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COE FEN/LAMMAS LAND
PARK AND COMMUNITY CENTER DEVELOPMENT
ARCADIA

by

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

of

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Troy Thomas McClellan

12/1986

Date

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To my family, without whose continuing support
this venture would never have begun...or ended.

INTRODUCTION

The intent of this design thesis is to redevelop what is now little more than a barren pasture with odd structures, waterways, trees and bushes indiscriminately placed about into a new and very identifiable recreational and relaxation park system containing a new community center, which would be the active center for the grounds, and cornerpost for the immediate community. I want to be able to create family/community oriented sports grounds, leisure areas, and community facilities by replacing the existing pastures and structures with ones that create a more cohesive ensemble sympathetically reflecting and complementing Cambridge's historical flavor, and technological future. Replanning the park grounds to be capable of providing more comprehensive and better conceived sports pitches, with the support structures and landscaping in appropriate arrangement, should include various existing amenities with the addition of many new ideas and facilities. These include a community sports/leisure/meeting facility with ancillary structures, parking lot, a trail head to the Grantchester nature experience walk culminating at the home of Rupert Brook, a punt rental and docking area on the Cam, and an outdoor amphitheater.

HISTORY

Cambridge, England is definitely one of the most interesting cities in Britain, and possibly in all of Europe. Its historical background dates to the first century before Christ when Belgic invaders inhabited a site atop a small hill, commanding a primeval ford in the river. The Romans were to follow when Emperor Claudius arrived in A.D. 43. With their occupation, many roads were established through this settlement along with developing river connections to the sea, increasing substantially the prosperity of the area. William the Conqueror established one of his first castellated strongholds on the Fens at Castle Hill in what was then known as Grantbridge. The Anglo-Saxons previously had called the site Grantacaestir, the corruption of which is now Cambridge. The river, an important trade route linking Grantacaestir to the sea, most of East Anglia (the Fens), and London to the south, also changed titles from Granta to the present river Cam. As the Cam moves from south to north, so traveled the development of the town and its colleges. The first recognized college, Peterhouse, founded in A.D. 1284, occupies the most southerly site on the river. Following the river north is an almost geographically accurate chronology of colleges built since Peterhouse: Queen's College, A.D. 1446; St. Catherine's College, A.D. 1473; King's College, A.D. 1441; Clair College, A.D. 1856; Gonville and Caius College, A.D. 1348; Trinity College, A.D. 1546, etc.

The significant historical background behind this town and its surroundings is virtually limitless; be it scholastic, monastic, archaeological, or otherwise. This background, when juxtaposed with Cambridge's present high technology growth situation, produces a very rich and historical, yet contemporary and progressive environment apparent in the city.

The Cambridge of today is not held at bay by its past history. Instead, business and science parks developed within the last 20 years are creating a British "Silicon Valley" in the suburbs of Cambridge. Technological and scientific laboratories, as

well as several manufacturing plants, have based operations on the new "shipping corridors" of today, the M1 and A45, two of the major freeway systems of Britain. Because of the introduction of a wide range of heavy industrial, high tech computer, and transportation corporations, the influx of personnel to staff these operations has created some special requirement problems. Changes in the residential and recreational needs of the community have never been so essential. A promulgation of restoration activities to existing terraced houses, including Queen Anne, Victorian, and Georgian styles, has greatly increased the blue collar and white collar workers' discernment of the necessity of well-planned and designed housing. Because of the lack of future considerations or foresightedness of necessity on the original designer's part, these terraced houses are quite inadequate to meet today's minimal standards. On the other hand, we must also remember that buildable area in the cities of Britain were and are a rare commodity and maximization of all land area is a necessity.

Analogous to the residential changes are the requirements for more recreational and leisure space to provide for the higher number of participants in these activities. Cambridge has always been well endowed with open areas of green pastures, park lands, and formal botanical gardens. The river Cam, running on the backs of the colleges, is world famous for its tranquil atmosphere, as well as the activities of the sightseers, punters, swimmers, and river bank picnickers. Coe Fen, Jesus Green, Midsummer Common, Stourbridge Common and Ditton Meadows are but a sampling of the various grounds for community and college activities. In relation to Cambridge's physical size, these commons provide a fairly large pastural type setting available to everyone in the community as well as quite a few cattle, sheep and horses. As a whole, these commons and parks create an intricate and very attractive corridor of opportunity for sports and relaxation to all in Cambridge, including the incredibly large influx of foreign language students and tourists in the spring and summer months. A wide variety of activities is possible in each location, including all outdoor as well as some indoor

court sports, swimming, punting, scullings, picnics, gardening, botanical research, reading, loving, contemplation, etc. There is no particular organization of any of the activity areas or specific times for use, and in that matter all seems to operate without too many misgivings. On the other hand, the lack of relationship and cohesion between the areas and the activities they support is quite obvious and deserves more attention to detail. The overall planning of a specific sports, leisure and performing fine arts center would better facilitate the community's needs in these areas.

RATIONALE

A city is not built wholly for the sake of shelter, but ought to be so contrived, that besides more civil conveniences, there may be handsome spaces left for Squares, Courses for Chariots, Gardens, places to take air in, for swimming, and the like, both for amusement and recreation.

L.B. Alberti
Dieci Libri, 1484

The creation of useful landscaping within the town for the use and enjoyment of the general public is essentially a Victorian concept dating from the 18th Century. This is due partially to the phenominal growth of the insensate industrial town, which created the basic needs for these grounds. At the time of the Victorian parks' conception, they were the only public provision for outdoor recreation and relaxation. Although there existed several popular seaside resorts and national parks, their offering was only temporary recreation for the public in the form of family holidays and weekend outings. The magnitude of usage of these areas outside the city is congruently related to inexpensive and readily available transportation, neither of which are too common in Britain. Because of the lack of these two precious commodities, along with agreeable weather, out-of-town recreational centers are not fully utilized year round and the importance of community based recreational centers in the larger cities becomes more critical.

But inside the complications of design for a whole community's recreational facility and parks system is the question of activities in the different classes. The lower income families have much more frequent and more informal, less organized types of leisurely activities in comparison to the middle income, who spend less time at leisure, have a much more organized, formal approach to park usage.

Pamela Dinkel

Formal gardens laid out for an estate, botanical gardens for the display of rare and fascinating species of flora and fauna, backyard gardens, and community parks all have one important similarity in that they are all based on an arrangement of live materials which are ephemeral, changing from day to day, month to month, year to year -- always between growth and death. This continual recreation provides an almost subliminal type of psychological comfort in the balancing order of diversity of the place, contributive to one's overall acceptance and comfort in that setting due to seasonal changes.

Lammas Land and Coe Fen are situated on a partially wooded area of the river Cam's initiation to the city of Cambridge. The physical characteristics of the site include many large varieties of oak, birch, willow, chestnut and poplar trees with an assortment of complimentary shrubbery. Along the Cam's banks grow the greater proportion of these trees and shrubs, but a good number have also been planted and grow in the inner areas of the grassy meadows. Also, there is a sampling of several species of wildflowers in the untended pastures of Coe Fen. A very tranquil environment on the east side of the banks makes this one of the most desirable relaxation spots in the city. On the west side of the river are two wading/swimming pools, large open grass sports pitches, a children's sandbox and play area, and again some unattended pastures for stock grazing. Many city and county league sports teams use the former area for their practices and games, as there are so few places to conduct an organized soccer, rugby, or cricket match. Many of the more formal match grounds have to be leased from private corporations, colleges, or groups who own the properties and charge a fee for the use of that ground. Space for participants and spectators of the games is only one of the concerns here. Spectator sports are still very important, but with the "health and leisure" cultural expansion of the last decade, a good number of the spectators are now also participating in sports that demand a certain level of skill and participation. This requires a recreational and leisure area that takes into consideration the needs of the people in the community, those who want to watch as well as play.

Taking into consideration that the residential areas directly adjacent to Lammas Land and Coe Fen are made up of a diverse mixture of young professionals, middle-aged families, and retired couples, the community recreation center and the surrounding park lands will have to respond to the needs of those people as participants in the park's redevelopment plan. The ability to successfully bridge the prevailing class stratum distinction can be more favorably achieved in an environment of equality, tranquility, and activity. This environment seems to be exemplified in the ancient Greek Arcadian principals.

A literal interpretation of Arcadia is, "...a pastoral region of ancient Greece, regarded as a rural paradise. An idealized region of scenic and simple pleasures, rustic innocence, and uninterrupted quiet."

To a certain extent, some of these qualifications already exist on site. Arcadia in this instance cannot be an unqualified physical realization in that the literal interpretation of Arcadia, more or less, has to be left up to the discretion of the person or persons experiencing that environment. Some of the many qualifying constituents of the Arcadian principle could possibly be the memorable and personal experiences that one has in such an inspiring environment; or the ability to walk along a slow-moving, meandering river on a wooded path that opens onto a large green meadow, enhanced by several aesthetically pleasing and complementary buildings thoughtfully arranged in the landscape to present a harmonious and impelling panorama. Obviously there are limitless possibilities of any individual's interpretation of Arcadia, as the word itself evokes many different responses. In the end, the overall character of one's surroundings is what influences a positive response, this being, in part, one of the hypotheses for the idea or perception of Arcadia. My interpretation of this hypothesis will reflect a projected measure or standard of how well a recreated environment will respond to the needs and desires of the users.

Ultimately, the environment created in Lammas Land and Coe Fen will be a direct response to the community's needs and desires, as related through myself, to have their own identifiable "landmark."

(Architecture)*...can and must be reinvented as the sense of an ideal habitation whose representation endows the city with meaning in even the meagerest practical circumstances. For otherwise, we fall into the hubristic impoverishment that has marked repeated modern efforts to make by positive techniques a literal Utopia of which so-called 'hi-tech' is the latest version.*

Brian Hatton, Building Design
February 15, 1985

DESIGN STATEMENT

New York is notoriously the largest and least loved of any of our great cities. Why should it be loved as a city? It is never the same city for a dozen years altogether. A man born in New York 40 years ago finds nothing, absolutely nothing, of the New York he knew. If he chances to stumble upon a few old houses not yet leveled, he is fortunate. But the landmarks, the objects which marked the city to him, are gone.

Author Unknown, Harper's Monthly
June 1856

Cambridge, as a town built on a base of higher education and expanding with the future of high technology, has always welcomed changes and improvements in the sciences, arts, and humanities. Technology, arts and architecture, and scholastic achievements in Cambridge have recorded their advancements as a chronology reflective of the major events and trends of the world. In particular, the architectural styles introduced to the city have always mirrored latest trends and design principles of the times. In keeping with this tradition, a design lexicon reflective of today's styles and future trend references is only appropriate. Interpretation of these ideas will be based on my personal experiences of living and working with the people of Cambridge for well over one year, and also with the help of information and advice from those same people.

In the end, this thesis project is to provide a viable solution to the question of an Arcadian environment as a community's recognizable center, or landmark, in the form of redeveloped park land and pastural areas imbued with congenial structures including a community recreational and meeting facility, two pool houses, several park pavilions, and other various out buildings. This particular solution will hopefully demonstrate that, historically and geographically, the center of a community need not necessarily be placed in the middle of aforementioned community. Through the attentive amalgamation of landscaping, architectural program, and other amenities provided, Lammas Land and Coe Fen will provide an enjoyable and relaxing atmosphere for a diverse range of activities and personalities.

PRECEDENTS

All rational improvement of grounds is, necessarily, founded on a due attention to the Character and Situation of the place to be improved; the former teaches what is advisable, the latter what is possible to be done; while the extent of the premises has less influence than is generally imagined, as, however large or small it may be, one of the fundamental principles of landscape gardening is to disguise the real boundary.

Humprey Repton

One building standing alone in the countryside is experienced as architecture, but bring half a dozen buildings together and an art other than architecture is made possible.

Gordon Cullen
Townscape

TOWNSCAPE DISCIPLINE

- Haphazard, piecemeal growth.
- Use of the auto challenges the urban design.
- Rebuild within the disciplines of the local or regional identity; not reproduction, but a reinterpretation of specific qualities.
- Economic, political, geographic forces behind a town's creation, growth, and possible deterioration and disappearance.
- Qualities of spaces and layouts which create a local or regional discipline.
- Few open green spaces left due to the number and density of the British people on such a small island.
- Nature reserves vehemently defended by societies from the encroachment of development.
- Territorial dominance by city, incorporated village, and neighborhood.
- Respond in some way to social, physical, and psychological needs.
- Necessity for continuous change.

LANDSCAPE DISCIPLINE

- Landscape design as an art?
- Observation of extreme care and consideration in the placement of appropriate species of trees, bushes, flowers, etc.
- Branch configurations change the immediate environment and its possible uses.
- Landscaping is only one-third of the park; the structures placed on the landscape and the people who move through both make up the other two-thirds.
- Privacy, seclusion, and a feeling of a pleasant rural atmosphere.
- Singled out as a "community center," yet retention of its former identity is inevitable.
- Popularity and usage depends on the proximity of its furthermost patrons.
- Nearby shops, schools, and church all add to the vitality of the park.
- Interaction processes:
    - cooperation
    - accommodation
    - competition
- Improvement of environment for everyone.
- Respond to people's ideosyncratic needs and behavioral patterns.
- Cultural, ethnic, regional, populace influences?
- Trendy versus time-honored.

USER GROUP DISTINCTIONS

Whether or not a person went to the park depends much more on who else was there than on the physical design of the park.

Randolph T. Hester, Jr.

PHYSIOLOGICAL SEPARATION OF THE PLAY-ACTIVITY AGE GROUPS

Nursery School (3-5 years)

- Repetitive actions
- Practice play
- Beginning imitation

Primary School (5-11 years)

- Intense interest in games with rules
- Intuition, slight logical operatives

Secondary School (11-17 years)

- Formulation of theories
- Passage into adolescence

Play-activity may include:

- Height of fantasy and imagination
- Imitation of adult behavior
- Adventure and exploration
- Physical coordination development
- Observation of others
- Creativity with objects or materials

PROVISIONAL CONSIDERATIONS FOR THE RESPECTIVE AGE GROUPS

Nursery Age

The areas designated as such should be partially shaded from the sun and also sheltered from the weather, but should be south-facing in the orientation of the activities. A wide variety of play surface textures as well as stimulating and imaginative play equipment is needed to be conducive to the parents wanting their children to participate in this environment. An inviting abode reserved for parental supervision would enhance the positive attitude and atmosphere for both the children and adults. Landscaping surrounding the play area should also be imaginative enough to serve the dual purpose of enclosure and safety for the children.

Primary Age

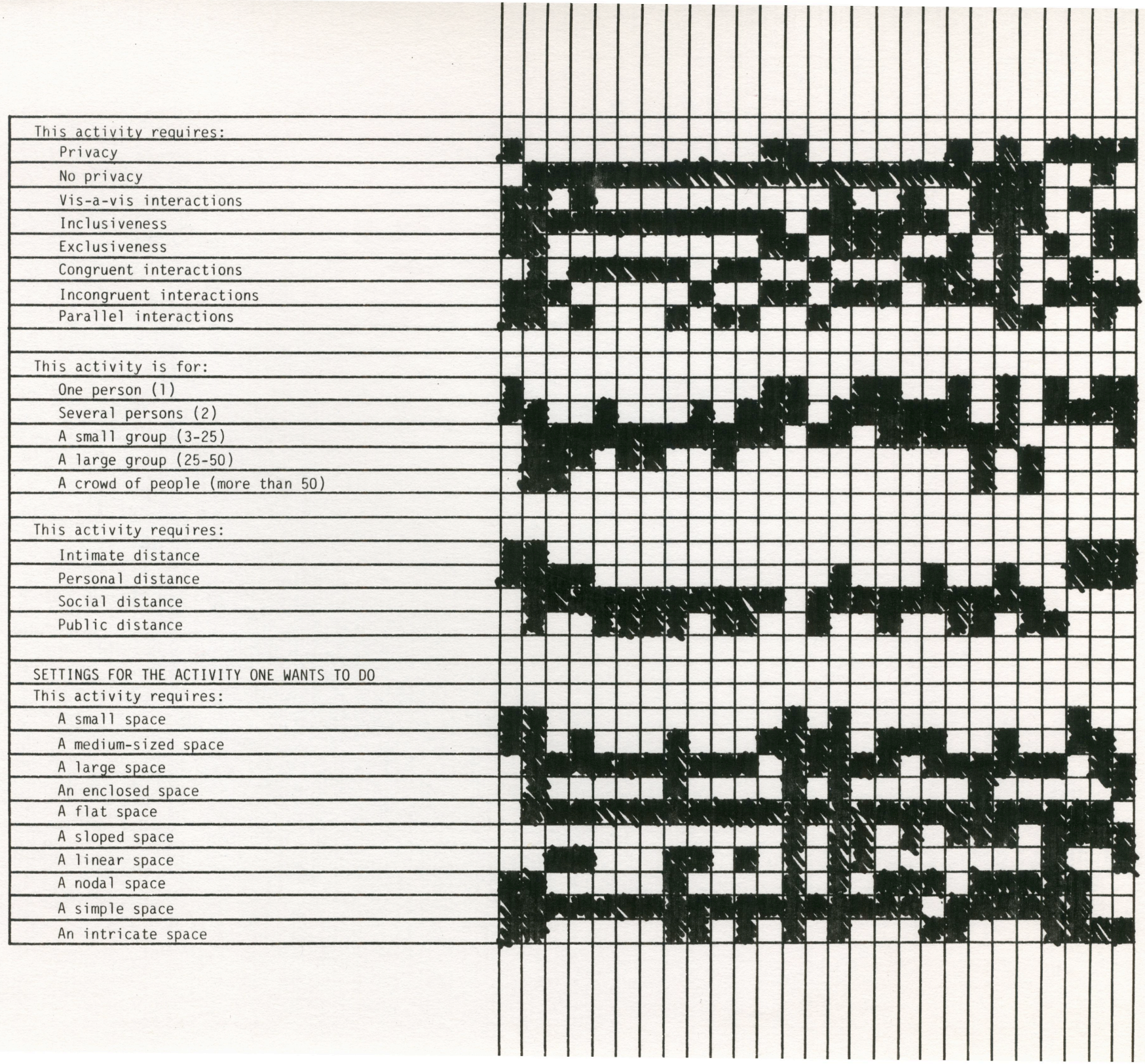
The areas designated as such have almost the same considerations as the nursery age areas, but because of the age and developmental differences between the two groups, more factors have to be considered. More adventurous and stimulating equipment is necessary to capture a more vivid imagination, as well as larger open spaces and surface variations. The play equipment may include merry-go-rounds, slides, monkey climbers, adventure tunnels and mazes, defendable fortresses, etc., all of these accommodating the increased movement and exhilaration of this age group.

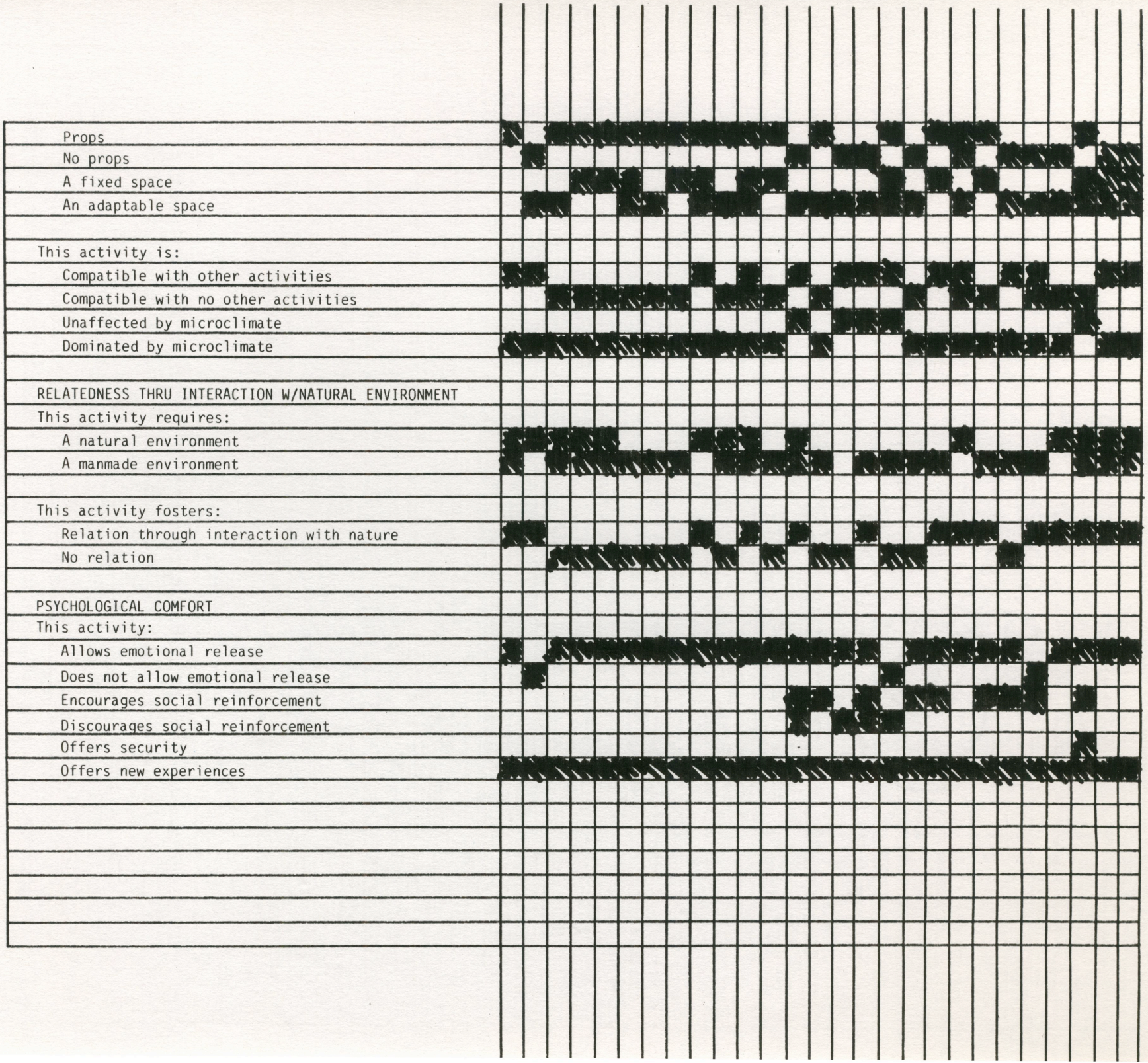
Secondary Age

The areas designated as such must reflect a more unreserved and capricious requirement for play area. Provisions for unorganized play, ballgames, sports pitches, as well as all-weather surfaces for basketball, handball, tennis, etc., are more of a concern for this age group. Participant group sizes range from opposing teams and groups of 20 to 30 persons each to individuals wanting to jog or bicycle on a paved path.

Outside the play-activity age groups are three more user groups, those being adults, elderly, and the handicapped. In many ways the adult group's requirements parallel those of the secondary age groups in that more open, uninterrupted areas are used for team or group activities. There is also the need for more enclosed or isolated areas for personal and private activities or reflections. The elderly also make use of these more personal areas due to the fact that participation in team sports is a bit more infrequent. Paths for walking and bicycling that weave an interesting and time-consuming path are a more desirable activity, but only if security and peace of mind is assured. A good deal of the activities of this particular user age group are performed out of the weather and some will be facilitated by the community center's indoor spaces.

PEOPLE ONE WANTS TO DO ACTIVITY WITH	Sitting on Bench	Picnic	Football	Basketball	Tennis	Cricket	Soccer	Bowls	Swimming	Rugby	Punting	Swing	Fantasy Play	Volleyball	Hang Out	Walk to Work	Wait for Bus	Speech	Play in Fountain	Study Nature	Outdoor Theatre	Dancing	Crafts Fair	Watching Birds	Talking to Lover	Ride Bicycle	Walk in Woods
This activity is for:																											
Preschool children																											
Elementary children																											
Adolescents																											
College students																											
Unmarried adults																											
Young married adults																											
Married adults with elementary children																											
Married adults with adolescents																											
Middle-aged adults																											
Elderly																											


This activity requires:
Privacy
No privacy
Vis-a-vis interactions
Inclusiveness
Exclusiveness
Congruent interactions
Incongruent interactions
Parallel interactions
This activity is for:
One person (1)
Several persons (2)
A small group (3-25)
A large group (25-50)
A crowd of people (more than 50)
This activity requires:
Intimate distance
Personal distance
Social distance
Public distance
SETTINGS FOR THE ACTIVITY ONE WANTS TO DO
This activity requires:
A small space
A medium-sized space
A large space
An enclosed space
A flat space
A sloped space
A linear space
A nodal space
A simple space
An intricate space


Props
No props
A fixed space
An adaptable space
This activity is:
Compatible with other activities
Compatible with no other activities
Unaffected by microclimate
Dominated by microclimate
RELATEDNESS THRU INTERACTION W/NATURAL ENVIRONMENT
This activity requires:
A natural environment
A manmade environment
This activity fosters:
Relation through interaction with nature
No relation
PSYCHOLOGICAL COMFORT
This activity:
Allows emotional release
Does not allow emotional release
Encourages social reinforcement
Discourages social reinforcement
Offers security
Offers new experiences

PROGRAMMATIC ANALYSIS

COE FEN

Four of the basic design elements that are contained in Lancelot "Capability" Brown's Park Formula are:

- Encircling belt of trees to contain the views into and out of the park, except where any outside features are agreeable with the theme or layout of the park.
- Placement of clumps or groups of birch, beech, oak, or ash within the park to enliven the middle distance vistas.
- Use of serpentine lakes and/or rivers whose ends are concealed and banks bare, save the odd sweep of forest or lower lying vegetation creeping onto the water's edge.
- Subtle undulation of the landscape.

Goals

- To provide a multifunctional landscape that accommodates the needs of the community's desires for individual as well as group activities.
- To serve as a "center" or major interaction area for the surrounding community, without slighting the city.
- To efficiently organize and maximize the outdoor spaces for a more acceptable usage distribution.
- To redevelop and integrate the pools into the new site master plan.
- A playground area specific to the nursery, primary, and secondary age groups.
- A proposed amphitheatre for outdoor concerts, summer plays and performances, craft fairs, etc.
- A docking and storage area for a new punt rental station, to be run through the city's parks and recreation department.
- Parking requirements for approximately 50 automobiles plus paved areas for motorcycles and bicycles.

Facts

- The total site area is approximately 45 acres.
- Not all of this area will be redeveloped as actual open fields, as approximately 10 acres are protected by the Preservation Society of Cambridge as a national wood.
- The river Cam divides Lammas Land and Coe Fen into unequal portions.
- This location is within three-quarters of a mile of the city center.

- Uninterrupted pastoral views to the south.
- The site is in close relationship to the universities' "backs."
- The immediate community consists of mainly middle to high income professional families.
- Major pedestrian and vehicular routes border the north and west boundaries.
- The site is almost ideal for all activities in that it is level throughout.
- Flooding of the area by the Cam is almost nonexistent.
- A majority of the trees on site are very mature, well-rooted oaks, ash, chestnut, and other varieties.

Needs

- The site must sustain at least two multipurpose soccer-rugby-football fields with ground markings and ample room for spectators on one field for formal games.
- There must be at least one cricket pitch and pavillion for the use of city and county league team play and practice.
- The site must accommodate more than one parking area to alleviate the problem of mass pavement.
- A nature trail meandering through the preserve that follows the river Cam to the home of Rupert Brooke at Grantchester.
- Respond to the Arcadian ideals previously discussed.
- Relative conformity between manmade and natural environments.

- The course of the river Cam shall not be altered, but minor improvements can occur.

- At least one vehicular and three pedestrian entrances at strategic locations.

PROGRAMMATIC ANALYSIS

COMMUNITY CENTER

ENTRY/RECEPTION AREA

Goals

- To create an initial environment of welcome and security.
- To provide an appealing atmosphere for visitors, sports fans, and employees.

Facts

- A progression of spaces from airlock entry, reception and circulation area, to the cover of the building. The reception area contains staff to assist with clerical work as well as control of the users of the sports and relaxation facilities. Room should be allocated for secure storage.

Needs

- Entry airlock of approximately 150 sq.ft.
- Reception area of approximately 260 sq.ft., including a front reception desk, seating area, secretarial desk, credenza, files, storage space, and seating for the staff.
- Circulation allowance of 100 sq.ft.

DIRECTOR'S OFFICE

Goals

- To provide an appropriate working office environment for the director of the facilities.

Facts

- The square footage necessary does not have to reflect an upper-executive position.
- Directly adjacent to the reception area with access to natural light and ventilation.
- One-half bath between the director's office and the reception area for staff use.

Needs

- Approximately 150 sq.ft. office area.
- Furnishings include a desk, credenza, large executive chair, 2 visitor's chairs, file cabinet.
- The one-half bath includes 1 water closet and 1 lavatory, at approximately 30 sq.ft.
- General storage room adjacent to the director's office and the reception area is approximately 50 sq.ft.

GROUNDSKEEPER'S OFFICE

Goals

- To provide an appropriate working office for the caretakers of the facilities.

Facts

- The caretakers spend most of their working hours outdoors, but a base for operations is necessary.
- Directly adjacent to the director's office and the reception area.
- Access to the outdoors without going through community center.

Needs

- An office of approximately 100 sq.ft.
- Furnishings to include 1 desk, 2 office chairs.
- Natural light and ventilation.

MEETING/MULTIPURPOSE ROOMS

Goals

- To provide useful and needed rooms that can comfortably accommodate community groups, informal and formal seminars, receptions, social gatherings, etc., for private as well as public atmosphere.

Facts

- Rooms are to be large enough to accommodate 20 to 30 persons, depending on the seating layout. Two of the rooms are to be divided by a movable shutter wall system to provide space for larger gatherings.

Needs

- Four meeting rooms at 625 sq.ft. each, for a total of 2,500 sq.ft. All rooms to be directly accessible from the outside as well as from the inside.
- Thirty portable, stackable chairs per room.
- Adequate glass area to provide natural light and ventilation.

BATHROOMS

Goals

- To provide adequate general bathroom facilities for the community center.

Facts

- Location near the lounge area and the meeting rooms.
- Separate men's and women's back-to-back for economy and plumbing maintenance ease.

Needs

- The men's bathrooms are approximately 100 sq.ft. each and include:
  - 1 water closet
  - 1 urinal
  - 2 lavatories
  - 1 hand dryer
- The women's bathrooms are approximately 100 sq.ft. each and include:
  - 1 water closet
  - 1 handicap water closet
  - 2 lavatories
  - 1 hand dryer

LOUNGE AND GAME ROOM

Goals

- To provide an informal, relaxing atmosphere for pre- and post-sport "play."
- Seating arrangement in the lounge to be reminiscent of "ye olde pub", but with present-day considerations.

Facts

- The lounge has seating accommodations for approximately 40 people.
- Bar to consist of snack foods, health foods, juice bar, cider, local brew.
- Area for videogames, a heart rate monitor, etc.
- Area for snooker tables should be directly adjacent to lounge area.
- Directly accessible to the entry and reception areas.

Needs

- Lounge area to be approximately 20 sq.ft. per person, for a total of 1,000 sq.ft.
- Cocktail tables and chairs to accommodate 40 people.
- Juice bar to include drink dispenser, snack food displays, a stand-up bar front and back bar, miscellaneous equipment, bar stools, etc.
- Snooker table and videogames area to be approximately 1000 sq.ft.

KITCHEN FACILITY

Goals

- To provide adequate food preparatory facilities for smaller gatherings and social functions not being catered.

Facts

- The room should be large enough to accommodate the appliances, working spaces, and storage area necessary to service a moderate number of people.

Needs

- One main room containing 300 sq.ft., plus additional storage of about 100 sq.ft.
- Appliances to include a 6-burner light commercial range, 2 light commercial ovens, refrigerator, freezer, adequate counter work space, storage areas for food preparation and serving items, light commercial automatic dishwasher, wet sink area, cupboard space, etc.
- Direct access to the elevator is necessary for ease of delivery and circulation.

LOCKER ROOMS

Goals

- To provide comfortable and easily accessible lockers from the outdoor sports grounds as well as the indoor areas.
- To create an easy and economical circulation pattern and design layout for the male and female rooms.

Facts

- The locker rooms should be large enough for 60 top-over-bottom lockers, or 30-person maximum load capacity.
- Bathroom directly adjacent to the locker room.
- Shower room directly adjacent to the locker room.

Needs

- Locker room areas should be approximately 240 sq.ft. each, for a total of 480 sq.ft.
- Sixty top-over-bottom lockers to provide 60 lockers total, 30 person maximum load capacity.
- Adequate bench and circulation areas.

LOCKER ROOM BATHROOMS

Goals

- To provide an adequate number of fixtures to handle peak load conditions, including one handicap access toilet.

Facts

- The bathrooms for males and females each have their own particular requirements. Fixture numbers have been calculated on the square footage and type of building classification.

Needs

- The men's bathroom is approximately 200 sq.ft. and includes:
  - 2 water closets
  - 1 handicap water closet
  - 3 urinals
  - 4 lavatories
  - 2 hand dryers
- The women's bathroom is approximately 160 sq.ft. and includes:
  - 3 water closets
  - 1 handicap water closet
  - 6 lavatories
  - 2 hand dryers

LOCKER ROOM SHOWERS

Goals

- To provide an appropriate number of showers to deal with maximum load conditions.
- To provide a towel drying area to reduce water problems in the locker rooms.

Facts

- The shower rooms should be large enough to contain 2-5 head shower poles, or 10 people maximum at peak load periods.
- The drying room and circulation areas should be adequate to contain 10 persons each for the maximum peak load period.
- The shower room should be directly adjacent to the locker rooms and the bathroom. Columnar shower poles containing 5 separate heads are the most economical choice for this project for space as well as monetary reasons.

Needs

- Men's room -- 2-5 head shower poles; women's room -- 1-5 head shower poles plus 2 individual shower cubicles.
- The shower rooms should be approximately 150 sq.ft. each.
- The drying rooms and circulation should be approximately 50 sq.ft. each.

WEIGHTLIFTING ROOM

Goals

- To accommodate full-course Universal weight machines.
- To provide extra room for a comprehensive free weight setup.
- To provide extra room for free exercise and calisthenics.

Facts

- The room should be just large enough to accommodate a minimal amount of equipment and people. The weight room should be directly related to the sports hall and the locker room.

Needs

- A room of approximately 300 sq.ft. Two Universal weight machines, each consisting of lateral press bars, pectoral bench press, vertical push-up bars, leg press and foot press mechanisms; 2,000 pounds of free weight disks with four Olympic weight bars; weight lifting mats for the floor; mirrors for self observation.

SAUNA/HOT TUB AREAS

Goals

- To provide a conducive atmosphere for post-workout relaxation.
- To provide a gathering place for males and females for a more natural conclusion to a long and strenuous exercise period.

Facts

- The sauna shall be a wet heat type system, to accommodate a maximum of 15 people. The hot tub shall be a jacuzzi type system, to accommodate a maximum of 18 people. Both the sauna and the hot tub should be accessible from the main corridor and the locker rooms.

Needs

- The sauna room should be approximately 150 sq.ft., with access to the drying rooms. The sauna consists of redwood-lined walls, redwood benches, a wet heat lava rock heater, door with a glass sight panel. The hot tub room should be approximately 200 sq.ft. to contain a redwood tub of approximately 100 sq.ft.

HANDBALL/RACQUETBALL/SQUASH COURTS

Goals

- To provide playing courts that are multidisciplinary in their usage.
- To accommodate a high number of sports people who are not yet of professional standing in their court-sporting abilities.
- To design so future expansion is easily achieved.

Facts

- Enough courts to handle an ever-changing client desire to play any of the court sports without changing courts.

Needs

- Six courts of dimensional acceptability for all three sports, to be approximately 800 sq.ft. apiece, for a total of 4800 sq.ft.; plus circulation, for a total of approximately 5200 sq.ft.

GENERAL SPORTS HALL

Goals

- To enhance the active community's facilities for sports and recreation.
- To provide the community center with a desirable facility that contains enough area for a variety of activities.

Facts

- The hall shall be large enough to accommodate 2 full-size (NBA) basketball courts and inside those there is the ability to mark out courts for volleyball, short-side soccer, badminton, an aerobics area, etc.
- Adjacent to the sports area there shall be retractable seating of approximately 10 rows for spectators. When the seating is in its retracted position, there will be extra space for the activities area.
- Storage area for the facility's support equipment.
- A ceiling height of 20' minimum is required.

Needs

- An overall area of 14,500 sq.ft., inclusive of activities areas and adequate room for the extended seating and circulation space.
- 100 sq.ft. of storage room area.

MECHANICAL ROOM

Goals

- To provide adequate space for the building's mechanical systems.
- To provide supplemental storage space and janitorial space.

Facts

- Mechanical space requirements are calculated on a percentage ratio to building square footage and functional usage.
- A central location is most economical and easily accessed.

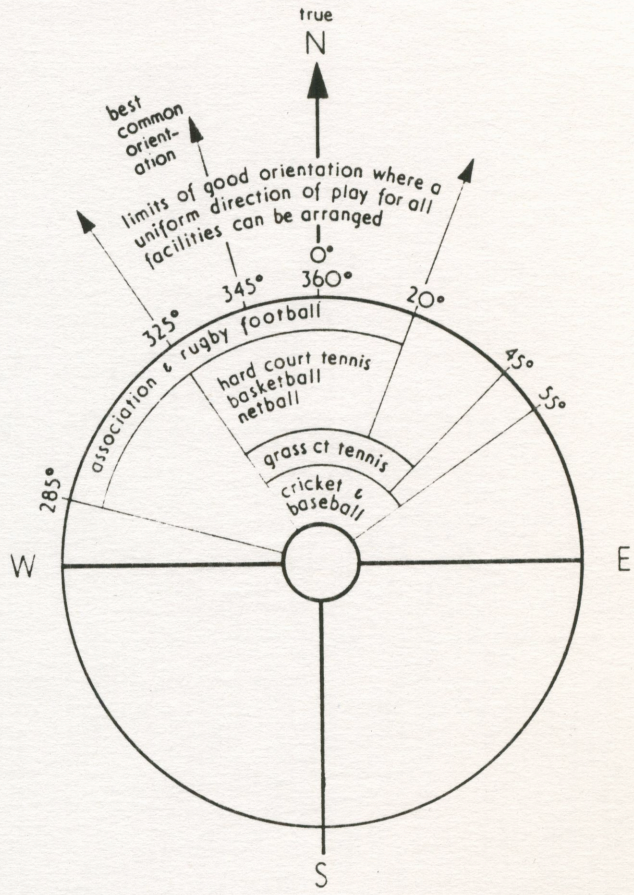
Needs

- Mechanical area to be approximately 3000 sq.ft., inclusive of janitorial space and storage.

ACTUAL SQUARE FOOTAGES

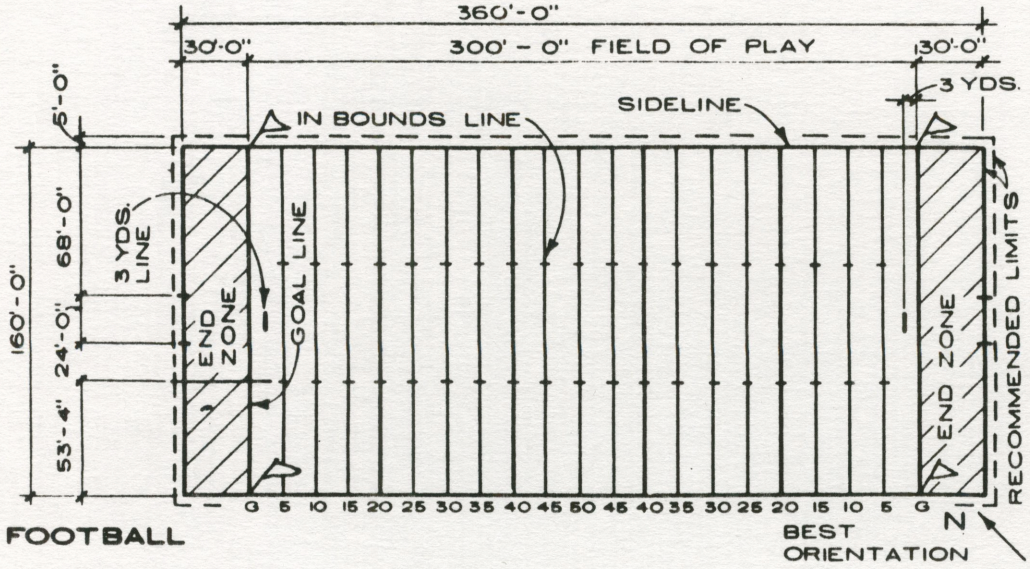
	Sq.Ft.
Offices:	
Reception	216
Secretarial	220
Director	200
Groundskeeper	100
Storage	50
Meeting/Multipurpose Rooms (5 @ 400 sq.ft. ea)	2,000
Bathrooms:	
Men's (2 @ 106 sq.ft. ea.)	212
Women's (2 @ 100 sq.ft. ea.)	200
Lounge and Games Room	2,880
Kitchen	432
Locker Rooms Shower Rooms Bathrooms	
Men's	832
Women's	900
Weightlifting Room	240
Sauna	196
Handball/Racquetball/Squash Courts (6 @ 800 sq.ft. ea.)	4,800
General Sports Hall:	
	15,120
Storage and Mechanical	1,616
Mechanical	2,134
Circulation	5,072
TOTAL SQUARE FOOTAGE	37,420

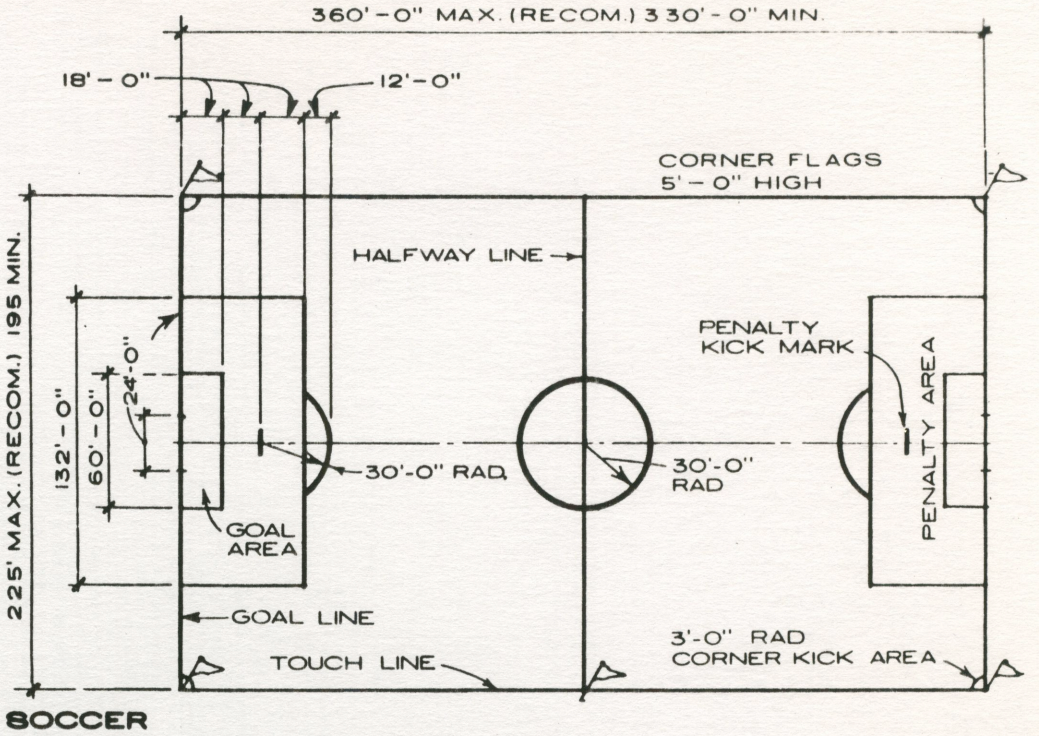
OUTDOOR ACTIVITIES



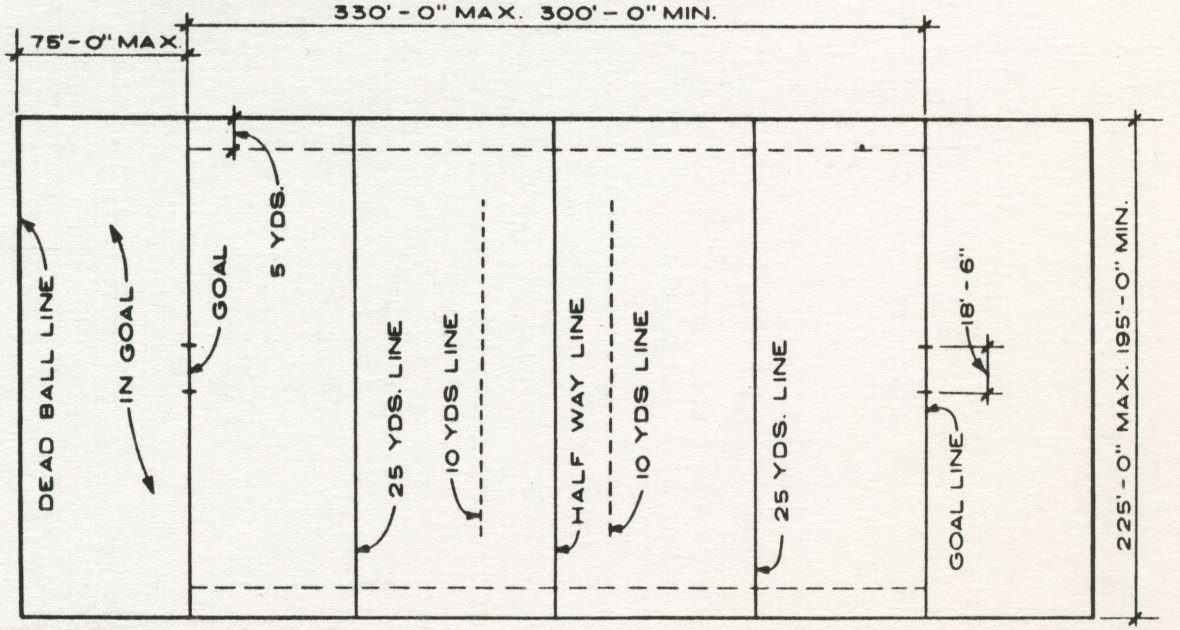
2 Orientation of sports fields and courts

Note: Hockey pitches may be sited in any direction as the ball rarely rises high enough for the sun to be a nuisance

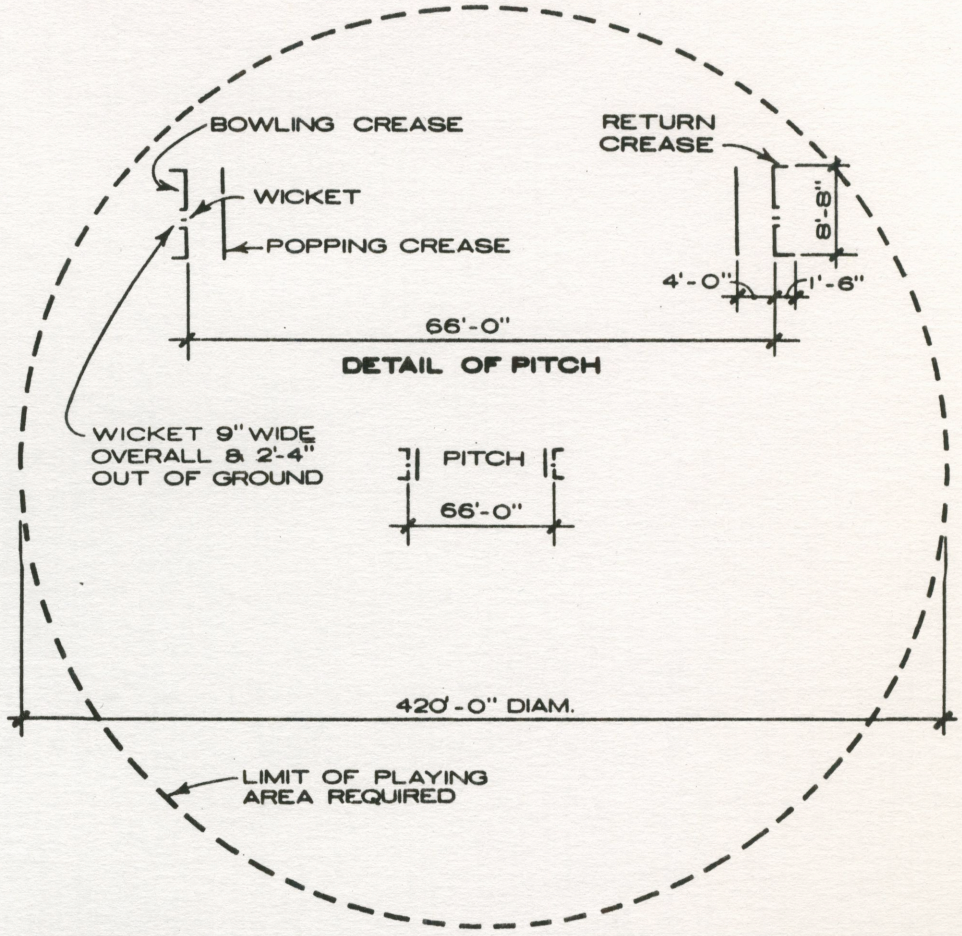

360'-0"
30'-0"
300'-0" FIELD OF PLAY
30'-0"
3 YDS.
5'-0"
IN BOUNDS LINE
SIDELINE
160'-0"
68'-0"
3 YDS. LINE
24'-0"
53'-4"
END ZONE
GOAL LINE
END ZONE
RECOMMENDED LIMITS
G 5 10 15 20 25 30 35 40 45 50 45 40 35 30 25 20 15 10 5 G
N
FOOTBALL
BEST ORIENTATION



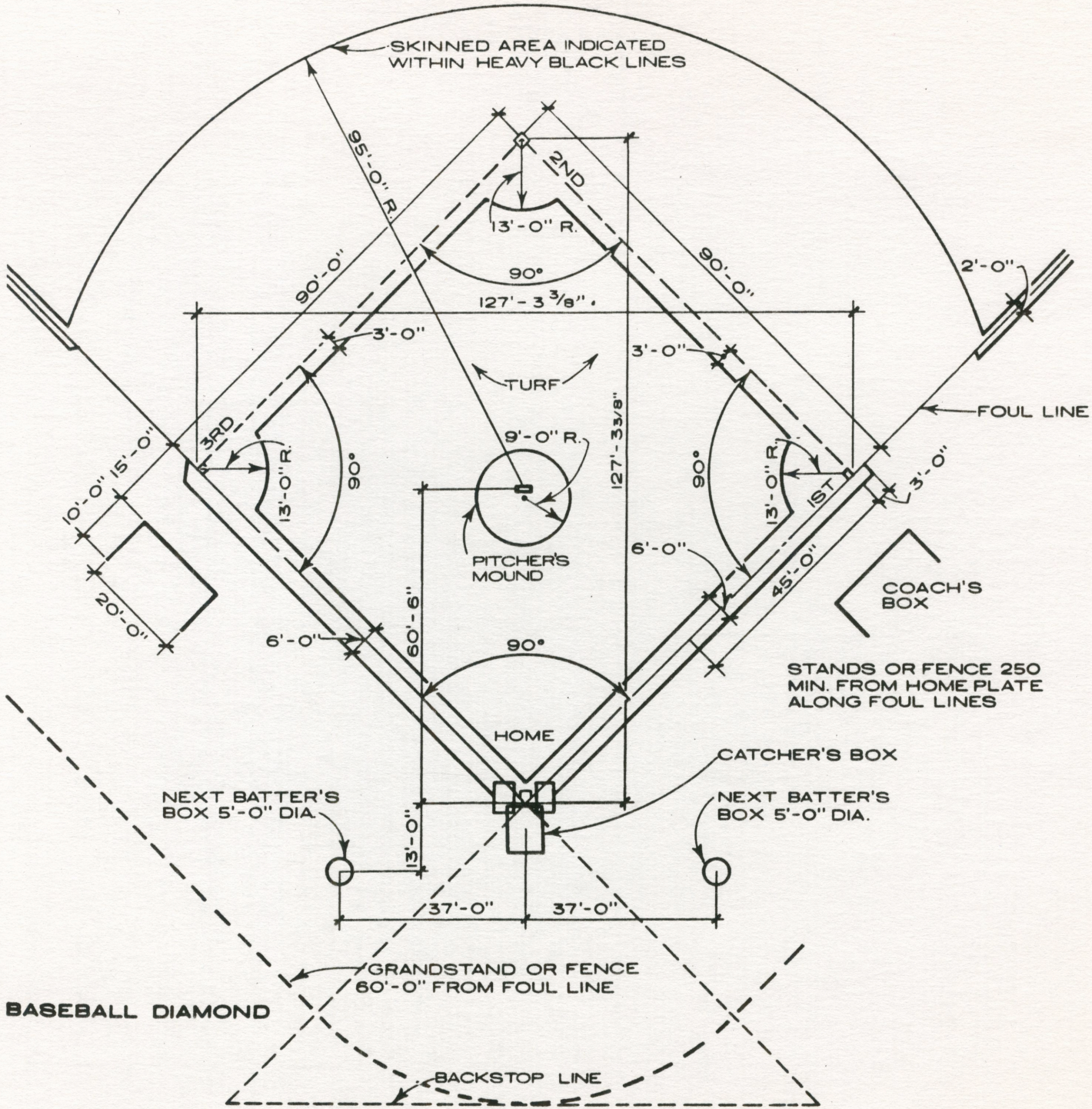
SOCCER

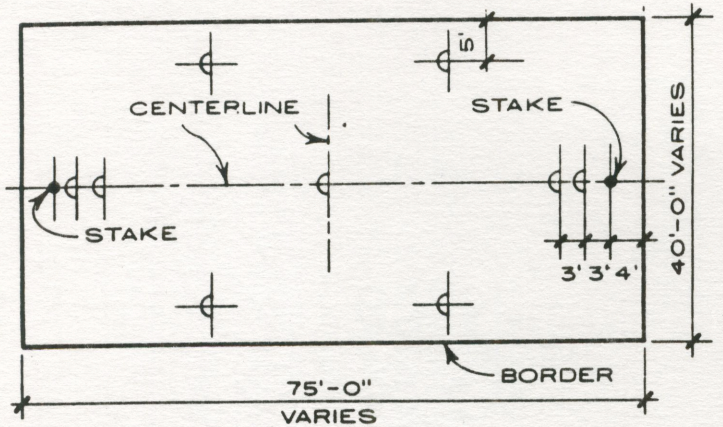


RUGBY

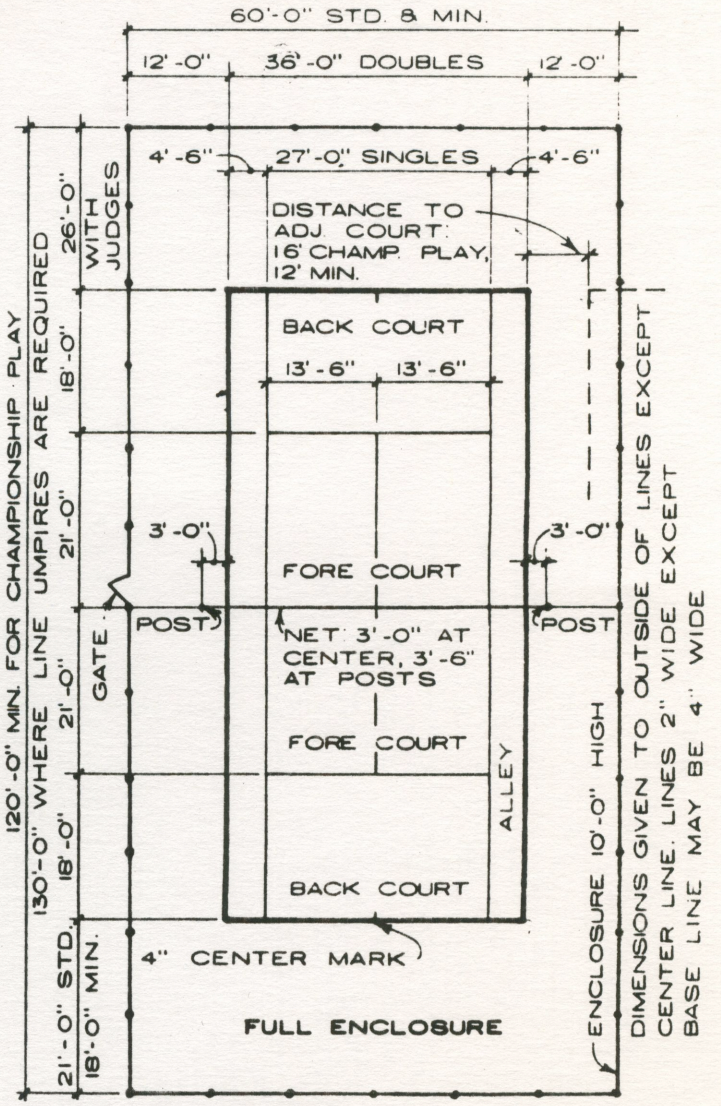

BOWLING CREASE
RETURN CREASE
WICKET
POPPING CREASE
8'-8"
4'-0"
1'-6"
66'-0"
DETAIL OF PITCH
WICKET 9" WIDE OVERALL & 2'-4" OUT OF GROUND
PITCH
66'-0"
420'-0" DIAM.
LIMIT OF PLAYING AREA REQUIRED

CRICKET

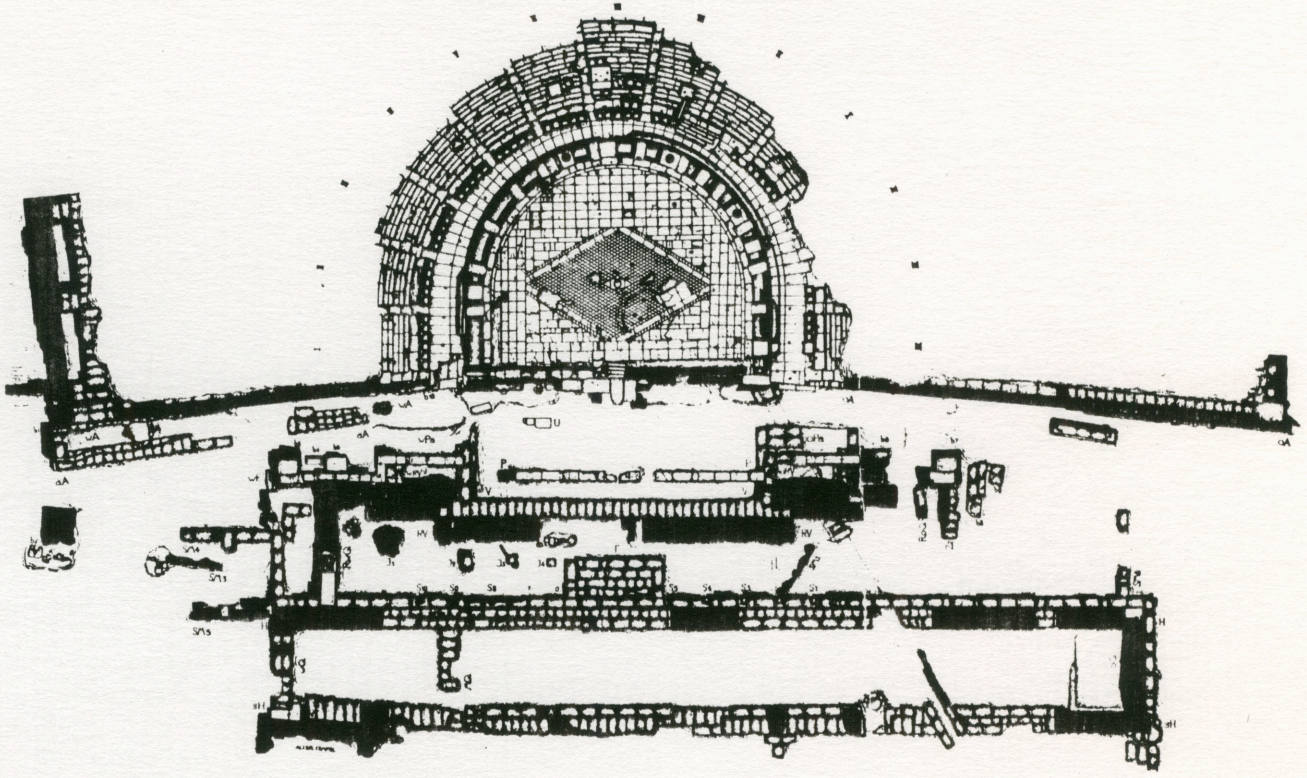

SKINNED AREA INDICATED
WITHIN HEAVY BLACK LINES
95'-0" R.
2ND
13'-0" R.
90°
90'-0"
90'-0"
2'-0"
127'-3 3/8"
3'-0"
3'-0"
TURF
FOUL LINE
3RD
9'-0" R.
127'-3 3/8"
90°
90°
13'-0" R.
13'-0" R.
1ST
3'-0"
10'-0"
15'-0"
PITCHER'S
MOUND
6'-0"
45'-0"
COACH'S
BOX
20'-0"
6'-0"
60'-6"
90°
STANDS OR FENCE 250
MIN. FROM HOME PLATE
ALONG FOUL LINES
HOME
CATCHER'S BOX
NEXT BATTER'S
BOX 5'-0" DIA.
NEXT BATTER'S
BOX 5'-0" DIA.
13'-0"
37'-0"
37'-0"
GRANDSTAND OR FENCE
60'-0" FROM FOUL LINE
BASEBALL DIAMOND
BACKSTOP LINE

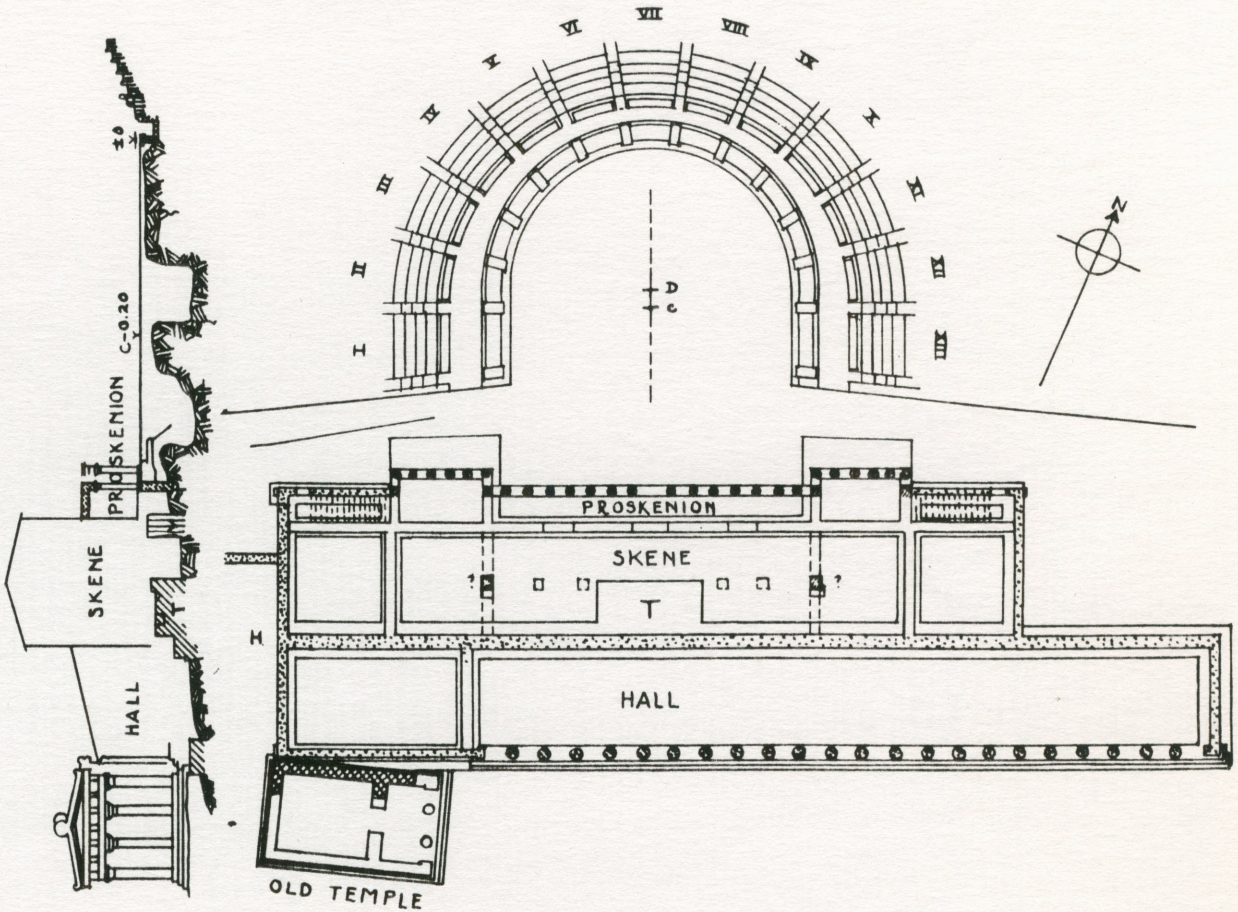


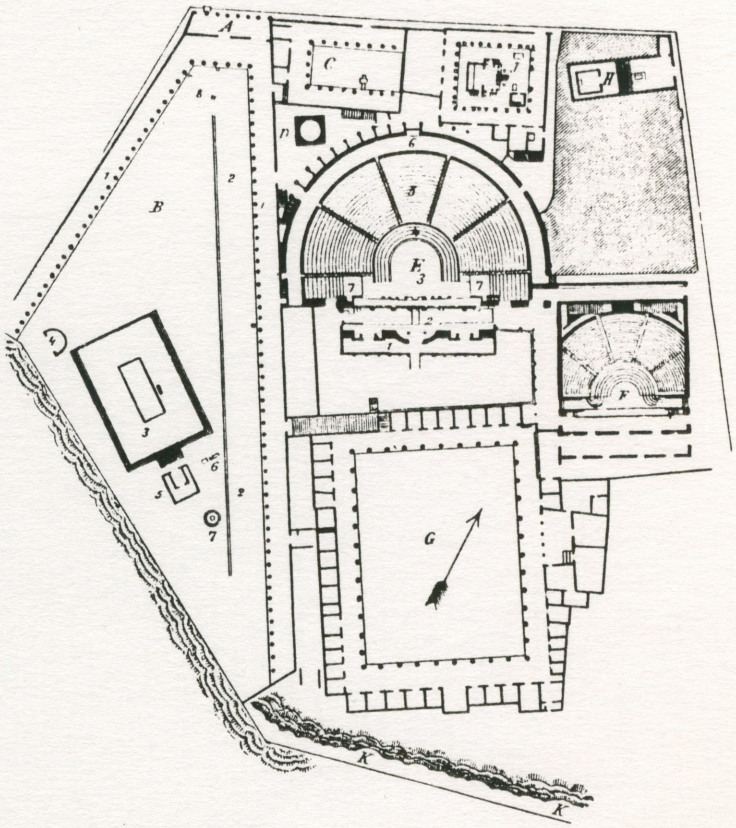
LAWN CROQUET



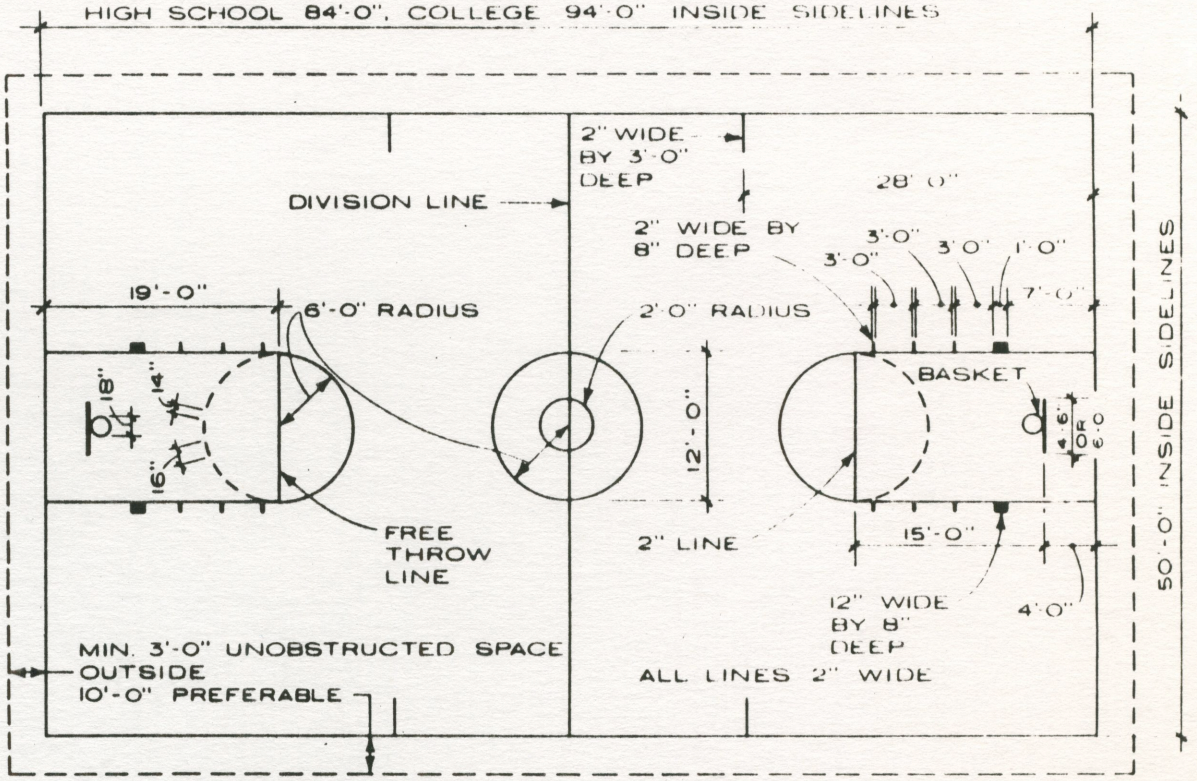
STANDARD COURT



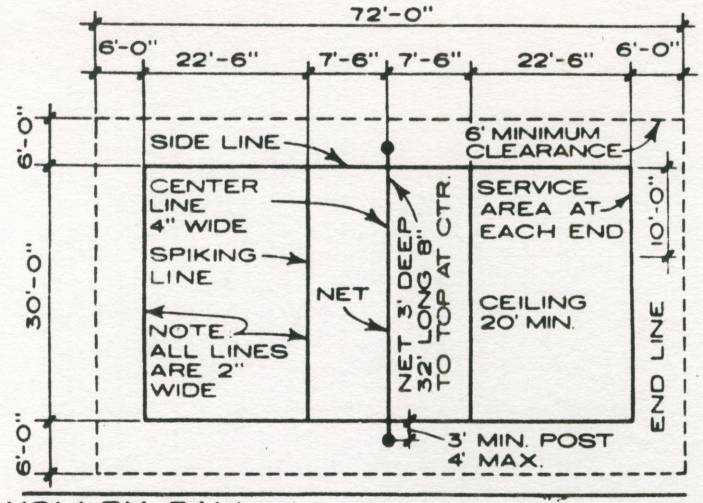

±0
C-0.20
PROSKENION
SKENE
HALL
PROSKENION
SKENE
T
HALL
OLD TEMPLE
N


A
B
C
D
E
F
G
H
I
K
K
K

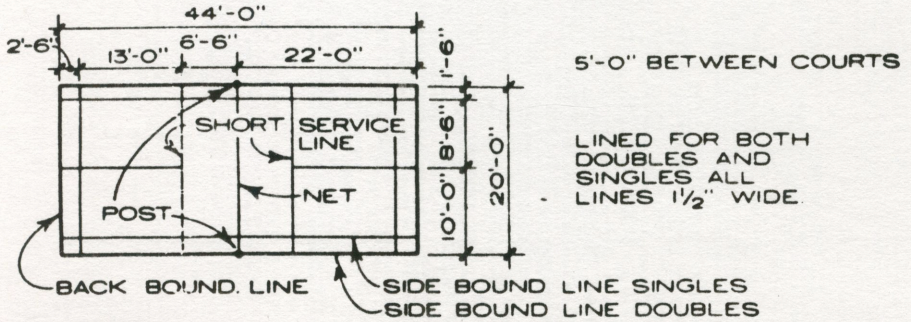
INDOOR SPORTS



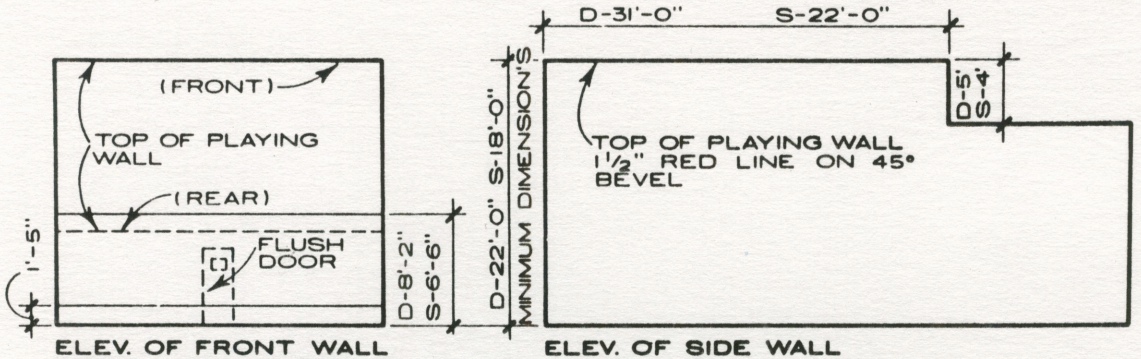
BASKETBALL COURT



VOLLEY BALL



BADMINTON

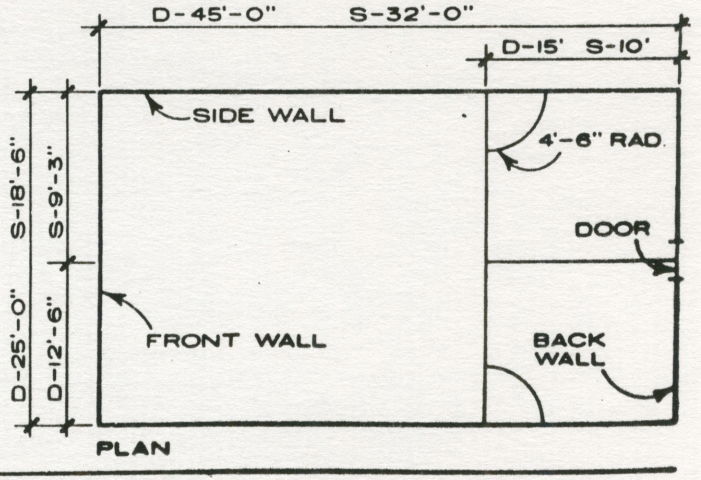


DOOR HGT. 5'-6", WIDTH
DOUBLES-3'-0";
SINGLES 2'-6"

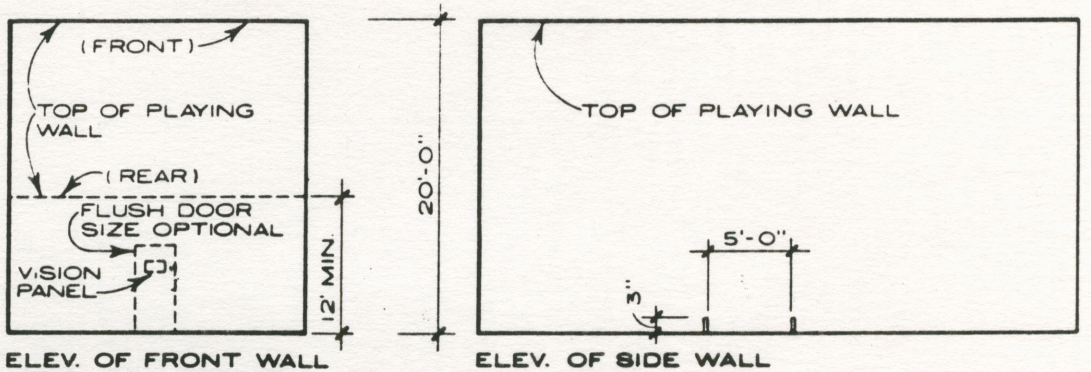
D-DOUBLES
S-SINGLES

SPECTATOR GLASS
WALL PANELS AVAIL.

WALL AND FLOOR LINES
ARE 1" WIDE, RED



SQUASH

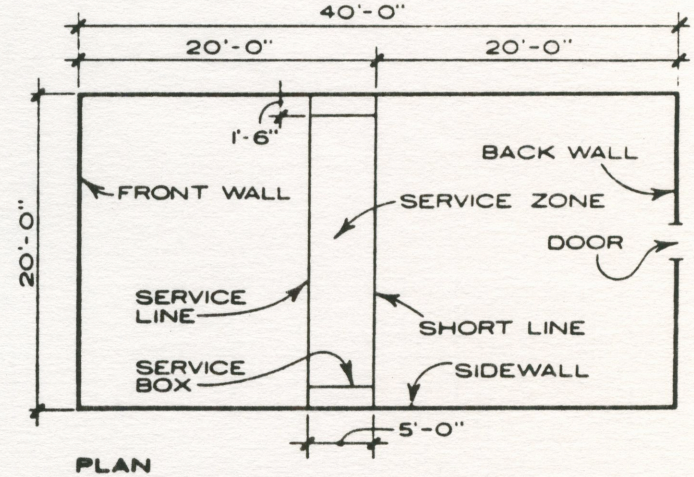


ELEV. OF FRONT WALL
(REAR WALL DOTTED)

ELEV. OF SIDE WALL

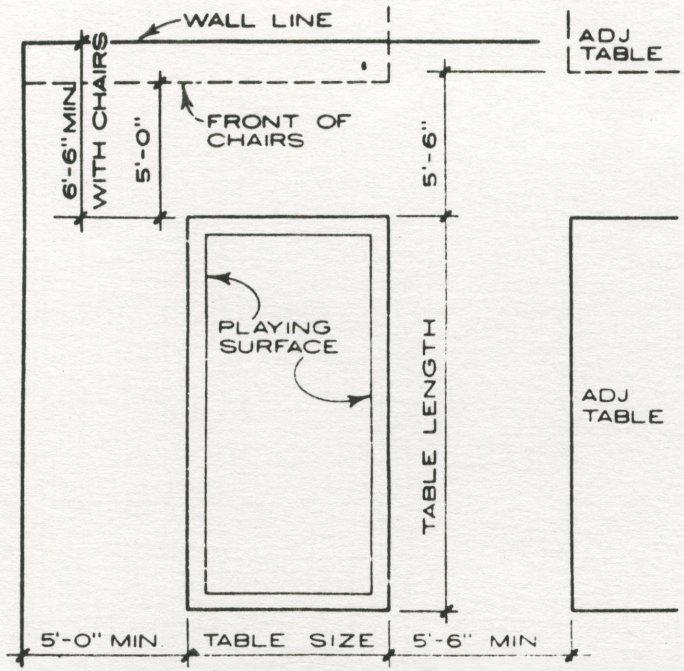
ALL LINES ARE 1½" WIDE. FLOOR LINES ARE WHITE OR RED

RECEIVING LINE ON EACH SIDEWALL IS RED



PLAN

FOUR WALL COURT
FOR HANDBALL AND RACQUETBALL



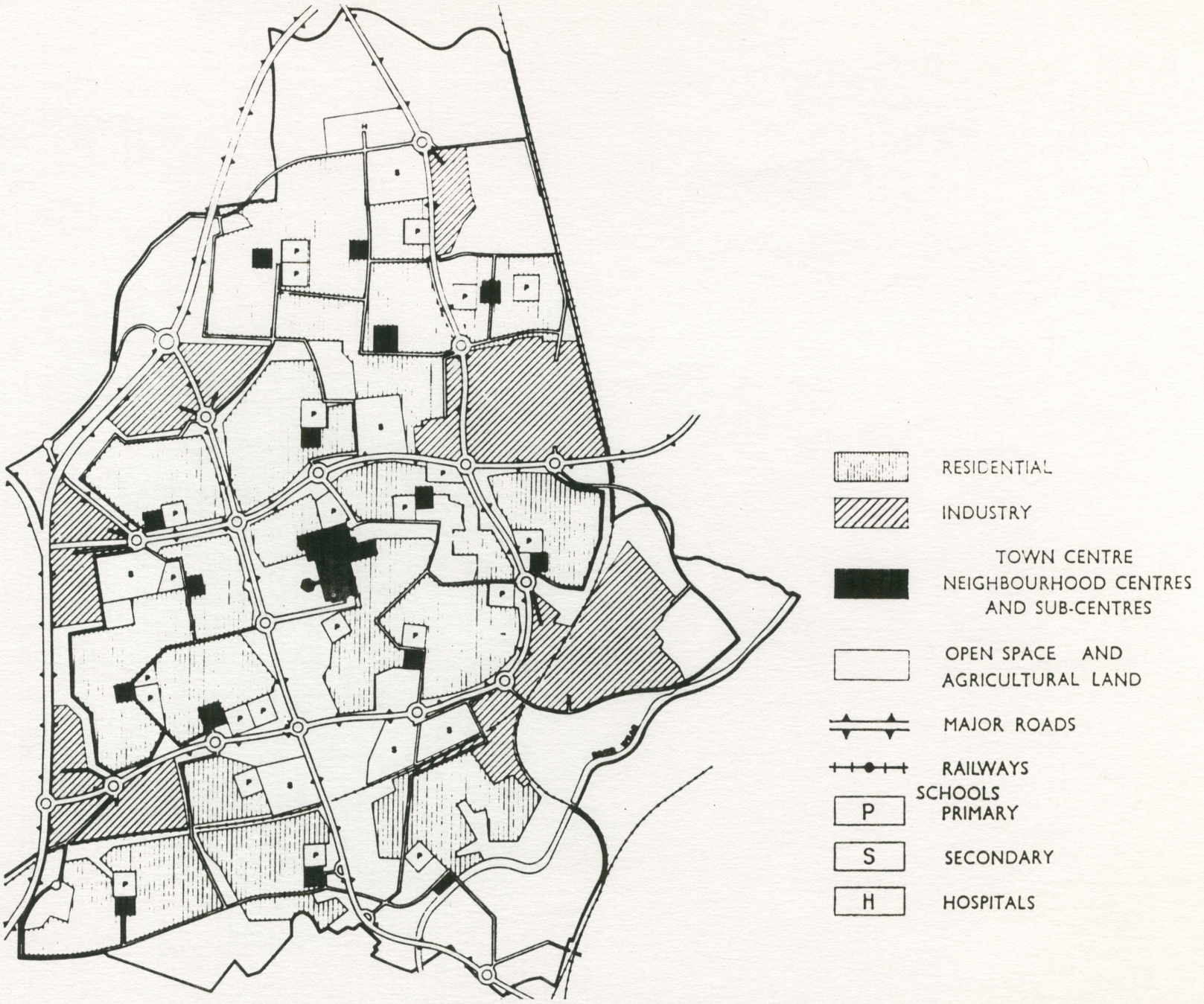
BILLIARDS AND POCKET BILLIARDS (POOL)

DIMENSIONS FOR BILLIARDS AND POCKET BILLIARDS

	PLAYING SURFACE		TABLE SIZE	
TYPE OF TABLE	W.	L.	W.	L.
ENGLISH (SNOOKER)	6'-0"	12'-0"	6'-9"	12'-9"
STANDARD POOL OR BILL.	5'-0"	10'-0"	5'-9"	10-9"
STANDARD POOL OR BILL.	4'-6"	9'-0"	5'-3"	9-9"
STANDARD POOL OR BILL.	4'-0"	8'-0"	4'-9"	8'-9"
JUNIOR POOL	3'-6"	7'-0"	4'-3"	7'-9"
JUNIOR POOL	3'-0"	6'-0"	3'-9"	6'-9"

TABLE HEIGHT 2'-6" ±

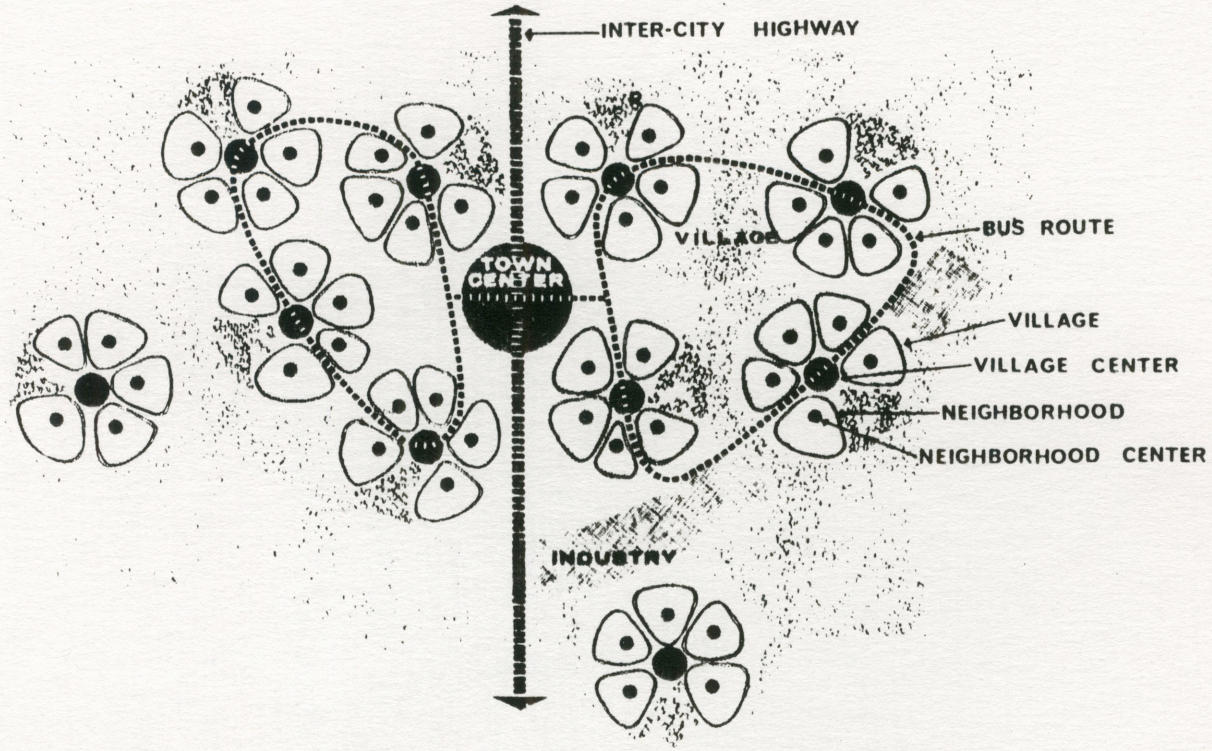
CASE STUDIES



Washington, New Town, England

Typical European town growth patterns showing relationship of town center and the neighborhood centers.

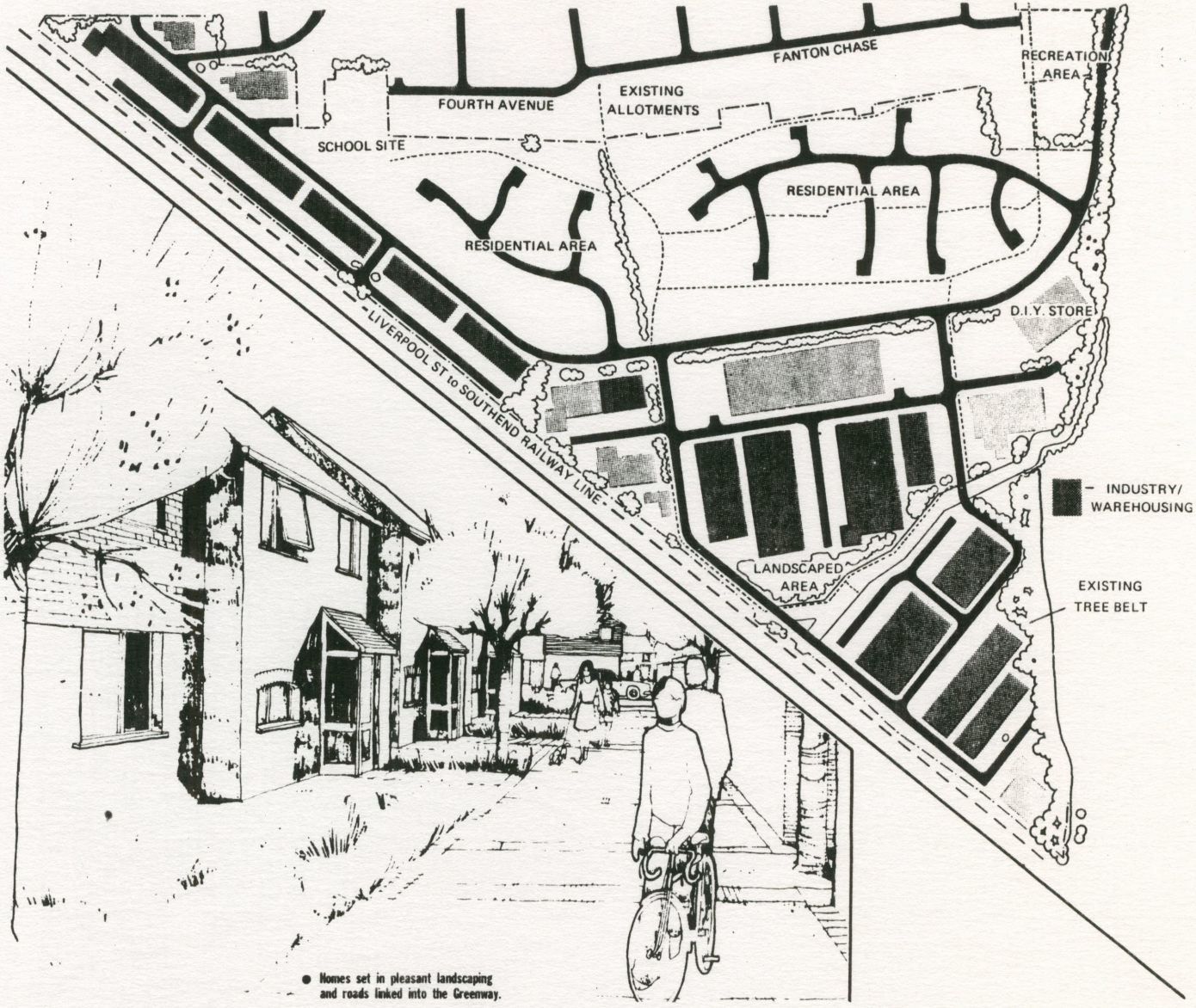
From the Encyclopedia of Urban Planning



Columbia, New City near Baltimore

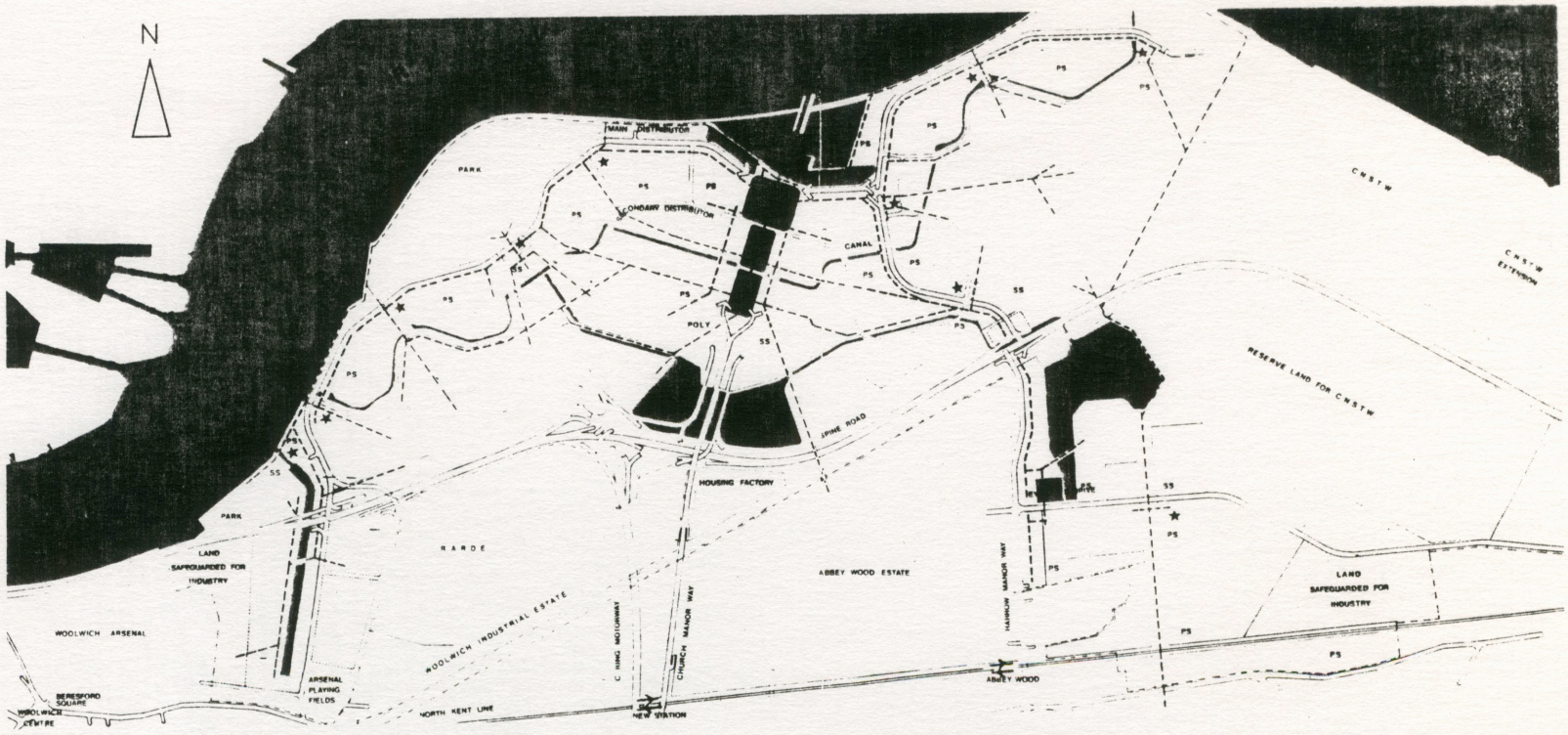
Typical relationship of town center to the surrounding villages and neighborhood centers.

From the Encyclopedia of Urban Planning

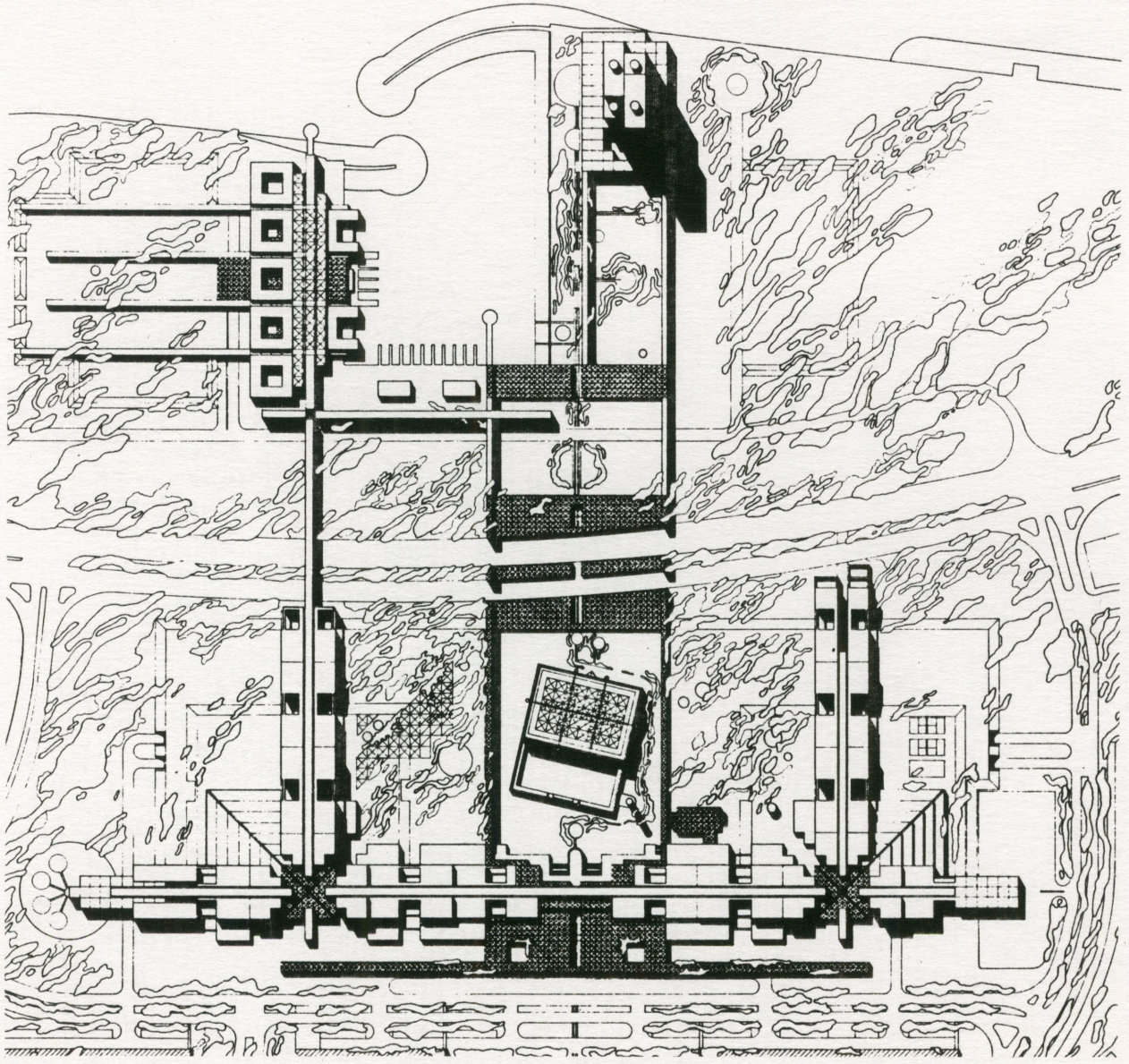


Shotgate Residential and Business Park, Wickford, England

Covell Matthews Wheatley Partnership

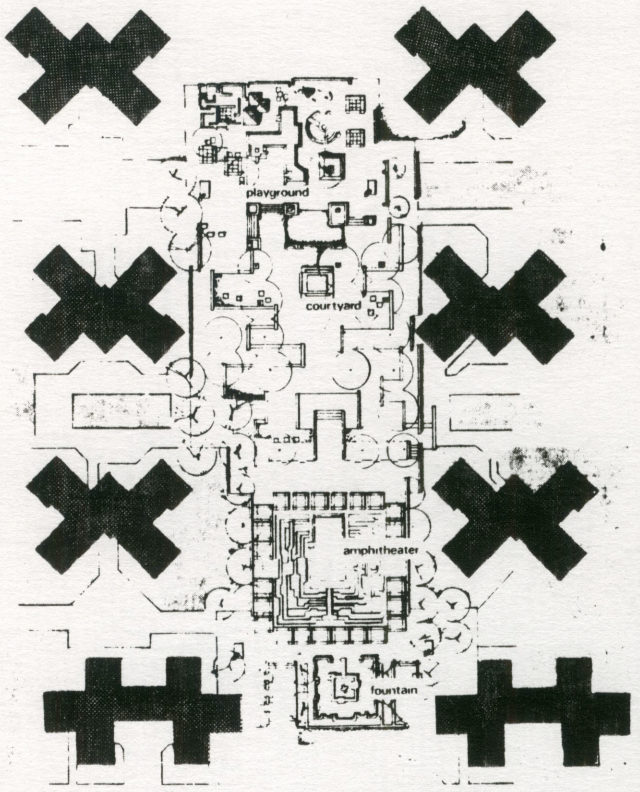


Greater London Council, Department of Architecture and Civic Design
Thamesmead Development, Woolwich-Erith, London, Phase 1, 1966



Friday Mosque, Saudi Arabia

Derek Walker Associates



Activity Areas

Playground
maze
towers

Amphitheater
stage
seating

Courtyard
open space

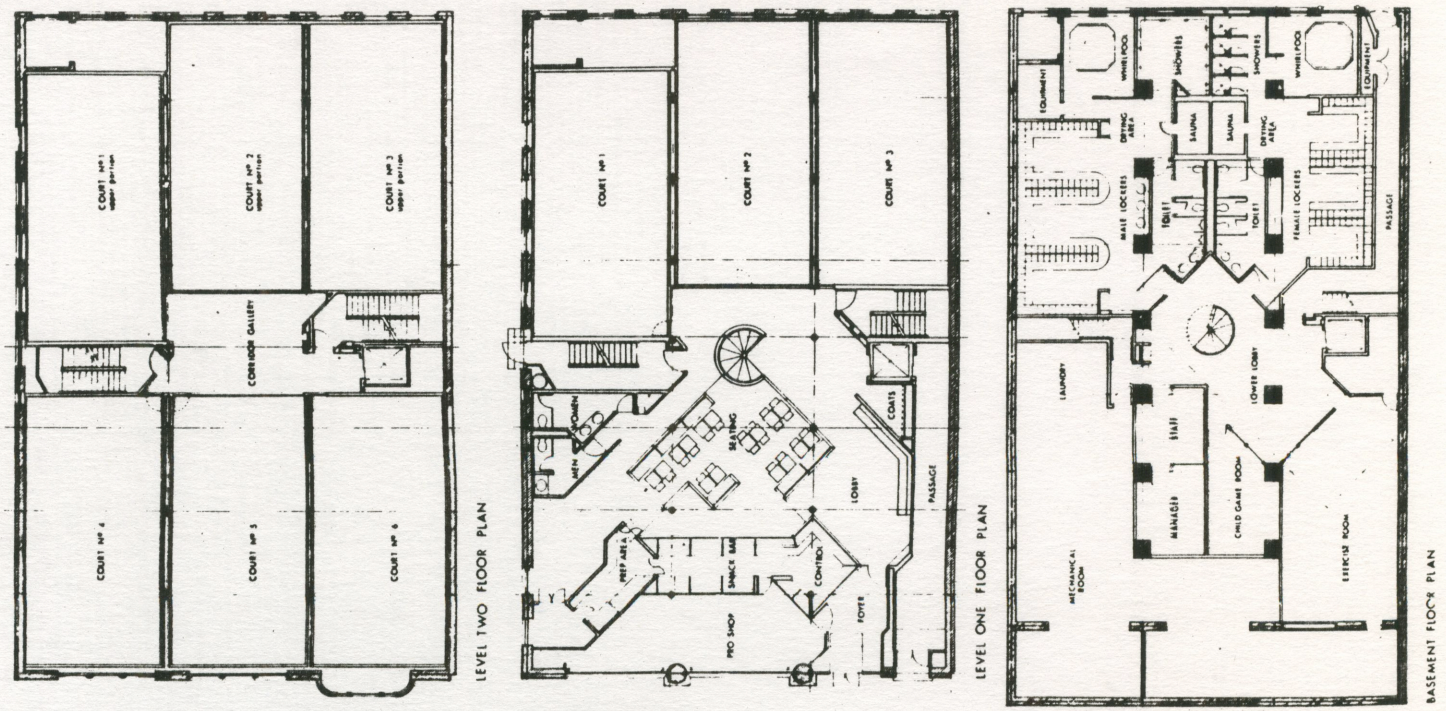
Fountain
garden

Jacob Riis Plaza
for the City of New York
Housing Authority
landscape architect:
M. Paul Friedberg

The children who use the Jacob Riis Playground attest to the social suitability of the project. They can be observed running, climbing, jumping, sliding, and making up games, many of which are stimulated by the diversity of the environment. This project was an early attempt to design by hypothesis.



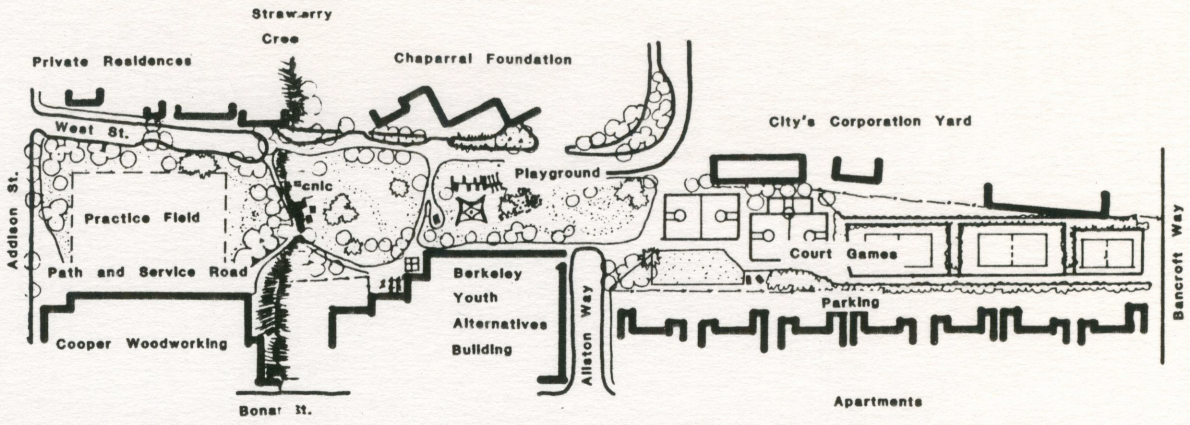
From Planning Neighborhood Space



Back Bay Raquet Club
Boston, Massachusetts

Square Footage: 28,000 (alterations area)
Cost: $1.2 million
Primary Architects: Payette Associates Inc.
Graham/Meus Inc.
Boston, Massachusetts

From Planning Facilities for Athletics, Physical Education and Recreation



STRAWBERRY CREEK PARK

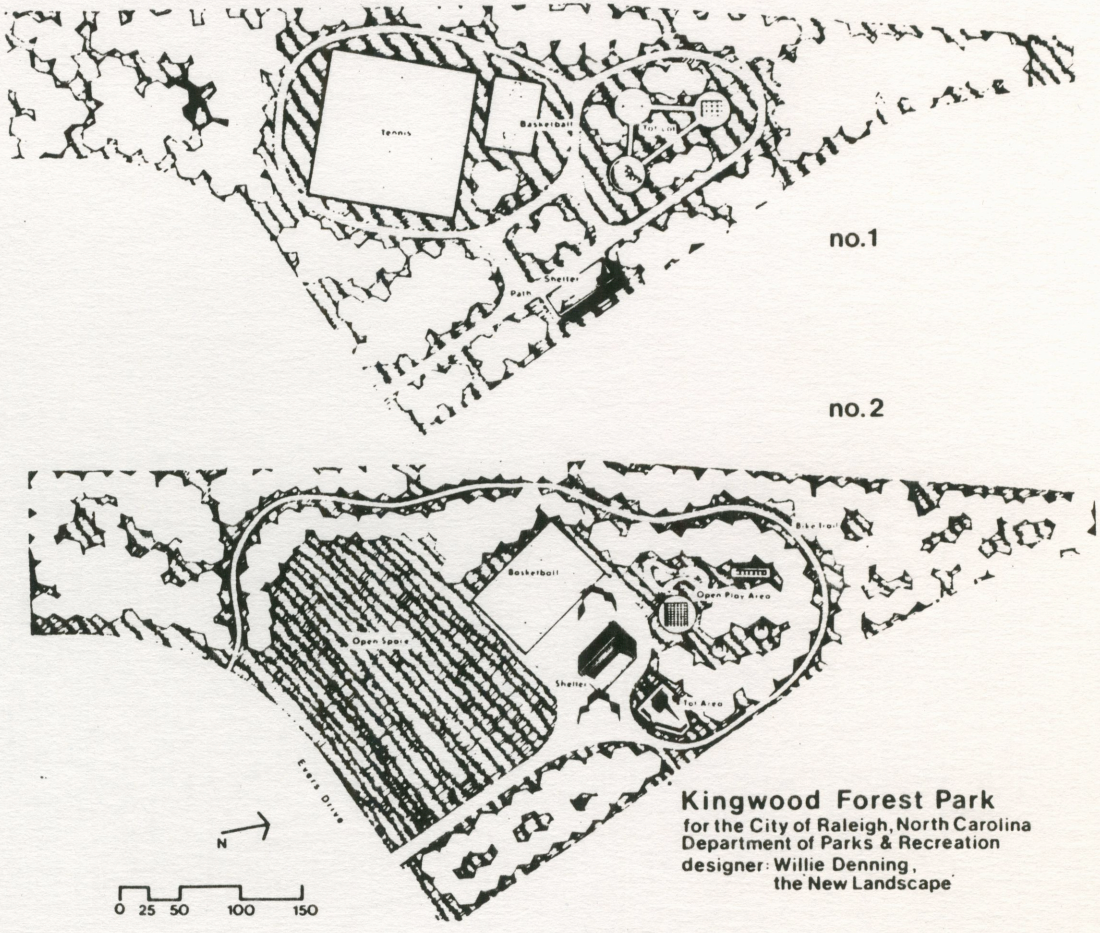


The unearthing of the previously buried Strawberry Creek was hailed by Berkeley residents as ushering in a new era in which nature will be reclaimed as part of neighborhood open space. Residents Edward Levingston, Marcia McNally, Mark McDaniels, James Sloan, and Michael Porter delight in the opportunities provided by a natural environment. (Photographs by Sandy Wendel)



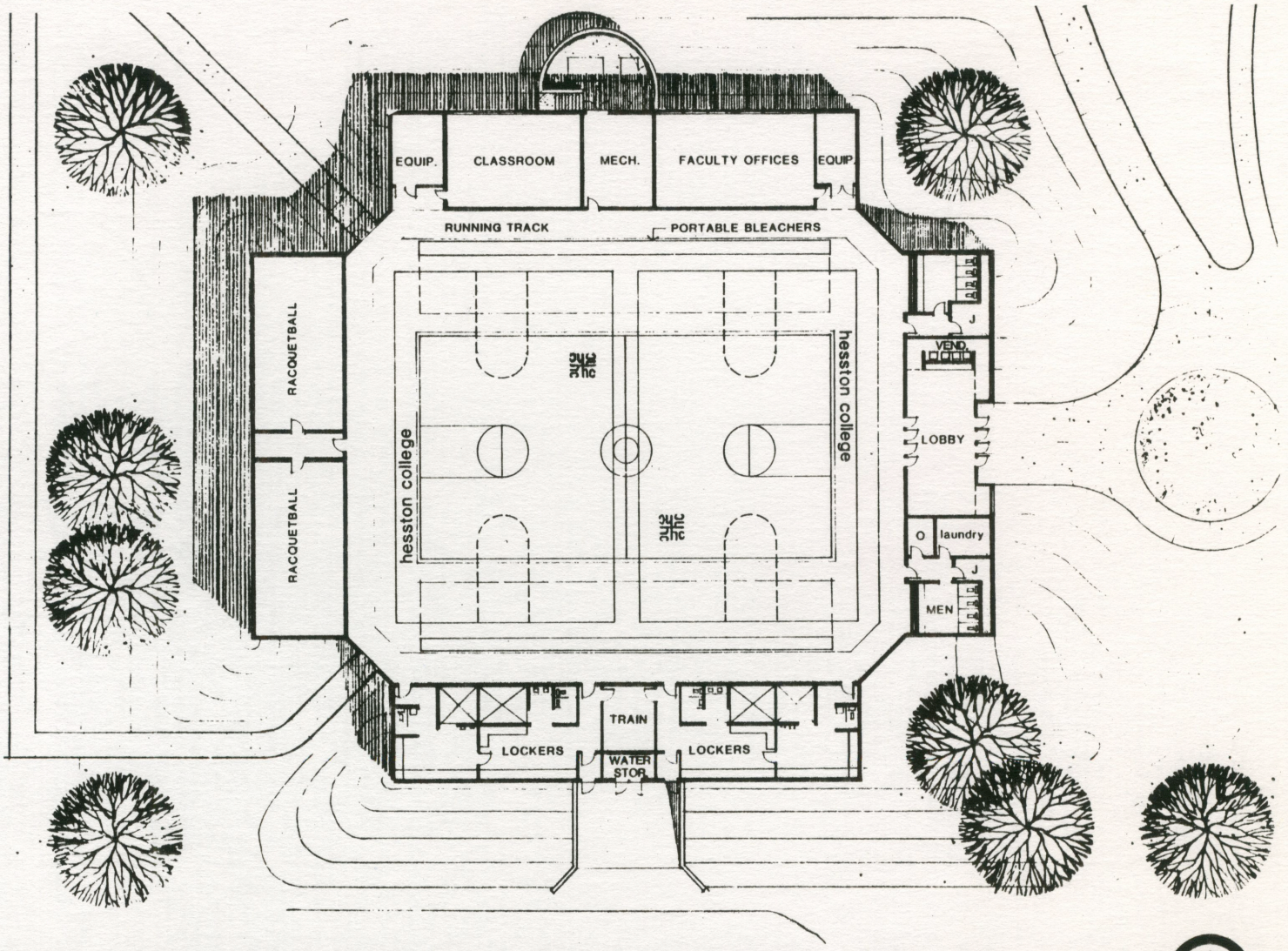


From Planning Neighborhood Space



Kingwood Forest Park
for the City of Raleigh, North Carolina
Department of Parks & Recreation
designer: Willie Denning,
the New Landscape

From Planning Neighborhood Space

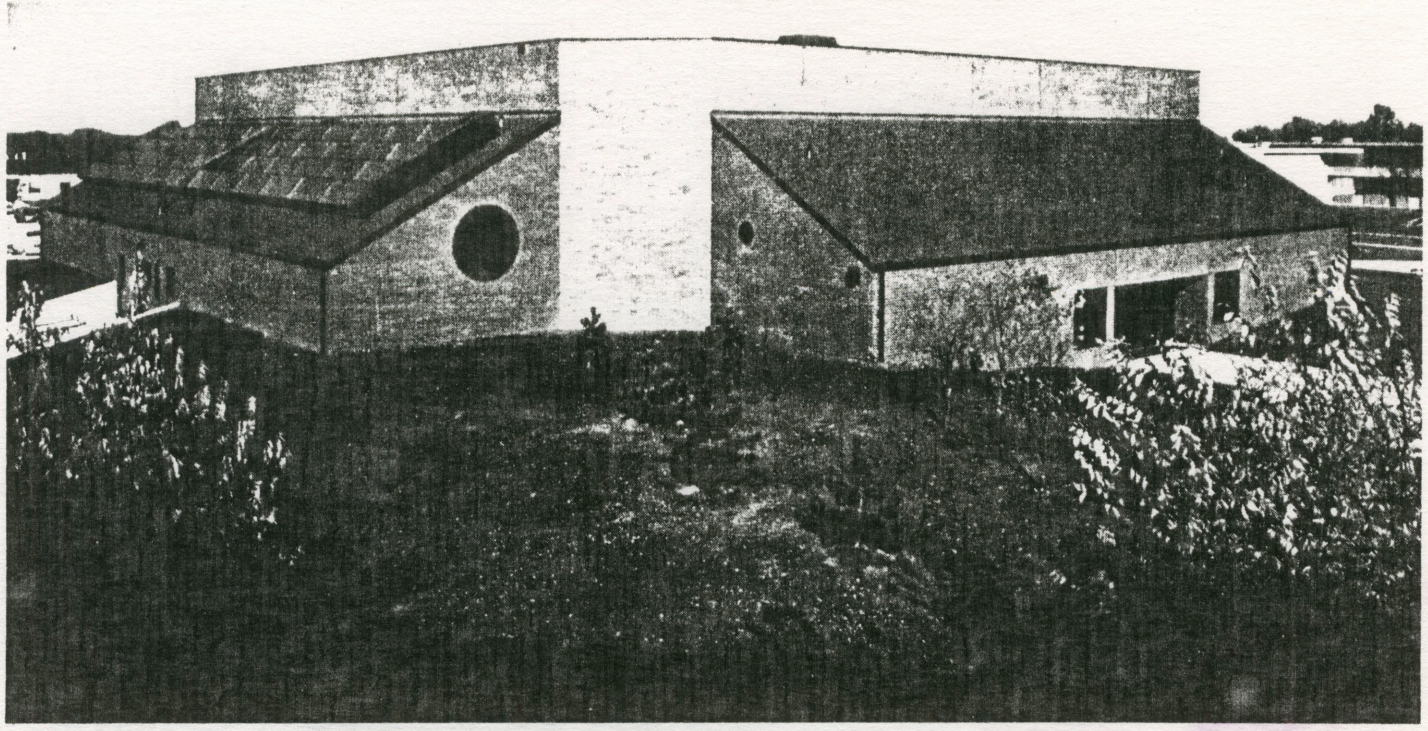


YOST PHYSICAL DEVELOPMENT CENTER

HESSTON COLLEGE

SCHAEFER AND ASSOCIATES, P.A. ARCHITECTS

From Planning Facilities for Athletics, Physical Education and Recreation



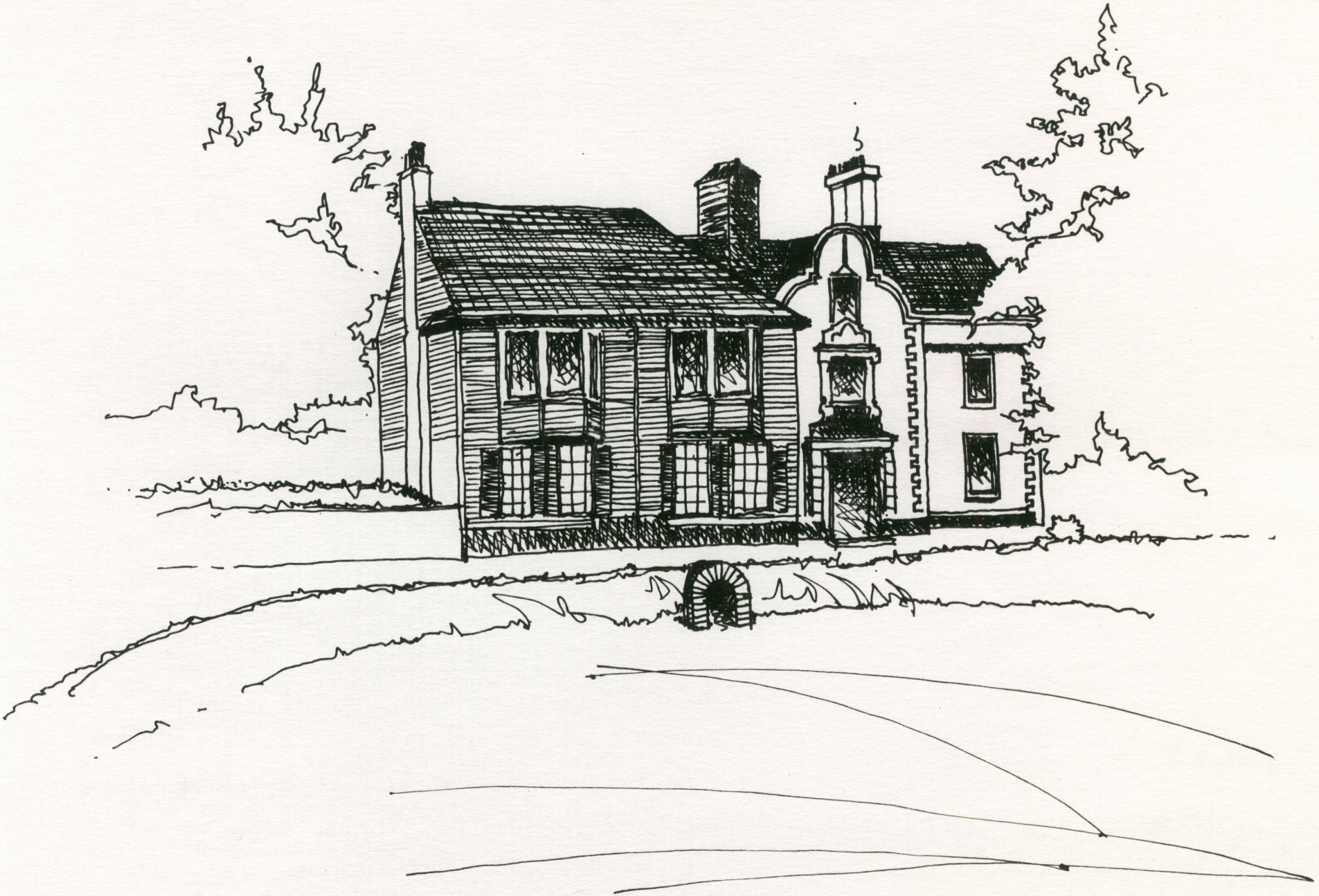


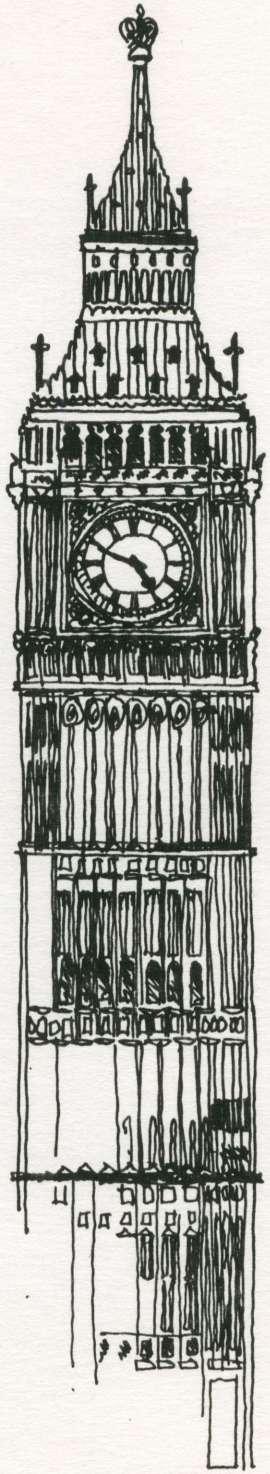
Yost Physical Development Center
Hesston College
Hesston, Kansas

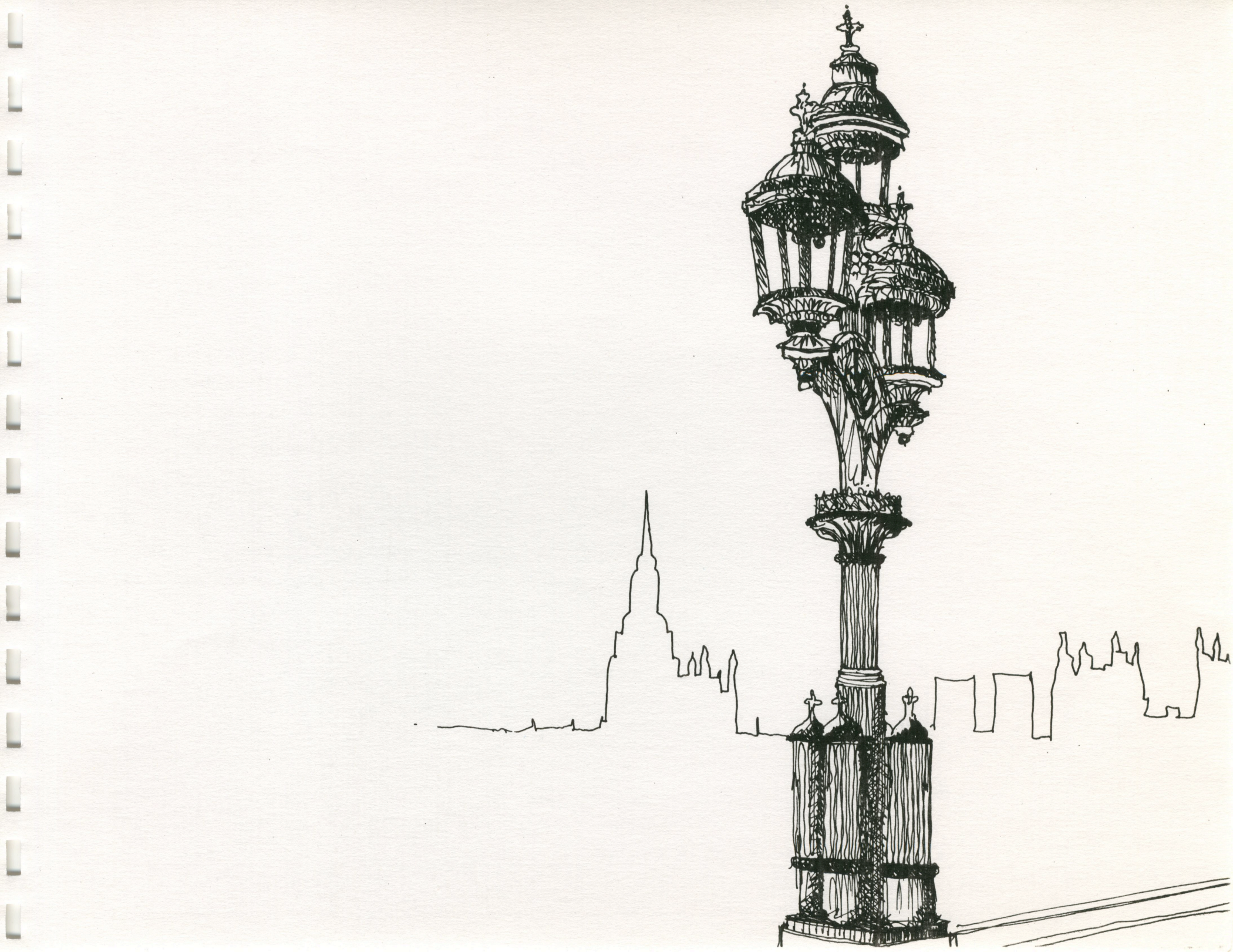
IMAGES FROM ENGLAND

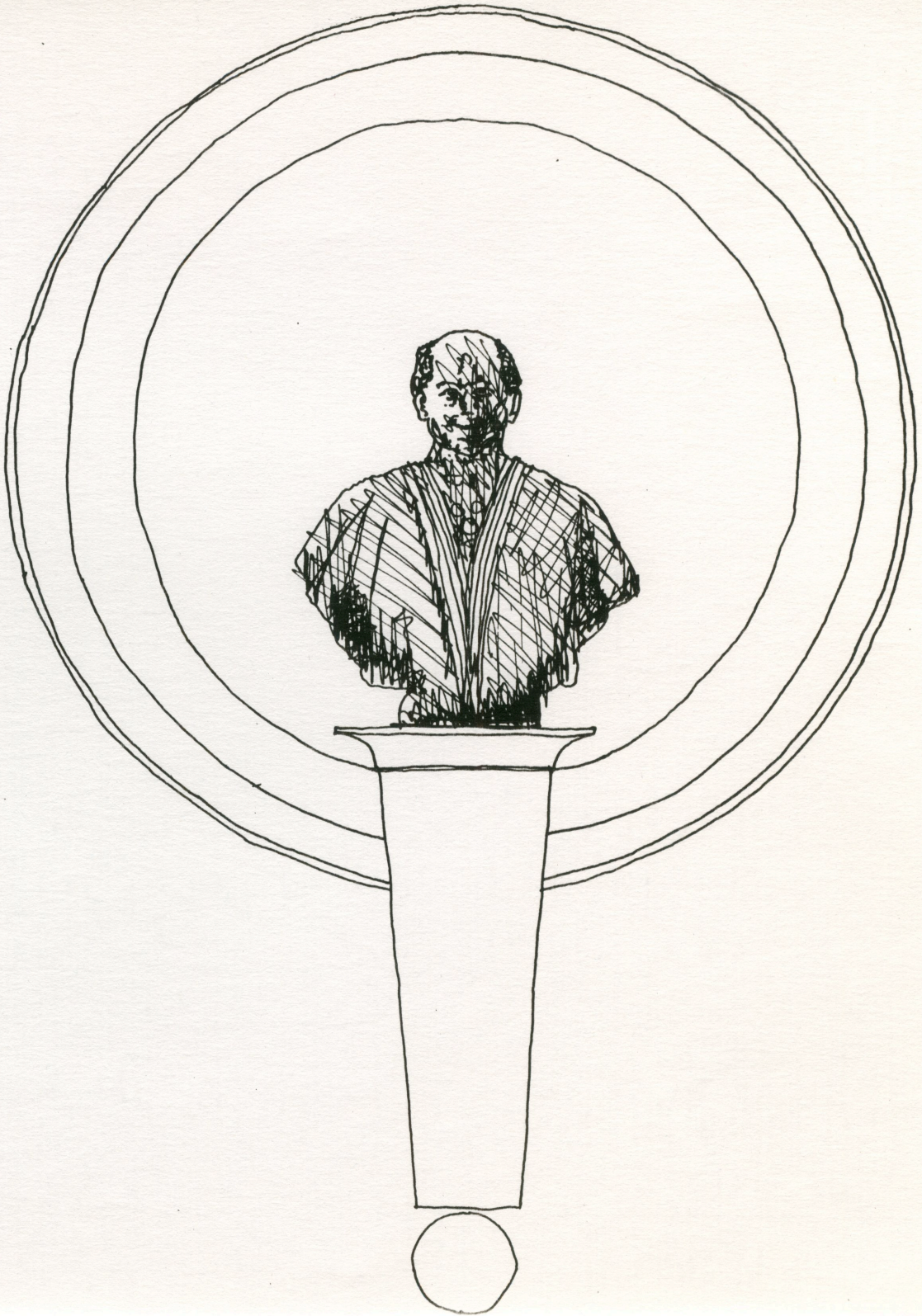
How were each of these used?

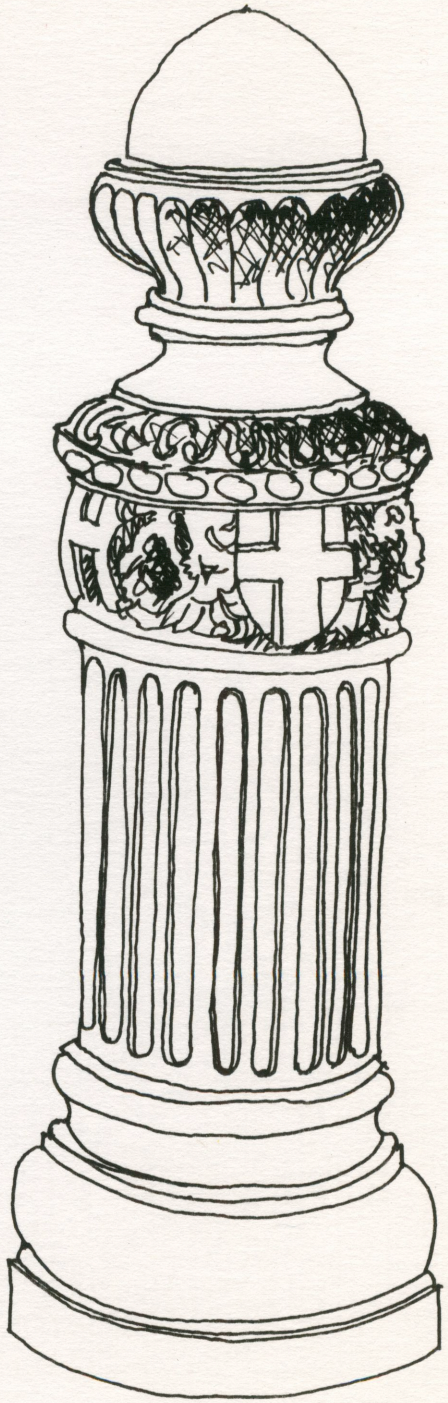


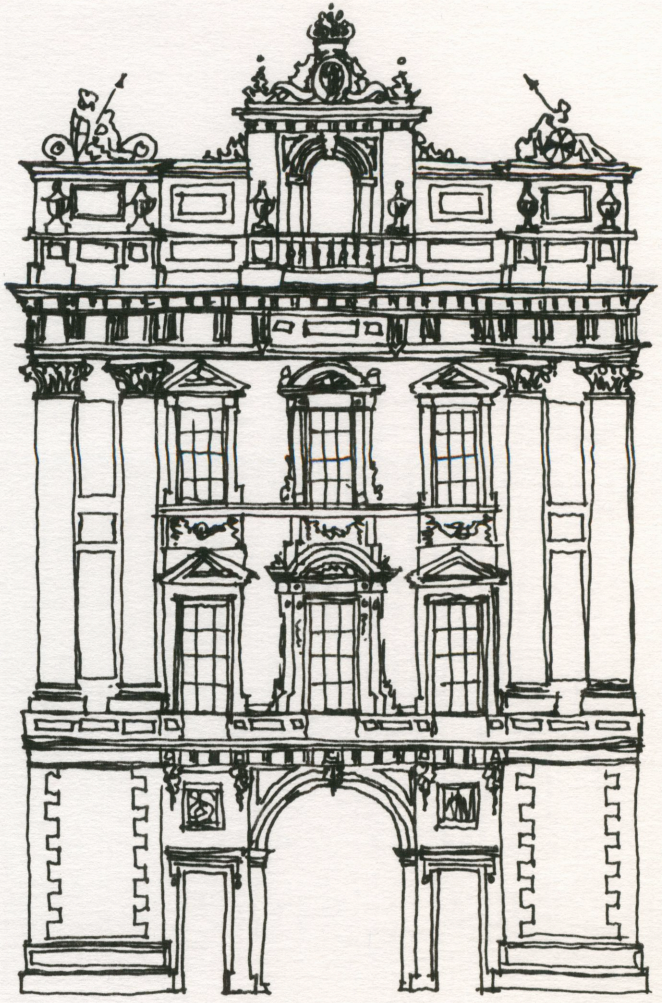














RESPONSE

World made into idea...

John Outram

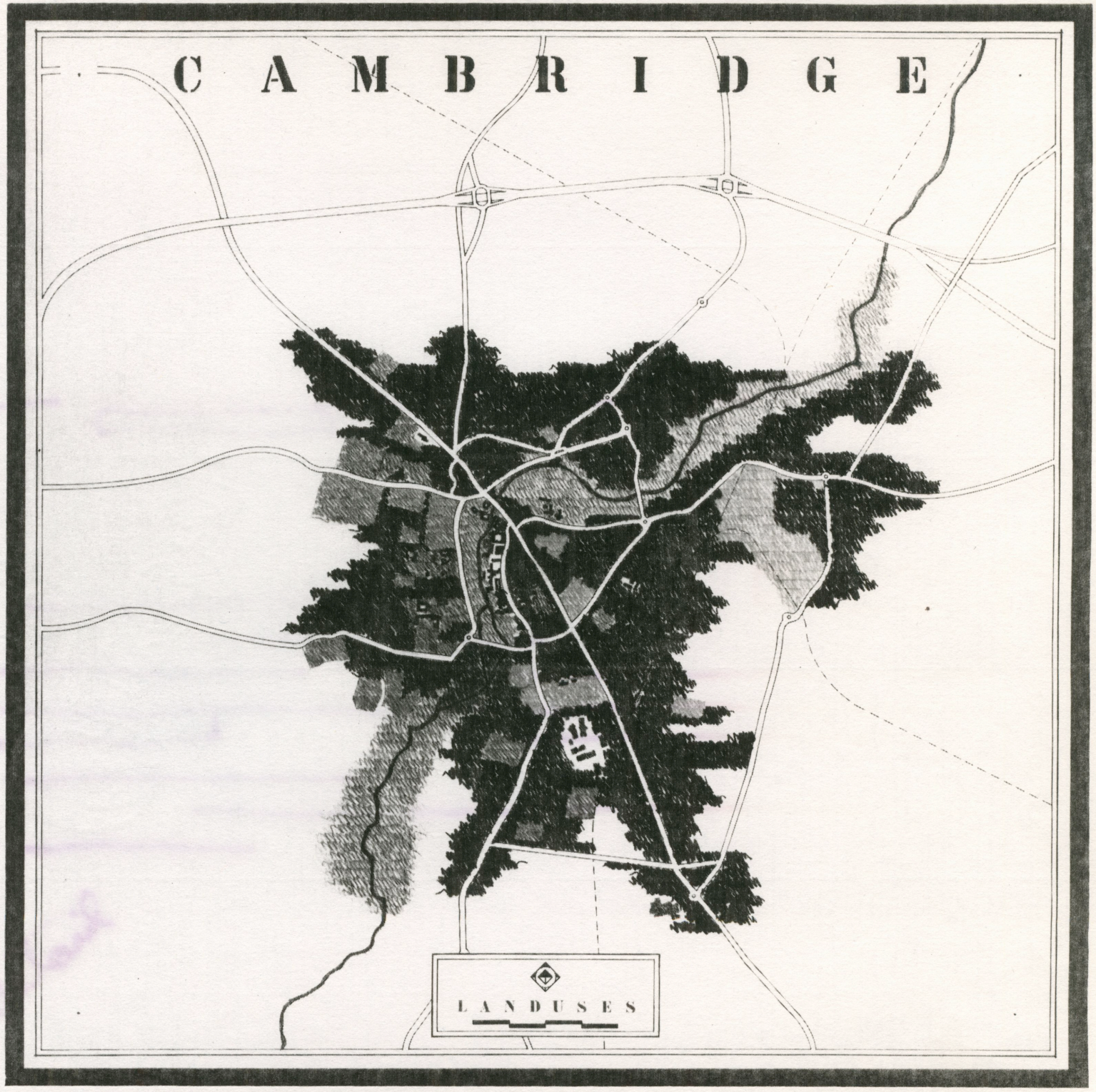
The ultimate goal for the Coe Fen Community Center is to be a beneficial addition to the fabric and texture of Cambridge and the college backs, an Arcadian realization that has the potential to be gratifying to all our senses, and that the final product is recognized and appreciated by the people for whom the design was created -- all the inhabitants and visitors of Cambridge.

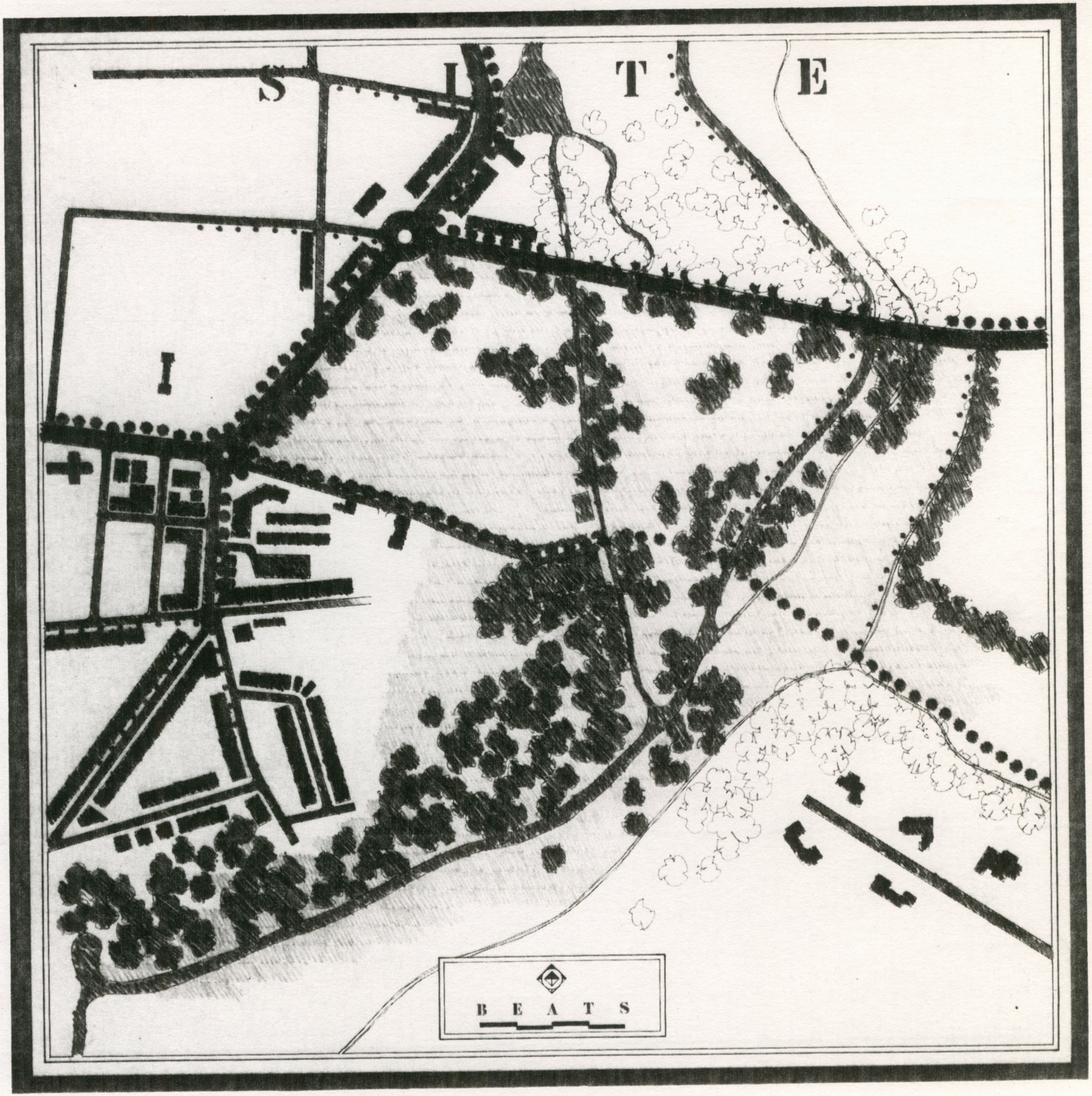
Serenity

Certain views

The physical appearance of this design proposal is the result of a combination of public as well as personal ideals and theories. It presents one of many possible conclusions to the programmatic problems of a community's need of a cultural and social activity center. I am primarily dealing with the selective compilation of cultural ideals with references to historical and neoteric design elements, textured and bonded by the Arcadian principles. As an organizational scheme, classical Greco-Roman patterns of circumscribing pavement on the periphery of the site, and boulevards leading to a central focal point, have been utilized as a foundation for the three-dimensional design. Woven into this scheme, the Arcadian principles of pastoral paradise, simplicity, and serenity have been emphasized using the Greek gods Hercules, Helios, Prometheus, and Poseidon as ordering elements of the four corners to the proposed site. Cultural stylistic representation manifests itself in the form of the British vernacular as a starting point. This is in respect to the traditional values of simplicity and commonality of built form and materials, accented with a minimum of intricate detail. A combination of innovative Continental European designs and influential American ingenuity is reflected in the organized collisions of forms and voids. This is a reflection of the present state of turmoil of acceptable architectural design convention, not that it is necessarily good or bad in principle but that it represents the present condition, with consideration for the past, and future.

traditional values, simplicity, common form materials, minimum of intricate detail


CAMBRIDGE
LANDUSES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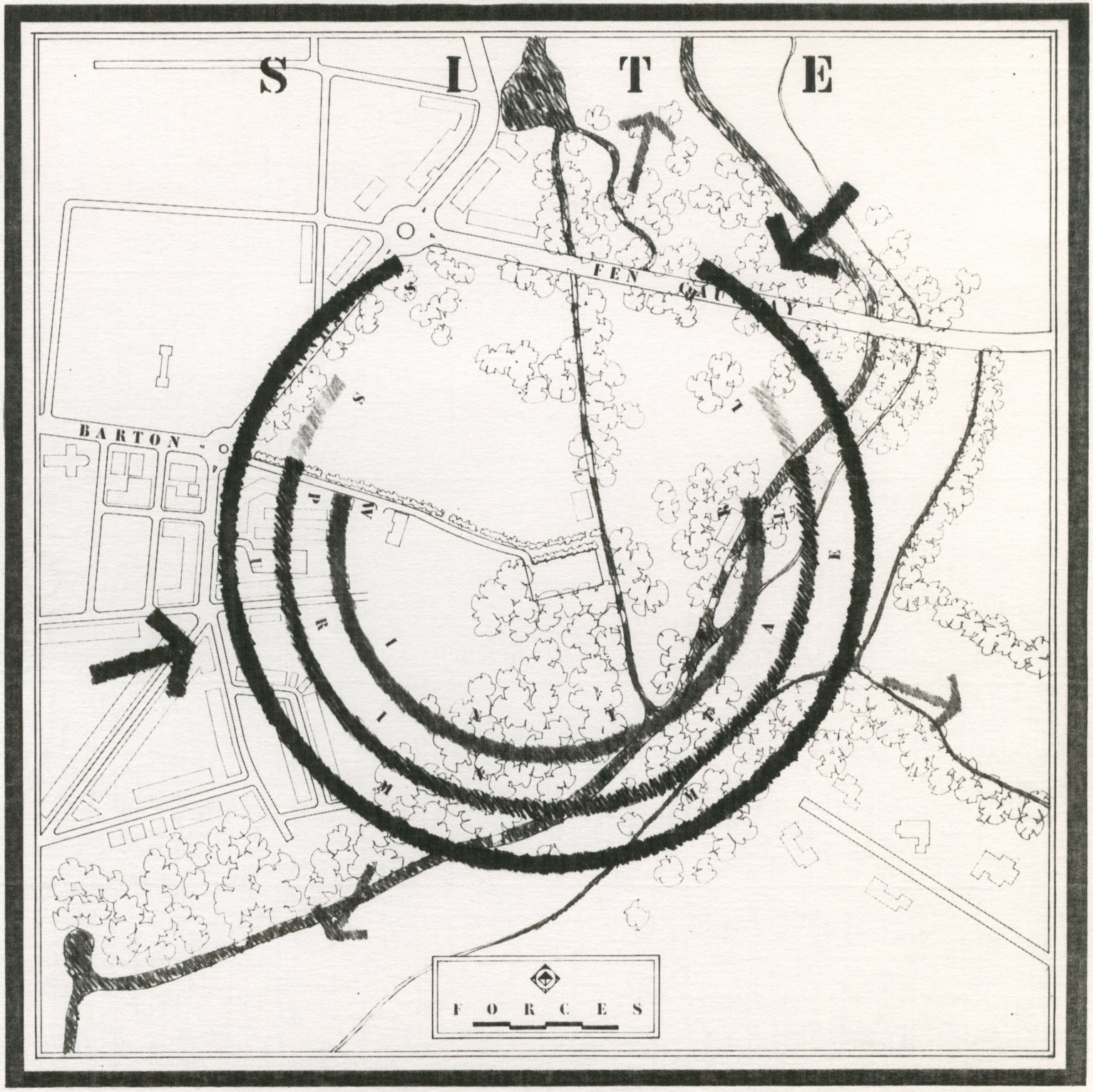
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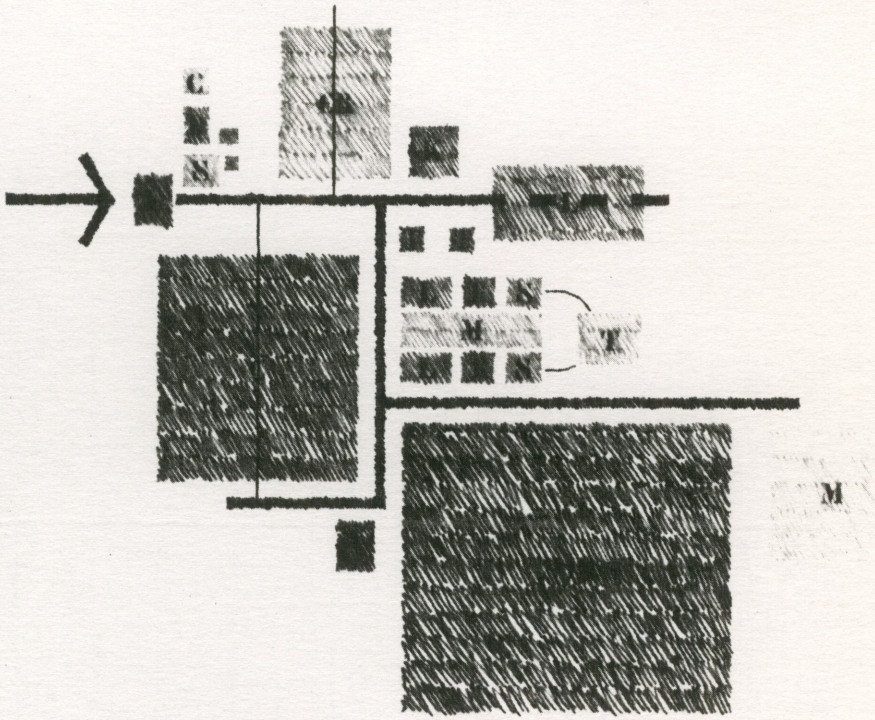
FORCES

OPTIONS



OPTIONS



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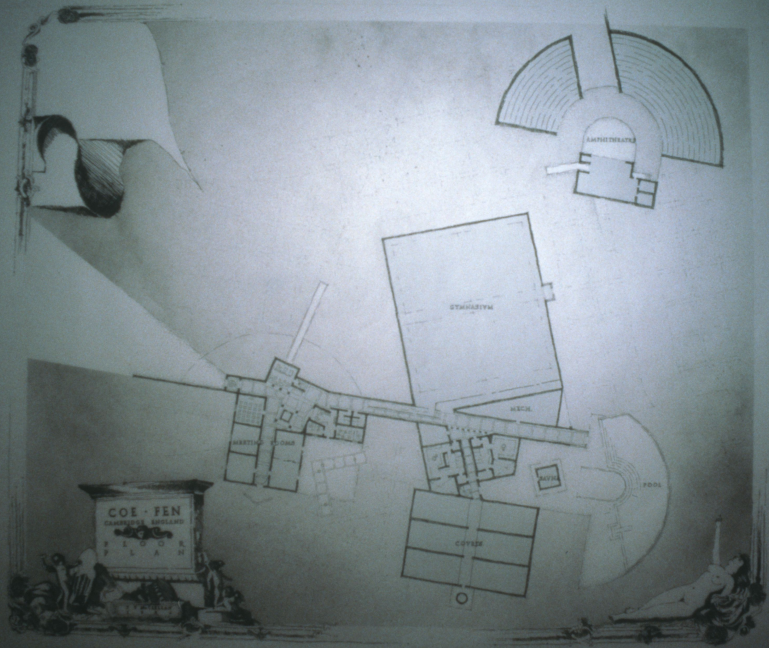
FOOTBALL
CRICKET
FOOTBALL
COE · FEN
CAMBRIDGE ENGLAND


AMPHITHEATRE
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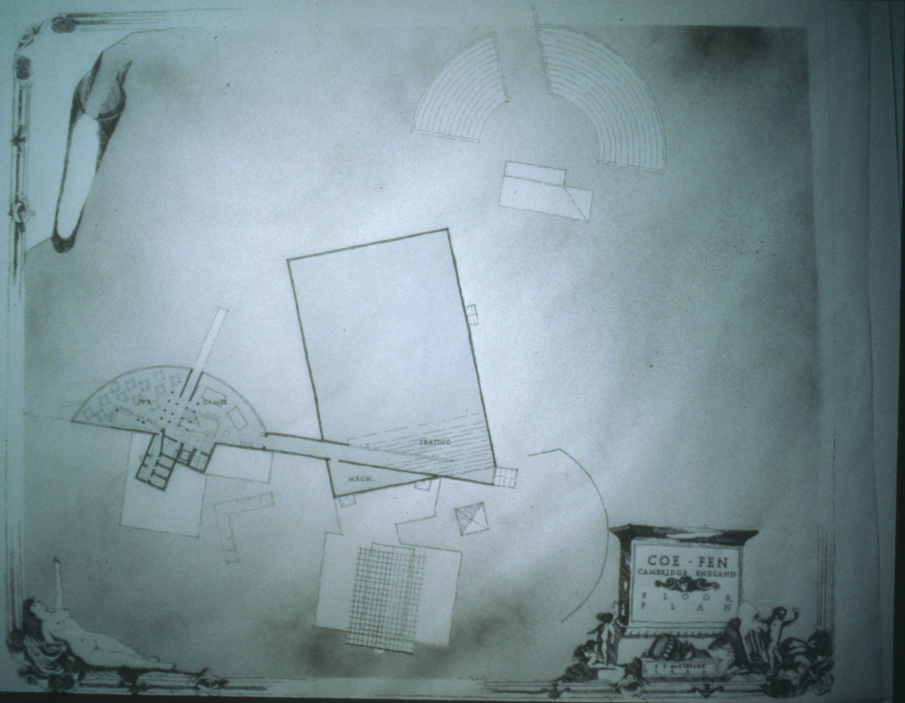
FLOOR
PLAN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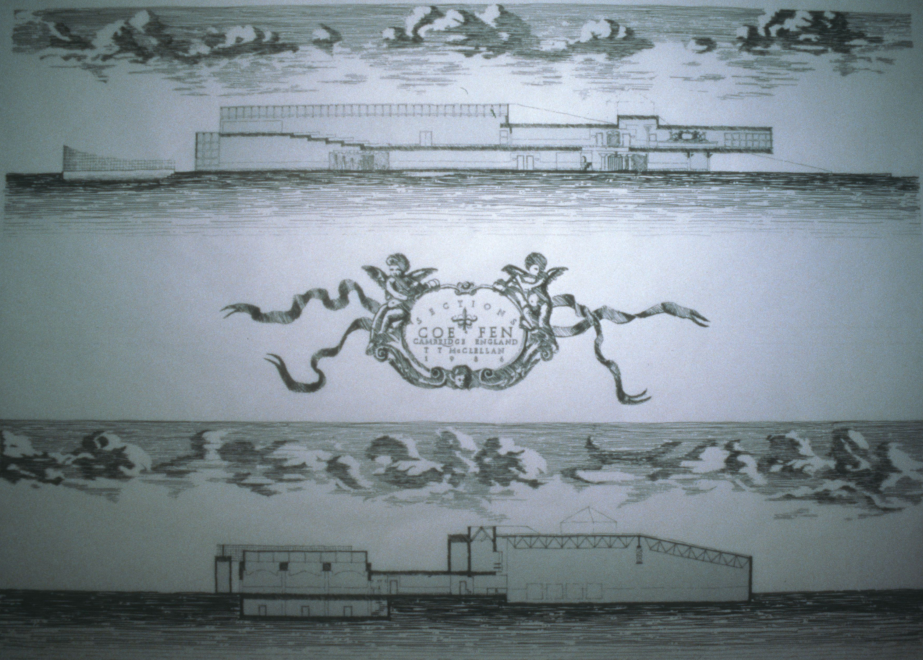
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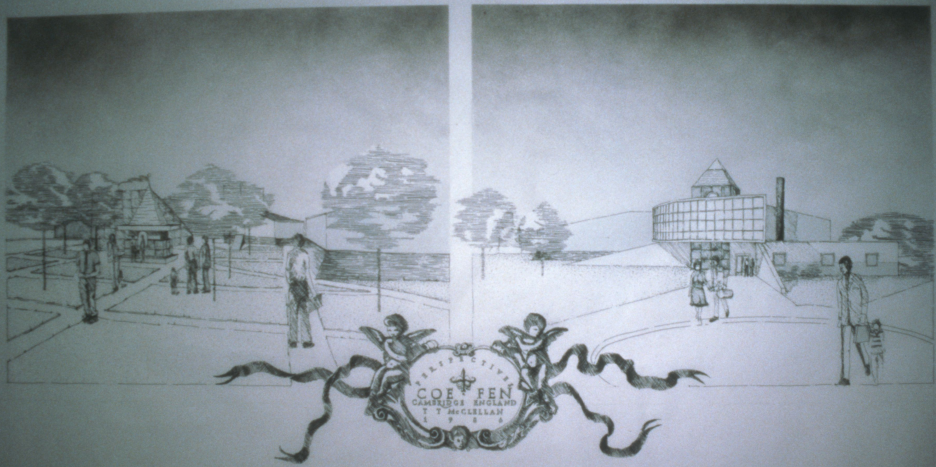
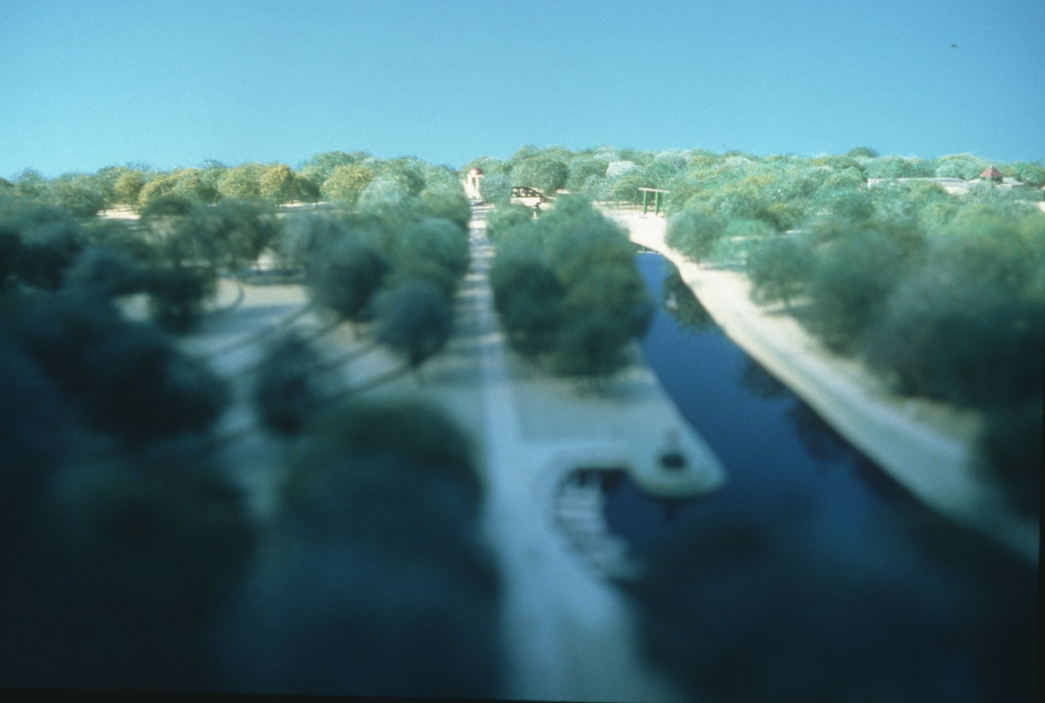
COE FEN
CAMBRIDGE ENGLAND
T. T. MacCLELLAN
1928


PERSPECTIVE
COE FEN
CAMBRIDGE ENGLAND
T. J. McCLELLAN
1974

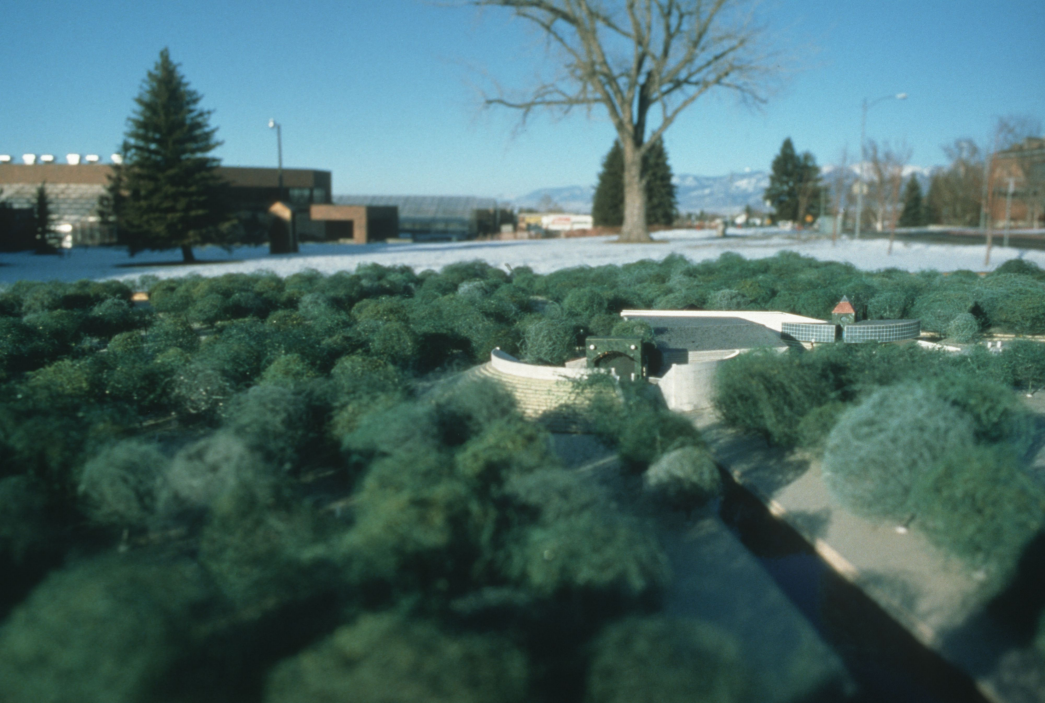












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