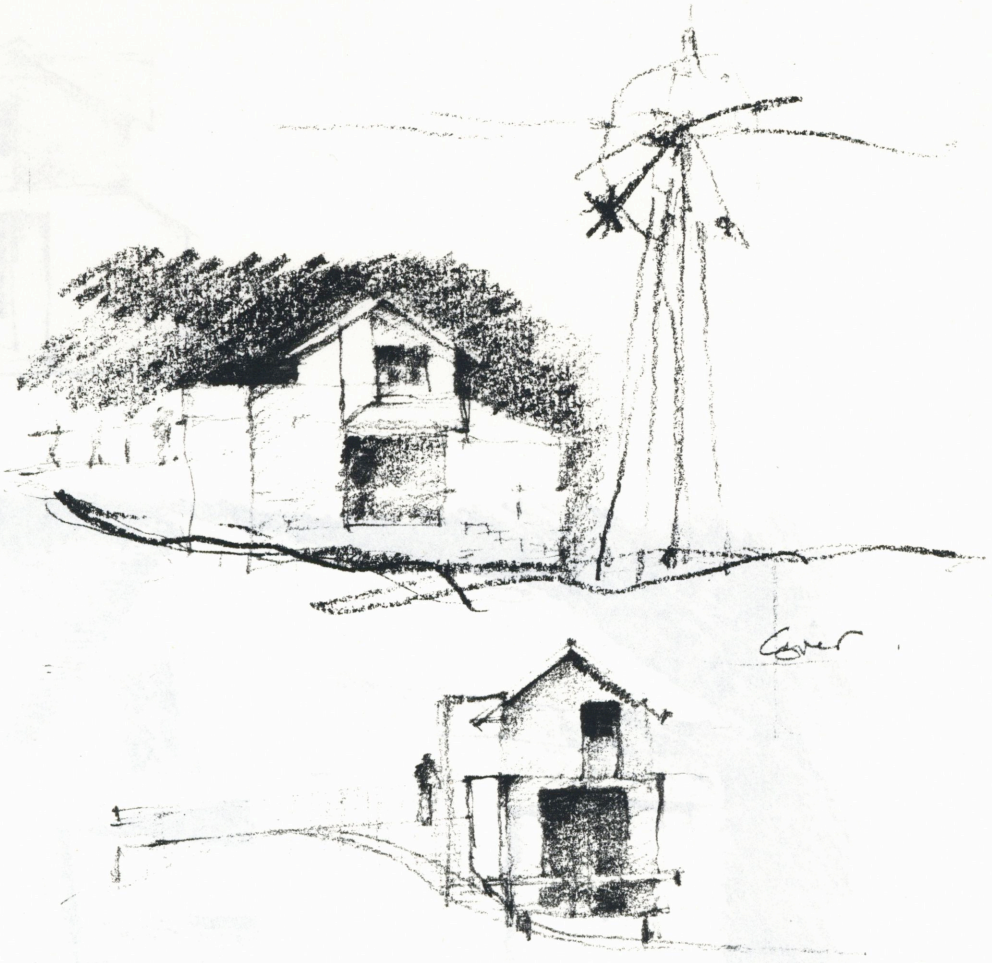
The first quarter of thesis began with all my preconceived notions of what an 'Orkney Architecture' should be. The first five schemes illustrated, demonstrate a process that pulled the program together as time passed by. During much of the quarter, I looked at the farm as the inspiration for plan and form. The location on the site however was later determined to be a wrong choice. The initial choice focussed the project adjacent to the existing ball diamond. This was based on a personal bias that probably narrowed too soon my directions for a more successful solution. The complexities and contradictions inherent in the farm environment excited me, but the schemes reveal a lack of cohesiveness necessary in this situation.

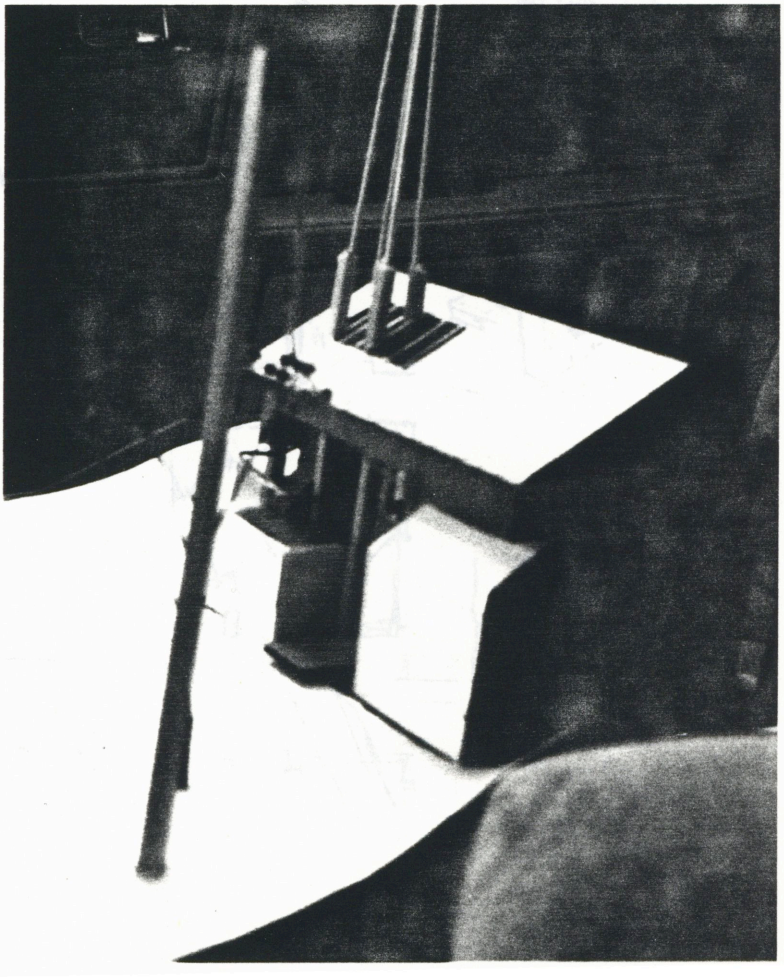
The building as an architectural object was explored in sketches and model. The sketches suggest the image of the simple shed form, and its possible variations when materials and fenestration patterns are explored. The study model allowed me to very quickly and successfully play with ideas. I felt that the typical silouette of shed and windmill tower were important enough to retain, but the new materials and building technologies present on the prairies could infuse new excitement and texture on the building.



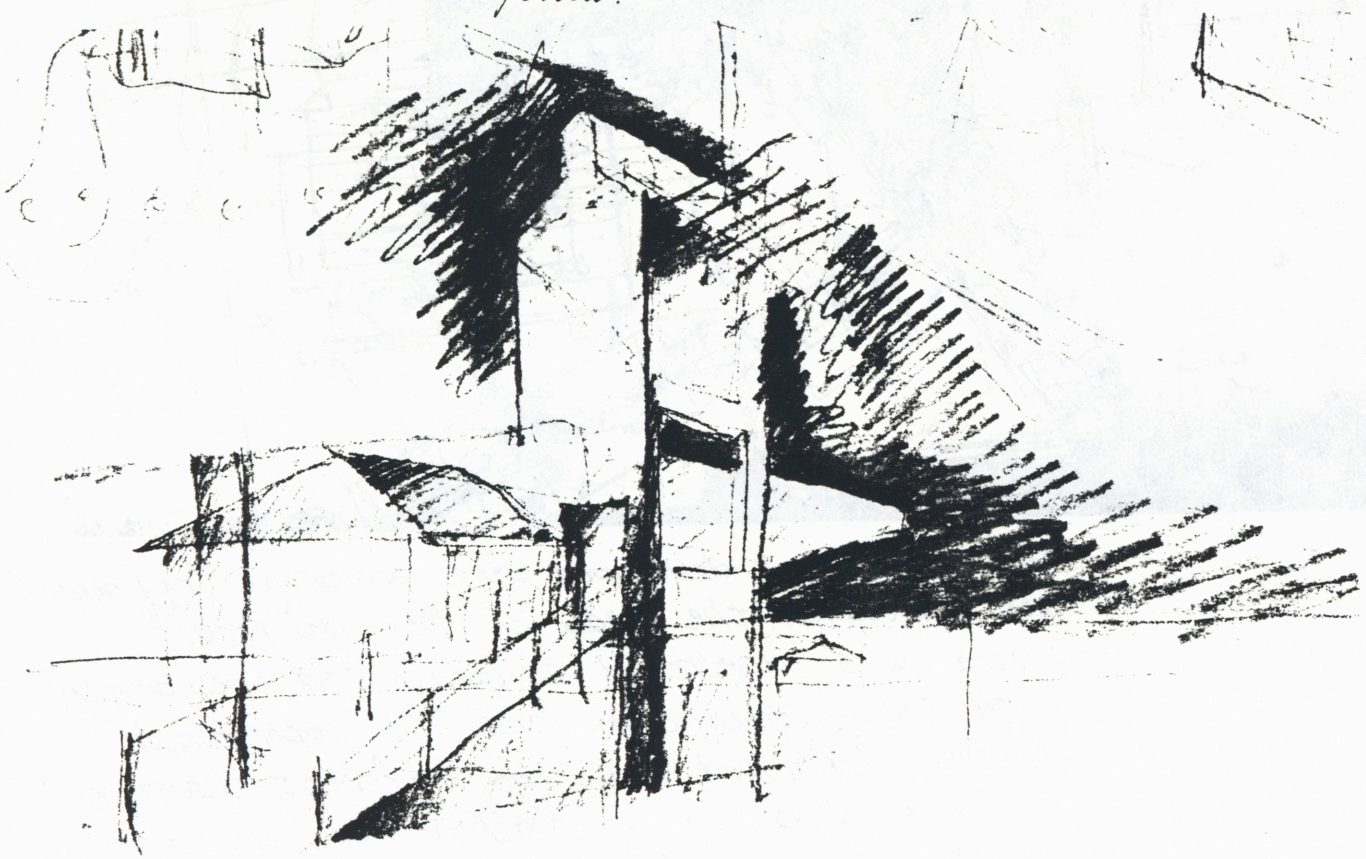




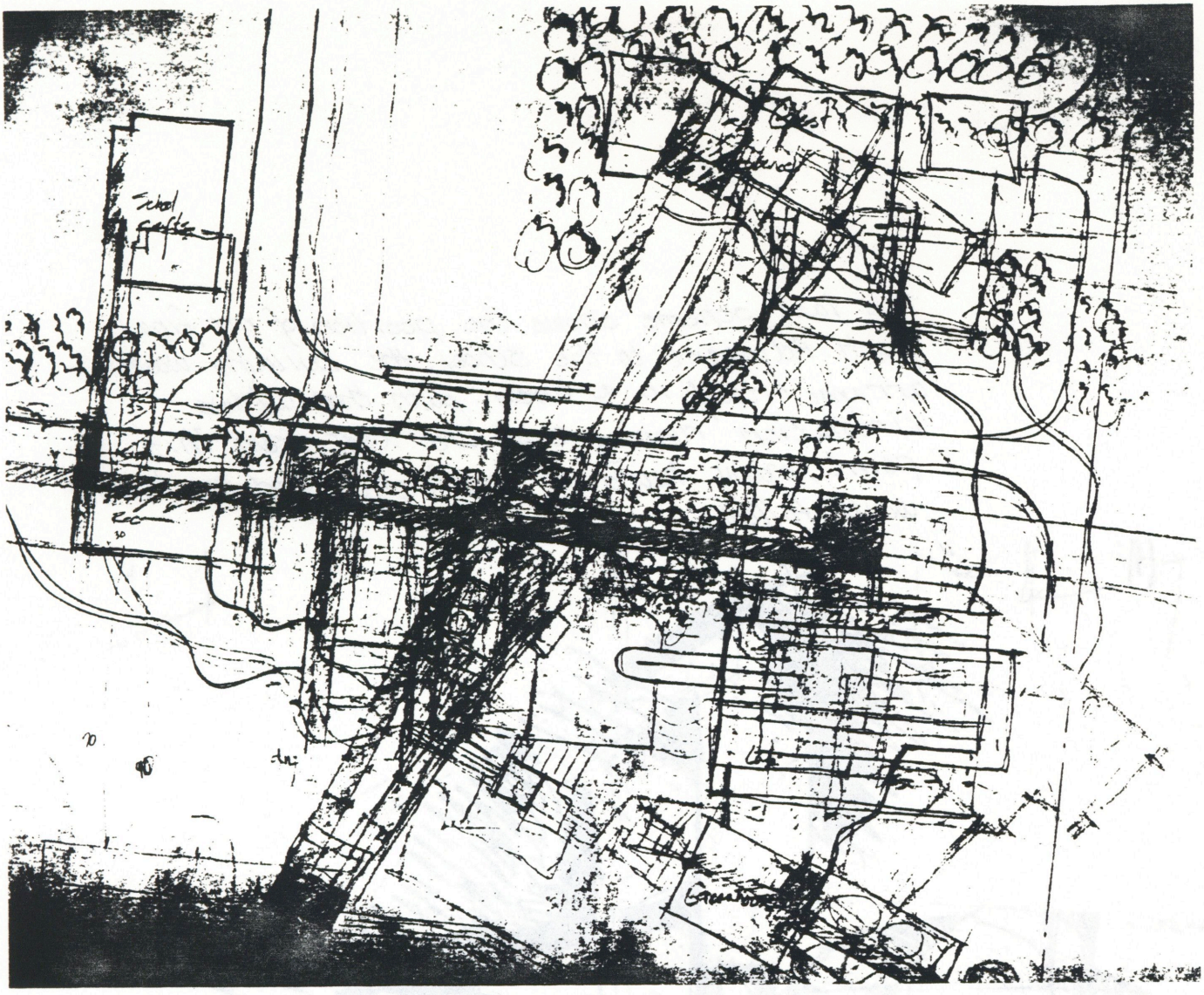




The last scheme shows the position of my final parti. Adjacent to the school, the building would arrange itself in a linear path that allows circulation running east and west. From this point, many hours of frustration and excitement would follow.



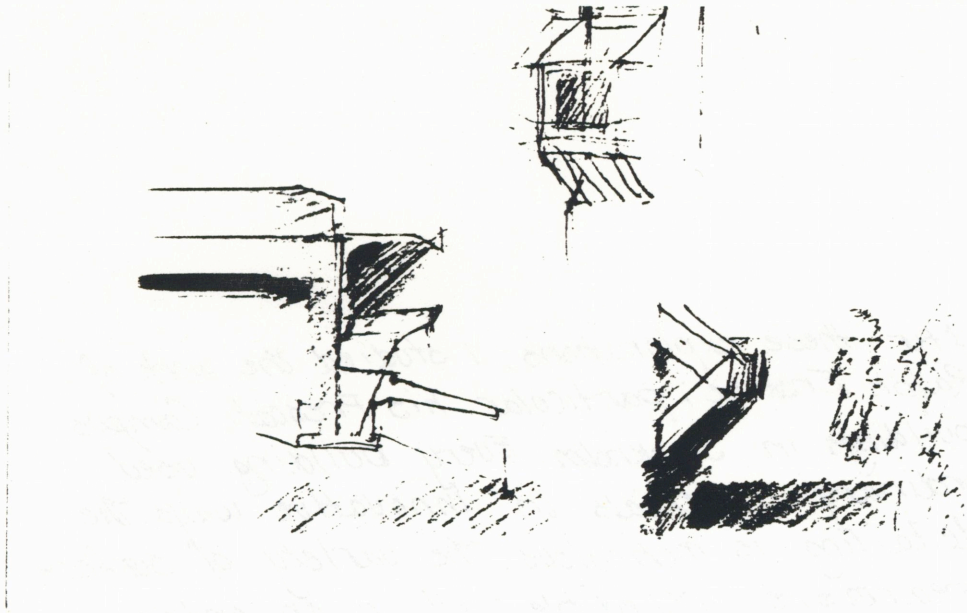
imagery; grain silo.

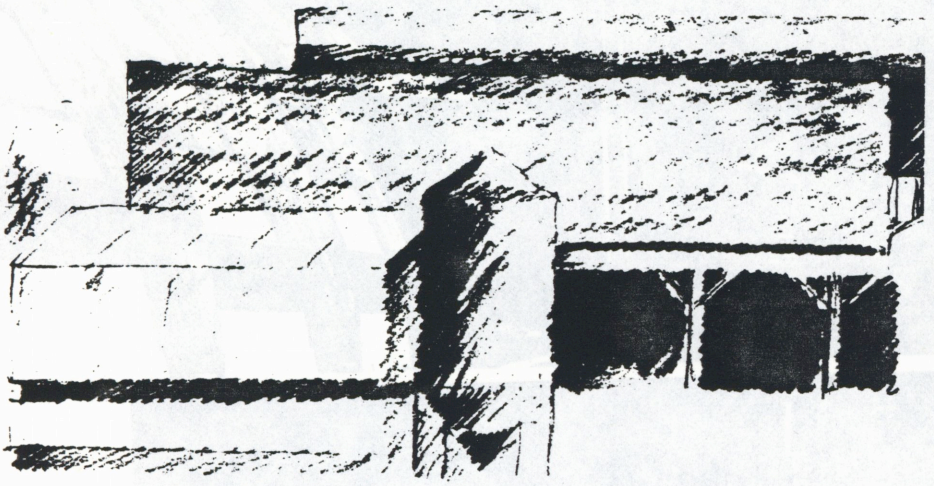


The plans that developed were somewhat fragmented yet contained the seeds of the final result. Strong axis penetrated buildings and open spaces. With the fragmentation came the opportunity to give individual buildings different character. Sketches illustrate a machine-like elevation in the social hall especially.

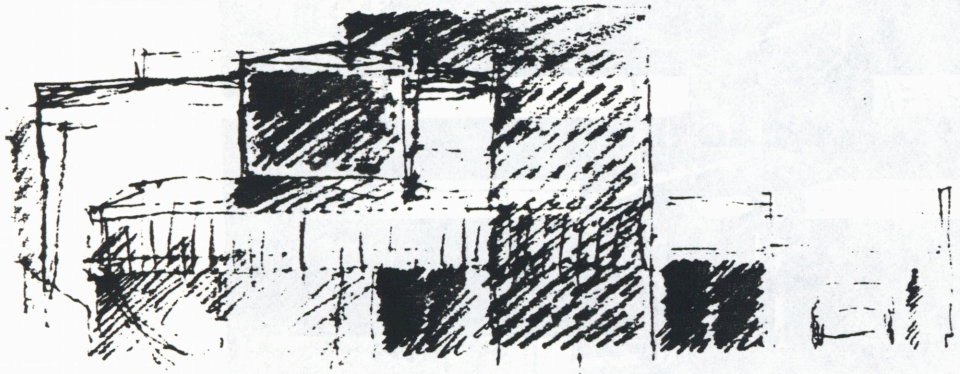
Many ideas at this time began to cloud the necessary single vision I started with. "Use them on another project, but keep the pertinent ideas", Pete said.

The result seperated and confused a program that was inherently a single entity due to its social nature and that the small square footage of the program would not allow a series of seperated buildings.



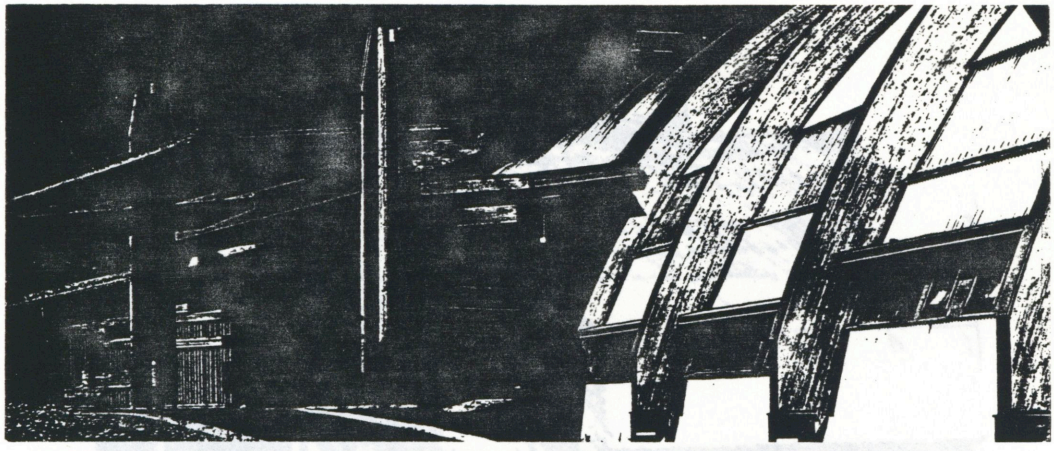


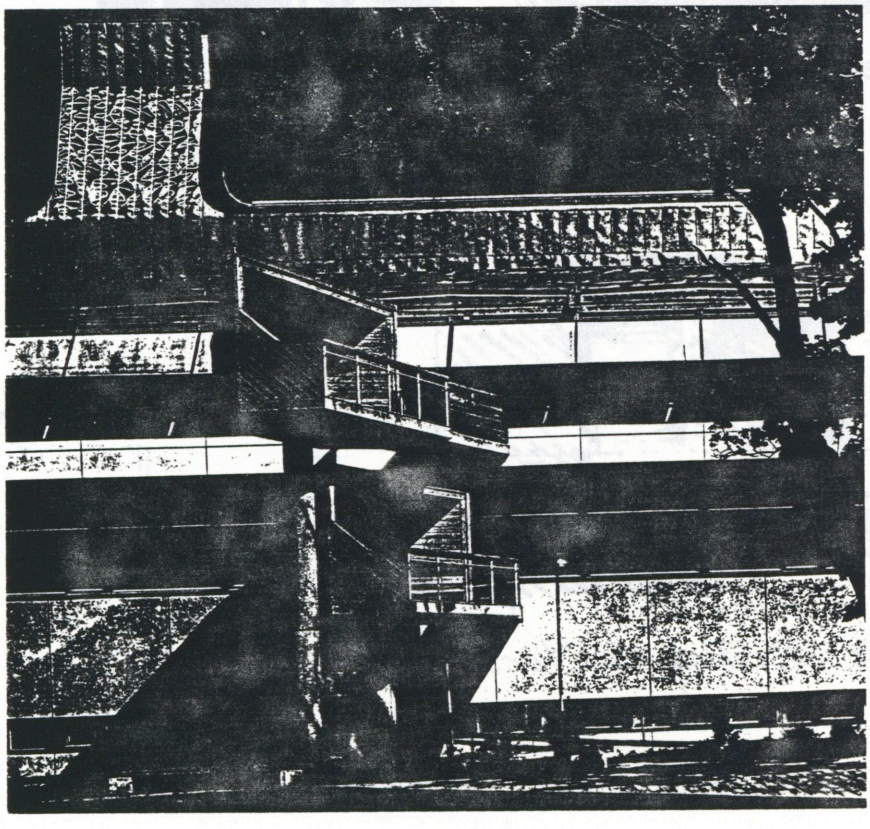
The Research Lab as 'Barn'.



The Building as 'Harvest Machine'

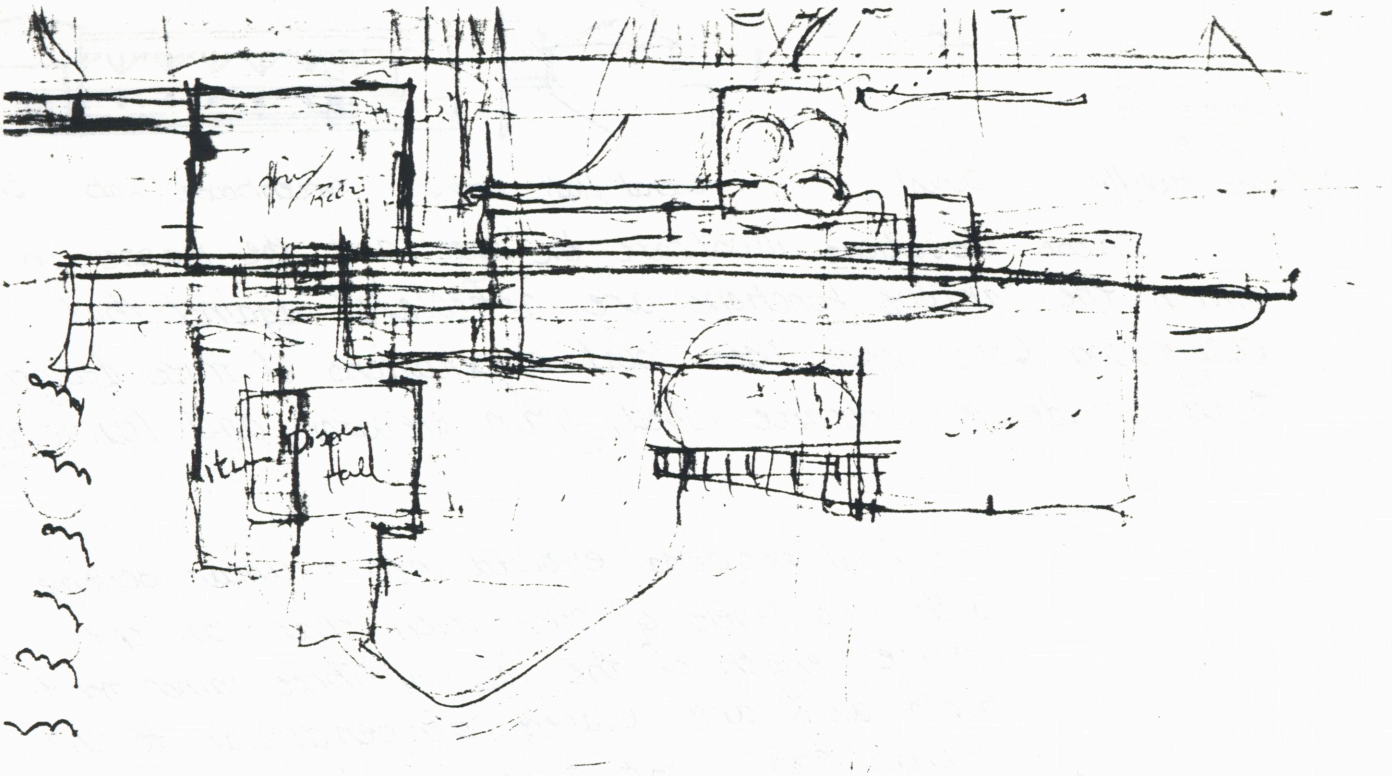
After these explorations, I studied the work of Ralph Erskine; particular his Frescati Campus buildings in Stockholm. Every building used 'ordinary' materials in innovative ways. The detailing is meticulous, the variety of surface treatment incredible; all in an ordered manner that allows the spine of the project to be understood.



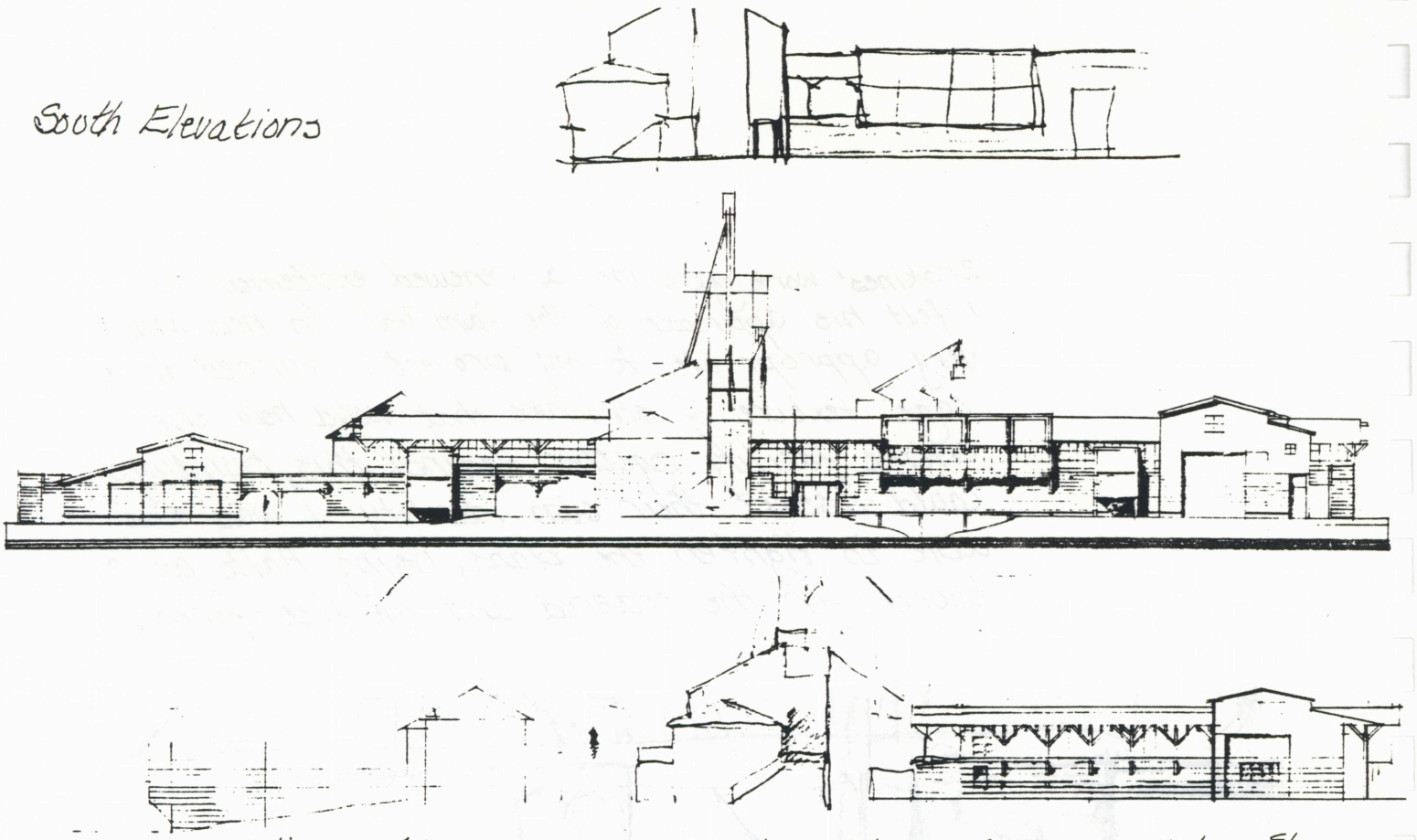


Erskines' Frescati Campus.

Erskines' work gave me a renewed excitement as I felt his approach of the familiar in new ways very appropriate to my project. I turned to a 'cage' texture of structure that would hold the entire facility together. Against this, buildings could assert their own identity. I was also able to tighten the plans, using Aalto as a source for the ordered and the free-form.



South Elevations



Outdoor Pavillion School — Social Hall Entry Greenhouse Lab Shop

These elevations illustrate the 'cage' and the manner in which the various functions are articulated against that background. Construction uses local applications of truss design, shed, arcade, maintenance shed, grain elevator, and landscape.

The final proposal evolved into a linear scheme with two levels of circulation that ran the entire length of the facility. Three minor north-south axis are placed perpendicular to the main east-west axis. Social functions are to the west while research functions are east due to the proximity of field plots.

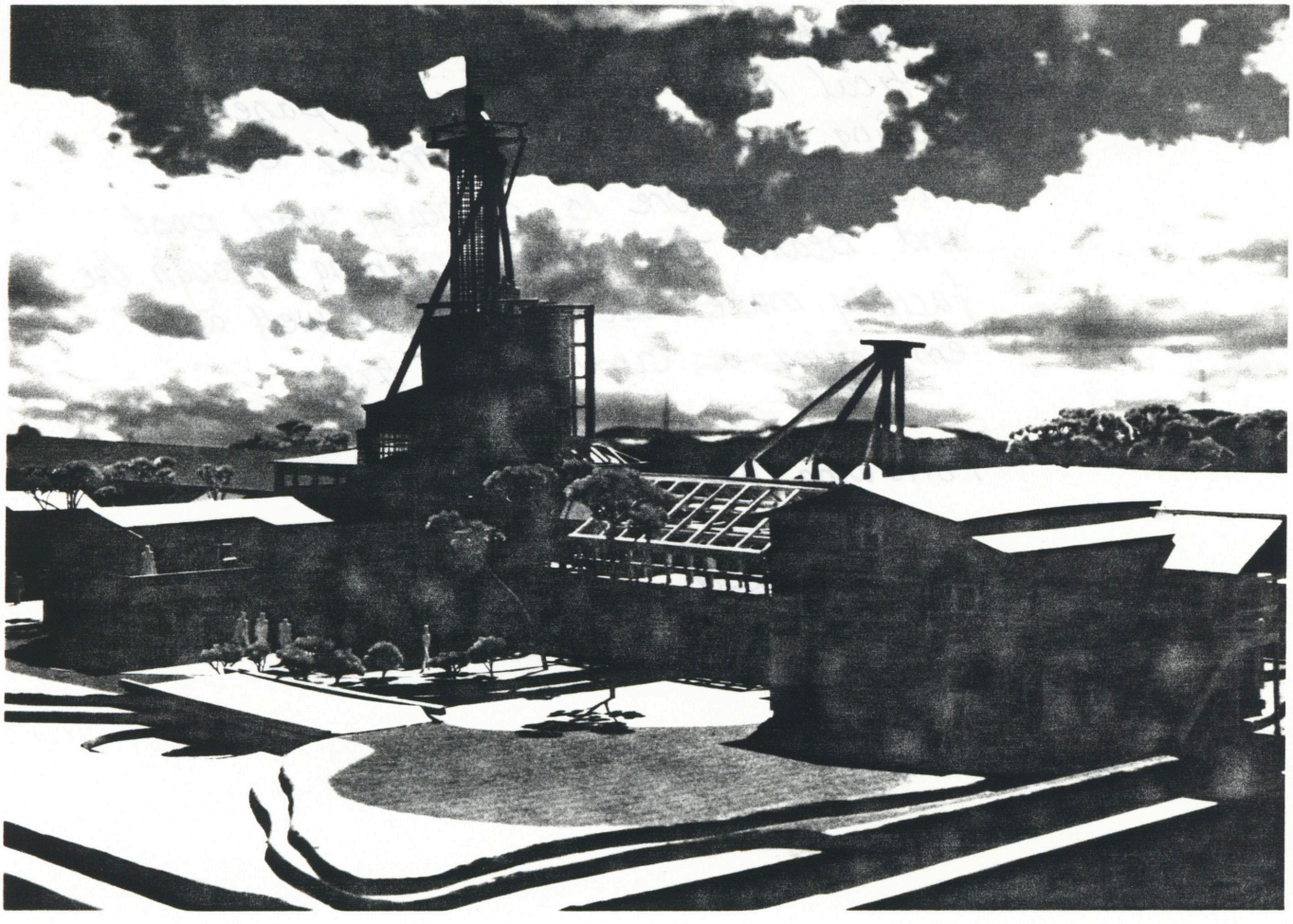
Anchoring the facility in the center is the main entry / office vertical circulation tower. Here, contextural gestures towards local vertical grain elevators influenced a strong although non-functional adaptation. The result added fair-weather observation decks to the program. Another program change was the elimination of a static independent display space. It would be only a temporary movable space shared with the social hall.

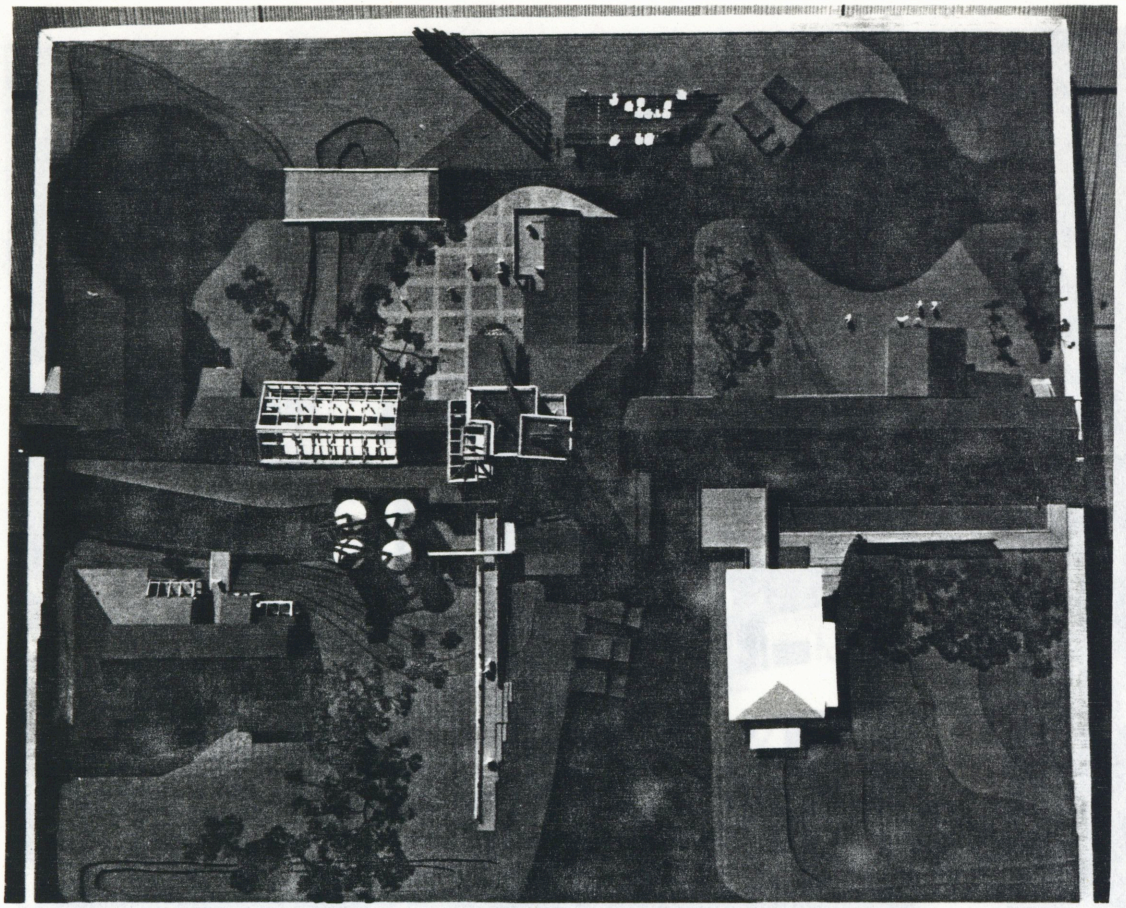
Materials used are of the local vocabulary. A base plinth runs throughout the facility. Above this and set back 4 inches is a vertical metal standing seam panel. The roofing also is standing metal seam. Interior structure is a heavy wood post and beam. The arcade running through the facility makes use of this as well as employing a cantilevered truss.

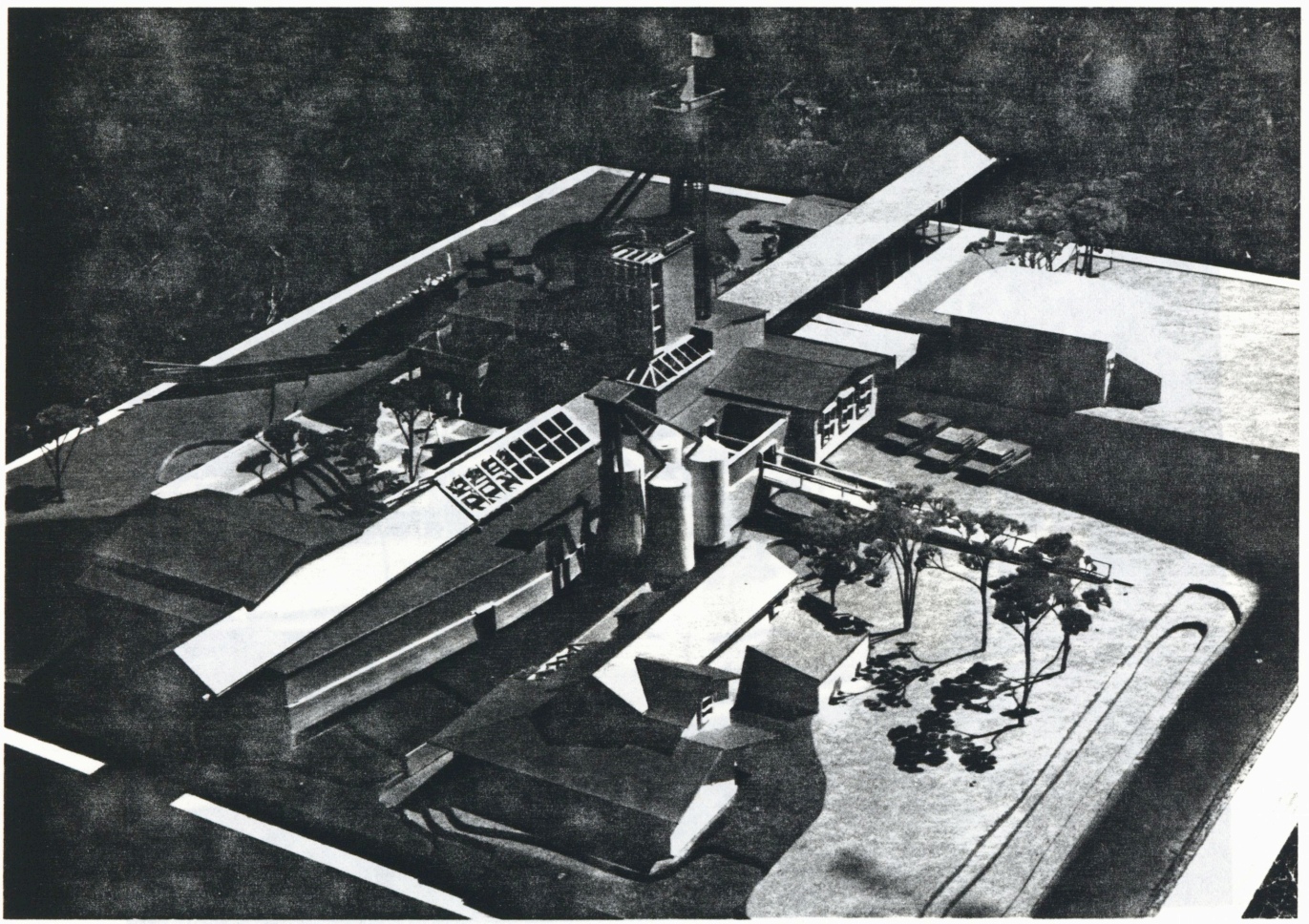
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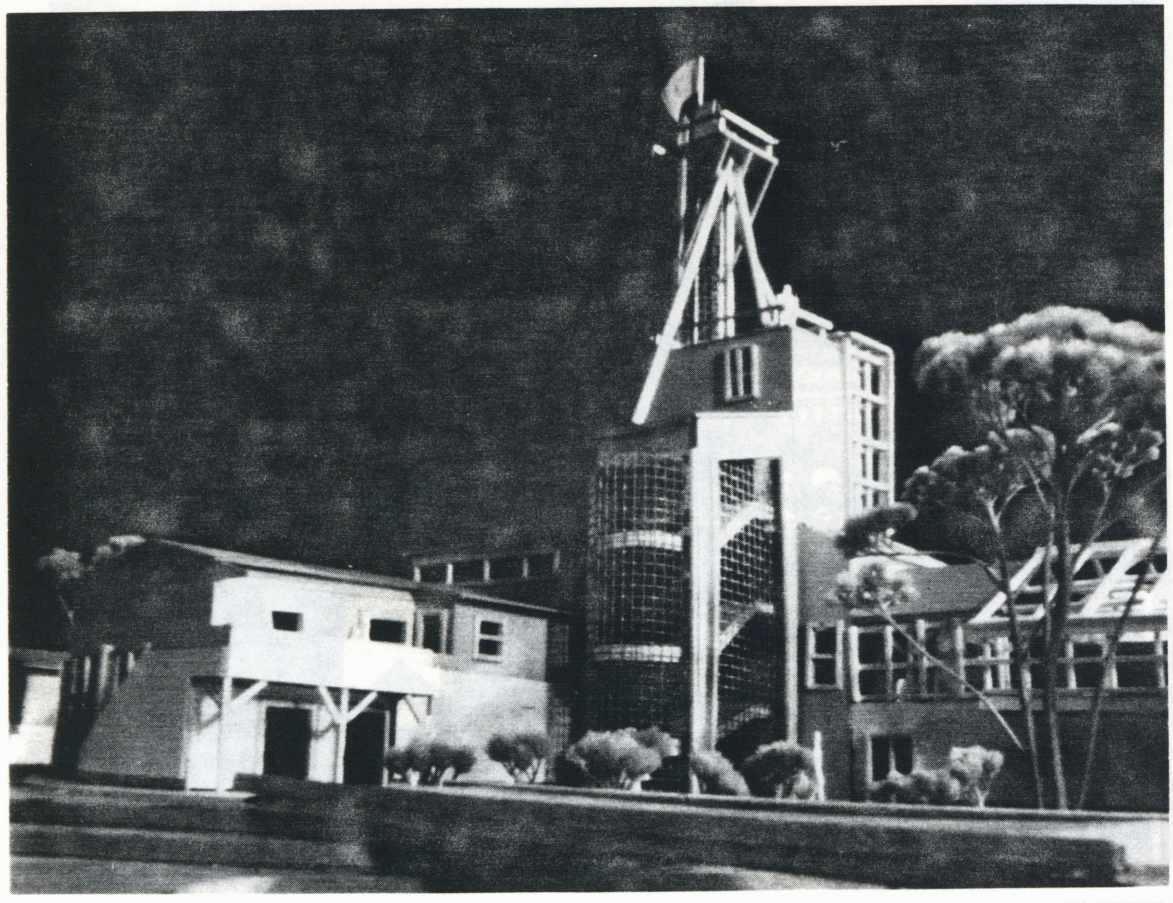
document the realized design in its final presentation format.

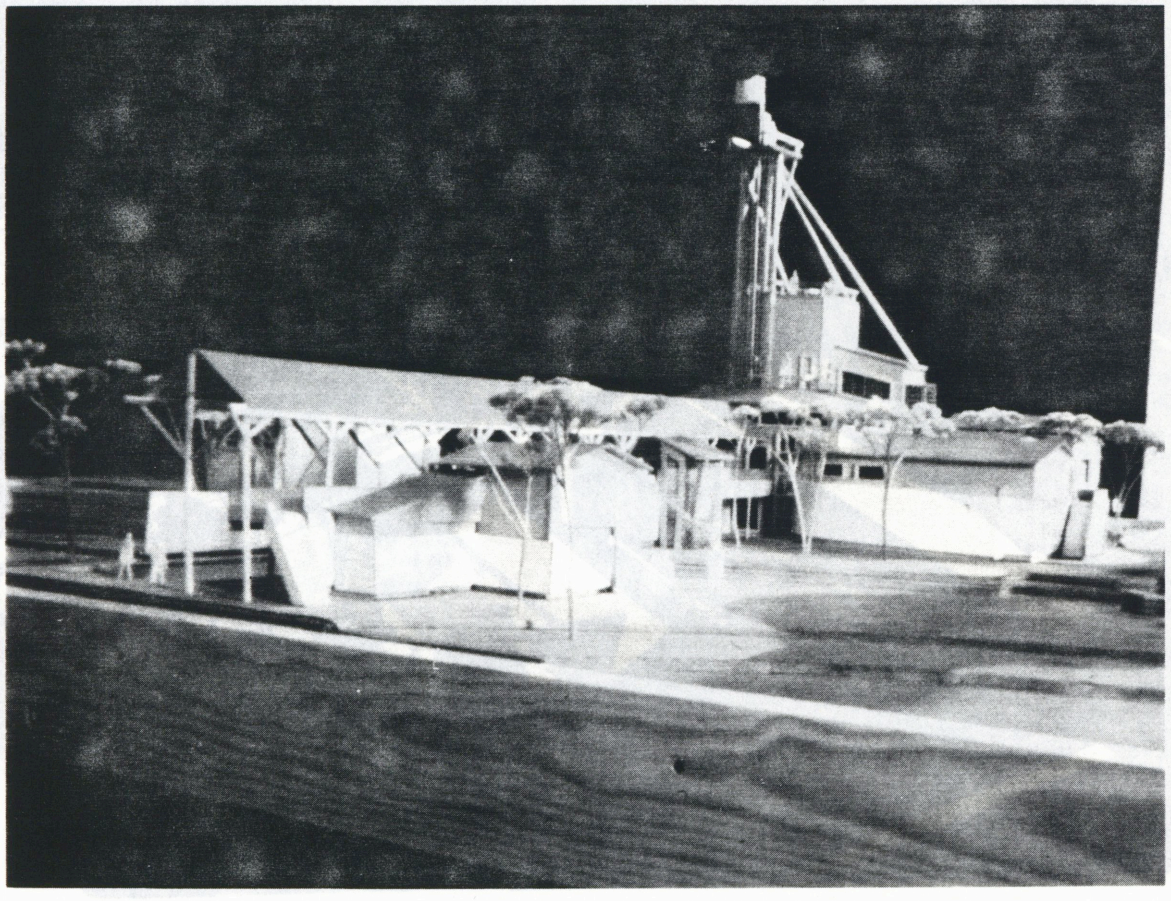


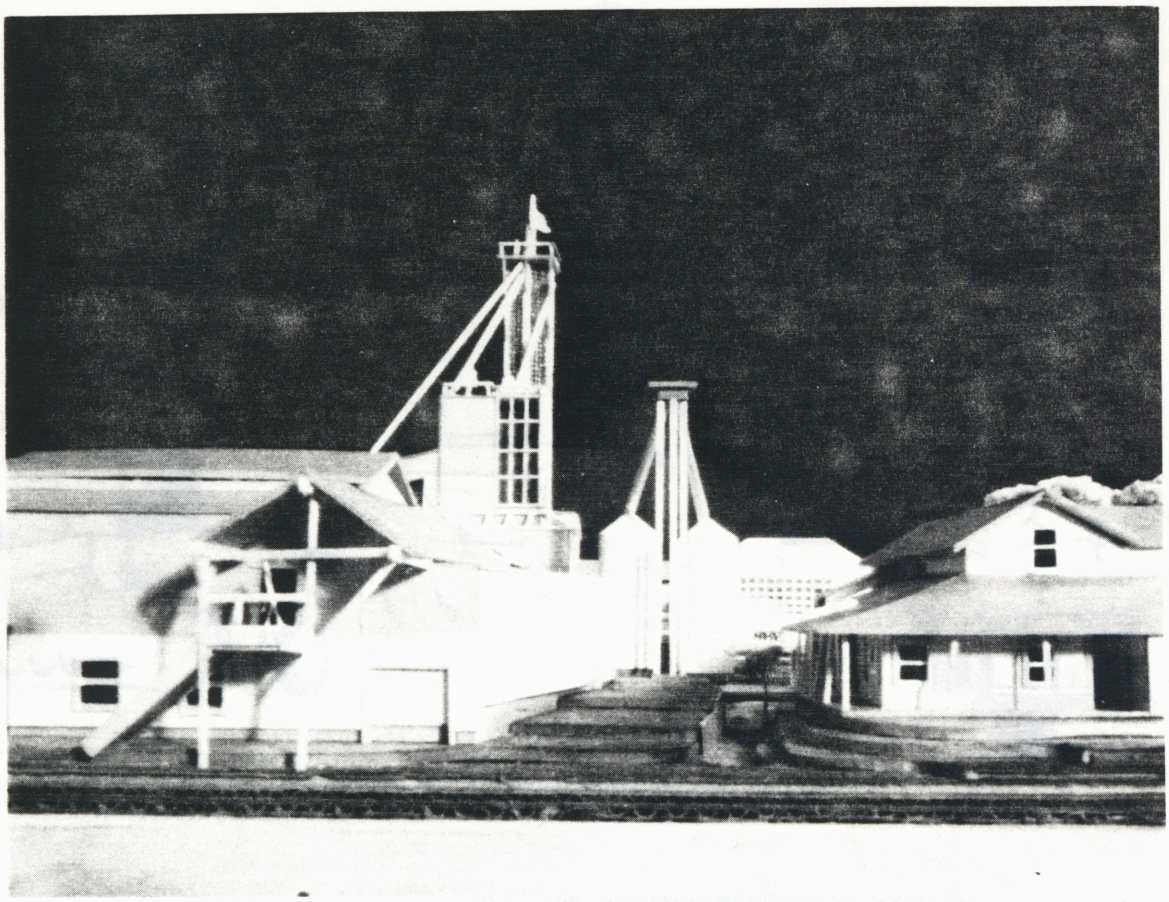


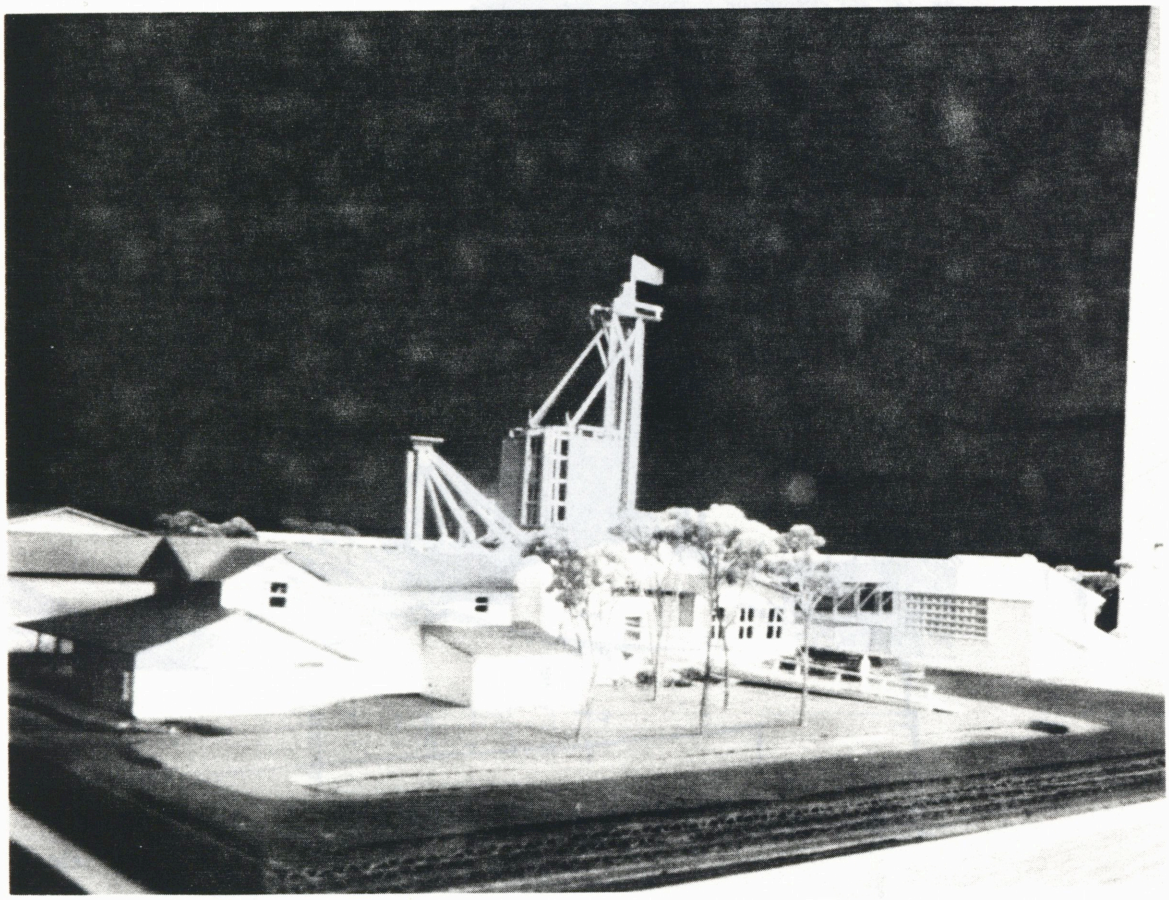


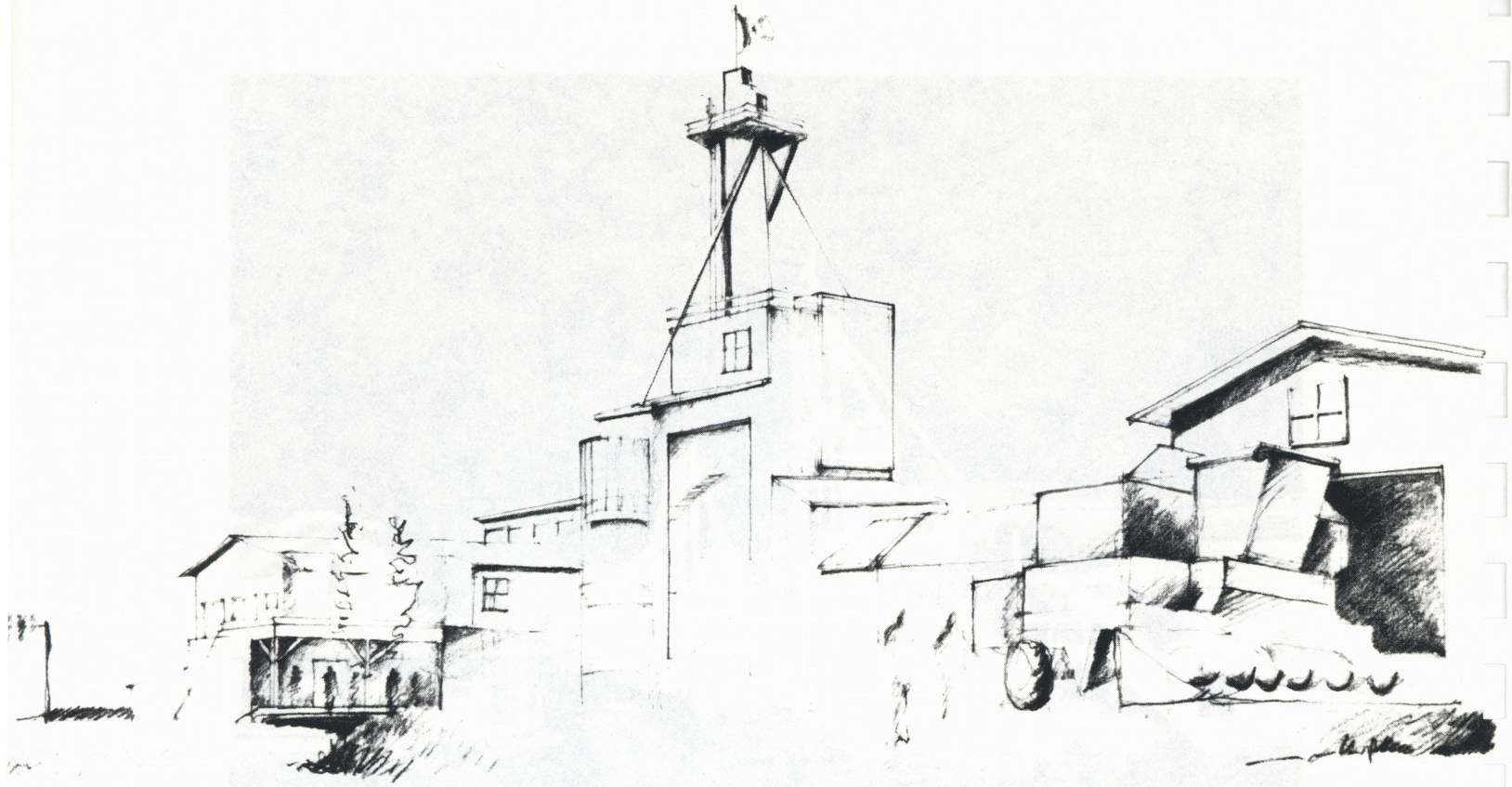


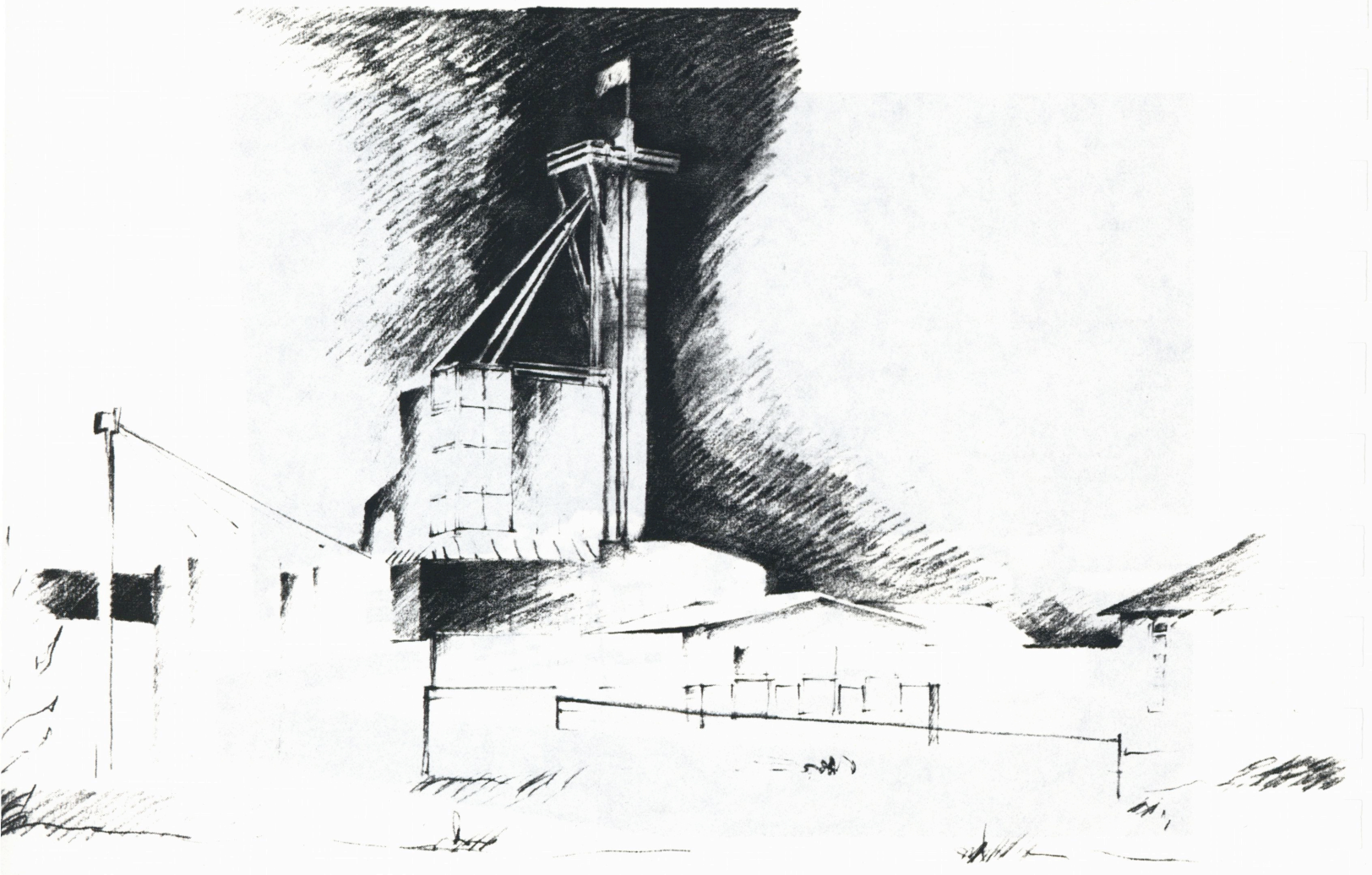




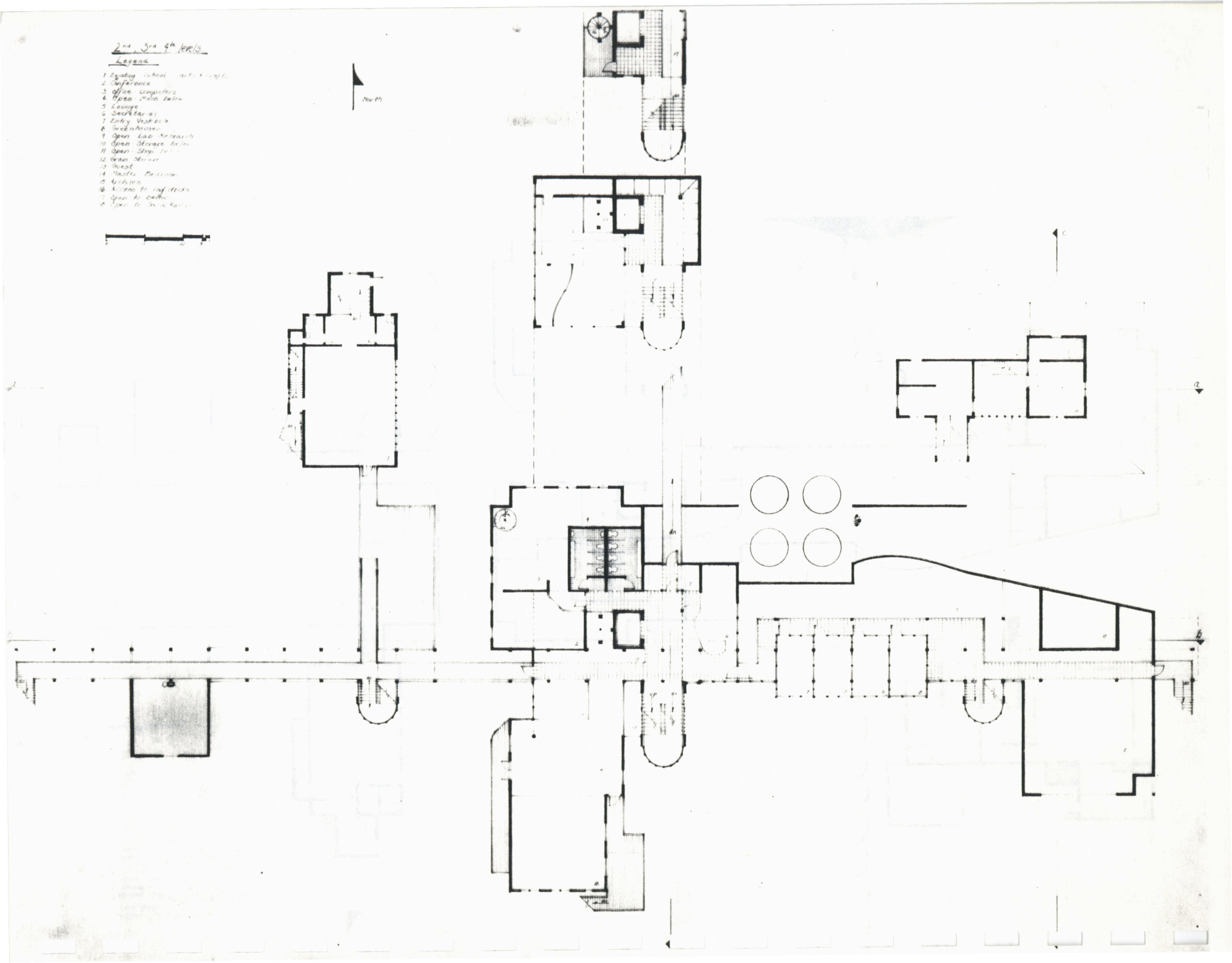


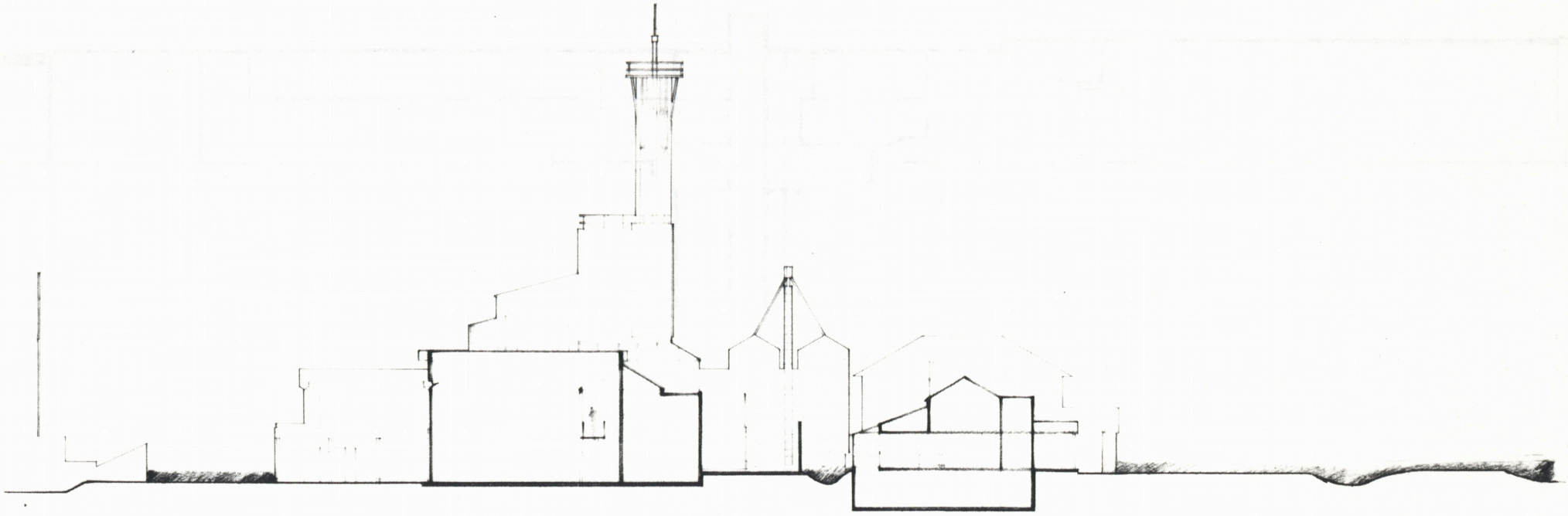




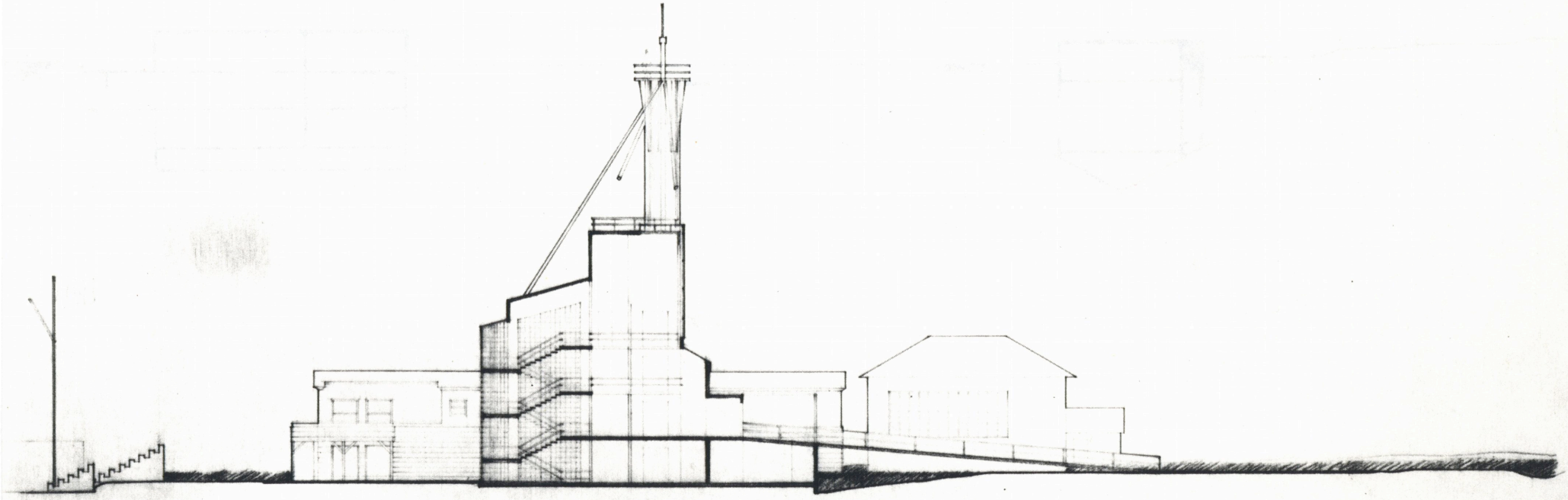


Ground Level Plan
Legend
North

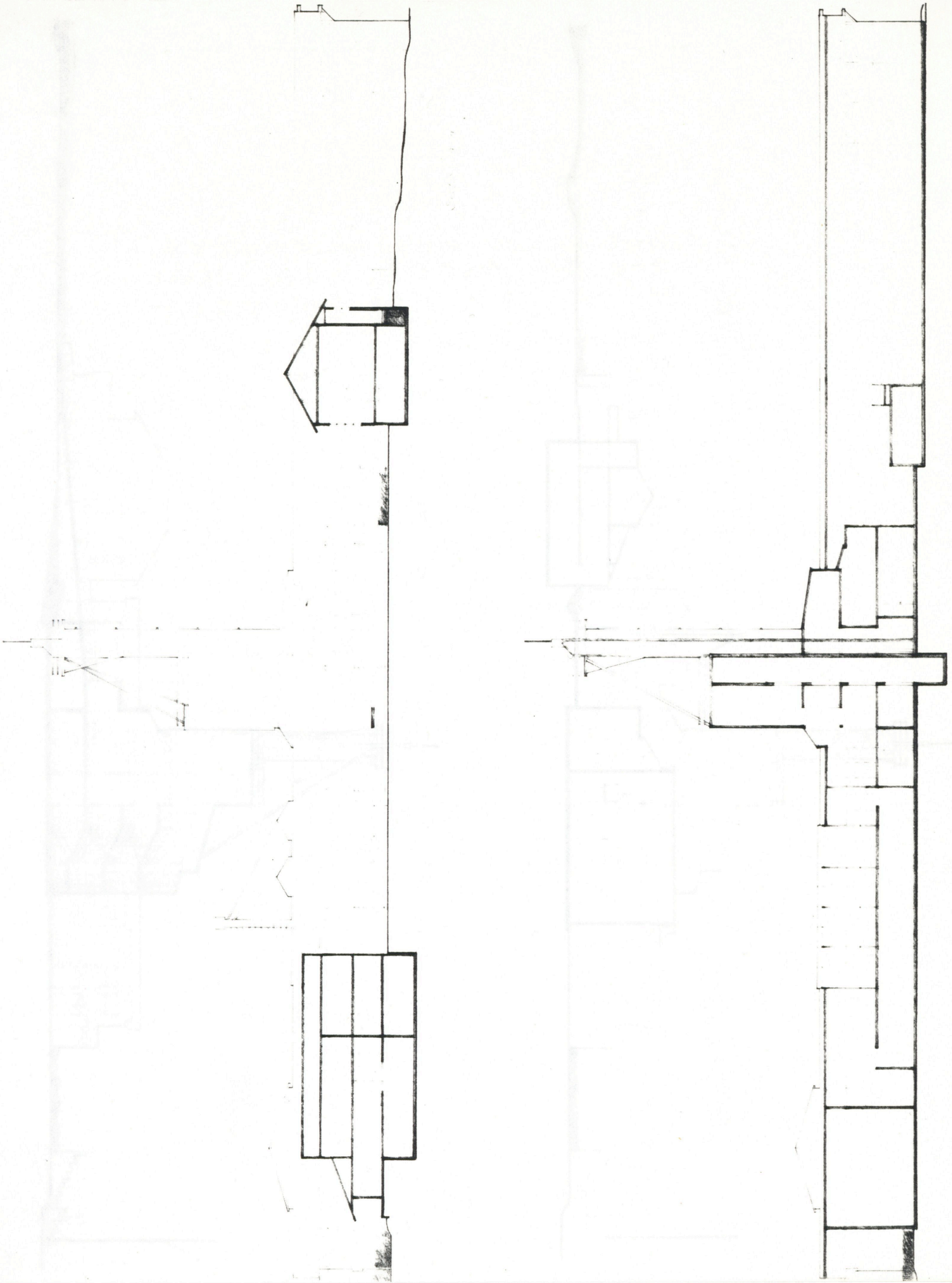

2nd, 3rd, 4th levels
Legend
1 Existing school
2 Conference
3 office computers
4 Open to below
5 Lounge
6 Secretarial
7 Entry Vestibule
8 Greenhouses
9 Open Lab Research
10 Open Storage below
11 Open Shop below
12 Grain Storage
13 Guest
14 Master Bedroom
15 Kitchen
16 Access to roof decks
17 Open to below
18 Open to below
North



Section c-c



Section d-d



Project Synopsis - Conclusion

- Modernism and technology has stylized and rationalized itself to the exclusion of much sensitivity needed in the built environment.
- Good sensitive design is borne out of sensitive emotions to people and place and out of energy and desire to accomplish such.
- Contextural design involves dangers of being too familiar with a site and narrowing the directions of design too early.
- It is not necessarily correct to fit program into a desired image or typology.
- Despite the energies needed, and the inherent complexities and contradictions, architectural design must be a rationalized approach. It may be a complex and contradictory society we live in, but people still look for that which unifies.
- Vernacular architecture is not a style, but a very localized set of attitudes towards the built environment.

Footnotes

1 Gans, Herbert; "Towards a Human Architecture. A Sociologists View of the Profession" *VAE* Spring 1978; p.26.

2 Venturi, Robert; *Complexity and Contradiction in Architecture*, the Museum of Modern Art N.Y. New York Graphic Society, Boston MA. 1966, 1977; p.16.

3 Moore, Charles; "Complexity Becomes the Order of the Day" *Architecture* May 1985, AIA Journal Washington D.C., Donald Canty, editor in chief; p.250.

4 Pastier, John "Distillation of a Paradoxidcal City" *Architecture, May 1985, AIA Journal, Washington D.C., Donald Conty, editor in chief; p. 203*

5 *Norberg-Shultz, Christian; Genius Loci, Towards A Phenomenonology of Architecture*, Rizzoli Intl. Pub. NY NY 1979; p.19.

6 Moore, Charles; *Place of Houses*, Holt Rinehart, Winston, NY, NY, 1974; p.3.

7 Frampton, Kenneth; *Modern Architecture, A Critical History*, Oxford University Press, NY, NY, 1980; p.197.

8 Ibid 5; p.196.

9 Ibid 4; p.203.

10 Le Corbusier; *Towards A New Architecture* (first published as *Vers Une Architecture*, 1923) translated by Frederick Etchells, London, The Architectural Press, 1946,; p.33.

11 Starr, Frederick S.; *Menikov, Solo Architect In a Mass Society*, Princeton University Press, Princeton, N.J. 1978; p.59.

12 Whiteson, Leon, et al; *Modern Canadian Architecture*, Hurtig Publishers Ltd., Edmonton Alberta, 1983; p.15.

13 Ibid 12; p.15.

14 Currie, Clarence et al; *Orkney*, Orkney Historical Society, Inter Collegiate Press, Winnipeg, Manitoba, 1982; p.26.

15 Kelbaugh, Doug; "An Architecture of Place" *Arcade*, The Northwest Journal for Architecture and Design, Vol. V, No. 5, pp.10-11.

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Canty, Donald, editor in chief *Architecture AIA Journal, Washington, D.C.;* Moore Charles, "Complexity Becomes the Order of the Day pp. 250-251; Cesar Pellis' Herring Hall pp. 174-181, Robert Sterns residence at Chilmark pp 262-266, Frank Gehrys' Loyola Law School pp. 202-207.

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Futagawa, Yukio, ed; *GA Document II* Dai Nippon Printing co. Ltd., Tokyo. "Ralph Erskine; Frescati Campus, Stockholm University", pp 102-109 "Sverre Fehn; Hamar Bispegard Museum, Hamar Norway" pp 72-81.

Gans, Herbert; "Toward A Human Architecture, A Sociologists View of the Profession" *UAE Spring 1978* ACSA Washington D.C. pp 26-31.

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Kelbaugh, Doug' "An Architecture of Place" Archade, The Northwest Journal for Architec ture and Design, Vol. V, No. 5

Lesear, Paul; *Graphic Thinking For Architects and Designers*, Var Nostrand Reinhold Co. NY NY, 1980

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Whiteson, Leon; *Modern Canadian Architecture*, Hurtig Publishers Ltd. Edmonton, Alberta, 1983.

Woiwade, Larry; ;*Beyond the Bedroom Wall*, Farrar, Straws, Giroux, NY, 1975.

Appendix

Interviews

Allan Taylor MSU Agriculture Professor
Sept. 25/84 8am in person
- soil type - production envi.
production value
facilities - equipment storage
office laboratory space
dollar limitation beyond essentials is designers option.
Canada seperation of nationalities
stark elevators and yet attention to other things than just the necessities of life.
result - groups haven't melted together
- more money for resources.
Montana was relatively the same but regulation is too high in USA.
Bldg - no special requirement.
wet lab space
analysis of tissue culture
repair and maintenance of heavy equpmt.
climate controlled seed storage.
Greenhouse necessary for horticulture
- growth chambers
- Walk-in cabinets
Locals have to be behind it!
All production modes and factors need not, and sometimes cannot be afforded.
3 professional people - several 2man stations
Seed handling to be seperate.

Tom Krahn - Director, Alberta Agriculture Research @ Brooks, Alberta Sept 13/84 Phone Interview.

practicality - what research, plants

Soils and Drainage
- related to grain crops
- size equint.

provincial set-up rather than municipal, federal.

Chinook Applied Research
Starting @ Oyen - Cereals & Oil Seeds

Tom Krahn personal interview Oct 11/85.

Reaction to Working Drawings.
Everything is there, big flexible spaces
Good that everything is compact.

Justify program functions through area being served Is the area big enough - soil type that unique?

Jack Hazelwood - Alberta Agriculture District Agriculturalist for M.D. of Kneehill. Personal interview Oct 12/85

Orkney is small, but the soil is indeed tops in the municipality. Would take a lot of local support time, and money, but the scope of the project is definitely feasible. Interesting to combine both research and social activities. That is actually what the first research Bldgs. were.

Jury for Thesis I Dec 10/85 MSU.

George McClure: Where did you get the program?
Spell out what you are doing for evaluation.
How did Vernacular develop?
Deal with constraints creatively.

Clark Llewellyn - if Adhocness is so successful why fool with it?
Users and development change on site
Change is as impt. as preservation
Deal with issue of the significance of style.
Identify what has changed. We sometimes force static preservation vs. dynamic change.

Pete Kommers - People as they interact w/ place must determine project.

Presentation to family - Dec 20/85
Why does the project have to look like a farm?
Are you sure your locations should be where they are? Why couldn't the facility be next to the school?
The idea of continuous second level circulation for viewing and access is a good one

Final Jury, March 18 1986

George McClure - Need for modular consideration of materials. Available sizes could really influence design. Be carefull where roofs are intersecting with different planes.

Clark Llewelyn - Plans appear very machined Richard Meir - like, but forms and massing are different.

Pete Kommers - Plan seems so contained to 30x40 format. No sense of really reaching out to prairie. Questionable as to necessity of preserving the school.

Francis Woods - Uniqueness of intent good. Entry is weak. Boildings appear very crammed together. Need of greater interest in Erskine - very good architect.

Code

From Alberta Building Code 1985

Occupancy A-1 Assembly Occupancies
C Residential Occupancies
F-2 Medium Hazard Industrial Occupancies
(def. 1-3-2 when combustible content > 50 kg/m²)

Area per person (Table 3.1.14A)
Space with nonfixed seats
.75 m²/person (1m² = 10.763 ft²)
= 8.07 ft²/person

Assembly Hall $\frac{1350 ft^2}{8.07}$ = 167 people max. capacity

dining 1.2m² = 12.9 ft²/person
$\frac{1350 ft^2}{12.9}$ = 104 people max capacity

Toilets (Subsection 7-2-2)
1 each / 25 females
1 each / 35 males

∴ 4 toilets women
3 toilets men, 2 urinals

To design mixed use occupancy
Table 3-13A
mixed occupancy with 2hr. fire rating.

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Thanks to all and God bless

Stacy

Do nothing out of selfish ambition or vain conceit, but in humility consider others better than yourselves. Each of you should look not only to your own interests, but also to the interests of others.

Phillippians 2:3,4 NIV.

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