200: 20: 02: -(02) Context and Temporality

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Introduction

Context is often understood as that which one can see immediately – the 75 year old Douglas Fir, the line of adjacent edifices, the bus stop across the street, even the shadows falling across the property lines. These observations are recorded during site investigation and comprise a reservoir of information for the sensitive designer. But what possible influences are omitted from the design process when the definition of context is limited to the present and the visual?

This paper investigates four built and un-built, architectural projects. Each of these projects records and reveals contextual conditions simultaneously while meeting everyday programmatic aims.¹ The first three projects were conceived respectively: i) two centuries ago ii) two decades ago, and iii) two years ago. The fourth project is to be built within the next two years. The use of a time line offers a yardstick for evaluating the conscious embedding of context and its relevance at the moment of inception and again with the space of time and evolution. The investigation defines the role of architecture: to provide shelter; to meet functional aims; to communicate the past, embedded history; and to contribute to the present, evolving place. This critical approach to architecture bridges historical events and expands the evolving historic record to include physical narratives of place to complement traditional oral and written narratives.

On Site: a framework

It is necessary to clarify the definition of *context* prior to evaluation of the four projects. In her essay *On Site: Architectural Preoccupations*, Carol Burns prompts readers

to consider the embedded history of a site – that which one cannot always see.² Thus, an expanded consciousness of site should include a deeper understanding of *context* – the historical, the socio-cultural, *and* the physical forces operating on a site – and, in turn should influence the architectural response.

Burns categorizes the two primary attitudes or approaches to site as *cleared* and *constructed*. The cleared site is generally understood through invisible, abstract criteria - property lines, lot coverage, zoning setbacks, city limits operating at the time a project is conceptualized. The cleared site approach controls. It is characteristically neat, static, categorical, and removed. Resultant architecture tends to be imposed on cleared sites and tends to deny physical and temporal forces. The constructed site approach is generally understood through physical criteria, both past (absent) and present (existent) built and natural landscapes, settlement patterns and land use, and climate, to begin. This approach to site is dynamic, integral, and responsive. The resultant architecture is generated in part by the past and present forces operating on the site and attempts to contribute an additional layer of meaning. Ironically, perhaps because of training, familiarity, and convention, it is sometimes easier to comprehend the abstract criteria of a cleared site than to recognize the latent character of a constructed site.

Baldacchino: historical exemplar, Rome, Italy (1624-33)

As stated, it is my intent to demonstrate that the context of a site can and should influence the most common of architectural programs. Through this process the architecture of daily life simultaneously serves an elevated purpose - the conveyance of history. Before demonstrating how common commissions can contribute, however, it is instructive to first apply the framework to a significant cultural exemplar, Bernini's Baldacchino, sited within St. Peter's Basilica in Rome.

When visitors today stand before the Baldacchino, and look upon the high altar, they are also seeing a marker for the purported tomb of the Apostle Peter located several meters below.³ The alleged location of St. Peter's tomb is a long and complex history, beginning in the first century with a circus for sporting events. The circus was also a site of Christian executions, and, according historical records, this includes the to execution of St. Peter. The location of his death, and possibly his remains, has been marked for over two millennia with diverse forms of entombment and worship, each layer varving in appearance, degree of visibility and access. (fig. 1) Bernini's Baldacchino is one of the more recent indicators and its structure of four bronze, twisted columns sets into play other historical frames of reference.

A discriminating eye might relate the twisted bronze columns to eight, twisted marble columns high overhead, also centered on the tomb, by Bernini, in niches within the crossing piers. Bernini's inspiration is said to have been a carving on an ivory box (approx. 400 B.C.) created to contain a piece of cloth, a relic for pilgrims to the tomb. Pilgrims could drop into the tomb a cloth that was returned to them to take home. Circulation to the tomb was later re-designed to improve access for such acts. In this re-design, six, twisted columns that supported a canopy over the altar above the tomb were moved forward to make way for stairs and passages below the altar (approx. 600 B.C.). A second layer of six twisted columns was later added in front of the originals (approx. 700 B.C.). Around the time of Bernini's work, an early treatise emerged. The treatise contained references to the spiral columns suggesting their origin - a temple in Jerusalem. Re-use of historic remnants and constantly evolving narratives regarding their origins and meaning provide additional justification for St Peter's Basilica as told by the physical locations and forms of the cathedral, Baldacchino, high altar and tomb.

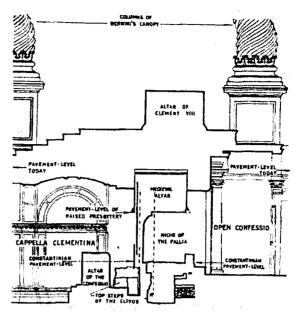


Figure 1. Section through the ancient cemetery and layers of high altars beneath Bernini's Baldacchino.

These super-impositions and layers, actual and narrative, illustrate a fusion of the physical, cultural and historical context in which St Peter's and the Baldacchino operate. Are devout pilgrims, inquisitive visitors, or regular congregants aware of this fusion? If so, was this knowledge learned from spoken or written history? How much can be learned, by amateurs or trained minds, through study of the architecture itself, as a built record of the narratives?

...each age, inspired by the belief in the power of the site, added another layer of meaning not only through new construction but also by incorporating, and thus transforming, artifacts of the past. It is this constant and consistent assimilation of the past that allows the particular fascination of the site to endure.⁴

Such grand narratives spanning several centuries may not be implicit in everyday architectural commissions, but the concept is relevant nonetheless. All architecture holds this potential to reveal and contribute to a context, as the Baldacchino and following case studies will illustrate. The value of this context is dynamic and subject to interpretation by the designer and the public. To address this dynamism, the case studies are viewed through a lens of time lapses since construction: 200 years: the Charleston Single; 20 years: Friedrichstrasse complex; 2 years: Headquarters for the Cambridge Federation of Women's Institutes; and -(2) years: Fenland Estate.

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200: Charleston Single and the City Plan of Charleston, South Carolina $(18^{th} c -)$

The city plan of Charleston could initially be misconstrued as a cleared site. Like so many colonial towns, the original English settlement was platted into gridded blocks and surrounded by a line of fortifications. The settlement design was imposed on the site, a peninsula, created by two rivers, that overlooks a harbor, and was objectively described at the time as follows:

The Town is run out into four large streets. The Court house which we are now building is to be erected in the middle of it, in a Square of two ackers of land upon which the four great streets of 60' wide doe center, and to the water side there is laid out 60 foot for a publick wharfe as also for other conveniences as a Church Yard, Artillery ground etc.,...⁵

The population and settlement grew, and a unique housing type emerged, borrowing from types indigenous to Barbados and the West Indies. The type, the Charleston Single, is comprised of a single-room-wide floor plan, typically 2-1/2 to 3 1/2 stories in height, with one short end oriented to the street. Twostory porches, or verandas, line one, long side of the house, and face south or southwest toward a private garden. The garden extends to the north wall of the neighboring house, and the pattern then continues. As the pattern of these houses, verandas, and gardens repeats, а decipherable street and neighborhood pattern emerges in the city plan

of Charleston – one that departs from the English tradition of continuous facades and dense blocks surrounding open squares. (fig. 2)



Figure 2. Charleston Singles, including St Philip's Rectory (c. 1807), center, and the Thomas Legare House (1760), foreground.

The city plan and pattern of houses develop in response to the tangible, physical constructs operating on the peninsula, and in this way the constructed site is revealed. The peninsula's advantageous position alongside a harbor yields prevailing southwest summer winds, cooled by the sea the majority of afternoons. The city plan and the siting of individual singles recognize this natural feature and thus work to maximize its benefits.6 Streets run from east to west between the two rivers auiding breezes into the city. Resulting blocks are thus elongated north/south, but the form and siting of the Charleston Single mitigate deficiencies. In lieu of attached row houses surrounding a green, Singles and gardens are paired on each lot, with the Single occupying the northerly half and the garden allotted the southerly half. Verandas, or piazzas, shade the south wall provide and private outdoor rooms overlooking the garden.

The combination of the closed northerly/open southerly lot together with the east/west street pattern results in an ideal urban form for natural cooling particular to the geography and climate of Charleston. In this scenario,

Streets parallel to the prevailing wind have the highest velocity in the streets while streets perpendicular to the wind encourage most of the wind to blow over buildings, yielding lower velocity and more turbulent winds in the streets.⁷

Prevailing sea breezes are thus channeled into the city streets and parallel gardens and porches, removing moisture and cooling the spaces. The Single itself remains "oblique to the southwest winds, creating two sides with positive pressure and two sides with negative pressures, thus maximizing cross-ventilation potential in the buildings."⁸

The declining influence of English traditions and ascending influence of West Indian practices can be attributed to two primary factors. The British West Indies was a highly valued source of sugar and Charleston, as the nearest colonial port was thus influenced by its culture.9 Secondly, residents of the settlement were increasingly responding to the environmental context more directly than their cultural heritage as they sought to cope with a new climate. The Single, its siting, and the city form are thus the physical manifestations of contextual forces - cultural and environmental - which mesh the attached terrace house and English plan of blocks and squares with the freestanding plantation house and its layers of piazzas and verandas.

The Single and the late 18th c. city plan remain relevant to both historic and contemporary applications. Present value lies within the lifestyle to which they contribute one which balances dense city living, social interaction, and private domain; one which strengthens the relationship between interior and exterior spaces; and, increasingly, one which again considers the ecological, cultural, and architectural benefits of a natural climate response. Over time, many of the gardens have been decoupled from their Singles, sold as independent lots, and developed with new buildings. This is a natural response to growth, particularly on a peninsula of limited area. This tendency would likely be less prevalent, however, if the Single had not been freed by technology and the ability to manufacture cooling rather than remaining bound by the need to harness natural breezes.

20 Checkpoint Charlie/Friedrichstrasse, Berlin - Kreuzberg, Germany (1985-1989)¹⁰

The Friedrichstrasse complex is located adjacent to one of three crossings in the former border wall that divided Soviet and Allied sectors of Berlin and Germany from 1961 to 1989. The main function of the crossing, called Checkpoint Charlie (based on the phonetic alphabet with the first crossing, Alpha; the second, Bravo; and the third, Charlie) was to register foreigners and diplomats before entering East Berlin and it was manned by American forces. The original program for the Friedrichstrasse complex accommodated a bus turn-around and office space on the ground floors for Americans staffing the checkpoint and twenty-four units of housing of five diverse types, on the upper six floors. The Berlin Wall stood intact and Checkpoint Charlie remained operational during the design and construction of the Friedrichstrasse complex in the second half of the decade of the 1980's. (fig. 3)

The program, concept, and resulting form reflect the context acting upon the site during the 80's, namely the devastated post-war landscape, the divisive wall symbolizing the Cold War, and the rival occupiers' influences on the societies of either side. The architect "*imagined that a section through the building would represent a section through West Berlin.*"¹¹ The Allies and their activities would control the base of the building, Turkish guest workers and their families would occupy the maisonettes on the second and third floors, and Germans would live in the upper level apartments.

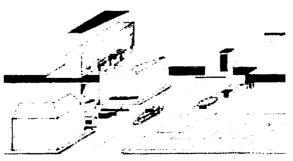


Figure 3. Expanded axonometric of the compositional and program elements, Friedrichstrasse, the Berlin Wall, and Checkpoint Charlie.

The constructed site approach generated the section of, access to, and circulation between programmatic functions and apartment types, which vary by level. The street level of the building is allotted to the activities of border patrol. This allocation should not be viewed as charitable since the baroque origins of the Friedrichstadt district are illegible and "the topographic layout of the historical city...no longer exists, the visual axes have lost their 'points de vue'' and..."to the north the wall stifles the town. "12 The maisonettes symbolize a neutral middle ground and sit atop the podium of border activities. The podium elevation establishes a piano nobile upon which residents dwell, above the height of the Wall. Maisonette residents reach the podium from stairs in the rear garden. Each maisonette is then accessed directly through semi-private, individual gardens. Apartment residents ascend from the ground in an elevator and access their flats, beginning on the 5th floor, from a "street in the air." ¹³ This procession and location frees (German) residents from life on the ground and affords unrestricted views over an aerial city unaffected by the Wall.

On October 3rd, 1990, Germany was officially reunited and the Allied occupation ended. Thus, former East German and ethnic German families returning to the country moved into the maisonettes intended for Turkish guest workers. On November 9th, 1990, the Berlin Wall was opened, and on June 22, 1990, Checkpoint Charlie was removed, rendering the functions housed under the podium redundant. Friedrichstrasse, running north from the former border, has been lined with boutiques and car showrooms following reunification. As of 2004, a bank and a furniture store occupy the space beneath the podium.

With 20+ years of hindsight one might criticize (and discredit) the design of the Friedrichstrasse as a contextual response to program that is too specific to remain relevant in an evolving society - the building and its meaning are rendered obsolete by change. My reading of the Friedrichstrasse complex is to the contrary, instead viewing the building as a vestige of historic moments. Its presence is especially critical in the void of near-complete removal of the Wall itself, the relocation of the Allies' checkpoint to a museum, and the midnight demolition of the Soviet/East German watchtower. While contributing to the present, constructed site, the building also remains heavily used. The design concept creates an innovative mélange of housing types suitable for a variety of families who desire removal from the public street in their private lives; and the ground floor space offers attractive retail spaces capable of engaging the pedestrian life that has returned to the area.

02 Headquarters for the Cambridge Federation of Women's Institutes, (2003-2005)¹⁴

Within the simple program to provide office space for a few and meeting space for many, exists the opportunity for architecture to make critical contributions to the evolution of rural life in England. The Federation of Women's Institutes began in Britain as the Agricultural Organization Society in 1915. "During the First World War it was formed to encourage countrywomen to get involved in growing and preserving food to help to increase the supply of food to the war torn nation." It originated as a community network of primarily rural women isolated by demands of country life, distance between families, and class barriers. The WI planned activities to pass along skills and to promote activism by women, who had recently gained the right to vote. The National Federation of WI's is made up of 70 Federations, divided roughly by county. Each of these contains a number of WI's, peaking in the 1970's with over 9,300. The Cambridge Federation of WI's had grown to 2000 members and owned a building in the center of Cambridge. The CFWI recognized the possibility for a bespoke headquarters - better accommodations for large groups and improved access for infirm members - funded by the sale of its valuable city property.

Perhaps not part of its original intent was the opportunity to select a site that reconnected the WI with their rural and agricultural heritage. After a two-year search, a member offered a portion of the family farm as a site for the new headquarters. Planning permission for green field sites is rarely granted under current guidelines. Further, the ladies imagined a project that reflected the national WI's interest in sustainable development and the protection of the countryside. These factors prompted re-use of an existing agricultural shed despite its lack of the defining qualities typical of most conservation projects. (fig. 4)

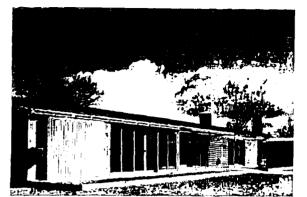


Figure 4. View of new, south elevation of the Headquarters for Cambridge Federation for Women's Institutes.

Early visits to the farm to document the cleared site – survey lines, utility lines, and dimensions - also revealed a constructed site with subtle redeeming qualities and vestiges of former lives. These were documented in sketches and as a photo essay: the agricultural sheds - a unified pattern of long, narrow structures, separated by gravel work yards, each characterized by unique roof forms, framing systems, cladding materials, and light qualities; the paddocks, sliding gates, and slatted fences dividing and connecting the sheds; the durable bases with transparent and translucent clerestories, vents, and screens, among them.

The photo essay was presented to the building committee along with three spatial alternatives to meet the WI's programmatic needs. The volume and footprint of the existing shed accommodated the majority of Each composition also the program. appropriated elements of the former pig shed - board-formed concrete stalls, a brick cistern tower and chimney mass, the circular hearthstone on which pots of potatoes once boiled - and re-used the bricks of the perimeter up-stand as a newly insulated base for the structure. The initial reaction of the committee was one of surprise. In the redundant landscape and structures of farm life, what architectural value remains useful to the creation of a new, modern facility?

The value of the constructed site approach to landscape and architecture is its ability to make meaningful contributions to the cultural

heritage in the process of providing firmness and commodity. The belief that architecture is capable of such things is generally perceptible museum. courthouse. in and other institutional buildings, but less inherent in humble sheds, common houses, and efficient offices. The ladies of the CFWI were committed to the development of sustainable architecture. The definition of *sustainability* is the ability to meet our needs without inhibiting the ability of future generations to meet their own.15 In this, I include the need to understand one's heritage.

-(02) Fenland Estate, Cambridgeshire, England (2003-)¹⁶

The brief to design a contemporary English country home and landscape was possible because of a unique planning policy guideline established in 1997, known as the PPG 7 clause. Despite restrictions on the development of green field sites, this planning exception created by John Gummer, then Secretary of State for the Environment, allows that:

An isolated new house in the countryside may also exceptionally be justified if it is clearly of the highest quality, is truly outstanding in terms of its architecture and landscape design, and would significantly enhance its settina and wider immediate surroundings....This means that each generation would have the opportunity to add to the tradition of the Country House which has done so much to enhance the English countryside.17

commission provides the The desian opportunity numerous to consider architectural questions in the process of designing the house and landscape. Broadly speaking, the question must be answered, "What constitutes the 'Tradition of the Country House', and how must it adapt or change to reflect contemporary society?" Secondly, what influence will the specific context exert on the design in order to 'significantly enhance its immediate setting and wider surroundings'? The design for the Fenland Estate employs the constructed site approach to answer both of these questions. (fig. 5)

The tradition of the country house was explored by considering patterns of settlement, typological spaces, and the evolution of the relationship between building and landscape. Historically, the exposed landscape was first delimited with a perimeter moat and the resulting berm. This created an area within protected from attackers - animals and people. Later, fortifying walls were added to these perimeter layers through which a single access point was created. Sustenance came from a fishpond channeled off the moat, together with fruit trees and a garden planted within the

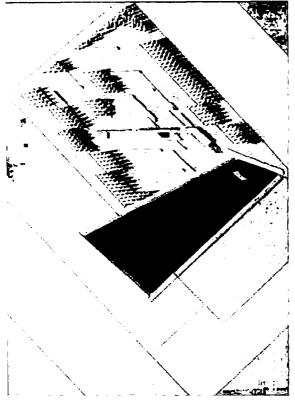


Figure 5. Fenland estate site model showing the buildings and landscape - shelterbelts, hedges, berms, reservoir, and fields.

walls. A hall-house, resembling the volume of an expansive barn, and a hearth completed the phase of development. Still later, lookouts atop the defensive walls were added and the hall-house became more specialized with interior subdivisions and exterior expansions.

With time and the 'taming of the wild,' the settlement's edges began to deteriorate; additional passageways crossed the fortifying layers; and manor houses and workers' homes spread out into the landscape. Today, protection from attackers is relegated to the elements, primarily wind, rain, and cold in the Fens. The design of the contemporary house and landscape thus seeks to extend seasonal relationships of interior and exterior spaces – specifically sheltering against the strong, prevailing winds of the flat and open Fenland countryside and maximizing the often fleeting rays of sunshine characteristic of England in general.

Specialized spaces of traditional country estates include the great hall, the library, the orangery or conservatory, the cellar, sunken gardens, hedgerows, walking and bridle paths, and ornamental water features. The context of these traditional spaces was reconsidered in light of contemporary lifestyles, often more informal and less hierarchical, yet the spaces remain recognizable organizers of the contemporary composition and lifestyle. The relationship between these spaces and the landscape has also evolved, from one which seeks to dominate and control nature to one which is much more complimentary, even symbiotic.

The site of the home and landscape is the Fens of Cambridgeshire and its physical, and cultural layers historical, exerted enormous influence on the design of the architecture and landscape. The Fens in Neolithic times were densely forested. Changes in sea level, subsequent flooding, and the passage of time made hills into isles and transformed the oak forests into rich, black soil. In the 17th century the Fens' potential as fertile farmland prompted massive earthworks to drain the fields and connect farms and villages. The resultant rich, black soil and system of drainage ditches, reservoirs, dams, locks and waterways characterize the Fens still today. This industrial infrastructure transcends its original function and facilitates contemporary leisure activities for long-boaters and twitchers (birdwatchers) alike.

The design leverages context - the history of settlement, the country house typology, and the geologic history of the Fens - to create a landscape composition that responds to wind and sun patterns. Solar exposure and shelterbelts of indigenous tree and shrub species, together with earth berms, govern the siting of the residence, pool, tennis court, and stables with the intent of creating pleasant microclimates most of the year. These are connected to one another by a series of outdoor rooms, bridle and foot paths expanding the settlement experience into the site and landscape. The residence is woven into this landscape and also takes cues from Fenland history. Its palette includes bermed and terraced earthworks, wattle fencing, and green roofs. The structure is comprised of dark-stained, timber frame construction, recalling the oak forests, the rich, black soil, and the original hall-houses, employed to frame contemporary spaces, forms, and activities.

Conclusion

The generative potential of the constructed site approach to design is endless and offers each designer the opportunity to comment on the past while contributing a contemporary layer expressive of its time and place. This approach should not be misunderstood as akin to post-modern examples in which the bridge to translate history to the present is frequently stylistic. Rather, the constructed approach demands architectural site arouments that are stylistically neutral but that engage the tangible and intangible forces - past, present and future - operating on a site. The contemporary layer is thus embedded rather than applied, and the composite time capsule available for opening at any moment by anyone.

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Notes

¹ This study excludes memorials as they have obvious historic goals inherent within their type and generally limited programmatic concerns.

² Carol Burns, "On Site: Architectural Preoccupations", from Drawing/Building/text: essays in architectural theory, ed. Andrea Kahn, Princeton Architectural Press, New York, NY, 1991. This paper utilizes the terminology developed by Burns and described in this essay, and applies them to the case studies.

³ Charles B. McClendon, "The History of the Site of St. Peter's Basilica, Rome", *Perspecta 25 The Yale Architectural Journal* (1989): 32-65. The entire section on the Bernini's Baldacchino draws from this *source*. ⁴ McClendon, p 63.

⁵ John W. Reps, *The Making of Urban America: A History of City Planning in the United States* (Princeton, NJ: Princeton University Press, 1965) p. 177.

⁶ G.Z. Brown and Mark DeKay, *Sun, Wind and Light: Architectural Design Strategies*, Second Edition (John Wiley and Sons, Inc., 2001) p. 114. Climate information and its influence on the form of Charleston's city plan draws from this source throughout.

⁷ Brown and DeKay, p. 114.

⁸ Brown and DeKay, p. 114.

⁹ Virginia and Lee McAlester, *Great American Houses and Their Architectural Styles* (New York, NY: Abbeville Press Publishers, 1994).

¹⁰ The Friedrichstrasse Complex was designed by the Office for Metropolitan Architecture (Mattias Sauerbruch and Elia Zenghelis with Dirk Alten, Barbara Burren, Eleni Gigantes, Reni Keller & Alex Wall).

¹¹ Mary Pepchinski, "OMA's Berlin Housing Confronted by Change", *Progressive Architecture* (12/1990): 17.

¹² Josef P. Kleihues and Heinrich Klotz, ed., International Building Exhibition Berlin 1987: Examples of a New Architecture (New York, NY: Rizzoli International Publications, 1986), p. 128.

¹³ Pepchinksi, p. 17.

¹⁴ The Headquarters for the Cambridge Federation of Women's Institutes is designed by Ellis-Miller Architects (Tricia Stuth, Jonathan Ellis-Miller, and Louis Scott).

¹⁵ The 1987 Brundtland Report to the World Commission on the Environment defines sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

¹⁶ The Fenland Estate is designed by Ellis-Miller Architects (Tricia Stuth, Jonathan Ellis-Miller, and Jack Green).

¹⁷Caroline McGhie, "Is the Country House Party Over?," *Daily Telegraph* online, filed 13 February 2002.

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Fenland Estate sources:

McGhie, Caroline, "Is the Country House Party Over?," *Daily Telegraph* online, (filed 13 February 2002).

Illustrations

Fig. 1: Section through the ancient cemetery and layers of high altars beneath the canopy of Bernini's Baldacchino. McClendon, Charles B., "The History of the Site of St. Peter's Basilica, Rome," Perspecta 25 The Yale Architectural Journal (1989): p 60.

Fig. 2: Charleston Single Houses with side verandas including St Philip's Rectory (c. 1807), center, and the Thomas Legare House (1760), foreground. Wrenn, Tony P., and Mulloy, Elizabeth D., America's Forgotten Architecture (1976): p. 224.

Fig. 3: Expanded axonometric drawing of the compositional and program element, Friedrichstrasse, the Berlin Wall, and Checkpoint Charlie. Kleihues, Josef P. and Klotz, Heinrich, ed., International Building Exhibition Berlin 1987: Examples of a New Architecture. (1986) p. 156.

Fig. 4: View of new, south elevation of the Headquarters for Cambridge Federation for Women's Institutes. Photo by Tim Soar.

Fig. 5: Fenland estate site model showing the buildings and landscape including shelterbelts, hedges, berms, reservoir, and fields. Model by Jack Green. Photo by Graham Murrell.