THE BURRELL COLLECTION: RESEARCH IN MUSEUM AND EXHIBITION SPACE PLANNING

Submitted in partial fulfillment of the requirements for the degree of MASTER OF ARCHITECTURE at the Massachusetts Institute of Technology.

May 12, 1972

Robert J. Couch

Imre Halasz
Thesis Supervisor

Donlyn Lyndon
Chairman of the Department of Architecture
ABSTRACT

THE BURRELL COLLECTION: RESEARCH IN MUSEUM AND EXHIBITION SPACE PLANNING

Robert J. Couch

Submitted to the Department of Architecture at the Massachusetts Institute of Technology, May 12, 1972, in partial fulfillment of the requirements for the Degree of Master of Architecture.

This thesis proposes an architectural solution for the housing and display of 8,000 art objects which comprise the Burrell Collection, Glasgow, Scotland.

Included is a compendium of theoretical and technical information pertinent to museum design and exhibition space planning.

Thesis Supervisor: Imre Halasz
Title: Visiting Professor of Architecture
Cambridge, Massachusetts
May 12, 1972

Dean William Porter
School of Architecture and Planning
Massachusetts Institute of Technology
Cambridge, Massachusetts

Dear Dean Porter:

I herewith submit my thesis entitled:

"The Burrell Collection: Research in Museum and Exhibition Space Planning"

Very truly yours,

Robert J. Couch
DEDICATION

to bill lacy
bob church
and the school in tennessee
INTRODUCTION

The Burrell Collection has been a six month working discipline allowing me better to understand the processes of building and landscape design. It has been a process of reading and synthesizing information pertinent to museums; a process of coming to grips with the diversity of nature and its role contiguous with a building. This project concerned placing, in a correct way, a building into a meadow. As it progressed, my feeling for that which was inviolable changed. Whereas my previous concern was to work toward preservation of TREE (the symbol of man's ecological balance), I came in this instance to revere open meadow as that which was irreplacable.

More than half my time was spent in site analysis; there were months of drawing diagram after diagram, that slowly, after shifting from center to edge location, became scaled to a person in a building, namely the Burrell Collection on the Pollok Grounds hillside.

PART ONE of this thesis is that portion which will be of concern to the reader in search of information relative to the generic heading of museum and exhibition space planning.

PART TWO of this thesis concerns the specific problem of the Burrell Collection and its site in Pollok Grounds.

PART THREE is concerned with the methodology of my thoughts and working procedures during the design of the museum.
This project, because of its site, was a good experience for me, and I grew from it. And so it is in deep respect for this stuff called experience that I add a note concerning education in general. I find it impossible to give my feelings more clarity than Katherine Anne Porter has in discussing Eudora Welty, the author:

A young artist should grow, with pride and independence and the courage really to face out the individual struggle; to make and correct mistakes and take the consequences of them, to stand firmly on his own feet in the end. I believe in the rightness of Miss Welty's instinctive knowledge that writing cannot be taught, but only learned, and learned by the individual in his own way, at his own pace and in his own time, for the process of mastering the medium is part of a cellular growth in a most complex organism; it is a way of life and a mode of being which cannot be divided from the kind of human creature you were the day you were born, and only in obeying the law of this singular being can the artist know his true direction and the right ends for him.

I would like to express my sincere gratitude to the following people whose assistance in whatever form made the project possible.

Advisors
Imre Halasz
Ram Karmi

Critics
Andy Leinoff
Susan Hendrich
Romando Giurgola
Dean Emeritus Anderson
Wayne Andersen
Tony Dougdale
Avraham Wachman

Robert J. Couch
Cambridge, Mass.
Grow gracefully out of the background that has been and still is yours.

Minor White
### TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>PART ONE</th>
<th>Research in museum and exhibition space planning</th>
<th>9.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A. Theoretical research</td>
<td>10.</td>
</tr>
<tr>
<td></td>
<td>B. Technical research</td>
<td>16.</td>
</tr>
<tr>
<td>PART TWO</td>
<td>The Burrell Collection</td>
<td>25.</td>
</tr>
<tr>
<td></td>
<td>A. General conditions</td>
<td>26.</td>
</tr>
<tr>
<td></td>
<td>B. The collection</td>
<td>35.</td>
</tr>
<tr>
<td></td>
<td>C. The program requirements</td>
<td>46.</td>
</tr>
<tr>
<td>PART THREE</td>
<td>Methodology</td>
<td>66.</td>
</tr>
<tr>
<td>FOOTNOTES</td>
<td></td>
<td>70.</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td></td>
<td>71.</td>
</tr>
<tr>
<td>APPENDICES</td>
<td>A. Program information</td>
<td>76.</td>
</tr>
<tr>
<td></td>
<td>B. Early sketches</td>
<td>79.</td>
</tr>
<tr>
<td></td>
<td>C. Design</td>
<td>87.</td>
</tr>
</tbody>
</table>
PART ONE

RESEARCH IN MUSEUM AND EXHIBITION SPACE PLANNING

A. Theoretical Research

I really don't know that it is so
I only sense that it is true

Louis Kahn
This portion of the thesis consists of information obtained through reading various publication concerning the theoretical issues that made and are still forming the contemporary museum. Its contents are generic; it is this portion that will be of interest to the reader searching for issues applicable to his own museum design.

The evolution of the museum in history is indeed a fascinating subject; its beginnings were less philanthropic than one might expect. I have made no attempt to list any of these remarkable facts, but for the reader who is interested in such, I recommend the following:

Museums: In Search of a Usable Future
Alma Wittlin

Ms Wittlin has a rather ponderous account of the evolution of the desire to exhibit, and brings the reader to the inconclusive present.

For a condensed version of the same material, the reader is referred to:

The Teaching Museum

It is with great pleasure that I introduce to the reader Mr. A.E. Parr, Senior Scientist at the American Museum of Natural History. Mr. Parr's writings have more to offer an architect pursuing the design of a museum than anything I have found. The following pages are taken from the material by Mr. Parr in the bibliography.
Selected Papers, 1959-1967
A.E. Parr

It is the form and dimensions of the interior spaces that are of primary concern to the museum worker.

The public museum, born of the curio cabinets of private collections — palatial settings for gala events of state.

While many great museum halls continued to be built and used for exhibition, it is interesting to note a tendency to revert to the original purposes of the architectural tradition in which these halls were designed.

Earlier in the twentieth century, a purely ceremonial great hall, larger than any of the exhibition rooms, appeared in many museum plans. According to its location in the total structure, it might be viewed as an entrance lobby in the grand manner of the great open houses, or as a central hall of state connecting the surrounding exhibition areas.

But much that was lost was spacious and inspiring, and much that was not allowed to be born could have provided areas of serenity and a stimulating change of pace in our crowded existence between rectangular walls and under flat ceilings.

The size of the object should dictate the size of the space.

Mold the general shape of each hall to fit the
organization of its subject matter rather than the form of the objects it contains.

Mold the shape of each exhibition space to the configuration inherent in the logic of the subject.

It is not enough to avoid repetition of specimens; we must also avoid repetition of the larger impressions which the vistas of each hall present to the public.

Make them feel that they are having a pleasant walk through all the halls they wander through - even where the actual exhibits hold no particular interest.

The esthetic divorce between large-scale container and small-scale contents will be clearly revealed.

When the near scene of the exhibits begins to pall, the larger vistas will rest the eye and refresh the mind with a totally different set of impressions of another visual environment, just as the eye and the mind may seek the view from the window after too much reading.

Any theme to be exhibited has an inner logic suggestive of a geometric pattern.

A recognition of these infinitely varied patterns gives opportunity to mold the shape of each exhibition space to the configuration inherent in the logic of its subject.

The arcade is an outdoor area under shelter, a square, street or alley spanned by a roof between surrounding
buildings having the stores with their display windows.

How do I serve the needs of the seriously interested and well informed visitors without inflicting a too heavy diet of details on those less advanced in their appreciation of the article shown?

Is not this anonymous inter-mingling of window-shoppers and serious customer precisely the problem that confronts the museums in their approach to general adult education through the medium of their exhibition halls? And might it not be possible that the shopping center of today has already revealed to us the architectural form of the museum of tomorrow?

The larger the community is, the smaller is the percentage of its members that will attend a single, central museum.

It is extremely difficult to operate a one meal restaurant of quality and atmosphere appropriate to the dignity of a cultural institution.

The overall reward of a visit is much greater than the sum of the pleasures that the individual exhibits may give.

A psychological want need not be consciously felt and verbally articulated to have organic reality.

Also noticed among pedestrian spectators at the Seattle World's Fair was a tendency to walk faster when the contents of the surroundings decreased in the direction
of travel. If empty space actually speeds the visitors on their way...the attempt to create "restful" intervals between museum exhibits is wrong.

...tidiness of appearance does not necessarily increase the appeal of an exhibit or its ability to communicate, and may, when overdone, actually lead to boredom instead.

Even the interior aspects of architecture and decor were generally not manifestations of exhibition designs, and exhibits were installed in the manner in which we still try to arrange our furniture in a rental building, although much less charming in results because rigid scholarly discipline rather than seductive charm is the guiding principle of the curator's efforts.

The quality of an exhibit of this kind depends not only upon its interior logic and esthetic, but also upon its relationship to the broader scene in the observer's marginal field of vision and his changing points of perspective.

Among the advantages of the molded interior volume over the open treatment of total available space are the much greater opportunities for surprise and the much sharper accent on changes of pace made possible by close perspective.

...be aware of the pattern of experiences an institution offers its visitors.

Art is the medium of communication by esthetic experience. It is designed to move our minds as the vehicle in a museum of transportation is made to move our bodies.
A knowledge of how the mind functions in the perception and appreciation of art is therefore quite as essential for an interpretation of the meaning of art as is a knowledge of the laws of gravity for the explanation of an automobile.

If they (the art museums) do not take an interest in the processes that link the mind of the artist to his art, and the art to the mind of the beholder, there is not much reason to hope that others will.

The art museums are largely innocent of sponsorship or contribution of what little we know of the mysterious ways of the spirit that produce our overt response to the art they place before us.

And perhaps the day is not too far away when art museums will include, as normal features of their program, the psychological study of esthetic experience and artistic expression of the effective cognitive, sociological and biological determinants of our sense of beauty, of the logic and analytical geometry of abstraction, and many similar facets of man's relationship to art.

And, when this ultimately happens, I can finally hope to find myself someday in an exhibition that does not primarily aim at increasing my awareness of the passage of time, or my mental saturation with the works of a particular school or individual, but simply tries to help me reach a higher communion with all art and a deeper insight into its meaning, without regard to time, place or name.
PART ONE

B. Technical Research

Many fishes and water beetle larvae orient themselves with their eyes toward light...water beetle larvae swim up to the surface to get air. If an aquarium is illuminated from below, the animals will swim to the bottom and turn their back to it as if it were the surface.

Unless the illumination is reversed the animals will suffocate there...

Ethology: the Biology of Behavior
Irenaeus Eibl-Eibesfeldt
Noted here are excerpts from two treatises. The first, "A New Look at Colour Rendering, Level of Illumination, and Protection from Ultraviolet Radiation in Museum Lighting," by Gary Thomson is a must for anyone attempting museum design.

The second excerpt is from The Teaching Museum by John Stopfel and concerns circulation in exhibition rooms. Mr. Stopfel's source was Mildred Porter's Behavior of the Average Visitor in the Peabody Museum of Natural History, Yale University.
"A New Look at Colour Rendering, Level of Illumination, and Protection from Ultraviolet Radiation in Museum Lighting"

Light causes many different kinds of deterioration in museum objects, the most common being the fading of dyes, the weakening of textile fabrics, and the discolouration and embrittlement of paper. Heat and humidity may also cause great damage.

Materials differ in the colours of light which cause them harm, but in general ultraviolet is the most potent, followed through the spectrum by blue and the colours in order, with red as the least potent of the colours.

The bulk of ultraviolet light received by the exhibits will come from the daylight.

The more resistant a material is to deterioration by light, the more its eventual deterioration will be caused by ultraviolet rather than visible light.

All light causes fading. Ultraviolet is useless in the museum and is a potent destructive agent. Apart from the objects of metal, stone and ceramic, a very wide range of museum objects are susceptible to damage by light. Therefore:

1. The level of illumination must never be excessive.
2. Ultraviolet should be removed as a first priority from sunlight, but also from fluorescent light, unless it is used only intermittently for low illumination.
<table>
<thead>
<tr>
<th>Objects insensitive to light (e.g. metal and stone.)</th>
<th>Daylight. Fluorescent light at about 6500°K or about 4200°K</th>
<th>Rarely necessary to exceed 300 lux (30 lm/sq.ft.) except for special emphasis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most museum objects, including oil and tempora paintings.</td>
<td>Daylight. Tungsten light. Fluorescent light at about 4200°K</td>
<td>Not more than 150 lux (15 lm/sq.ft.)</td>
</tr>
<tr>
<td>Specially sensitive objects (water-colours, textiles, tapestries, etc.)</td>
<td>Preferably tungsten filament lamps</td>
<td>Not more than 50 lux (5 lm/sq.ft.) and less if possible</td>
</tr>
</tbody>
</table>
Materials which are at all sensitive to light cannot escape some harm even in dim light. It can be assumed that damage is proportional to the level of illumination multiplied by the time of exposure. Thus, any device which reduces total exposure, such as individually operated light switches, curtain, temporary withdrawal from exhibition, etc. is to be welcomed.

Certain chemicals have the property of being able to absorb almost all the ultraviolet light, but almost none of the visible...Any one of them can be added either to a varnish or to a transparent sheet of plastic to make an effective ultraviolet filter. Ordinary window glass absorbs only the shorter wavelengths of the ultraviolet. So far no ultraviolet-absorbing glass has been developed as effective as these organic filters.

Ultraviolet filters must be placed between the light source and the objects illuminated.

At present, ultraviolet filters are available as transparent sheets or varnishes for glass coating.

...under tropical conditions, direct sunlight falling on an ultraviolet filter may so reduce its life as to render it impractical. In certain cases, reflection of the light from a white surface may be possible. It seems evident that a zinc-oxide pigment (perhaps mixed with a proportion of white lead to improve stability) is to be recommended, for zinc-oxide has a high absorption of the ultraviolet.

The coat of protective filters could not be a large item in any museum budget in the northern hemisphere,
either in regard to installation or maintenance.

The normal human eye is most sensitive to the green and yellow light in the middle of the visible spectrum, and much less sensitive to blue and red light.

It is a matter of subjective judgement and taste whether a museum will appear satisfactory under tungsten light as well as under daylight, though the conservator should bear in mind that tungsten is one of the least damaging of light sources.

**Colour Temperatures of Pre-Fluorescent Lighting**

<table>
<thead>
<tr>
<th>Description</th>
<th>Colour Temperature K</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room lit by a very blue sky, but not by the sun</td>
<td>above 10,000</td>
</tr>
<tr>
<td>Room lit by an overcast north sky</td>
<td>6000-7000</td>
</tr>
<tr>
<td>Room lit by a noon sun, with slightly hazy sky</td>
<td>5000-6000</td>
</tr>
<tr>
<td>Room lit by low sunlight (80° below zenith)</td>
<td>4000</td>
</tr>
<tr>
<td>Carbon arc</td>
<td>3800-6000</td>
</tr>
<tr>
<td>Over-run tungsten filament ('Photoflood')</td>
<td>3200</td>
</tr>
<tr>
<td>Gas-filled tungsten (the ordinary electric light bulb)</td>
<td>about 2800</td>
</tr>
<tr>
<td>Candle flame</td>
<td>about 1900</td>
</tr>
</tbody>
</table>

As a general rule never exceed 150 lux (15 lumens/sq. ft.). Use automatic shutters for daylight to ensure this if necessary. There should be no sharp transitions from high to low illuminations in museums, unless for
special effects. For sensitive material any device for reducing exposure, as well as a low level of illumination, should be practiced.

For the exhibition of tapestries, textiles, all kinds of painting, and all material in any way sensitive to light, ultraviolet light should be removed with filters. This is important for daylight illumination, and for fluorescent light where it gives a fair proportion of the light. It is not necessary to put ultraviolet filters over tungsten filament lamps.
Studies conducted by Mildred C.B. Porter at Yale's Peabody Museum of Natural History in the 1930's proved that the positions of entrances and exits in an exhibition room are critical in determining the effectiveness of exhibits and the length of time a visitor is likely to spend in the room. It was discovered that the natural tendency of about 80% of the people is to turn to the right upon entering an exhibition room and that consequently, displays located to the right of an entrance usually receive far more attention than those located to the left. It was also shown that short circuiting is likely to occur if the exit from a room is too near its entrance or if it is in some way emphasized so as to unduly attract the attention of persons entering. The accompanying diagrams show the relative desirability of several possible entrance and exit schemes for exhibition rooms.
In so far as possible these natural tendencies should be recognized and taken advantage of to insure the greatest possible amount of viewer exposure to the displayed material.
An acrobat is no puppet.

He devotes his life to activities
in which, in perpetual danger of death,
he performs extraordinary movements
of infinite difficulty, with disciplined
exactitude and precision...free
to break his neck and his bones and
be crushed.

Nobody asked him to do this.
Nobody owes him any thanks.
He lives in an extraordinary world, of the acrobat.
Result: most certainly! He does things
which others cannot.

Result: why does he do them?
others ask. He is showing off;
he's a freak; he scares us; we pity him;
he's a bore.

Le Corbusier
Creation is a Patient Search
Sir William Burrell

Sir William Burrell was born in Glasgow in 1861 and was the inheritor of a family shipping firm which he managed with an elder brother until 1917 when the fleet was sold. Sir William had begun buying works of art as a boy; after the sale of the shipping fleet he began to collect on a far more extensive scale than hitherto, and he continued to add to his collection long after every room and passageway at Hutton Castle, the large residence near Berwick-on-Tweed to which he and Lady Burrell retired in 1927, was completely furnished with tapestries, stained glass, furniture, Persian carpets and other objets d'art. Between making the gift in 1944 and his death in 1958, his acquisitive zeal was still strong and during these years he rounded off his life work with the addition of a notable collection of ancient art.

Sir William was knighted for his services to art in 1927. For many years he was a trustee of the National Gallery of British Art (now the Tate Gallery) and of the National Gallery of Scotland. His collection, which today numbers about 8,000 objects, ranks among the largest ever formed by one man and is regarded as the most magnificent gift of art treasures ever made to a municipality.

The Collection

Sir William's chief interest as a collector was focused on the later Middle Ages and the Renaissance. With the exception of one or two hangings of the 17th century and
some tapestry-covered furniture of the 18th, all the tapestries for which the collection is chiefly famous are of this period. This also applies to the stained glass, although much of the glass is from an earlier part of the Middle Ages to which hardly any tapestries anywhere can be ascribed.

The large Medieval and Renaissance stone portals and windows which Sir William acquired in 1954 from the Hearst Collection provide a reference for the tapestries, stained glass, sculpture and metalwork of these periods.

The furniture, apart from a few earlier pieces, is chiefly of the 16th, 17th and early 18th century and most of it, like the silver and needlework which broadly speaking are spread over a similar time range, is English. To the 17th and 18th centuries also belong the lace, the glass vessels, the porcelain figures, and some of the pictures which include a Rembrandt, a Hogarth and several Raeburns. The collection of paintings by French artists of the 19th century includes works by Gericault, Courbet, Daumier, Boudin, Manet, Degas, Cezanne and others.

Although primarily interested in medieval art, Sir William was also a great collector of the art of the Far East and Near East over a long period. The collections of Chinese pottery, bronzes and jades and of Persian carpets, pottery and metalwork are splendid additions to the European section. The Chinese pottery is particularly numerous and covers almost the entire history from neolithic times to the 18th century AD. The collection of Persian carpets ranks high among the very few of its kind outside the national
museums and this could be said also of the Mesopotamian, Egyptian, Greek, Etruscan and Roman antiquities which Sir William acquired during the last fourteen years of his long life.

The Gift to the City of Glasgow

The Burrell Collection was given to the City of Glasgow in 1944 by Sir William and Lady Burrell, together with a large sum of money towards the cost of a new museum to house it.

In the deed of gift, it was stipulated that the museum should be built at least 16 miles from the center of Glasgow. The intention of this clause was to safeguard the collection (especially the tapestries), as it was feared that the level of atmospheric pollution obtaining at that time in the city was such that air conditioning, as then practiced, would not give adequate protection.

Sir William also had a strong desire that the collection should be housed in a rural rather than an urban setting. During his lifetime, in spite of the 16 mile stipulation, Sir William himself gave provisional agreement to two possible sites much closer to Glasgow, neither of which proved ultimately practicable.

When the possibility of the magnificent site on the Pollok Estate, only three miles from the center of Glasgow came up, agreement was reached between the Corporation and the Burrell Trustees that, in combination with a building with full modern air-conditioning, this site would meet the benefactors' desire for a pastoral setting combined with complete protection for the Collection.
The site was the gift of Mrs. Maxwell MacDonald and family to the Corporation of Pollok House and its policies extending to 361 acres, themselves a part of an estate of 1,100 acres of park and woodland which enabled the proposed site to be selected and approved as suitable. The Minute of Agreement governing this gift provides that the building to be constructed by the Corporation within which the Burrell Collection is to be housed, and the external design thereof and the site for the car park, shall be approved by Nether Pollok Limited, the National Trust for Scotland and the Burrell Trustees. In addition, the Burrell Trustees have a duty to see that the wishes of the donors, Sir William and Lady Burrell, are met.

Included among the conditions governing the gift of the Collection to the Corporation are the following:

(A) Nothing other than the Collection shall be housed in the proposed building within which the whole Collection shall be permanently shown;
(B) The Drawing Room, Hall and Dining Room of Hutton Castle (the Burrells' residence) are to be reproduced in the proposed building. The interested parties have agreed that these three rooms are to be reproduced as far as is practicable but that, in due course, there will be scope for the adjustment of the articles of furniture and other movable items to be placed in these areas.

In addition, the donors have recommended that the Collection shall, so far as possible, be shown as it would be if in a private home, with as little resemblance to a formal museum as possible. While regard must be had to the wishes of the donors, it should be
noted that this is a recommendation qualified by the phrase "so far as possible."

In this connection it should be remembered that the new building is to be a place where it is possible to enjoy a very personal collection, in settings where the visual element is allowed pre-eminence, and which exploit the opportunities of a superb site.

The Site in Pollok Park

The site on which it is proposed to house the Burrell Collection is known as the Picnic Field, an L shaped piece of grassland which slopes gently upwards to its narrowest point to the north. Here is placed a shelter erected by the Corporation, which need not be retained.

The Display of the Collection

The collection is a finite group of objects to which a building must be tailored. The layout should aim at an articulate relationship between the various parts of the collection, allowing for a considerable opportunity within the spaces for the curator to create the most eloquent juxtapositions of objects, and with regard to the differing kinds of visitor. The latter will vary from parties of school children, to the most specialized of scholars.

A first time visitor should be able to take in the best of the collection without mental indigestion and without being constantly faced with baffling choices of direction. Equally, they should be able to identify, and visit without difficulty, any one part of the Collection.
The assessors propose a main circuit which will take in just under half of the total display area, and the architect should relate the remaining spaces to this route.

Infinite flexibility (e.g. of internal partitions) is not required. There will be a certain short-term re-arrangement of exhibits to give regular visitors some variety, and there will be longer term changes as succeeding generations of visitors (or succeeding curators) place different accents on different aspects of the collection, but this would not call for a specifically adaptable building.

A great part of the collection consists of small objects which will inevitably be displayed in cases. Where wall cases are intended, sufficient space must be allocated to allow for back access for cleaning, re-arrangement, etc. This makes it possible for the cabinet fronts to be more simply designed and to offer better security for small objects.

Security

Large or small, all the objects are vulnerable, so that security from wear and damage, as well as theft, is vital. Adequate protection should be achieved without impairing a direct and natural style of display. Much of the collection can only be shown in cases and they should be considered as far as possible an integral feature of the design of the interior.

Supervision and control should be easy and economical. Security points should be able to command several spaces. Though TV monitoring might be included, easy
control by security personnel is essential.

The collection is of very great value and insurance premiums are a major maintenance item. The risk of fire is a considerable danger. The museum will require to be compartmentalized by sliding shutters in areas not exceeding 2000 m². There must be escape routes from each compartmented area.

Any proposal for garaging vehicles must provide complete separation from the collection, boiler or switch rooms, an efficient automatic sprinkler system and a ventilation system allowing 8 changes per hour.

Easy access for the Fire Brigade to all parts of the building is essential.

Access and Parking

The relation of the museum building to the site is crucial to the conditions of the Gift. The site, enclosed by well grown trees, slopes to the south in a setting of undisturbed parkland. All access roads run unobtrusively within the belts of trees.

Vehicular access to the site will be from the Pollokshaws Road entrance, up Pollok Avenue. Exit will be by the Haggs Road gate only. Within Pollok Grounds, traffic will be two-way to allow circulation between the museum and Pollok House. It is hoped that the existing estate road, with its tree lined verges, can remain unaltered.

Parking for 100 cars and 10 coaches is required. The coaches and 50 cars can be relatively remote from the
building. Coaches should be able to set down and return from the parking to pick up a party at the main entrance. The other 50 cars could be under cover as part of the building complex. If incorporated in a building contiguous with the museum, there must be a complete fire separation. No direct access into the museum will be allowed; passengers from cars must be brought by an easy and civilized route to the main public entrance.

Public lavatories are to be provided for both sexes in the vicinity of the car parking area. These should be 100 m², capable of being used when the museum is closed.

In this connection, note that there must be easy access to the museum, and circulation throughout the museum, for disabled people. The building should in all respects comply with the requirements laid down in Design for the Disabled by Selwin Goldsmith.

Soil Survey

Investigations revealed a substantial deposit of boulder clay at depths varying from 1.60 m to 7 m below ground surface overlaid by a firm sandy clay. As a guide for design purposes, it is estimated that strip or pad footings continued to depth of approximately 2 m may be designed to a net allowable bearing pressure of 160kN/m². For loadings in excess of this some type of pile and beam foundation might have to be considered.

Services

Water and gas supplies are available in Haggs Road.
A new electricity supply will be brought in to the site from the direction of Pollok House.

Surface water and sewage drains will be to Corporation sewers on the south boundary of the site.
PART TWO

B. The Collection

This portion of the thesis describes in detail the various parts of the collection, some brief history as to their origin and importance, and Sir William's affinity for them. The entire text is taken directly from the Burrell Collection Guidebooks.
Gothic Tapestries

One of the most significant things about tapestries - apart from their delightful qualities of color and design - is the extent to which they offer an interpretation of their period. There was a great development in the art of tapestry weaving in the 14th, 15th and 16th centuries, when the most brilliant and vigorous contemporary development of painting took place, likewise, in France and the French Netherlands. France is Mother of Gothic tapestries and the Gothic centuries were, above all, Christian centuries. Not only religion, but also history, romance and art were passionately Christian. All this is reflected strongly in the one hundred and sixty pieces of Gothic Tapestry included in the Burrell Collection.

There are tapestries from all the well known centers of the art, from Paris, Arras, Tournai, Touraine, and Brussels. There are representatives of nearly all the popular Bible stories - Credo tapestries illustrating articles of the Christian creed, Virtues overcoming Vices, incidents from the lives of the Prophets, and the Sybils (taken over from Pagan mythology and adopted into Christianity), Annunciations and Nativities, the Seven Sacraments, Lives of the Saints, David and Bathsheba, the Crucifixion, and many others.

The romantic and historical favorite stories are also well illustrated in several tapestries depicting incidents in the Trojan War - as told in the French 12th century verse of Benoite de Sainte Maure - "Roman de Troie" - incidents in the life of Hercules and also of Alexander the Great.
But the Gothic tapestries of the Burrell Collection are perhaps the more attractive by reason of the number of secular subject shown—Vintagers, the Seigneur in his Park, Hunting the Boar, Ferreting, Hawking, Camp of the Gypsies, Alfresco, and many everyday incidents which give a most illuminating background to the life of the times. Besides the light which they shed on the contemporary scene, these "country life" tapestries amply illustrate the technical virtues of Gothic textiles—the prevailing dark blue ground, the high skyline, the expressive drawing in the faces, costume, animals and flowers, the decorative use of pattern and color, the perpendicular line emphasis, the use of local centers of interest, and the superlative skill of weave which secures here vibrant, there lacy texture, and, again, strong and effective contrasts.

The greater number of Gothic tapestries in the French collection belong to the 15th century. There are a few 14th century fragments, two from the famous Angers Cathedral set, and there are a few 16th century tapestries, some of which are "Renaissance" in feeling, but the majority, and the finest in quality, belong to the 15th century. Taken as a whole, and in a wide reckoning, the collection must rank as one of the world's most important.

Pictures in the Burrell Collection

General Series

The Burrell Collection is not a collection of pictures. It is a large and varied collection of art objects which includes some five hundred pictures. There has
been no attempt at systematic buying of selected periods, with the exception of nineteenth century French painting which is represented by numerous and important examples. Outside this group, Sir William purchased, as the occasion arose, early pictures of Gothic flavor, some Italian, but mostly Netherlandish - a few seventeenth century pictures including a Velasquez, Le Nain, two Rembrandts, a Ribera and a Hals - a range of eighteenth century portraits by Hogarth, Hudson, Reynolds, Ramsay, Northcote, Raeburn, Romney and Gainsborough - five pictures by Chardin, and, jumping to the later nineteenth century, a number of Dutch pictures by such artists as Bosboom and the Maris Brothers - particularly Matthew, and a few contemporary British paintings. It will be realized that the Collector's purpose was not to become a collector of pictures, but to acquire, as opportunity occurred, good examples of the work of artists he greatly admired. Admired qualities were a broad humanitarian grasp, such as Rembrandt's, the bravura of a Hals, the minute perfection of Le Nain, the pervasive charm of Chardin, the mystic dreaminess of Matthew Maris, the brilliant draughtsmanship of Crawhall, the decorative attractions of Japanese woodcuts, the directness of the color of Peploe. All this adds up to a very catholic taste, one which insists on a large measure of technical competence, but which puts a still greater premium on broad humanity, psychological insight, and powerful interpretation of life and character. It should perhaps be noted that, where he admired, Sir William often greatly admired. Besides many pictures and drawings by Matthew Maris - not a highly productive artist - there are well over one hundred paintings by Joseph Crawhall in the collection.
Nineteenth Century French Paintings

In so far as he attempted to gather together a group of paintings representative of any specific period in art, Sir William did so only of the nineteenth century French painting. Here he tried not to be exhaustive, but secured a goodly representation of nearly all the outstanding painters and a most outstanding range, in number and quality, of some of the most distinguished artists. Degas with twenty-two and Daumier with seventeen works are most fully represented. "Duranty", "La Repetition," and "Jockeys sous le Pluie" are very well known, but they are supported by a series of very lovely pastels of ballet and other subjects. Likewise Daumier's "Amateur d'Estampes," "Bon Confreres," "La Parade" and "Boys Bathing" may have been encountered before, but not so many people have seen such large scale Daumier's as "La Bon Samaritan," and "Le Meunier, Son Fils et l'Ane." Manet and Courbet are strongly represented, each by several pictures. There is an Ingres drawing, some Gericauldt, a small Delacroix, some early Corots, drawings by Millet, a Gauguin drawing, a Renoir pastel, Cezanne's "Maison de Zola," a Forain, a number of fine Boudins, a good Sisley, two Coutures, several Ribots, several Bonvins, and several Fantin-Latours. Four pictures by Daubigny, three by Lucien Simon and a dozen by Monticelli are included. From this recital - not fully stated - it will be seen that many people will think it worthwhile coming a long way to see the nineteenth century French pictures in the Burrell Collection. This period is one of great interest, ranging through classical and romantic phases and incorporating the valuable experiments in color and technique of the Impressionists and Post-Impressionists.
Early Civilization

In his last years Sir William turned his attention to the arts of some of the ancient civilizations. His primary purpose was with typical art forms, and he secured a number of good examples of articles from the early river civilizations of Mesopotamia and Egypt, dating from the fourth to third millennium BC onwards. There are vessels illustrating nearly all the shapes used in Predynastic Egyptian times and fashioned from earthenware and a variety of stone materials. There are the roughly contemporary - perhaps earlier - Sumerian pieces, with their more zoomorphic tendencies, human figures and figures of bulls predominating. There are a few Assyrian fragments and a range from the Egyptian Dynasties down to Roman times. Some fine examples from early Greece are included - an ancient Greek bronze of Hermes, the rare ivory casket with metal mountings and a number of black and red figure vases. An important Etruscan piece is the bronze Cista, dating from the 4th century BC, and showing a vigorous design in incised lines. Several attractive Tanagra figures are included, and also the Luristan (W. Persian) bronzes of early periods.

Shown in association with these early ware is a number of Persian earthenwares of the twelfth and thirteenth centuries AD. There are also many good specimens from Rhages, Garrus, Minai and others.

Chinese Pottery and Stonewares

Prehistroic to T'ang

From Prehistoric to T'ang, the Burrell Collection includes
some two hundred pieces. There are forty prehistoric items, among which are included most of the N.S. Brown Collection, and the wares from Yang-Shao, Pan-Shang, and Ma-chang have the bold and vigorous brush-work of their type. The illustrations show typical reverse spiral trellis, and dentate bands in red, white, black and purple brown. There are a few other neolithic types of the much less striking grey wares, whose grey or yellowish grey earthenware bodies have all over incised line patterns scratched with a point, imprinted with a stick, or impressed with a string beater or coarse textile. There are not many pottery wares attributed to the Chou Dynasty, but the Han 206 BC - 220 AD is represented by some fifty pieces. There is a model of a Granary, a Bullock Cart, several animals, owls, hill jars, an oven, a chair and a range of typical "Hu" forms very akin to the contemporary bronzes. Some of these pieces have green or brownish glaze, but most of the glazes have become iridescent owing to the conditions of burial or exposure which they have survived. A large jar of the period 3rd to 5th century AD is particularly interesting as an early example of Stoneware - the intermediate stage to the later white porcelain body.

With about one hundred items, the T'ang Dynasty is well represented. This "Golden Age" of China offers great attractions to the collector. Figures are dynamic, shapes are varied, and glazes pleasing. Sir William was successful in securing many delightfully modeled animals and birds, while there are tomb figures of retainers, actors, ladies, demons and the like. The vessels are generally of simple form partially glazed in monochrome, or with dappled effects. Both as examples of T'ang wares, and as ceramic shapes of fine modelling,
these pieces command admiring attention.

Chinese Stonewares and Porcelain

Sung to K'ang-Hsi

With over one hundred Sung pieces, over two hundred Ming, and some six hundred and fifty K'ang-Hsi pieces, the collection offers great diversity and a full representation of these important periods. The Sung items include many fine pottery shapes, with low relief incised designs under delightful monochrome glazes - a variety of celadons, Ting wares, T'zu Chou wares, Honan Temmoku wares, Chün and Ying Ch'ing wares. The period was one of jars, bottles and vases, rather than of figures. The prevailing taste was classical, deriving inspiration from jades and from less flamboyant productions of earlier centuries.

In the short Yuan Dynasty which followed, the Sung taste was largely maintained, but as the Ming Dynasty took shape, the balance of taste shifted to the more rugged and vigorous types deriving from the T'ang. Bold brush-work, three color cloisonne wares, Wan-Li "five-color" porcelain, "red and green" family, early Blue-and-White wares - these were the types which to some extent submerged the refined and scholarly tradition of the Sung.

With the firm establishment of the Ch'ing Dynasty about 1680, China entered a long period of settled government, and the reign of K'ang-hsi, 1662-1722, stands for great achievement in the potter's art. This is the period of pronounced technical achievement - of
perfect potting in fine white translucent porcelain, and of brushwork designs in the colors of Famille Verte, Famille Noire, and Famille Jaune. The very perfection of techniques contained the seeds of decay, the tendency to develop an over pictorial style, albeit that painting of the Far East is naturally decorative and avoids the imitative conventions of the West, the over emphasis on technical skill, the inclination toward daintiness and even prettiness at the expense of vitality, and the danger of unworthy foreign influences on design resulting from wider contacts and the developing export market. This very productive period is often the one which first attracts European collectors, and over the years Sir William gathered many distinguished pieces representative of all that is best in the Chinese idiom.

Burrell Collection Silver

Prior to 1600, the uses of silver were neither so various nor so domestic as in the two centuries which followed. Very often the metal was used as a mounting for a variety of other materials—wood, crystal, serpentine, stoneware, gourds, horn and cocoanut. The Burrell Collection includes a good representation of these early types of vessel, which reflects the patronage of church and nobleman. There are chalices all of silver, besides cups, jugs, tankards, and bowls of these various materials with rich and appropriate mounting in silver.

A cross, dating from about 1300, is composed of sections of rock crystal articulated with silver rods. There are several Mazer bowls, one illustration showing the print
inside, with its incised representation of the "Creation." There are pyxes - for containing holy relics, a hanap, for carrying jewelry and valuables while travelling, drinking horns, serpentine tankards, an ivory cup, gourds, and cocoanut cups. Some are Continental, but most of the mountings are English. A rock crystal jug, with intaglio cutting, the mounts dated 1617; a standing "bell" salt, 1576; three tigerware jugs with Elizabethan mounts; a series of Apostle spoons - these are some of the noteworthy pieces. There is also a set of three Steeple Cups, made in London in 1611. Such cups are rare, but to have a set of three by one maker, and of the same year, is unique.

Seventeenth century silver is strongly represented in tankards, posset cups, fruit dishes, porrongers, salvers, candlestick, cups, and beakers which illustrate the domestic trend and the wider patronage now enjoyed by the silversmith. An outstanding piece is the cocoanut cup, dated 1662, with relief panels showing incidents in the escape of Charles II after the battle of Worcester. Another is the Mace of London's Hammermen's Guild, apparently dating from Restoration times, and engraved "By Hammer and Hand All Arts Doe Stand!"

A few 18th century pieces are illustrated, and these show the distinction achieved by the English silversmith in cocoa pots, coffee pots, inkwells, sugar casters, and a variety of other domestic designs, fine proportions and high quality of workmanship.

Stained, Painted and Heraldic Glass

Of the 587 windows and panels of stained glass acquired by Sir William, over half are heraldic, and a number of
others, though not exclusively heraldic, are of some heraldic interest.

The collection was formed from about 1920 onwards. In 1944, when the gift was made, 245 panels of religious and heraldic glass were in the windows of Hutton Castle, Sir William's home, and a quantity was in storage there.

Sir William added considerably to the collection after 1944, and the purchases he made between then and his death in 1958 included some of the most impressive of the heraldic glass - the series from Vale Royal, in 1947, and the larger and more homogeneous series from Fawsley Hall in 1950.

Sir William's first nameable source of outstanding additions to the collection came from the collection of chiefly French and German stained glass formed by Sir William Jerningham, for his chapel at Costessey Hall. Most of the foreign glass in this collection probably derived from large quantities of glass shipped to England by the German-born Norwich cloth merchant, John Christopher Hampp (1750-1825) who acquired much stained glass which the secularization of churches in France and Germany left homeless, in 1802.

Outstanding among the British glass is the series of 40 shields from the banqueting hall near Daventry in Northamptonshire, the residence of the ancient family of Knightly from 1416 until 1895. The key figure as far as the stained glass is concerned, was Sir Edmund Knightly, who is believed to have rebuilt the house at Fawsley between 1537 and 1542 and to have embellished it with the armorial glass now in the Burrell Collection.
PART TWO

C. The Program Requirements

While the basic square meter requirements were taken from the Competition Program published by the Burrell Trustees, I have greatly elaborated upon the needs of each space. This method of stating precise conditions proved a useful design tool.

* Asterisk indicates space requirement.
Entrance and Public Facilities

All areas in the entrance and public facilities portion of the museum should be capable of being used by the public separately when the museum is closed.

*Entrance
150m²

This is to be an easily supervised entrance hall, with space for public seating and sales counter. The restaurant, the auditorium, temporary exhibit space, the cloakroom and toilets should be visible from this area.

Considering the entrance to this museum (as an event), What are the first impressions. I pass through a gate-
  Where do I put my coat
  Where is the children's playroom
  Where does the formal exhibit begin

*Enquiry Room
20m²

This room should be accessible by the public to serve as a reference point for such uses as lost and found, telephone calls, inquiries for access to study collections, etc. Much of the head attendant's time is spent in this room - it must be an enjoyable place to be.

*Public Cloakroom and Toilets
150m²

This location should be obvious but not obtrusive.
*Ambulance Room
20m\(^2\)

This room should be in the general vicinity of the car park or have easy access to the parking area. A small toilet should be included as well as a bed and a first aid stand. It will be maintained by the attendents in the children's playroom.

*Children's Playroom
60m\(^2\)

This room should work contiguously with the ambulance room, allowing for two staff members to supervise both. The museum could take the opportunity here to give instruction in print media with displays of the finished product to the visitor. This room needs its own toilet facilities. It should have plenty of light, with the possibility of a small play area outside, but maintaining the proper security. The playroom should be accessible from the main entrance.

*Lecture Theater
250m\(^2\)

The theater is to seat 300 people, with 16mm movie and slide projection facilities. The theater must work contiguous with the temporary exhibition area, allowing for the removal of the partition wall dividing the two. Thus the seating provided must be removable so that the space can be used in many ways. Storage for the removable seating must be provided.
*Temporary Exhibition Gallery
300m²

This space must be capable of being closed off from the museum circuit, so that exhibitions can be set up and taken down with a considerable degree of security. It should also be easily accessible from the service area and work adjacent to the theater.

*Restaurant
200m²

The restaurant, to seat 200, should be strategically located at the point where visitors are ladened with mental and visual fatigue. This pause should be given the best of scenic possibilities as well as visual accent to part of the collection. The restaurant will also accommodate larger groups that visit only the lecture theater and/or temporary exhibition gallery. To the average visitor, the restaurant will operate on a self service cafeteria basis. It is extremely difficult to operate a one meal restaurant of a quality and atmosphere appropriate to the dignity of a cultural institution. If the overall reward of a museum visitor can be greater than the sum of the pleasures that the individual exhibits can give, it may be the pleasing and comfortable pause at the restaurant that makes the difference.

*Staff Dining
50m²

This space must have the capacity to open into and be used as part of the main dining area. The view from the staff dining room and the quality of the space as a
whole is crucial. The room will be used for morning and afternoon teas as well as lunch. It must give the quietude and relaxation during the pause from the work schedule that is essential for a healthy working environment. The staff rooms should be easily accessible from this space.

*Kitchen, Storage, etc.
200m$^2$

The kitchen works contiguous with a number of functions; the two dining halls and the vehicular service area. Much of the work done in a kitchen is done on one's feet. The chefs are relatively stationary (at their ovens) and if the building could offer a vista from their working positions, so much the better. North light admitted through the roof would be very practical. Good ventilation is a must.

The Main Display Areas

*Ancient Civilization
50m$^2$ main collection
50m$^2$ associated collection

Sumerian, Assyrian, Hittite, Egyptian, Greek, Etruscan, Cypriote and Roman ceramics, metalwork, stone, ivory carvings, etc., total 652 objects, of which 460 should be included in the main display. Only about nine objects are larger than 60cm and, with the exception of a few stone figures, all items require case display. The
room as a whole and the objects exhibited allow for unfiltered north light if glare can be controlled. This particular exhibition tends to be unique in allowing unfiltered north light.

*Chinese Art
100m$^2$ main collection
150m$^2$ associated collection
50m$^2$ study collection

Pottery, porcelain, bronzes, jades and a few objects in other metals total over 1700 objects, of which probably half would be included in the main display. Only about 30 are larger than 60cm. The display of most objects in this area allows for natural sunlight.

*Persian and Turkish
150m$^2$ main collection
100m$^2$ associated collection
50m$^2$ study collection

This collection also contains a few Indian objects. There are 122 carpets, of which 27 should be included in the main display. The six largest are between 14m$^2$ and 25m$^2$. About 300 pottery and metalwork objects, of which most would be shown in the main display with the carpets, are all under 60cm. The remainder of the carpets would be available for study in the reserve collection. The 300 pottery and metalwork objects could be shown together, allowing for a space with natural sunlight from roof or windows. The glory of this exhibit, however, lies in the carpets and their exhibition does not allow the ultraviolet in natural sunlight. Thus the figures given for each room are
confusing; the main pottery display as well as the carpets should have separate but contiguous rooms. The carpets could be exhibited in a fashion allowing for quick inspection of a larger number than 27, and fewer in the study collection.

*European Art to 1200 AD

80m²

This includes about 50 Romanesque stone and metal objects as well as the Romanesque portals and other architectural features. The Coptic textile fragments would be included here. Natural sunlight is needed for the stone and metal objects, but the textiles must be screened from the ultraviolet.

*European Art 1200 to 1300 AD

100m²

This will include stone portals and tracerial windows as well as some stained glass, stone figures and some objects in other media. Again, here is a room that can use an abundance of natural daylight: the glass can be incorporated into walls and ceilings. If architectural features are shown collectively, this room must relate to them.

*European Art 1300 to 1400AD

80m²

This will include stained glass, some tapestries, the Walley Abbey dalmatic, the Richard de Bury chest, stone and wood sculptures, swords and a number of other objects. The tapestries here should relate to the main tapestry collection. Only a portion of the
The room could allow for natural sunlight.

European Art 1400 to 1600 AD

This is the major part of the collection which includes the later Gothic and Romanesque portals and windows, nearly all the tapestries, the bulk of the stained glass, much furniture and panelling, stone and wood sculptures, a few outstanding pictures and a quantity of objects in other media. The objects have been subdivided on a national basis.

It should be emphasized here that, though not on the main circuit, the associated collection of tapestries forms the main glory of the collection. Its location and method of display will therefore require the most careful consideration.

*France and the Netherlands
150m² main collection

This room is to include the hunting and open air subject tapestries, stone portals, secular furniture, etc. The tapestries make the use of natural sunlight impossible.

*The Hutton Drawing Room
150m² associated collection
The original room (18.09 x 8.33m) is to be reconstructed to the plans provided. This room may be shown as a set with one wall removed and glazed to the primary sequence. The public will not be admitted to it (unless security can be easily managed). It will contain hunting and vintage tapestries, the stone mantelpiece, some 15th century Gothic windows and portals, some of which are stained glass.

It would be optimal to have natural sunlight illuminate the windows.

*Franco-Burgundian Tapestries
200m² associated collection

These are the 15th century religious and allegorical tapestries. All ultraviolet must be shielded from the exhibition room. Their size and distance necessary for viewing call for a uniquely tailored design solution.

*Mille-Fleurs Tapestries
100m² associated collection

This room will also include the heraldic, parc-au-cerfs, etc. tapestries as well. The architectural requirements are the same as the previously mentioned tapestry room.

*History Subject Tapestries
100m² associated collection

*German Tapestries
80m² associated collection

*Swiss and Upper Rhineland Tapestries
60m² associated collection
It is worth repeating here that, though not on the main circuit, the associated collection of tapestry rooms forms the main glory of the entire collection. The location and display therefore require the most careful consideration.

*Tapestry Study Room
100m² study collection

This room, also containing textiles, will house the important, but incomplete and fragmentary pieces whose condition is too poor to show in the main rooms. This room will not be accessible to the public except on application. As scholars will spend long, tedious hours in this room, it must be a comfortable, enjoyable place to work. Views of the countryside would be permissible if ultraviolet could be properly filtered.

*The Hutton Hall
112m² main collection
The room (13.9 x 8.33m) will include the table carpet (British), armorial stained glass in the windows, and the best 16th century furniture, including the Henry VIII mantelpiece, an elaborate work in timber measuring 3m x 3.2m high. The windows could allow for natural daylight penetration, but they must be protected from exposure, and the ultraviolet must be filtered.

*Germany
70m² main collection

This room will contain stained glass, stone and wood sculpture. It should relate as closely as possible to the German tapestry collection. The items to be exhibited allow for natural sunlight; the glass should also be exhibited against natural sunlight.

*Spain and Italy
60m² main collection

Exhibited here are wood and stone sculpture, three pictures, 35 pieces Hispano-Moresque pottery, 5 pieces Italian pottery and some armor of the period. A few Peruvian textile fragments and a tapestry of the period of the Spanish Conquest could be included here. Considering the bulk of the objects exhibited, penetration of unfiltered natural sunlight would cause difficult problems.

*The Hutton Dining Room
72m² associated collection
The room (14.30 x 5.05m) will contain panelling, furniture and tapestries, and could be exhibited in a similar manner to the drawing room. If located near the restaurant, it could offer the possibility of dining in the room itself in special events. The view into the dining hall from the public dining hall would also be very pleasant.

*Bridgewater Ceiling
50m² main collection

In addition to the ceiling (6 x 4.8m), this room will contain 15th century furniture. While a continuous skylight is impossible, an abundance of natural daylight by other means is not.

*Timber Screen Exhibition Room
100m² associated collection

This room will incorporate three large timber screens, some stained glass, alabaster and other objects. It could form a larger exhibition with either the Bridgewater Ceiling or the Neptune Inn panelling exhibitions. The exhibition allows for the use of natural daylight.

*Neptune Inn Panelling Exhibit
80m² associated collection

This room is for the exhibition of the Neptune Inn, which consists of four sections of linen fold panelling totaling 5m x 1.60m high. It could very easily form a part of the Timber Screen or Bridgewater Ceiling exhibits.

*French and Flemish Stained Glass
80m² associated collection
The glass should be shown as much as possible against sunlight. It need not be contained in a separate room, but could be distributed in an organized fashion along a corridor.

*Religious and Armorial Stained Glass
100m² associated collection

These glass items are quite small in size and are best shown back-lit in a dark space.

European Art 1600 to 1800

This exhibition includes English furniture, needlework, samplers, glass, pottery and porcelain, lace and other objects. There are also some notable 17th and 18th century pictures, including a Rembrandt, Franz Hals, a Hogarth, four Raeburns and other pictures and engravings.

*17th Century Room
150m² main collection

*18th Century Room
150m² main collection

These rooms will contain furniture and paintings of their respective periods. Natural sunlight from windows is desirable, but glare must be controlled.

*Silver
50m² associated collection
*Table Glass (English)  
50m² associated collection

*Pottery and Porcelain  
40m² associated collection

*Metalwork and Pewter (German)  
40m² associated collection

The objects in these four rooms are small and require case display. Natural sunlight would be desirable.

*Textiles and Needlework Study Room  
50m² study collection

This area must be accessible to the public on demand. It should offer the user a quiet, comfortable environment with some view of the countryside.

European Art 1800 to 1900 AD

Here are paintings and drawings, including an important collection of French Impressionist works and other notable French, Dutch, German and British pictures; bronze sculptures, mostly by Rodin; 170 French pictures of which 13 are over one meter; 39 are drawings or watercolors; about 100 German and Dutch pictures (mostly by the Maris Brothers, Bosboom and Muhrmahn) of which 9 are over one meter; 71 are watercolors or drawings; 30 British pictures (excluding Phil May and Crawhall) of which 11 are watercolors and drawings.
*19th Century French Pictures and Rodin
85m² main collection

*19th Century Dutch and German Pictures
85m² main collection

*19th Century British Pictures
85m² main collection

These three galleries should incorporate a system of natural sunlight on the walls.

*Watercolor and Drawing Gallery One
25m² associated collection

*Watercolor and Drawing Gallery Two
25m² associated collection

These rooms contain extensive collections of watercolors and drawings by Phil May, Crawhall and others.

*Storage and Conservation
500m²

The storage areas should be accessible from an adequately covered loading bay within the building. This area must be capable of access by the public on demand, and able to be divided flexibly into working areas.

The crate storage for the temporary exhibition room should be physically separated from the storage for art objects. This allows for sprinklers to be used with the crates. Furthermore, the crate storage should be easily accessible from the mechanical shop where they are made and repaired.
Administration and Services

*Men's Staffroom and Toilets
100m$^2$

*Women's Staffroom and Toilets

The men's staff consists of 30 attendents, 5 tradesmen and 3 technical assistants. The women's staff will vary from 6 to 10 persons. These facilities should work adjacent to the staff entrance and staff dining room. Views of the countryside would be useful and exhilarating, for this function is usually confined to a basement.

*Committee Room
20m$^2$

This is to be used for general staff meetings as well as smaller meetings by the curator and departmental assistants. Its location should be easily accessible from any of the offices. This room will also be used for occasional lectures and needs storage for equipment.

*Keepers Flat

This flat is to consist of a living room, study, 3 bedrooms, kitchen and bath. The museum proper should be easily accessible from the flat as well as the offices. The loading entrance should be visible from the external entrance to the flat. The flat need not be a separate building, but should give the dweller a sense of privacy, visually and audibly.
*Administrative Offices
25m²

This room will contain three people: one administrator and two assistants. The room should have easy access to the loading dock, and temporary storage for the temporary exhibits.

*Office for the Keeper
20m²

The office should be easily accessible from the flat and to the loading dock.

*Store and Office for Clerk of Works
30m²

The store consists of items such as light bulbs, keys, etc., that are general purpose maintenance items. The Clerk of Works is in charge of the maintenance for the building.

*Office and Store for Departmental Assistants
100m²

This should be a single space easily divisible into working areas. This space should work with the three curator spaces and have easy access to the conservation room and library.

*Curator's Office
15m²

*Curator's Office
15m²
*Curator's Office
15m²

Office for one Member of the Teaching Staff

This office will need easy access to the library and the main collection. It is possible that the Committee Room could be used for small lectures.

*Reference Library
100m²

The library will contain information on the Burrell Collection, standard reference works, and the Burrell archives, for use of the teaching staff, departmental assistants and visiting scholars. It will be open to the public upon request, and should be a pleasant work and study environment with views of the countryside.

*Office for the Photographer
15m²

*Darkroom and Photography Studio
65m²

The photographer should have easy access to the temporary storage area, and his studio should have access to the general storage area. It should be possible for him to bring any object to his studio without any undue hazard for the object or complications for the staff.

*Workshop for Restorer and Technical Staff
200m²
Part of this room could be visible by the public as an exhibition in itself. Good natural daylight is required in this area, and it should simulate the daylight used in the original exhibition area. Access to the storage area and loading dock is necessary.

*General Workshop
100m²

Two joiners, an electrician and a plumber will work here. There must be easy access to the loading dock. Good lighting is necessary; there should also be easy access and storage for the various exhibition stands that must be made or brought here for repair.

*Loading Facilities
100m²

This room, incorporated within the building, should also include the staff entrance and goods entrance. The paving should be such that a loaded vehicle has an easy turn-around. The Keeper's flat should also be accessible from this area.

*Mechanical Equipment
600m²

Air-conditioning to the highest standard to include the control of humidity, temperature, and air movement as well as dust removal, is required throughout the building.

It should be fully automatic to maintain a temperature of 60°F and RH of 60%, with a margin of 5% either way. Allowance should be made for slightly higher temperatures in the areas occupied by the staff.
As the proposed building is in a clean air zone, and a high chimney would be undesirable, a gas powered system should be used. The gas flues could terminate 5 feet above roof/roofs height. Heating plant, as with air-conditioning, should be fully automatic.

The plant room should be 8m high.
PART THREE

METHODOLOGY

We learn to see how things are born.
We see them develop, grow, change, blossom,
    flourish and die...
And the grain matures

Le Corbusier

Creation is a Patient Search
The following thoughts were recorded at various times during the project.

I am to design a museum housing a very specific and finite group of art objects, all 8,000 of which are to be permanently exhibited. A building must be tailored around the experience of having a rapport with an art object.

The site is a pastoral parkground which is the tip of a long green belt ending three miles from the heart of Glasgow. In approaching the site, it is my intention to create a sequence of events which includes the openness of meadows and the corridor of woody winding roads terminating with a view from a hill. The sequences continue down into enclosures that terminate in a room where one can sit comfortably, quietly, and watch.

I often go to the Museum of Fine Arts in Boston, and to the Gardner Museum in the Fenway. There I have observed two velocities of movement; first, people moving in groups or individually from room to room, and second, people looking at objects, quiet, stationed, concentrating. I resolved to respect these two velocities. The people moving-talking-eating call to mind the pageantry that museums can have within their walls, as powerful an event even as the pilgrims coming to view the objects.

A lot has been said about museum lighting. After reading various technical reports, I was where I began, well aware of the deadening effect of any ever-so-perfect but static light source. The light of the sun is dynamic, it is alive, it changes continuously — like a
spring day. This is the light that keeps a building living; it is vital to a museum, however difficult it is to control.

There arose a feeling for a lake — a lake wanted to be part of the experience. It presented many problems and changed its configuration many times. I ask why the lake? The lake is for the picnicker; the lake is for the restaurant; the lake must be designed to live with the building: it is a designed lake. The building will step down the hill to meet the lake — the place where green meadow and building come together.

I have always aspired to be the kind of architect who made planning decisions not on some predetermined esthetic, but on conditions born out of how people, working and living, try to make life a little easier for themselves. In the project I have asked those on foot to walk across the meadow. It would have been possible to place the building adjacent to the road. But observe the radio-centric position of the bend in the trees (west center). Here there exists a potential for clarity to both vehicular and pedestrian movement. It is the correct place for entrance.

This project concerned placing in a correct way, a building in a meadow. As it progressed, my feeling for that which was invoilable changed. Whereas my previous concern was to work toward preservation of TREE (the symbol of ecological balance), I came in this instance to revere the open meadow as that which was irreplaceable.

I work toward a greater recognition and understanding of circulation; how circulation can clarify the uses
of building when it is utilized fully as a generator of form and design. I am very sympathetic with Ram Karmi's antipathy for the cul-de-sac circulation that now retards the potential of the typical large commercial buildings today. It is clearer to me now why some spaces fail and other do not. Consider the roles of the buildings at the edge of the piazza; the life of the piazza and the life in the buildings are contiguous events, but the buildings owe their essence to the piazza; take away the piazza and the roles change. The piazza is a tool to make the contiguous events focus locally. (It is where the buildings are not.) Now consider circulation as a linear kind of piazza; the place where contiguous events erode inside and outside; a binder strong enough for every link to owe its very existence to this flow of life; thus I find that two stairs plus hallway fail as circulation.

I like to go out and draw - drawing fills the mind. A stick of charcoal is sensitive to the touch. Working with a piece of charcoal in my hand - feeling and thoughts erupt through it.
FOOTNOTES


BIBLIOGRAPHY


Glasgow Art Gallery, *Chinese Pottery and Stonewares in the Burrell Collection,* no date.


Glasgow Art Gallery, *Gothic Tapestries in the Burrell Collection,* no date.


Glasgow Art Gallery, *Pictures in the Burrell Collection,* no date.

Glasgow Art Gallery, *Silver in the Burrell Collection,* no date.
Glasgow Art Gallery, *Stained and Painted Glass, Burrell Collection, Figure and Ornamental Series*, Glasgow, 1965.


Green, W., "Spaces for art exhibitions," *Progressive Architecture* (July 1964) 161-165.


"The function of museums; research centers or show places," Curator v.VI, no.1 (1963) 20-31.

"Mood and message," Curator, v.VI (1963) 204-216.


"Remarks on layout, display and responses to design," Curator v.VII (1964) 131-142.


Culture and the ideal of perfection is the refinement of gentlemen. Art is the raw stuff which comes from the vitality and labor of aggressiveness by men who got that way fighting for survival.

David Smith
Architectural features in the Collection
Scale 1:100

1. French, 12th Century
2. English, 12th/13th Century
3. French, 12th/13th Century
4. English, 12th/13th Century
5. French, end of 13th Century
6. French, end of 13th Century
7. French, 13th Century
8a & b. Flemish, 13th Century
9a & b, 10a, b. c, d, and 11. French, 15th Century
12. Spanish, 15th Century
13. English, 15th Century
14. French, early 16th Century
15. English, 16th Century
ADMINISTRATION AND SERVICES
- STAFF OFFICES AND ACCOMMODATION -

MEN'S STAFF ROOM (30 ATTENDANTS)
- TECHNICAL AND TRANSPORTATION MEETING ROOMS

Q. WHAT IS THE ROOM USED FOR?
A. MEETINGS
Q. WHAT SIZE IS IT?
A. 15 M²
Q. WHAT IS THE ROOM USED FOR?
A. MEETINGS

ENTRANCE FOR STAFF WITH EXTERNAL CONTRACTORS
- VISIBILITY FROM STAFF EXISTENCE - MONITORED THROUGH THE BUILDING.

PLANT EQUIPMENT ROOM - 3 M HIGH

ADMINISTRATION OFFICES (3 ROOMS)
- EXECUTIVE OFFICES

Q. WHAT ROOMS ARE USED?
A. EXECUTIVE OFFICES
Q. WHAT ARE THEY USED FOR?
A. EXECUTIVE OFFICES
Q. WHAT ARE THEY USED FOR?
A. EXECUTIVE OFFICES

ADMINISTRATION OFFICES

Q. WHAT ROOMS ARE USED?
A. ADMINISTRATION OFFICES
Q. WHAT ARE THEY USED FOR?
A. ADMINISTRATION OFFICES
Q. WHAT ARE THEY USED FOR?
A. ADMINISTRATION OFFICES

WORKSHOP FOR MECHANICAL AND TECHNICAL STAFF
- GOOD WORKSHOP LIGHT IS MAINTAINED IN THE AREA

Q. WHAT ROOMS ARE USED?
A. WORKSHOP
Q. WHAT ARE THEY USED FOR?
A. WORKSHOP
Q. WHAT ARE THEY USED FOR?
A. WORKSHOP

OFFICE AND STORE FOR CLEARANCE OFFICIALS
- 30 M²

ADM. & SERVICES

OFFICES AND ROOMS FOR DEPARTMENTAL ASSISTANTS
- 100 M²

WORKSHOP FOR TECHNICAL WORKERS
- ELECTRICIAN, PLUMBER

Q. WHAT ROOMS ARE USED?
A. WORKSHOP
Q. WHAT ARE THEY USED FOR?
A. WORKSHOP
Q. WHAT ARE THEY USED FOR?
A. WORKSHOP

D.K.

STORAGE AND CONSERVATION

RECIPIENTS ARE HOUSES NOT PUBLIC
- 500 M² (NOT REUSED OR SEVERED)

ADM. & SERVICES

WOMEN'S STAFF ROOM - 6-10 PERSONS
- 20 M²

COMMITTEE ROOM
- 20 M²

PLANT FOR KEEPER
- 200 M²

GLASGOW - 56°N.
EUROPEAN ART 1800-1960

SHOULD USE HANDBOOK ILLUSTRATIONS FOR MORE ILLUSTRATIVE EFFECT.

MAIN CIRCULATION 250 M²

SECONDARY CIRCULATION 50 M²

SILVER - 1600 AD
300 ITEMS

CHALICE - CUPS - JUGS - TANKARDS - BASICS

A 12TH CENTURY CASE OF FAKE BEAKY (1941)

CHINESE ART

- POTTERY
- PORCELAIN
- BRONZES
- JADES
- FINE ARTS IN OTHER MEDIA

PUBLIC CLOAKROOM AND TOILET ACCOMMODATION

AMUSEMENT ROOM
8. MUST BE DIRECTED OR ENTRANCE?

CRICHET OR PLAYROOM AREA FOR COL. CHILDREN
8. NEW MAIN CLEAKROOM IN ADJACENT TO ENTRANCE.
8. NEW SHOW CENTRE.