Lubetkin And The Tecton Group

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Lubetkin And The Tecton Group

Abstract
While it is generally true that between 1932 and 1948 the work of Berthold Lubetkin and the Tecton architectural partnership was chained to the fate of progressive socialism in England, it can also be argued that this explanation overlooks those minor works of theirs which contradict the unbending theoretical framework of this movement, i.e., the framework of a progressive and providential etiology characterized by the notion of an overcoming and the concept of a recurring origin, ground, or foundation. In contrast to this explanation, this dissertation argues that the minor works of Lubetkin and Tecton exhibit a particular form of integrity and continuity distinguished by the weakening of these very same theoretical frameworks. The interpretation of a “weak theory” in these works is the subject of this dissertation, which argues that weakening creates a clearing for architectural invention.

This dissertation asks three questions. First, how can the notion of a weak theory be visualized in the representation of architecture and the city? Second, how does the architect conceive his or her agency in the context of a weakened theoretical framework? And third, how might the characteristics of these works be the structure of interpretation rather than its result? This dissertation pursues these questions in three respective parts. Part One introduces these notions by way of a pair of drawings by Lubetkin. Part Two attends to the conception of the architect as a member of a group practice. Part Three proposes a topical approach to the domestic work of Lubetkin and Tecton, through the consideration of Lubetkin's Whipsnade House and its associated Manifesto, which exemplify seven architectural topics: 1. distribution, 2. orientation, 3. proportion, 4. elevation, 5. structure, 6. enclosure, and 7. contrariety. These topics coordinate and connect Lubetkin's unique position in the history of architectural theory to perennial questions in the discipline of architecture. Finally, Part Four concludes with a case study that argues that contraposition—or contrapposto—is the inheritance of this approach in the postwar period.

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LUBETKIN AND THE TECTON GROUP

Andrew Reed Tripp

A DISSERTATION

in

Architecture

Presented to the Faculties of the University of Pennsylvania

in

Partial Fulfillment of the Requirements for the

Degree of Doctor of Philosophy

2017

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Dr. Franca W. Trubiano, Associate Professor of Architecture
for Emily Katherine
“Weak as our ideas may be, they are held rather strongly.” – Berthold Lubetkin, 1945
Tripp, A., 2012, Lubetkin and Tecton’s Highpoint Two, porte cochère, unpublished photograph
ABSTRACT

LUBETKIN AND THE TECTON GROUP
Andrew Reed Tripp
Dr. David Leatherbarrow

While it is generally true that between 1932 and 1948 the work of Berthold Lubetkin and the Tecton architectural partnership was chained to the fate of progressive socialism in England, it can also be argued that this explanation overlooks those minor works of theirs which contradict the unbending theoretical framework of this movement, i.e., the framework of a progressive and providential etiology characterized by the notion of an overcoming and the concept of a recurring origin, ground, or foundation. In contrast to this explanation, this dissertation argues that the minor works of Lubetkin and Tecton exhibit a particular form of integrity and continuity distinguished by the weakening of these very same theoretical frameworks. The interpretation of a “weak theory” in these works is the subject of this dissertation, which argues that weakening creates a clearing for architectural invention.

This dissertation asks three questions. First, how can the notion of a weak theory be visualized in the representation of architecture and the city? Second, how does the architect conceive his or her agency in the context of a weakened theoretical framework? And third, how might the characteristics of these works be the structure of interpretation rather than its result? This dissertation pursues these questions in three respective parts. Part One introduces these notions by way of a pair of drawings by Lubetkin. Part Two attends to the conception of the architect as a member of a group practice. Part Three proposes a topical approach to the domestic work of Lubetkin and Tecton, through the consideration of Lubetkin’s Whipsnade House and its associated Manifesto, which exemplify seven architectural topics: 1. distribution, 2. orientation, 3. proportion, 4. elevation, 5. structure, 6. enclosure, and 7. contrariety. These topics coordinate and connect Lubetkin’s unique position in the history of architectural theory to perennial questions in the discipline of architecture. Finally, Part Four concludes with a case study that argues that contraposition—or contrapposto—is the inheritance of this approach in the postwar period.
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<tr>
<td>AA</td>
<td>Architectural Association</td>
</tr>
<tr>
<td>AASTA</td>
<td>Association of Architects, Surveyors, and Technical Assistants</td>
</tr>
<tr>
<td>A&amp;BN</td>
<td>Architects’ and Builders’ News</td>
</tr>
<tr>
<td>AJ</td>
<td>Architects’ Journal</td>
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<tr>
<td>AMA</td>
<td>American Medical Association</td>
</tr>
<tr>
<td>AR</td>
<td>Architectural Review</td>
</tr>
<tr>
<td>ARCUK</td>
<td>Architects’ Registration Council of the United Kingdom</td>
</tr>
<tr>
<td>ARO</td>
<td>Ove Arup Archive in the RIBA Library Drawings and Archives Collections</td>
</tr>
<tr>
<td>ASAPU</td>
<td>Architects’ and Surveyors’ Assistants Professional Union</td>
</tr>
<tr>
<td>ATO</td>
<td>Architects and Technicians’ Organization</td>
</tr>
<tr>
<td>BAL</td>
<td>British Architectural Library</td>
</tr>
<tr>
<td>BL</td>
<td>British Library</td>
</tr>
<tr>
<td>BMA</td>
<td>British Medical Association</td>
</tr>
<tr>
<td>BMJ</td>
<td>British Medical Journal</td>
</tr>
<tr>
<td>CIA</td>
<td>Collaboration Internationale d’Architecture</td>
</tr>
<tr>
<td>CIAM</td>
<td>Congrès Internationaux d'Architecture Moderne</td>
</tr>
<tr>
<td>DZG</td>
<td>Dudley Zoological Gardens</td>
</tr>
<tr>
<td>EH</td>
<td>English Heritage</td>
</tr>
<tr>
<td>GOLER</td>
<td>Ernő Goldfinger Archive in the RIBA Library Drawings and Archives Collections</td>
</tr>
<tr>
<td>FBC</td>
<td>Finsbury Borough Council</td>
</tr>
<tr>
<td>LCC</td>
<td>London County Council</td>
</tr>
<tr>
<td>LUB</td>
<td>Berthold Lubetkin Archive in the RIBA Library Drawings and Archives Collections</td>
</tr>
<tr>
<td>MARS</td>
<td>Modern Architectural Research Group</td>
</tr>
<tr>
<td>OA</td>
<td>Official Architect Journal</td>
</tr>
<tr>
<td>OAA</td>
<td>Official Architects’ Association</td>
</tr>
<tr>
<td>RIBA</td>
<td>Royal Institute of British Architects</td>
</tr>
<tr>
<td>RIBAJ</td>
<td>Royal Institute of British Architects Journal</td>
</tr>
<tr>
<td>SAG</td>
<td>Godfrey Samuel Archive in the RIBA Library Drawings and Archives Collections</td>
</tr>
<tr>
<td>TAC</td>
<td>The Architects’ Collaborative</td>
</tr>
<tr>
<td>ZSL</td>
<td>Zoological Society of London</td>
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1 INTRODUCTION
1.1 LUBETKIN AND ACCOMPLISHED NIHILISM

"And I must repeat, all together, and without any distinction between Constructivism and the art of protest. Cubism, Futurism, Dada, all the historical avant-garde movements arose and succeeded each other according to the typical law of industrial production, the essence of which is the continual technical revolution. For all the avant-garde movements—and not only in the field of painting—the law of assemblage was fundamental. And since the assembled objects belonged to the real world, the picture became a neutral field on which to project the experience of the shock suffered in the city. The problem now was that of teaching that one is not to 'suffer' that shock, but to absorb it as an inevitable condition of existence" (Tafuri, 1976: 86).

– Manfredo Tafuri

1.1.1 Introduction

This dissertation argues that the architecture of Berthold Lubetkin and the Tecton architectural partnership represents a “weakening” of the critical, historical, and material frameworks of the modern movement in architecture; that it represents a special case of continuity—within the modern movement in European architecture—apart from an unyielding theoretical basis in the concept of an overcoming (a redemptive salvation) or the reappropriation of an origin (a solid foundation). Admittedly, this interpretation is plausible in only a small portion of Lubetkin’s work—a few buildings, drawings, and writings—and diverges from the account offered in the biographies that he helped write in his later years. Indeed, the interpretation of a weakened theoretical premise is plausible only in works from the interwar period, of which only limited records exist. The methodological approach of this dissertation, then, is to interpret such fleeting (i.e., floating) works apart from frameworks that Lubetkin increasingly propagated in the postwar period—not simply because these frameworks are anachronistic, but because they tend to render the work of architecture as a representation of either a progressive social reality or nothing valuable at all.
1.1.2 Architecture and the City

Let me begin with two drawings of architecture in the city. The first is a proposal for a memorial to the fallen at the Battle of Somme in Paris (Fig. 1.1). The second is a proposal for the area surrounding the Finsbury Health Centre in London (Fig. 1.2). Both drawings are attributed to Berthold Lubetkin, although the latter was finished by either Francis Skinner or Gordon Cullen, who were working as employees of the Tecton architectural partnership at the time. The first drawing was created in 1926 while Lubetkin was a student in the atelier of Gaston Trelat at the École Spéciale d'Architecture. It survives today in the cabinets of the Royal Institute of British Architects Drawings and Archives Collections, where it was received sometime around 1991. The second was created twelve years later following the substantial completion of the Finsbury Health Centre in 1938. It survives only in the photograph taken by the Architectural Record for publication of the project: "Finsbury makes a Programme" (1939). The original drawing, which includes a photograph of the new building montaged in the center, was likely lost in 1969, when—in preparation for his move from a farmhouse in Upper Kilcott to a Townhouse in Clifton, Bristol—Lubetkin tossed the majority of his personal and professional papers into a bonfire in his back yard. Despite the specious relationship of this fury to his architecture, no other single event has effected the interpretation of his work more. Most of Lubetkin’s architectural artifacts that are extent today are drawings and records that were in the possession of his friends or colleagues and only later delivered to his archive. However, the drawing of the memorial is an exception. It is one of the few drawings that—for some reason—the aged architect carefully preserved.

The reason for this preservation is likely the narrative he attached to it. It seems that when it was first presented the shock of his proposal had created such a scandal at the École that Lubetkin was immediately expelled from the academy without a diploma. He was quite fond of sharing this story, and it was well received by his audience. Solly Zuckerman, who knew Lubetkin at least as early as any other Englishman, included it in his memoir without confirming
its veracity. John Allan also relayed the story as part of Lubetkin's biography, noting that his rejection by academia was often a source of pride for the émigré architect (Allan, 1992: 61).

Lubetkin described his proposal in his memoir:

“[I]t consisted of a modified Howitzer of vast proportions erected in the Gardens of the Trocadero, boldly facing the Tour Eiffel. The vertical feature of the monument was a huge glass cylinder of such a capacity as to contain the volume of blood spilt at the Somme. This red liquid circulated and overflowed onto the Howitzer below, at one side of which lay a huge mass grave pit, traversed by a bridge for the dead, overlooked by a silent tribune from which the dead could address the dead. A phalanx of crosses representing the units involved in the battle were dotted around the pit” (Lubetkin, Samizdat).

The difference between Lubetkin's description and the drawing of the memorial is in the setting; the drawing clearly shows that the placement of the memorial was to be further west in the Place du Trocadero where the Eifel Tower is seen in the background. The city is its setting, not the garden. The memorial occupies the center of an urban place, with tree-lined boulevards and city dwellers walking along in several small figurative groups. In one such group a man in a suit doffs his hat to a passing woman, in another, two women walk along talking together.

Judging from these figures the memorial is not shocking at all, perhaps, as Manfredo Tafuri would have us believe, their nerves are steeled against this kind of shock and no longer "suffer" its immediate impact (Tafuri, 1976: 86). Another figure in the center-front stands to look at the memorial. His posture is different from the others; the twist of his hips and shoulders—such that his feet seem oriented in a different direction from his gaze—suggests a man in a moment of observation, but again, not in shock.

The character of the surrounding buildings is unified into a single texture articulated by storefronts below and punched openings above. The street walls give enclosure to the place, and, within it, a space for the figures and the memorial. The scene is rendered without the analytic and spatial framework of linear perspective; nevertheless, the viewpoint taken for the drawing is one that is apparently level with the openings of the surrounding piano nobili. Thus,

1 Solly Zuckerman wrote to Margaret Gardiner to verify the story, but she could not.
although one looks down upon the street, one's position is still represented within the city looking out across the memorial with the Eifel Tower diminished in the distance.

In the drawing, what separates the memorial from the city is mostly the circumscribing outline which coordinates with the colored in-fill. Only on one occasion does color extend beyond this boundary—when the blood escapes from the steel and glass cannon and falls to the uneven terrain below. The pooling blood conceals where the cannon mounts the ground, but nevertheless, it appears that the base of the cannon has been swallowed-up by the unstable terrain. None of the elements of the memorial share the same level or elevation; likewise, none seem to share the same scale. All is twisted and distorted and seemingly unruled by anything except the ceaseless bearing down of gravity. It should not escape our attention that the drawing includes the representation of a ruined city and forest within a drawing of a bourgeois center of Paris. The city and the forest—or perhaps the city as a forest, as Abbe Laugier would have it (Laugier, 1977: 95)—is ravaged by war, and covered with blood.

The photomontage of the Finsbury Health Centre also shows a work of architecture in the city. The Health Centre is represented by a cutout from a photograph of the completed building, while the surrounding area is drawn in pen and ink with various site improvements that were proposed but not yet built. The difference between the built and the proposed repeats in the difference between the photomontage and the line drawing surrounding it. The cutout photograph reminds us that the building is an existing thing—a realized fragment of the new social (or socialist) order yet to come. The fact that the building was realized gives credence to the notion that the site improvements in the surrounding area are also a real possibility. But also, in reference back to the drawing, the fact that the building is realized means that all that we already know about the building—and not just what is visible on the paper—bears down on an interpretation and understanding of the drawing. In other words, aspects of the building that are not visible in the drawing, such as the character of the street facades of the ward-like wings, are still relevant to interpretation.
One of the primary differences between this drawing and the drawing of the memorial is the adoption of the technique of photomontage. In the Finsbury Health Centre drawing, photomontage consists of cutting-out the photographic representation of an existing thing from its surroundings and replacing those surroundings with an alternative possibility, in this case, a pen and ink drawing of a garden in the city of the future. The image of the building is circumscribed by a cut; its new setting achieved when it is re-assembled with the pen and ink drawing. The constructed building is also differentiated from its setting by a "flash-gap" reveal that circumscribes the basement construction wrapping the building. The use of the flash-gap introduces the possibility of an analogy between the techniques of assembling the drawing and the techniques of assembling the building—something that is also visible in aspects of the early projects at the Whipsnade and Highgate (Powers, 1993).

In both the drawing and the building, the Health Centre is depicted as a fragment. In the drawing, this fragment serves as a focus, node, or source for the progressive extension of the larger project from the work of architecture out into the city. The purpose of this larger project is, of course, bound up with the ordering or planning of the economic, social, and spatial world according to rational principles. This rationalization of planning is consistent with the idea of utopia in the capitalist city of the 1930s, in which the idea of planning, according to Antonio Negri, is a result of a newly established necessity "to project the future from within the present [and] to plan the future according to present expectations" (Negri, 1988: 24). In his caption to this drawing, Lubetkin describes his vision for the plan of this area:

"The new Health Centre, coordinating the health services of the Borough... has been built on the corner of Pine Street and Northampton Street near the southwest boundary. The site was previously occupied by houses which were in a poor state of repair and provided bad living conditions. The remaining row of these houses... is shortly to be pulled down and the space it occupies to be thrown in to the large garden space which is eventually to surround the Health Centre. The scheme is proceeding slowly owing to the difficulty of acquiring land, but it includes further demolition in front of the building and the closing of Pine Street, with a garden taking its place as shown in the drawing. It is hoped eventually to throw the site open to take Farringdon Road, one of the Borough's main arteries, as recommended in the Bressey Report. The ground between the Health Centre and Farringdon Road would also be laid out as a garden, but portions of it might
be utilized for smaller public buildings such as a branch library” (Lubetkin and Tecton, 1939: 6).

It is unwise to give too much credence to the vocabulary of an architect who adopted the English language relatively late in life; nevertheless, it is telling that he characterizes the idea of the project as something "to be thrown" into the surrounding city. This suggestion is further evidence of a Lubetkin’s future-oriented planning. In the Health Centre drawing, Lubetkin’s future includes a garden along with the locations of several existing landmarks in the vicinity. Of these landmarks, the most prominently represented is the Church of Our Most Holy Redeemer drawn toward the center-left boundary of the sheet. Then, just beyond the Health Centre and on the other side of Northampton Road, a row of townhouses represents the commonplace vision of Finsbury as a Borough filled with Victorian slums. This vision contrasts with the representation of the Victorian houses in the left background of the drawing. The representation of the landscaping in front of the Health Centre and in-between the two wings, as well as some of the playground equipment, are also elements that were existing by the time construction was complete. But other than these few landmarks, the garden shown in the drawing was a proposal to replace a fragmented mixture of variously open and occupied spaces. The condition of these existing spaces can be gleaned from historical photographs of the area.

The proposal for a garden imagined both a dramatic transformation of the existing surroundings and how this area was to be used. The drawing shows figures meandering along serpentine pathways, playing on the playgrounds, enjoying a model sailboat in a pond (in fact it shows two), etc. The figures take part in leisure activities; they are free, apparently, from work and fear. There is no apparent sense of crisis here, no Great Depression or Slump, no Spanish Civil War, no impending disaster. The activities suggest a group of people free from their fear of the future, but also, separated from their immediate past. The drawing is too small and indefinite to identify the garden as a Picturesque landscape; nevertheless, its informality offers a degree of naturalness to the representation of these activities and their associated freedoms, as well as to the architecture situated within it. In other words, the larger project that underwrites and extends
out from the fragment of the existing architecture into the city of the future is depicted—at the very least—as not unnatural.

The area surrounding the Health Centre has an interesting history. It was historically known as Spa Fields, a name it took from the London Spaw, which was a public meeting house dating to at least 1685 when chalybeate water from an ancient spring was sold for medicinal purposes. The Spaw was one of the several institutions connected to the pleasure gardens established throughout the vicinity in the 17th century. Of these, the most famous were the New Wells theater (est. 1735), and the Spa Fields Pantheon of Rotunda (est. 1769) at what is now the site of the Church of Our Most Holy Redeemer (Temple, 2008). When the pleasure gardens were abandoned, the open areas were converted into speculatively developed burial grounds, which in the first half of the 19th century were the site of the most heinous offenses in London against the dead. The burial grounds were the object of severe criticism and closed in 1853—the gravestones removed and replaced by a “make-belief garden.” Despite the infamy of the site, the area still required funerary services, and a new mortuary building designed by Henry Saxon

2 In 1776, the Pantheon was closed, but a year later it was reopened as a minor Anglican chapel, established first by an evangelical group named the Clerkenwell Society, then continued by the Countess of Huntingdon who renamed it the Spa Fields Chapel.

3 In a widely publicized criminal trial, the principle gravedigger, Joseph Naples, was convicted of “resurrectionism” (stealing bodies to supply anatomical dissection) and sentenced to two years in prison. In 1843, the question of burials in town was raised before Parliament and a slew of nefarious practices at Spa Fields were revealed to the public: bodies were disinterred nightly and moved to accommodate the next day’s burials; some were dismembered and burned along with their coffins in the so-called “bone house”, which produced such a stench every night that it reportedly drove some neighbors to move away and others to suffer disease (New Annual Register, April 1803: 22). “There is an account of these crimes provided by the grave digger Ruben Room but is simply too gruesome to be included in the text above. Room's posthumous testimony was published in Walker, George Alfred. Burial-Ground Incendiarism. The last fire at the Bone-House in the Spa-Fields Golgotha, or the minute anatomy of Gravedigging in London (1846), 21-22." I was in the employ of Mr. F. Green, as gravedigger, in 1837, and continued in his employ for about six years. Our mode of working the ground was not commencing at one end and working to the other, but digging wherever it was ordered, totally regardless whether the ground was full or not; for instance, to dig a grave seven feet deep at a particular spot, I have often disturbed and mutilated seven or eight bodies; that is, I have severed heads, arms, legs, or whatever came in my way, with a crowbar, pickaxe, chopper, and saw. Of the bodies, some were quite fresh and some decomposed. I have had as much as 1 1/2 cwt. of human flesh on what we term the 'beef board' at the foot of the grave at one time. I have often put a rope round the neck of a corpse to drag it out of the coffin, fastening one end of the rope to a tombstone, so as to keep the corpse upright to get at the coffin from underneath, to make room for the flesh of other bodies. The coffins were taken away and burnt with pieces of decomposed flesh adhering thereto. I have taken up half a ton of wood out of one grave, because I had to take out two tiers of coffins, some of which were quite fresh, and we used to cut them up for struts, used for shoring up the graves. We had as many as 50 or 60 sides of coffins always in use to keep the ground from falling in when digging. We have buried as many as 45 bodies in one day, besides still-borns. I and Tom Smith kept an account one year; we buried 2,017 bodies besides still-borns, which are generally enclosed in deal coffins. We have taken them up when they have been in the ground only two days, and used them to light fires with. I have been up to my knees in human flesh by jumping on the bodies so as to cram them in the least possible space at the bottom of the graves in which fresh bodies were afterwards placed. We covered over the flesh at the bottom by a small layer of mould. I have ruptured myself in dragging a heavy corpse out of the coffin. It was a very heavy one. It slipped from my hold lifting it by the shoulders. The corpse was quite fresh. These occurrences took place every day.”
Snell—the well-known Scottish architect of hospitals—was built at the western edge of the former burial grounds. In the decades that followed, neighboring squares were converted into public gardens, but these were closed to children, and so in 1886, Spa Fields was drained, graveled, leveled, and the first “gymnastic apparatus” installed adjacent to Snell’s mortuary. In 1923, a cooperation of the Northampton Estate and the Finsbury Borough Council developed the remainder of the site as a garden, and in 1936, new paths, flower beds, and playground equipment were installed at the advice of Dr. Chuni Lal Katial, Chairman of the borough’s Public Health Committee and public official in charge of the Finsbury Health Centre project that began later that year. Restoring the area as a garden—as in Lubetkin’s drawing—was not the effect of the Health Centre, but rather, was the primary move in improving the area; in other words, the construction of the Health Centre building was secondary to the more general aim of reconstructing a place of recreation within the city. Planning for the future was based on—or at least tied to—the re-appropriation of an origin in the idea of the English garden.

Both the drawing of the Health Centre and the Memorial make a sharp distinction between the work of architecture and the city. The drawing of the memorial is contrasted with that of the city by the distinction in the figures, the character of the construction, the drawing media, and the simple references to war. But the memorial is also a representation of the city, in this case, the city in ruin and covered in blood. The drawing of the Health Centre is also contrasted with the city by character and media, but its principle separation is temporal—the photograph of a realized construction against the drawing of a new possibility. In this case the contrast is not meant to be shocking, but rather, enlightening, inviting, originating, even redeeming; in other words, from this building, a new city will be projected. Thus, here too we find that the Health Centre is a representation of the city, this time as a fragment of the future rather than as a ruin of the past. It seems only appropriate that while the viewpoint of the memorial is taken from a position within the city, the viewpoint of the Health Centre is taken from above and according to the conventions of the aerial or “cavalier” point of view. The city represented around

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4 This could not have occurred without the passage of the Disused Burial Grounds Act in 1884.
the Health Centre is palliative, stabilizing, edifying, future oriented, ordered or "planned" from above. The city represented within the memorial is shocking, vivid, unstable, ruinous, past, historical—chaotic from within itself. What is evident in the Health Centre—the representation of a progressive overcoming accompanied by the re-appropriation of an original foundation is absent in the drawing of the memorial, which instead shows something like what Walter Benjamin would have Paul Klee's angel envision as it is thrown backwards into the future (Benjamin, 2003: 392); it speaks more to an archaeology of the past than to a construction and monumentalization of the future.

The accomplishment of the drawing of the memorial is also apparent in the interpretation of the blood. While Lubetkin's descriptive reference to the Trocadero Gardens is initially misleading, it does direct us to consider the memorial as a type of garden fountain; one that substitutes steel for stone and blood for water. It is a fountain of blood. But Lubetkin's fountain is not like William Cowper's cleansing and redemptive Fountain of Blood (1800), rather, it is more akin to the lyrically grotesque Fontaine de Sang (1857) of Charles Baudelaire: "It turns the stones to archipelagoes | as if the city were a battleground, | slaking the thirst of every living thing | and dyeing all the world of nature red" (Baudelaire, 1982: 131). It is not cleansing, it is staining. It is not evil, nor it is redemptive. Blood was a common theme in early twentieth-century French literature (Anidjar, 2014), for example Sueur de sang (1893) and Le Sang du pauvre (1909) by Léon Bloy; La Chair et le sang (1920) by François Mauriac; the identically titled Sueur de sang (1935) by Pierre-Jean Jouve; and in the same year, Louis Guilloux's Le Sang noir (1935) (Burton, 2001: 309). On several occasions Lubetkin also discussed architecture in terms of blood, and in his memoir he often recalled bloody images from his youth in Russia: "the dispatch riding for the army, the many civil wars and foreign interventions, invasions, rivers of blood, and the typhus contracted near Orsha" (Lubetkin, Samizdat). Although he never discussed his religious upbringing, Lubetkin came from a Jewish family. He characterized the Anti-Semitism of Russia's revolutionary period in terms of violence and blood. Passover was not a redemptive holiday, but one in which Jews were easily identified, targeted, and killed: "Now indeed their ageless feet
were protruding from under their bloodstained prayer shawls” (Lubetkin, *Samizdat*). This was a profane sense of blood. The deeper shock of this drawing is the profanity of blood—that most sacred of Judeo-Christian emblems. This blood does not represent a rebirth or a redemption. There is no salvation here. War is not represented as blood-letting. Instead, the dead are depicted lying in mass graves alongside the machines of their own destruction.

What is significant about the drawing of the memorial, then, is what it does not show. It does not represent either the re-appropriation of an origin or the projection of an overcoming. This same absence is evident in the architecture of the proposal well beyond what the blood represents. There is no edification here, and likewise, there are no foundational principles beneath the architecture. There is no classical order to the architecture, no geometry, no origin, no scale or material necessity, only fragments of the recent past crashing in and upon one another. Furthermore, there is no sense of a radical uprooting or overcoming; no projection of a future from within the present, no great expectation.

1.1.3 Weak Theory

If these two interpretations are acceptable, then the question that this dissertation begins from is relatively simple. What are the conditions under which these interpretations do not contradict one another? More broadly, how can an architect—especially one so central to the development of the modern movement in English architecture—create work that is consistent and continuous with the premises of the modern movement—i.e., its critical, historical, and material premises—but also create work that simultaneously undermines the representation of those very premises? There are two ready answers to this question.

On the one hand, these interpretations concern representations that did not occur at the same time; indeed, the drawings were conditioned by different historical circumstances. This is entirely factual. The difference between these drawings describes a ten-year change in an architect during a period in which apostasy was a growing fact of life. The Finsbury Health
Centre, in this context, represents a compensatory antidote to an increasing loss of faith. In his unpublished memoir, which was titled *Samizdat of Anarchitect*, Lubetkin discussed the “moral nihilism” he gained from his experiences in Moscow: “From Zalesski’s dog I learned moral nihilism: that when survival is threatened you jump and break through all the restrictions.” Nevertheless, the nihilist qualities of the memorial drawing were not limited to his student days. Indeed, qualities similar to the memorial drawing persisted and are repeated most spectacularly in his description of the house he built at Whipsnade (see below: Part 3 Topics), which occurred within three months of the Finsbury Health Centre drawing. Throughout the interwar period, but most noticeably in the mid-to-late 1930s, Lubetkin described his work in both grounded-redemptive and groundless-un-redemptive terms—a duplicity that refuses to choose between one position or the other.

On the other hand, and in response to the answer above, these interpretations concern representations that were conditioned by the same historical circumstances, and, rather than reflecting historical change, demonstrate a duplicity that questions the stability of their theoretical framework. In this context, duplicity is not a moral deficit, but rather refers to a theoretical weakening in which architecture is no longer destined to represent truth, reason, or progress in an unbending way. The notion of weakening I have in mind here is consistent with the notion of “weak thought,” *il pensiero debole*, first articulated by Vattimo in the 1970s. Weak thought in philosophy is not a weakness of thinking, but rather “the way in which philosophy takes up a thought of the weakening of the weight of objective structures and, ultimately, the weakening of being itself” (Risser, 2007: 185). This notion aligns Vattimo and the philosophy of Nietzsche and Heidegger with what he describes as a “postmetaphysical tradition,” one which, more than any historical event or sequence, is capable of accounting for the notion of postmodernism in general. It is not the intention of this research to take up a review of the postmodern in architecture, except insofar as this term may have been used on occasion to describe pieces, places, and periods that overlap with the work in view.
The relevance of weak thought to this research is that it seeks to understand the tradition of western thought apart from the conditions of re-appropriating and overcoming. "To re-appropriate" means to make one's own again, and, in this context, refers to the persistent effort to establish historical origins or posit a solid structural ground as a basis of one's own intellectual endeavors. To establish an "overcoming" refers to the projection of—or progression toward—a future that is redemptive, providential, i.e., teleological. Weak thought arises from the suspicion of these conditions which pervade the history of western philosophy, and attempts to establish "positive moments for a philosophical reconstruction" (Vattimo, 1988: 1). In this sense, it seeks not to undermine construction—in both an intellectual and architectural sense—but rather to establish construction as a pursuit distinct from unbending critical, historical, and material frameworks.

These suspicions are found in other post-modern thinkers, nevertheless, the aspect of this concept that concerns tradition is best operationalized in the work of Vattimo. Weak thought proposes a radical questioning of western philosophy, but, because any expectation of overcoming this tradition would be to "remain captive to the logic of development inscribed in the tradition of European thought," it understands that it must operate within—but not in service of—the categories and constructions that are given and into which it is thrown. Hence it seeks to "continue" philosophical construction on the basis of what Vattimo calls an "accomplished nihilism" (Vattimo, 1988: 19; Serpytyte, 2005). As nihilism, weak thought seeks to overturn those fundamental structures of metaphysics—the arcai, Gründe, primary evidences, and totalities, etc.—that foster a "strong" sense of the concept of Being. In this way weak thought is akin to ideological criticism, except that Vattimo is careful to distinguish that a different sense of truth operates in each discourse; in ideological criticism truth is rendered as totality and the non-partial, whereas in weak thought truth is rendered as freedom—"as the opening of horizons within which any conformity becomes possible" (Vattimo, 2012: 49).

The reason for this diversion into philosophical summary is that Vattimo 's characterization of a weakening gives language and logic to aspects of the architecture of
Lubetkin (and others) that otherwise remain overlooked. The notion of weak thought has been adopted in architectural literature on several occasions. The notion is explicit, first, in the writing of Ignasi de Solà-Morales, then in the writing of Marco Frascari (Frascari, 2011: 23); but also implicit in the writing of Massimo Cacciari and Peter Eisenman (Corbo, 2016; Hartoonian, 2012). It is Solà-Morales, however, who most clearly points to its purpose in architectural theory when he writes that "the interpretation of the crisis of the modern project can only be effected from what Nietzsche called 'the death of God'; that is to say, from the disappearance of any absolute reference that might in some way coordinate, or 'close,' the system of our knowledge and our values at the point at which we articulate these in a global vision of reality." This "crisis" is a "loss of ground, together with the loss, in the field of art, of an artistic project, produced on the basis of a desire to represent" (Solà-Morales, 1998: 616). Like pulling one's self up by one's own bootstraps, weak thought is concerned with the task of representing without the certainty of a fundamental referent; it is a sincere response to a fundamental crisis while attempting to avoid the perpetuation of that crisis. A weak architecture, Solà-Morales claims, by analogy, would be the same.

Lubetkin wanted the modern movement in architecture to continue; or, to be more precise and yet to open up to criticism, he wanted modern architecture to continue. Such a statement appears vacuous at first, almost nonsensical, when employed to write about an architect. After all, doesn't every architect engage de facto in the continuation of architecture? But if we consider the fact that for the last three decades of his life, Lubetkin voluntarily carved out a meager existence as a pig farmer in the rolling hills of Upper Kilcott, an act in which there is more than an implicit announcement of the end of architecture, there is indeed a question not only of whether architecture is to continue but of the way in which it can do so. Dalibor Vesely occasionally shared a story of an impromptu visit to Lubetkin’s home in the 1970s to ask about his work, where, before being turned away, Lubetkin asked: "Why would you want to pull the nails out of that coffin?" The announcement of the death or end of architecture was not Lubetkin’s alone, nor is it necessarily an idea that he would own; indeed, while he dwelled in exile, he continued to write—
often belligerently—about the meaning of Enlightenment rationality and the sense of loss he felt without it. It would appear—as indeed it did to Lubetkin the postwar exile—that without the progress of the Enlightenment and a connection to a history of truth, architecture had been eviscerated and was no longer capable of lending a hand in any emancipation that would be of real substance. But at its best, Lubetkin's architecture exemplified a weakening of that very same Enlightenment project—a weakening that Vattimo refers to as an 'accomplished nihilism'—that is, a nihilism understood not as a loss of being, but as an opportunity for continuity and construction apart from unbending theoretical frameworks.

1.1.4 Sources

The primary source for this thesis has been the Lubetkin Archive in the RIBA Drawings and Archives Collections, which holds the only existing original drawings and writings by Lubetkin and other members of the Tecton architectural partnership. As suggested above, the history of this material is rather grim—by the time it was finally donated to the RIBA in 1991 significant portions of Lubetkin's work were already lost or destroyed. Work that he accomplished before emigrating to England in 1931 was either returned to Moscow or left in Paris and never recovered. Other documents related to the Tecton architectural partnership were lost during its period of dormancy between 1939-1943, and still more when it was disbanded in 1948. Still more work was destroyed on the various occasions that followed Lubetkin’s threat to withdraw from practice altogether. His daughter Sasha recalls the large amount of paper that was fed into a bonfire in preparation for their move from the Upper Kilcott cottage to the townhouse in Clifton, Bristol, in 1969.

These destructive transitions have effectively edited the material existence of Lubetkin's work and have privileged an anachronistic view of his earlier pre-war work (with and without the Tecton architectural partnership) as it can be interpreted on the basis of the later autographed materials that have survived. For the most part, those drawings and diagrams that have survived
are those that were created for photographic reproduction and publication in professional journals. Exceptions to this, such as the drawing for the memorial to the fallen at the Battle of the Somme, are rare and extraordinarily valuable, on the one hand, because they offer a unique view into his work, and on the other hand, because for some reason Lubetkin chose to preserve rather than destroy them along with the majority of his records. The single largest source of primary historical material is the collection of over three thousand photographs that are stored at the RIBA Photographs Collection. Some of these were made by himself or his partners, others by staff photographers at RIBA or from other architectural journals. In many cases, these photographs are the only record of drawings or diagrams that Lubetkin accomplished before his emigration to England. Many of the images requested and collected in this dissertation have been kindly reproduced by the RIBA Photography Department and made available to students and scholars through their new online database.

Given the fragmentary nature of the Lubetkin Archive (LUB), many of the historical paths which I have traveled have required cross-referencing against other primary source materials. The most important of these include the archives of Lionel Brett, Carl Franck, Godfrey Samuel, Ernö Goldfinger, and Denys Lasdun in the RIBA Drawings and Archives Collections; as well as the archives of Ove Arup at Churchill College, University of Cambridge, and Solly Zuckerman at the University of East Anglia (UAE). For cross-reference of the zoological projects, I have also attended to the archive at the Library of the Zoological Society of London (ZSL), the Dudley Zoological Gardens (DZG), and the Dudley Metropolitan Borough Archives, West Midlands; and for the projects in Finsbury, the Islington Local History Centre at the Finsbury Library. The British Library (BL) also holds relevant audio tapes of interviews either with Lubetkin or his contemporaries, and I have conducted my own interviews with Lubetkin’s daughter Sasha, and his English biographer, John Allan.5

5 For the larger discourse on architecture in England in the first half of the twentieth-century I have relied in large part on the access provided by the abundance of architectural journals, in particular the Architectural Review (AR), Architects’ Journal (AJ), Architect and Building News (AB&N), and the RIBA Journal (RIBAJ). Almost all large studies of the architecture of this period and place rely on these journals in addition to two now canonical post-war surveys: Reyner Banham’s Theory and Design in the First Machine Age (1960), and Anthony Jackson’s The Politics of Architecture: A History of Modern Architecture in Britain (1970). In a polemic with Banham, recent scholars, such as Alan Powers in his
Altogether, there are four significant sources on the biography of Berthold Lubetkin.

First, the archives of the RIBA. (Royal Institute of British Architects) holds several files of material related to his education and professional relationships.

Second, following the death of his wife, Margaret Church, in 1978, Lubetkin made several attempts to write a memoir, some of which is found in his unpublished Samizdat of Anarchitect. I am indebted to Sasha Lubetkin for providing me a copy of the Samizdat. While these provide a compelling source for his later thoughts about architecture, they shed little light on the events before the 1960s.

Third, in 1979, Malcolm Reading, with the help of Peter Coe, approached Lubetkin to study what remained of his architectural work stored in the basement of his Clifton townhouse. Their research resulted in the first book on Lubetkin, Lubetkin and Tecton: Architecture and Social Commitment, a critical study (1981), which accompanied an exhibition of the same name by the Bristol Arts Council. Coe and Reading’s study considered the relationship of Lubetkin and Tecton’s work to the social and political events of the interwar period, including special consideration for their participation in the Labour and Communist movements in England at the time. With Lubetkin’s personal blessing they argued that works of architecture were caused and conditioned by political exigencies and that any explanation would begin and end with the history of progressive socialism in England. They attended to a Fichtean conception of architecture as a social product struggling between antithetical political “ideologies,” which echoed Lubetkin’s own writings from the 1950s on the conception of architecture in the Soviet Union (Lubetkin, 1956; Lubetkin, 1956).

Britain: Modern Architectures in History (2007), have adopted the habit of apologizing for the “muddled thinking and squeamishness” of the early exponents of “English Free architecture” (Banham, 1996: 47), and have sought to identify national (and nationalistic) origins for topics related to the reception of the Modern Movement in England (Powers, 2007). The most pedigreed of these topics is the material relationship of architecture and engineering that was inherited from Nikolaus Pevsner’s Pioneers of the Modern Movement (1936). This argument has been rigorously updated by Andrew Saint in his Architect and Engineer: A Study in Sibling Rivalry (2008). Additionally, a related concern for the preservation of “modern” English architecture as a historically constituted “style” has led to several recent biographies of individual architects.

6 I had intended to include a transcription of the entire text of the Samizdat in the appendix, however, the necessary permission required to satisfy UK copyright law—which requires that all living heirs give permission—was not possible by the time this dissertation was published. Copyright permission is still pending from one of Lubetkin’s three children.
Fourth, in 1992, John Allan published his biography, *Berthold Lubetkin: Architecture and the tradition of progress*, which he had been working on since he first met Lubetkin in 1970. Allan’s book is an exhaustive retelling of Lubetkin’s life, followed by an exposition of his work divided by functional typologies: private houses, zoo buildings, private flats, public institutional buildings, public housing, and town planning proposals. Throughout Allan’s study, the work of architecture is presented as either a consequence of biographical details or as the rational solution to a programmatic concept. Lubetkin himself was very critical of the biographical aspect of Allan’s research, suggesting that the details of his early life added little to the explanation of his architecture and that he was unable to confirm the accuracy of most of the names and dates. In a letter to John Allan in July 1976 (LUB/11/23/46), Lubetkin was adamant about eliminating the amount of biographical information; he wrote: "I hope you do remember... that my collaboration is conditioned up the future book or paper being an attempt to explain my buildings (most of which are still standing and can be judged), and not, under any circumstances, with my personality... Now, in spite of your agreement, which you would remember was the pre-condition of my collaboration, the biographical chapters are much too extensive and categorical. You may remember that I kept on insisting that the date, the names, the chronology are unreliable and will be checked in due course, should they appear relevant. In cutting corners of the story, we were in agreement with G. Apollinaire that 'in talking about one's past, on is perfectly free to select one's future, and by the same token, one's past.' Now, what has this to do with Factology?"

Alternatively, Lubetkin suggested Allan find topical approaches to the work, even suggesting he look at Palladio’s *Four Books* for insight into this possibility.

While both of these studies represent significant contributions to the field of architectural history and historic preservation in twentieth-century England, they are also noticeably a product by the very same modern movement in European thought. In other words, these studies proceed from the presumption that historical interpretation accounts for such things as overcoming dialectical conflicts, projecting rational solutions, and establishing historicist coincidences. There is nothing necessarily improper about these approaches, except that they tend to privilege the
interpretation of works that confirm their presumptions and tend to mark the minor inconsistencies as anomalous. For example, Lubetkin’s Penthouse atop Highpoint Two is considered by these authors as a decadent anomaly, and because these authors account for the basic sources of nearly every study to follow, the Penthouse has mostly remained an anomaly in contrast to a larger narrative about Lubetkin. However, on one occasion John Allan offers the glimmer of an alternative. He writes: “More even than the [Highpoint] Caryatids, this interior cameo of a world both modern and filled with history seems to support Colin Rowe’s thesis of another tradition of Modernity, in contradistinction to the supposed mainline of Gropius, Meyer, Marinetti; a counter-formulation represented by such as Stravinsky, Joyce, Picasso, Eliot, Proust that embraces metaphor, irony and multiple meaning” (Allan, 1992: 303). If such anomalies persist throughout Lubetkin’s work, perhaps the interpretative endeavor itself is misaligned and in need of its own twist. Under what conditions, then, would the “contradistinction,” “counter-formulation,” or perhaps even the “counterposition,” of Allan’s observation become the normative narrative or the unmarked line of thought? It is from the point of view of this “twisted” interpretation—I argue—that Lubetkin’s work sets an example—akin to Vattimo’s notion of weak thought—for “positive moments” or “opportunities” for architectural construction apart from the unbending critical, historical, and material frameworks of architectural theory in the modern movement.
1.1.5 Figures: Introduction

Fig. 1.1 Lubetkin, B., 1926, Memorial to the Fallen at Somme, sketch proposal, drawing (RIBA Collections PA117/10/2; RIBAPIX Database Reference 22373)

Fig. 1.2 Tecton, 1938, Finsbury Health Centre, sketch proposal, photograph of photomontage (Lubetkin and Tecton, 1939)
Fig. 1.3 Maltby, J. 1938, Finsbury Health Centre, view from above, photograph (RIBA Collections 5037/28 / MAL3153; RIBAPIX Database Reference 4823)

Fig. 1.4 Dell and Wainwright, 1938, Finsbury Health Centre, view from Northampton Road, photograph (RIBA Collections 5037/41 / DWN7393; RIBAPIX Database Reference 28332)
Fig. 1.5 Exmouth Market Area, map ca. 2008 (Temple, 2008: fig. 47)

Fig. 1.6 Dell and Wainwright, 1938, Finsbury Health Centre, playground equipment, photograph (RIBA Collections DWN7431; RIBAPIX Database Reference 8730)
2 ARCHITECTS
2.1 LUBETKIN AND THE IDEA OF GROUP PRACTICE

“Tecton is not an architect. It is the name of a group of seven architects whose average age is under thirty. The word is Greek and means ‘carpenter,’ and so, by extension, ‘builder.’ It is a good name. We need more builders; if there had been more builders and fewer architects during the past hundred-odd years, we would probably not be facing the necessity of getting out from under the accumulated scrap pile of paper architecture to resume building” (Nelson, 2007: 148).

– George Nelson

2.1.1 Introduction

This dissertation argues that the architecture of Berthold Lubetkin and the Tecton architectural partnership represents a “weakening” of the critical, historical, and material frameworks of the modern movement in architecture; that it represents a special case of continuity—within the modern movement in European architecture—apart from an unbending theoretical basis in the concept of an overcoming (a redemptive salvation) or the reappropriation of an origin (a solid foundation). Admittedly, this interpretation is plausible in only a small portion of Lubetkin’s work—a few buildings, drawings, and writings—and does not agree with the biographies that he helped write in his later years. Indeed, the interpretation of a weakened theoretical premise is plausible only in works from the interwar period, of which only limited records exist. The methodological approach of this dissertation, then, is to interpret such fleeting (i.e., floating) works apart from frameworks that Lubetkin increasingly propagated in the postwar period—not simply because these frameworks are anachronistic, but because they tend to render the work of architecture as a representation of either a progressive social reality or nothing valuable at all. In light of Lubetkin’s retrospective commentary, and the limitations of existing records, it would seem that the purposes and methods of this dissertation are laden with problems.
One of these problems is to interpret the architecture; another is to interpret the discipline that supported the creation of this architecture. The purpose of this chapter is to interpret the discipline of the architect that Lubetkin created during the interwar period in England. How did Lubetkin conceive the discipline of the architect? Did his conception of the architect reflect a weakening as well? Can the discipline of the architect be interpreted apart from frameworks of an overcoming or an origin that are associated with the modern movement—i.e., without the pretenses of a messiah or a poet? These are meaningful questions because Lubetkin had a significant and lasting impact on the way in which contemporary architects in England conceived of themselves and their discipline. In 1932, Berthold Lubetkin (1901-1990)—along with Godfrey Samuel (1904-1983), Val Harding (1905-1940), Michael Dugdale (1906-1973), Anthony Chitty (1907-1976), Francis Skinner (1908-1998), and Lindsay Drake (1909-1980)—created the Tecton group architectural practice. Tecton was the first group practice in England, as well as the model for other English group practices that came afterward, including Arcon and the Architects’ Co-operative Partnership, and somewhat later, The Architects’ Collaborative (TAC). It would be misleading to suggest that this form of practice was in some way more original or necessarily better than other more typical forms of practice at the time; it was, however, a critical alternative.

2.1.2 Architectural Practice in England

In the early years of the twentieth-century, architects in England were expected to enter the profession and—after a period as a salaried assistant—establish a private practice or partnership. This path became increasingly difficult at the end of the nineteenth century, and young architects more often found only lower paying salaried work in the engineering or surveying departments of public authorities. The RIBA, which had been established a century earlier to protect the privately practicing architect, was troubled by the apparent erosion of status.

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7 Over the course of Tecton’s existence, the group also included Andre Bouxin, Margaret Church, Mary Cooke, Gordon Cullen, Harry Durrell, Carl Ludwig Franck, Fred Lasserre, Wilfred Mallows, Peter Moro, Paul Pascoe, Gerhard Rosenberg, Michael Sheldrake, Eileen Sparrow, William Tatton-Brown and Florian Vischer, among others.
that this signified and actively campaigned to convince local officials to commission architects in private practice; but the institution that had been founded to represent the architect was not equipped to handle the growth of the public sector, and in 1921 it established a committee to take up “the increasingly problematical relationship between public and private practice” (Walford, 2009: 13). In the same year, two other organizations were formed outside the Institute to organize and represent the public sector architect: the Official Architects' Association, and the longer lasting Architects' and Surveyors' Assistants' Professional Union (ASAPU) (OA, August 1938: 341). The ASAPU held their first convention that same year and circulated a pamphlet that bluntly stated: "The Union is not concerned particularly with ARCHITECTURE as an Art or Profession. It desires to raise the general standard of the design, construction, and craft detail of BUILDING, and to ensure to the worker who produces these a standard of living compatible with his technical acquirements and skill" (June 1920). The pamphlet conceived the architect as a builder— as a “worker” who labors to produce the "design, construction, and craft detail of building" for the public state.

Organizing architecture as labor apart from the traditional institutions of the RIBA fanned the flames of discord, and in 1921 the journal of The Architect suggested that no self-respecting person would stay as assistant to a public official, and if an architect failed to make a living from private practice, he or she “must blame his temperament and abilities, and not his chances, [for] he is unfitted for the calling he has chosen, and, possibly, for most others” (Architect, 11 February 1921: 99). The attitude toward architects in state employment reflected a more general prejudice against labor. The architect in private practice, according to the RIBA (Kaye, 1960: 14), depended on his ability and acumen to garner fees for a commission, which he might accept or decline; but for architects in public practice, the acceptance of a wage, regardless of commission, implied a lack of qualities, and furthermore, a lack of freedom (Walford, 2009: 14). In 1936, Maxwell Fry later wrote in the journal Keystone that "salaried architects [we]re... the slaves of their masters. That is the view which certain sections of the profession take. They refer to official

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8 See Modern Records Center at the University of Warwick 78/BT/10/1/1.
architecture as something which is not so good as something which is called the 'free field.' The man who is bound must be inferior if he accepts slavery and practices a mutilated version of his free art" (Fry, December 1936: 112).

Ever since its founding, the RIBA had campaigned to protect the title of the architect, and with the stakes increasing it was finally possible to secure enough support for a Registration Act. There were two initial attempts at Registration Acts: first in 1927, then in 1928. The ASAPU, which had recently been renamed the Association of Architects, Surveyors, and Technical Assistants (AASTA), fought the acts on the ground that they did not address a minimum salary scale, the overcrowding in the academy and profession, and the representation of salaried state architects within the RIBA (Kaye, 1960: 81). In 1931, the AASTA leveraged its support in exchange for representation on the RIBA Council and the Architects’ Registration Act passed, creating the Architects Registration Council of the United Kingdom (ARCUK), and effectively institutionalizing the debasement of state employed architectural workers by creating the title Registered Architect—a title that was intended to represent individuals who met certain technical qualifications and were expert enough to render architectural services. Among these qualifications was that an architect working in England must be English (Walford, 2009: 17). These were the circumstances of the architectural discipline into which Lubetkin emigrated in 1931.

2.1.3 Berthold Lubetkin as Émigré

Lubetkin was among the earliest and most active émigré architects in England in the 1930s, but the conditions of his arrival in 1931 were different from those who sought political refuge after 1933 (Benton, 1995). He possessed two educational credentials: an Intermediate Diploma in Architecture from the Warsaw Polytechnic in 1925, and a Diploma of Engineering from

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9 The term 'émigré' is adopted here because it connotes individuals who voluntarily migrated as well as those who would be considered ‘exiles’ or ‘refugees’ from their homeland.
the Institut Supérieur de Béton Armé in 1928 (LUB/1/1/4; LUB/26/1). Before this, he claimed to have studied in Moscow: first at the Stroganov School of Applied Art, and then, after witnessing the revolution, at the SVOMAS and VKhUTEMAS (Allan, 1992: 29). In 1922, he assisted with the installation of the First Exhibition of Russian Art at the Van Diemen Gallery in Berlin (Hammer and Lodder, 2000: 109), where he stayed in order to attend courses at the Technical University of Berlin (Technische Universität Berlin) and at the Academy of the Textile and Clothing Industry (Höhere Fachschule für Textil- und Bekleifungsindustrie) (LUB/1/2). He traveled to Marburg to attend Wilhelm Worringer's lectures on art history, which led him to Vienna to study the carpet collection at the Imperial Royal Museum of Applied Arts. Almost nothing is known about Lubetkin's stay in Vienna, but by the fall of 1923 he was in Poland and enrolled at the Warsaw Polytechnic where he met two of his future collaborators: Gregory Sigalin and Jean Ginsberg. After earning a diploma in 1925, he traveled to Paris to visit the Exposition Internationale des Arts Décoratifs, again staying to attend courses: first at the École Spéciale d'Architecture under the tutelage of Gaston Trelat (1925-26); then at the Institut Supérieur de Béton Armé (1928); and finally at the Institut d'Urbanisme of the Sorbonne (1930-31). While at the École Spéciale, he took advantage of occasionally attending Auguste Perret's atelier at the Palais de Bois, which was open to external pupils as well as students officially enrolled at the École des Beaux-Arts (Collins, 2004: 270). It is here that he first made contact with Ernö Goldfinger, whose career entwined with Lubetkin's from 1926 onward.

10 It is unclear to what extent Lubetkin was enrolled in courses or participated in workshops. What is known is only from his personal recollections.

11 John Allan argues that Lubetkin identified mostly with the events of the 1917 February Revolution, which were centered in Petrograd.

12 At SVOMAS, Lubetkin recalls occasional discussions with Alexander Rodchenko, Vladimir Tatlin, El Lissitzky, and Lyubov Popova.

13 In his "Architectural Thought in Russia Since the Revolution," Lubetkin reports that he witnessed the intellectual conflict at VKhUTEMAS between Symbolists, such as Nikolai Ladovsky (director) and Ilya Golosov, and the Constructivists, such as Konstantin Melnikov, Moisei Ginzburg, Alexander and Stepanova Rodchenko, and the Vesnin Brothers.

14 Little is known of Gregory Sigalin. He was the older brother of Józef Sigalin, the first Chief Architect of Warsaw.

15 The association of Berthold Lubetkin (1901-1990) and Ernö Goldfinger (1902-1987) was certainly closer than is described in the biographies of either architect. The two had known each other since their days as students in Paris in the mid-1920s. Lubetkin attended the École Spéciale, and Goldfinger the more prestigious École des Beaux-Arts; however, both participated in Auguste Perret's atelier at the Palais de Bois between 1925 and 1927, and both took classes in town planning at the same time at the Ecole d'Urbanisme at the Sorbonne. They were deeply affected by the Exposition Internationale des Arts Décoratifs (April to October 1925), and they frequented the crucible of artistic discourse at the...
From March to November 1926, Lubetkin and four of Perret's pupils from the Beaux Arts formed the so-called International Architectural Collaboration (CIA) (Collaboration Internationale d'Architecture) (GOLER/491/6). The proto-CIAM group consisted of Adrien Brelet, Ernő Goldfinger, Berthold Lubetkin, André Sive, and Louis-Georges Pineau. The CIA has only ever been mentioned in passing by Goldfinger's biographer, Nigel Warburton (Warburton, 2004: 41); nevertheless, the group represents a significant first attempt at collaboration between the students of the Palais du Bois. Together they planned an institution for the exchange and advancement of research on modern architecture and urbanism. During its eight-month existence, the CIA developed ambitious plans to establish communication between architects and builders who, in its view, were frustrated by geographic disparity but nevertheless committed to "the modern life" ("la vie moderne"). They sought participation from architects in Africa, Asia, Europe, and North America, and they drew up a schedule for publications that was to be funded into an exchange of research on modern architecture and urbanism. The CIA intended to contact architects all over the world, including some of the most prominent of the time. However, the group eventually emigrated to London in the 1930s, the circumstances of their professional and personal engagements led to very different departures from Paris. Lubetkin and Sive left Paris in hopes of a commission for a house in Hampstead, and Sive eventually emigrated to London in the 1930s, the circumstances of their professional and personal engagements led to very different departures from Paris.

Café du Domé in Montparnasse. In 1925 Lubetkin and Goldfinger were staying at apartments in the same building at 98 Boulevard Auguste Blanqui, which was owned by Francine Lecoeur, the wife of the American architect Paul Nelson (another of Perret's pupils). In a series of meetings at Goldfinger's apartment, Goldfinger and Lubetkin, along with Adrien Brelet, Louis-Georges Pineau, and André Sive (then still known as András Szivessy), formed a short-lived proto-CIAM architectural group called the Collaboration Internationale d'Architecture (CIA). In the same building, Goldfinger and Sive (both Hungarian by birth), established a design studio that successfully secured commissions for interiors, exhibitions, and fittings. Upstairs on the third floor, Lubetkin partnered with Gregory Sigalin (a close friend from Warsaw Polytechnic), but while they pursued several competitions and commissions, none resulted in projects or professional security; for this, Lubetkin would have to wait for his best (if not his only) opportunity to England. The close association of Lubetkin and Goldfinger in England is confirmed by two short periods of correspondences dated to 1934 and 1935 (GOLER/495/06) (GOLER/2567) (GOLER/273/2). These are all the more significant because so very few letters that survive from the 1930s include details about Lubetkin or his work at the time.

16 At the time, André Sive was still known as András Szivessy.
18 Goldfinger, Pineau, and Sive had all met in the atelier of Léon Jaussely while attending the École des Beaux Arts. Brelet was one of the founding members of the atelier Perret at the Palais de Bois in 1923, which Goldfinger and Sive (both Hungarians) had joined in 1925. The seven original members of the atelier Perret in 1923 were Jean-Jacques Bourdet, Adrien Brelet, André Le Donné, Jacques Guilbert, Michel Luyckx, Oscar Nitzchke, and Théodore Sardnal. This second wave of members included Pierre Forestier, Ernő Goldfinger, Denis Honegger, Paul Nelson, André Sive (Szivessy), and Henri-Louis Trezinni, among others.
19 The list of architects that the CIA intended to contact is long and reflects where the group anticipated these architects would eventually be located rather than where they currently were located or in fact did establish their practices; i.e., Cornelis Van Eesteren in New York City, and Lubetkin in Moscow. It is not clear how many of these architects were contacted, but Goldfinger drafted a form letter and invitation. Perhaps the most critical aspect of the CIA was its intention to support these publications solely with commercial advertisements from suitably modern products in the building industry, which also meant that membership was to be at no cost.
by advertisements from select trades. In their preliminary discussions, the group divided architecture into four disciplines, each with its own sub-categories: 1. construction (maçonnerie, menuiserie, vitrerie, isolation, peinture, nouveaux matériaux, chauffage, éclairage); 2. planning (meubles, appareils ménagers, appareils sanitaires, accessoires); 3. organization (organisation ménagère, hygiène alimentaire, aération chauffage éclairage, voitures); and 4. urbanism (organisation des villes, de la circulation, hygiène de la rue).

Goldfinger acted as secretary and the meetings were held at the studio he shared with Sive. Meeting minutes from an early CIA meeting reveal that Lubetkin, already somewhat of the outsider from the École Spéciale, was also the most vocal critic of the group. He argued that fostering professional collaboration between the trades was insufficient to accomplish the aspirations of "modern thought," and that at least as important was the mandate to "educate the masses"; in other words, modern thought requires modern trades and education. The CIA, Lubetkin proposed, should establish what he called "education groups" in various nations that could allow people, in his words, "to discover modern thought, subconscious thought, which is deformed by paradoxical appearances and erroneous habits." These groups would be led by "artists, in the true sense of the word, that is to say, philosophers, makers of synthesis, people who are conscious of the great eternal and periodic laws that govern the world, and [who] are able to create following these laws." 

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20 Issues number 1 and 2 of this publication were intended to be dedicated to 'La maison,' its 'naissance' and 'vie,' and issues number 3 and 4 to 'La ville.'
21 Goldfinger and Sive shared a studio at 36 rue Abel Hovelaque. The invitation included a brief call to order: "XX. SIECLE: La société avec ses besoins, ses buts, ses nécessités et son fonctionnement est partout la même et sa pulsation correspond au constant de la vie moderne. On produit consciemment. L'isolation géographique disparaît. Quand même les anciennes frontières, tracées dans le temps d'autres idéals, ne veulent pas s'effacer. L'organisation suit en boitant les progrès de la technique. L'architecture est une des expressions de la vie. Nous suggérons d'organiser consciemment l'organisation de l'évolution de l'architecture internationale. Pour cela créons un organisme dans les centres d'activité architecturale, servant à rester en contact pour aboutir une action réciproque. Nous voulons que les résultats actuels se mettent au service de tout le monde, partout. Nous ne voulons pas faire double emploi. Nous architectes, voulons profiter des résultats existants et les rendre accessibles en les développant. Nous vous invitons vous tous qui avez des mêmes idées à la collaboration amicale. Nous attendons vos suggestions. Nous voulons même que LA CREATION DE CETTE ORGANISATION SOIT UNE OUVRE INTERNATIONALE.
22 Meeting minutes of the CIA from 22 March 1926 (GOLER/491/6).
23 Not only are these Lubetkin's earliest recorded thoughts on architecture, but they also provide insight into his perennial interest in the role of education and propaganda in group practice. Translations from French are my own. The full passage reads: "B. G. P. S. ont émis à Loubetkin leurs idées relatives à la création d'un organe ayant pour but l'information réciproque, dans différents pays du monde, des découvertes touchant à la construction et de leurs applications afin de favoriser l'élosion de l'architecture par la collaboration des moyens. Loubetkin prétend que cela n'est pas suffisant, qu'il faut parallèlement éduquer la masse, lui faire découvrir la pensée moderne, sa pensée subconsciente,
Lubetkin found no such collaborative groups in Paris, but he did encounter opportunities to work within several partnerships. While at the École Spéciale he partnered with Enrique Luis Iturralde Levy on a schematic proposal for a Collective Dwelling (ca. 1926). In 1927 he worked with Iturralde Levy and Claude Manuel da Costa on a competition entry for the Ural Polytechnical Institute, then with Sigalin on an entry to the open call for the Palace of the Soviets, for which they received an honorable mention (1931). In 1927 he worked with Jean Ginsberg and Rob Rodionov on the design of a circus themed cabaret, the Club Trapèze Volant. This led to two separate partnerships. With Ginsberg he produced the architectural work that would eventually gain him entry into professional circles, the flats at 25 Avenue de Versailles (1928-31); and with Rodionov, who was a friend from Moscow, he claimed to have vandalized the walkways at the Exposition Coloniale Internationale with cow manure (1931).

This list of collaborative projects does not list the works he completed singly or under other employment: In 1928 he appears to have entered the Centrosoyuz Competition alone. Between 1928-30 he was employed as a member of the engineering team for the traveling USSR Trades Delegation exhibition pavilion, which was designed by Ivan Volodko and installed in Bordeaux, Marseilles, Nancy, Tours, and Strasbourg between 1929-31. He also participated in the renovation of a few small interiors and claimed to have worked with Perret on the design of a studio for George Braque.

Enrique Luis Iturralde Levy (1904- ), graduated from the École Spéciale d'Architecture in 1928, became an active architect in La Paz, Bolivia (Hilton) (Iturralde, 1991). John Allan calls this the "Competition project for Polytechnic of the Urals... 1925-26" (Allan, Lubetkin 63-67). This date is certainly incorrect. The project is, in fact, an entry to an All-Union competition for the Ural Polytechnical Institute at the new Greater Sverdlovsk. The Ural administrative region was founded in 1923, with Yekaterinburg as its capital, renamed 'Sverdlovsk' in 1924. In 1925 the Communist Party of the Soviet Union resolved to make it the largest economic center in the Soviet Country. They began several infrastructural projects and opened up a series of competitions. It was not until 1927 that the government decided on a centralized educational campus, named the VTUZgorodok, and opened up an All-Union competition (Budantseva). Sergey Chernyshov won the competition, with six other prize winners. This places Lubetkin's drawings no earlier than 1927.

The architects listed in the publication of the competition project are Lubetkin, Sigalin, Blum and Stalin. The reference to Stalin is either a curious error or an imaginative citation. I have not found any other references to an architect by the name of Blum in Paris in the late 1920s and early 1930s. Perhaps, if the name Blum is a witty substitution, then so is the name Blum, and then the reference here would be to the prominent French Marxist politician Léon Blum, who along with the Surrealists, was one of the major critics of the 1931 Exposition Coloniale.

Lubetkin only ever credited Rodionov for his assistance, but contemporary publications of the project list Lubetkin and Ginsberg. Rob Rodionov, who Lubetkin called Bobka, later became Archbishop Seraphim of Zurich.

Lubetkin, Samizdat. This last project is worth dwelling on briefly because it invites a slight correction to the mythology of Lubetkin. As evidence of his commitment to Russian Constructivism, it has always been suggested that Lubetkin participated in the erection of Melnikov's 1925 pavilion at the Exposition Internationale; the suggestion being that he interpreted Melnikov's design drawings for the on-site construction team. Lubetkin himself does not seem to have made any explicit claim to this effect; rather, he seems to have implicitly allowed it by never denying it (J. Allan, Berthold Lubetkin 55-59). On the other hand, Jean-Louis Cohen has noted that there is no evidence linking Lubetkin to the pavilion, but that the project did attract a large number of Russian volunteers that could have included him (Cohen, Il Padiglione di
Lubetkin’s architectural introduction to England occurred in 1931, following the conclusion of the USSR Trades Delegation project and the opening of the Exposition Coloniale. At the time, he was living in Paris with Prascovia (Pasha) Schubersky, who was a college friend of Margaret Gardiner, herself a wealthy patron of the arts and active member of the community of left-wing intellectuals in England. Through Schubersky and Gardiner, Lubetkin was introduced to two other important figures from the English milieu: Manya Harari (née Benenson), a Russian-born linguist from London who was familiar with the community of exiled Russians in Paris; and Godfrey Samuel, son of the Deputy Leader of the British Liberal Party, and recent graduate of the Architectural Association (AA). Harari had intentions to establish a publishing business in London, which would require a suitable private house in Hampstead for entertaining, and she commissioned the partnership of Lubetkin and Sigalin to make a proposal. The young architects traveled from Paris to London for the project, where Schubersky, Gardiner, and Samuel introduced them to a community of intellectuals, including Hubert de Cronin Hastings (editor of the Architectural Review), Professor Charles Reilly, and Clough Williams-Ellis, who had recently...

31 He had already visited England on two occasions; first in 1914, then later in 1929.
32 According to Margaret Gardiner, Lubetkin was staying with Pasha and her husband. The couple had just had a baby boy when he abandoned her and left Paris. Gardiner insinuates that the reason for his departure was the relationship between Lubetkin and Pasha.
33 Manya Harari was a well-known translator of Russian and French literature. She translated works of Max Hayward, Ilya Ehrenburg, Evgenia Ginzburg, Pavel Litvinov, Gabriel Marcel, and Boris Pasternak, among others. She was married to Ralph Andrew Harari, a wealthy banker and art collector who also had been the Director of Trade and Commerce in Palestine under Sir Herbert Godfrey (Rubinstein 394-395).
34 Sir Herbert Samuel, 1st Viscount Samuel.
returned from his travels throughout Russia. The project for the house was abandoned by Harari, and Sigalin and Lubetkin found themselves in London without work. Sigalin returned to Warsaw, but Lubetkin chose to stay in London. These were the circumstances that Lubetkin found himself in at the end of 1931—on the one hand, a professed supporter of collaborative architectural labor, and on the other hand, an out of work émigré in a nation that prohibited foreign architects from practicing.

2.1.4 Tecton Architectural Partnership

It cannot be overstated how significant it was that five of the six original English partners of Tecton completed their education at the AA in 1931 and were among the first graduates in England to enter into a profession defined by the title Registered Architect. Samuel had graduated the year earlier, and had found some work as an independent architect, but the other five—Val Harding, Michael Dugdale, Anthony Chitty, Francis Skinner, and Lindsay Drake—found little practical experience aside from basic drafting in the offices of others. Samuel knew Lubetkin through Margaret Gardiner and from Paris, and when Lubetkin was invited to speak at the AA, Samuel invited his English colleagues to join them in a discussion about the possibilities of collaboration (Allan, 1992). Together, in 1932, the seven architects formed the original membership of Tecton. No documentation of an original agreement exists. Lubetkin's biographers describe the way in which Tecton was—for him—an "opportunistic collaboration" (Coe and Reading, 1981: 69) and an "ad hoc... association" (Allan, 1992: 111). Indeed, he was in need of paying work as well as a legitimate way to practice architecture in England, and the AA

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35 Lubetkin reports that he and Sigalin were compelled to make kefir to support themselves. Solly Zuckerman confirms this, but Lubetkin reports that he stayed for some time with J. D. Bernal, and it is also likely that the two architects received support from Gardiner. Before leaving England, Sigalin briefly took up work with Ammon Vivien Pilichowski (later Vivien Pilley), who was born in France to Polish parents, but had emigrated to London in 1914 before graduating from the AA. Before Sigalin returned to Europe, he introduced Lubetkin and Pilichowski, and the pair eventually collaborated on a run of four speculative terrace houses at Genesta Road (1933-35).

36 Samuel, Dugdale, and Harding had each attended Oxford to some extent before entering the AA. Chitty had previously attended Trinity College, Cambridge. Only Drake and Skinner entered the AA in 1927 directly from school.

37 There is no documentation of Lubetkin's activity in England between May 1931, when he was last living in Paris, and May 1932, when his writing on recent Russian architecture was first published in the Architectural Review.
graduates were in of the practical experience that he could offer. A fact that is noticeably understated in the literature on Tecton is that Samuel had already engaged with several potential clients in London, and furthermore, provided leadership in the financial and administrative matters of the group (SAG/07/06; Fig. 2.5).  

Initially, Tecton approached their work as a demonstration of collaborative research and analysis. In September 1932, Tecton’s connections to Gardiner and Zuckerman led to an audience with Sir Peter Chalmers Mitchell, Secretary of the Zoological Society of London (ZSL), to discuss the housing of the two young gorillas the zoo had recently purchased. Tecton rallied around the design of the exhibit and soon gained ZSL approval; construction began in November and continued through the winter, and the Gorilla House was opened in April 1933. Despite its high cost, which was justified by the exotic nature of its inhabitants, the Gorilla House (1932-33) was well received and quickly led to other zoological projects: the famous Penguin Pond (1933-34); the Whipsnade Giraffe and Elephant Houses (1934-35); the Gibbon Enclosure (1936, unbuilt); the Dudley Zoological Gardens (1935-37); the Studio of Animal Art (1935-37); and the Pachyderm Pavilion (1937-39, unbuilt). Contact with the Council of the ZSL led to other commissions as well: Chalmers Mitchell commissioned a house at Whipsnade by Lubetkin; and Sigmund Gestetner, who was a Fellow on the Council, was the patron of the Highpoint housing blocks and Gestetner factory commissions.

In a resume from 1935, held in Samuel Archive (SAG), Tecton listed thirty-three commissions and three successful competitions, not including the research project for a Chest Clinic in East Ham. But productivity did not produce stability in the partnership. Dugdale, a

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38 In an undated correspondence (ca. 1933) between Edward “Bobby” Carter and Ian MacAlister, Carter remarked that “the dominating person in the Tecton group is Godfrey Samuel.” The Samuel Archives at the RIBA Drawings and Collections awaits appropriate study and scholarship (LUB/25/16).

good friend of John Betjeman, who was better known for his irreverent poetry, resigned in 1934. Samuel resigned soon after, in 1935, and was later joined in private practice by Harding, who left Tecton in 1936. Chitty also left to partner with Robert Hening in 1936. By the end of 1936, Drake, Lubetkin, and Skinner were the only original members of the group. This transition was not necessarily a reflection of the atmosphere inside of Tecton; indeed, it was typical behavior for young English architects who felt they were fulfilling temporary assistantships on their way toward more responsibility in a private partnership. That the younger Drake and Skinner and the more senior Lubetkin stayed together under the name of Tecton reflected not only their political and aesthetic alignment but also their approval to continue to work together in a group practice.

Before 1935, with many of the original members in place, the projects at Tecton were always attributed to Tecton plus a primary architect (i.e., Lubetkin and Tecton, or Harding and Tecton), but new projects after 1935 were attributed solely to Tecton Architects. The dissolution of an author's agency into the group indicates a renewed commitment to the idea of group practice and to the social organization of labor at large.

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40 Michael Dugdale (Michael Arthur Stratford Dugdale, 1905-1970) joined Tecton (much like Chitty, Drake, Harding and Skinner) after graduating from the Architectural Association in 1932. Two years later, in 1934, he was the first partner to leave the group. Lubetkin had named him the “Piccadilly Highlander” (something of a euphemism for a Scottish dandy in London) and described him as the “least serious member” of Tecton, a slight which is often used to explain his apparent disinterest in architecture and the group (Lubetkin, ca. 1990). On the other hand, if “least serious” were to mean “most comedic,” then for Dugdale this would have likely been a source of pride rather than embarrassment.

41 Anthony Merlott Chitty (1907-76), born in Eton, educated at Trinity College, Cambridge, and the Architectural Association (AA), where he won the Essay Prize in 1930 for an essay in his fourth year on “The Mathematical Curvature Refinements of Greek Architecture - with notes on Entasis and Asymmetry” (AA Journal XLVI September 1930, 116-25); then graduated in 1931. He was an original partner of Tecton from 1932-36. His first credited project is for the design of the speculative beach house at Bognor Bay, West Sussex in 1934, which was sold before it was even constructed. The project had originated with the creation of the community in 1927. Chitty purchased the site in 1933 for 735£. The house was built for 1400£ and sold in the spring of 1934 for 3200£ (Allan, 167). In 1936 he resigned his position at Tecton and took up a position at the Office of Wallis Gilbert & Partners, before setting out in private practice in 1937 with Robert Hening, former assistant to William Lescaze (Smiles 147).
2.1.5 Architects’ and Technicians’ Organization

In 1934 the AASTA’s representatives withdrew from the RIBA Council, and the discord between architects in private practice and architects who worked for the state grew to its highest point in 1935. The RIBA Committee on Official Architecture, chaired by Raymond Unwin, advised local public authorities to commission private architects, suggesting that state employees were more able as administrators than as designers (RIBAJ, 8 June 1935: 862). Again the RIBA circulated a pamphlet, this time to over 2000 local authorities. The pamphlet argued that architectural work should not be done by non-qualified employees and that only private practitioners could achieve "satisfactory results" (Keystone, June 1935: 42). RIBA defended the pamphlet, claiming it was intended to persuade authorities that the title of Registered Architect was the only qualification for an architect, but AASTA viewed it as a deliberate slight of "the qualifications, ability and even the integrity of a considerable section of salaried architects," as well as an effort to discredit salaried employees in the eyes of their employers (Walford, 2009: 19).

That same year, the AASTA was joined by the formation of a new organization—the Architects' and Technicians' Organization (ATO)—which took up the same concerns but charged them with an even more overtly political rhetoric (Parsons, 1990: 425). The ATO was established and largely run by members Tecton. Francis Skinner was the acting secretary, with Lubetkin, Bobby Carter, and Robert Townsend among the founding members. Lindsay Drake, it seems, was the only Tecton member not involved (Allan, 1992: 322). The organization declared itself a political interest group guided by socialist and communist ideology, and was sympathetic to the Labor Party although it had no official links. Membership peaked at 120 members including all

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42 However, the association did maintain a presence on the Architects Registration Council and the Board of Architectural Education.

43 Seymour Reeves, Secretary of the AASTA, viewed the pamphlet as a "flagrant advertisement for private practicing architects," accusing the RIBA of "duplicity" because the pamphlet did not mention registration, which implied to Reeves that the only "real qualification for an architect is that he should be in private practice" (Keystone, June 1935: 71-79). Reeves also criticized the structure of the RIBA and its Council, to which members must be Fellows (the highest level of RIBA membership above Licentiate, and Associate) who were not elected, but appointed, and Fellowship was almost impossible to be had without a private practice given that the individual must have worked as a principal for at least seven successive years with designs attributable in name.
levels of architects, surveyors, engineers, and other related technicians. It hosted meetings, discussions, and lectures, including guest lectures by Dr. Phillip Ellman, Michael Shapiro, Peter Vintner, Ernest Simon, Sol Adler, Harold Laski, Bill Sedley, and the Cambridge scientists, J. D. Bernal and J. B. S. Haldane. The ATO proposed that the barrier to the conception of the architect as worker was the capitalist system of private patronage as opposed to social service. In 1935, Skinner published a memorandum in the Architects’ Journal to announce their first meeting at Conway Hall (AJ, 11 February 1935: 188). He explained how the ATO consisted of:

"a small group of architects and ancillary specialists…[who] have started from the basis that, since the Renaissance, the architect's historic[al] position has been one inseparable from private patronage. This has led to a traditional attitude of sycophancy, the seeking of the interests of the private client as opposed to those of the community, and a consequent unwillingness to face up to those social responsibilities for the assumption of which many contemporary architects are... by training and experience... essentially qualified" (Coe and Reading, 1981: 52).

After the Conway Hall meeting, Skinner published the aims of the organization in their first bulletin: 1. to work for the adoption of progressive policy in town planning and housing; 2. to work for "improvement in the conditions of employment of architects and technicians"; 3. to support all organizations which work for the above aims; and 4. to oppose all tendencies which "offer an essential menace to the carrying out of the above aims" (Coe and Reading, 1981: 53). Over the course of two years, the ATO found itself primarily involved in the analysis and criticism of housing standards in the private sector—research that resulted in key exhibitions (Exhibition of Working Class Housing, 1936), tenant rental strikes, and successful court cases (the Borders case)—which it used to gain leverage with other related architectural bodies. Reflecting on their success in an "ATO Review of Work" (1936) (ARO/2/14/2), Skinner wrote:

"... now that the complacency of certain sections of the community has been slightly punctured and public interest in good housing seems to be reawakening, the ATO believes that it has, to a certain extent, fulfilled its function in that sphere. This is not to say that the ATO will no longer collect information on slum clearance and overcrowding or analyze new legislation. It means that with its limited energies and resources it will tend to concentrate on problems that are more architectural in form and content, leaving
the more social and 'political' questions to the various organisations that are growing up to deal with them" (Allan, 1992: 329).

By 1936 the ATO was dwindling in size and began to shift its effort from activism and research to its third initiative, supporting other organizations that were pursuing the same issues. Its research into housing initiatives was transformed into representative seats at the Housing Centre and on the newly formed RIBA Housing Sub-Committee; its research in town planning was addressed through the Modern Architectural Research Group (MARS); and its research into trade unionization was taken up by the AASTA (Allan, 1992: 368 n. 39). Nevertheless, despite increasing the reach of the organization’s interests, the message of the ATO was diffused and the organization dissolved into its various initiatives sometime in late 1936.

2.1.6 Group Practice in England

It was at this time that, prodded by the ATO, that AASTA began to promote the idea of a group practice as a way of giving greater responsibility and experience to assistants. In an interview in 1936 just after the major transition within the Tecton partnership, Lubetkin stressed his renewed interest in the idea of group practice (Lubetkin, 1936).

When asked "How is architectural practice changing?", he replied that "group practice is clearly a sign of change"; furthermore, it is a sign of change for the better. To Lubetkin, group practice was preferable model because it offered "an arrangement to sponsor continuous self-education." The value of group practice was in the way it promoted individual responsibility and mutual education, but this required that all members, he said, "accept voluntarily certain discipline... [so that] problems of..."
personality, as far as the actual work is concerned, are subdued” (Lubetkin, 1936: 26). When asked to describe the largest challenges that faced this model, he couched his answers in terms of professional comportment: the largest challenge was, on the one hand, to teach the "traditional architect to be, architecturally speaking, less of a gentleman and more of a craftsman," and on the other hand, "the modern architect might try to be a little more of a gentleman" and (presumably) less of a craftsman. Toward this end, he said, the "modern architect" should "abandon his theories of pure functionalism (in which incidentally he never really believed) and approach architecture as an artist who, at the same time, has a fundamental mastery of the technique of his art" (Lubetkin, 1936: 26).

In 1939, Keystone published an article by R. D. Manning entitled "Groups, A plea for up-to-date organisation in large public offices, for the breaking up of bureaucracy, for improved conditions of service, and for the treatment of responsible assistants as architects" (Keystone, March 1939: 3-5). Manning was the first to explicitly discuss the possible alignment between a group system and the public practicing architect. He examined the defects of the factory system and the essential features and benefits of good group working to either public or private architectural practice. In either case, Manning was critical of the hierarchical nature of the system of principal architects, and he argued that with the subordination of assistants and staff, both employees and employers suffered, and that the work was susceptible to significant lapses of quality. In the "group system," agency would be distributed between six and ten individuals of varying ability who should work together on all aspects of a project, with the most senior member in charge of specifications and quantities. Direct involvement in all aspects would reduce errors and quality, with competition between groups within an office being an opportunity to raise standards. Salary frameworks would be restructured, and without principals, the differences would be less pronounced. At the top of the group system would be an administrative architect to maintain coherence in the office, and "his function should be definitely co-operative rather than autocratic." Group practice, wrote Manning, had the potential to make "official employment what it very plainly is not now, a national architectural service which the community would soon learn to
value, in which any architect could feel happy and proud to work.” While Manning did not wax philosophically, his concern for the happiness of the official architect—the architect who is employed by the state and serves the community—is a reevaluation of the architect’s moral standing; where for Maxwell Fry it was liberty that the ethos of the architect sought out, for R. D. Manning it was happiness in service of others.

It would not be accurate to assert that group practice in England was a “weakening” of the critical, historical, or metaphysical frameworks of the modern movement in European architecture. Indeed, it was born out of two particularly reticent theories of the architect: on the one hand, the idea that the architectural discipline was rather like the medical discipline, and on the other hand, the idea that the architect benefited by opposing and overcoming existing institutions. Nevertheless, in the course of the history of group practice, and some time after 1936, these notions were relaxed and the ethical imperative of the practicing architect was recast in terms of mutual happiness. While not necessarily a “weakening” of moral foundations, it was at least a shift.

2.1.7 Codetta

The very first group project undertaken by Tecton was a proposal for a Chest Clinic in East Ham. The project never developed beyond a set of five presentation boards for a lecture by Dr. Phillip Ellman at the centenary conference of the British Medical Association (BMA) in November 1932 (Fig. 2.13-Fig. 2.17). Dr. Ellman was a British physician, a specialist on tuberculosis, and a well-regarded member of the Executive Council of the Socialist Medical Association; furthermore, he was an acquaintance of Godfrey Samuel's father. Lubetkin and Skinner recalled that the idea for the project was invented out of their interest in current debate, which at the time was not only about disease and public health, as well as about the emergence

45 The presentation was attended by Dr. C. L. Katial, who would become Chairman of Finsbury's Public Health Committee and commission Tecton for the Finsbury Health Centre.
of new models of health care. In John Allan’s narrative of the project, Tecton relied on Samuel to approach Ellman as a consultant on a theoretical project, the purpose of which was supposedly intended to give the group something to debate collectively. In light of further research, however, this narrative is incomplete.

Dr. Ellman was a significant figure in British medicine in the 1930s. He had studied with two leading specialists on tuberculosis: Marcus Paterson at the Colindale sanatorium and Marc Jacquerod in Lausanne, before returning to London in 1929 to practice and publish his first book in 1932, *Chest Disease in General Practice: With A Special Reference to Pulmonary Tuberculosis.* He was an ardent critic of London’s health providers and argued for the reorganization of tuberculosis dispensaries in the city, advising the adoption of a more general model for public pulmonary clinics that could more quickly diagnose and administer to a wider range of patients. His research also demonstrated the benefits of medical group practice (Ellman, 1932). When he became the Medical Officer of East Ham he set out to build such an institution on the site of a late 19th c. hall of a Congregationalist church, which had burned down in 1924 (Powell, 1973: 31). By 1933, enough progress had been made toward his goal that Ellman was able to write that “much thought has been given to the erection of a clinic on modern lines, and plans have been submitted to the Ministry for their Consideration.” Two years later, in September 1935, a new general clinic in the “modern style” was dedicated on Katherine Road at the terminus of St. Stephen’s Road (Fig. 2.18).

It is not clear when or to what extent the scheme from Tecton was involved with Ellman’s project for the general clinic in East Ham. Historians have followed from Skinner and Lubetkin in concluding that Tecton’s scheme was entirely speculative; an “ungainly” composition of “functionally” determined parts with a theoretically propitious program; ultimately intended only to demonstrate to themselves their collective method of rational research, analysis, and critique.

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47 The site was purchased by the Borough of East Ham.
48 *Annual Report of the Office of Health (County Borough of East Ham, 1933):* 36-37.
49 Essex Parish Records D/P 632/1/29. I have not been able to establish the architect or builder of the finally constructed clinic.
(Temple, 2008: 77; Allan, 1992: 114). However, a comparison of the schematic site plan to the site of Ellman's 1935 clinic suggests that Tecton was working with specific knowledge of these conditions—the alignment and fabric of the streets matched the existing conditions at Ellman's site on Katherine Road. Tecton's proposal for the Chest Clinic was not a theoretical or academic project; rather, it was either a direct illustration of Ellman's intentions, or a failed bid for the construction of the clinic that was eventually built. The possibility that Tecton and Ellman did not establish the necessary rapport to continue with the project is patent in the tone of a 1935 project resume written by Lubetkin and Skinner:

"As far as we were able to find out after some two or three weeks discussion of the programme and the subjects generally, Dr. Ellman's greatest contribution to the subject up to date was the idea that tuberculosis dispensaries should, for psychological reasons, be referred to only as 'chest clinics'; apart from this, he was like so many professional men, who, when confronted with the task of briefing an architect with the concrete programme for building, are quite unable to convey the fundamentals; however many ideas they may believe themselves to have on the subject, they very rarely show any grasp whatever of the planning problem as a whole, and can offer at best a number of bits and pieces of information and prejudice. However, we insisted on extracting details, and were at length able to arrive at an idea of the necessary component parts, stripped of all sentiment and trimmings" (Allan, 2002: 115)

For Lubetkin and Skinner, in 1935, the most compelling part of the project was the invention of a “concrete programme” from only the most specious hints from a half-aware client. The three phases of drawings that Tecton completed demonstrate that the role that they assigned themselves was diagnostic (Fig. 2.7-Fig. 2.17). This was also the role that they represented on the boards, which can be understood primarily as a diagnostic analysis of circulations and orientations. An architectural project, at least in its preliminary phases, was concerned with the diagnosis of a problem, and, from this, the division and prescription of work to affect real change. Group practice could satisfy several problems of a program by dividing its components according to the divisions of architectural labor.

For Dr. Ellman, the changing of the name of the project from a Tuberculosis Clinic to a Chest Clinic was a real change that reflected his interest in transforming dispensaries into group
medical practices which were accessible and attractive to the larger public. The idea of a medical group practice was also new at the time, and as in the architectural profession, it referred to the organization of various professionals into an arrangement of complementary labor for the benefit of care and cost. It was premised on the idea that doctors might pool resources and overhead while otherwise performing as if in private practice. Its precise delivery mechanism, along with its advantages and disadvantages, were too furiously debated to clarify its definition. Historically, the idea of group practice was an American invention, where in an "atmosphere of fierce independence… [it] was viewed with skepticism and distrust" (Madison, 1990; Pascarelli, 1982). The idea entered into English discourse in a serious way in a 1921 public debate on the future of the private clinic in the face of the growing public sector of the national economy (Private Clinic System, 1921: 939). Throughout the 1920s, the ethical basis of medical practice hinged, in the words of the British Medical Journal, on the “the opportunity for the exercise of the most vital and important element in the practice of medicine—the human influence, the close personal association between [one] doctor and [one] patient.” The status of the individual practitioner was also linked to his or her fee structure, and the BMA dismissed the notion of any flat-fee or shared wage based arrangements as unethical, thereby rejecting the idea of a public system or any suggestion that the discipline of the medical professional was engaged in labor; indeed, the BMA’s attitude toward salaried doctors reflected a larger prejudice toward labor in England (Private Clinic System, 1921: 938). In 1930, the Socialist Medical Association was established to increase public access medical care, but also to represent salaried medical professionals, and

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50 When William Thayer became the president of the AMA in 1928, the voice of the BMA, the British Medical Journal (BMJ), reprinted excerpts of his inaugural speech, reducing it to a summary of points against the model of group practice. The English medical profession closely followed the developments in the US over the next two decades until the second world war brought renewed attention to the possibility of a National Health Service (NHS), and it is only then, in the early 1940s, that the idea of ‘group practice’ in English medicine came to be increasingly conflated with “State Medical Service” in an inflammatory manner (until the NHS Act was adopted in 1946. In this context, members of the Socialist Medical Association confronted the BMA and attempted to make an argument for group practice based on the distinction between “Socialized Medical Service” as an ideal worth striving for, and “State Medical Service” as a policy worth debating (Group Medical Practice: An American Statement, 1940: 905) (Correspondence, 1941: 41). In a curiously trite comment, Humphrey Rolleston reflected on how the “expression ‘team work’ first became familiar in connexion with research into problems necessitating collaboration between experts in various branches of medicine.” According to Thayer, the profession’s first purpose was “to care individually for our patients,” to which the BMJ added that “members of both Associations, [who are] impatient to realize their ideals and [who are] zealous in professional and public interest, are liable to forget this truth.” “The rarest and most valuable of human qualities,” said Thayer to the approval of the BMA, “is the ability to square one’s ideals with the realities of existence” (American Analogies, 1928: 22).
the BMA conceded that group practice was effective, on the one hand, as a “preventive agent” against the most serious chronic ailments in a city, such as tuberculosis (Philip, 1927: 128), and on the other hand, as a vehicle for the continuing education of medical professionals (Private Clinic System, 1921: 937). The debate over group practice in the medical profession foreshadowed an analogous debate in the architectural profession, which was central to the identity of the Tecton group.

Tecton owes more to the East Hamm Chest Clinic project than has been admitted: on the one hand, its origins mark their initial interest in the social and organizational parallels between the architectural and medical disciplines; on the other hand the project undergoes its own, post-1936 twist. A photograph of the model of the Chest Clinic displayed at the MARS Group Exhibition of “New Architecture” in 1938 shows its second life. Several years after the project was unceremoniously dismissed, it returned as a prominent part of the first exhibition of the modern movement in English architecture. The initial project program described a desire “to express the functions of the building as a whole and of its parts” and a composition without sentiment, but the 1938 exhibition presented a sympathy between the chest clinic and an archetypal image of passion in the photograph of the Venus de Milo (Aphrodite of Melos) (Fig. 2.19). The photograph suggests, on the one hand, the perennial analogy between body and building, and on the other hand, a Romantic—even comedic—literary contrariety between Venus and Mars. The significance of the building as an instrument of healing the body was clear from the exhibition, but the duplicitous contrariety of its literary significance would have been just as clear from (George) Bernard Shaw’s introduction to the exhibition: “If you would see how extravagantly architecture has been valued, go to Baalbek. It was there that the Romans set to work to impose their God Jupiter Ammon on the world as the god of gods... The Mars group represents a violent reaction against impressive architecture. It has no religion to impose; and however it may operate incidentally as an advertisement of wealth and respectability, this is not its object. It considers the health and convenience not only of the inmates but of their neighbours and of the whole town... Martian architecture is part of a new artistic movement” (Shaw, 2007).
2.1.8 Figures: Architects

Fig. 2.1 Havinden, J., 1938, *Members of Tecton (left to right: Francis Skinner, Eileen Murray, Margaret Church, Berthold Lubetkin, Denys Lasdun, Carl Ludwig Franck, Fred Lassere, Lindsay Drake)*, photograph (Allan, 1992: fig. 3.1)
COLLABORATION INTERNATIONALE

XX. SIÈCLE
La société avec ses besoins, ses buts, ses nécessités et son fonctionnement est pur et la même et sa pulsation correspond au constant de la vie moderne.
On profite conscientement. L'isolation géographique disparaît quand même les anciennes frontières, tracées dans le temps d'autres idées, ne veulent pas s'effacer.
L'organisation suit en baissant les progrès de la technique.
L'architecture est une des expressions de la vie.
Nous suggérons d'organiser conscientement l'organisation de l'évolution de l'architecture internationale.
Pour cela créons un organisme dans les centres d'activité architecturale, servant à rester en contact pour avoir une action réciproque. Nous voulons que les résultats actuels se mettent au service de tout le monde, partout. Nous ne voulons pas faire double emploi. Nous voulons profiter des résultats existants et les rendre accessibles en les développant.
**Fig. 2.3 Collaboration Internationale d’Architecture (CIA), 15 February 1926, Meeting minutes (RIBA Collections GÖLER/491/6)**

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La revue tirera ses bénéfices et son intérêt par ses annonces, on admettra seulement les annonces de produits approuvés.
Fig. 2.4 Collaboration Internationale d’Architecture (CIA), 22 March 1926, Meeting minutes (RIBA Collections GÖLER/491/6)
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Fig. 2.5 Tecton, 1935, Resume of projects (RIBA Collections SAG/017/06)
TECTON
ARCHITECTS
57 HAYMARKET
LONDON SW1

20 SEP 1935

E. Goldfinger Esq.,
7 Bedfrod Square,

NOW LET'S GET THIS RIGHT, ERNEST.

I am lunching with you on Saturday and
will then discuss the cabin, but I am still
expecting your confirmation.

Yours,

[Signature]

Fig. 2.6 Lubetkin, B., 25 September 1935, Letter to Ernö Goldfinger (RIBA Collections GOLER/273/2)
Fig. 2.7 Tecton, 1932, *East Hamm Chest Clinic, phase one floor plans*, drawing (RIBA Collections PA111/1/3; RIBAPIX Database Reference 31007)

Fig. 2.8 Tecton, 1932, *East Hamm Chest Clinic, phase one exterior perspective*, drawing (RIBA Collections PA111/1/4; RIBAPIX Database Reference 31008)
Fig. 2.9 Tecton, 1932, East Hamm Chest Clinic, phase two ground floor plan, drawing (RIBA Collections PA111/1/1; RIBAPIX Database Reference 31005)

Fig. 2.10 Tecton, 1932, East Hamm Chest Clinic, phase two upper floor plan, drawing (RIBA Collections PA111/1/2; RIBAPIX Database Reference 31006)
Fig. 2.11 Tecton, 1932, *East Ham Chest Clinic*, phase two interior perspective, drawing (RIBA Collections PA111/1/10; RIBAPIX Database Reference 31014)

Fig. 2.12 Tecton, 1932, *East Ham Chest Clinic*, phase three interior perspective, drawing (RIBA Collections PA111/1/11; RIBAPIX Database Reference 31015)
Fig. 2.13 Tecton, 1932, East Ham Chest Clinic, phase three plan of circulation, drawing and photographs mounted on board (RIBA Collections PA111/1/5; RIBAPIX Database Reference 31009)

Fig. 2.14 Tecton, 1932, East Ham Chest Clinic, phase three plan of administration, drawing and photograms mounted on board (RIBA Collections PA111/1/6; RIBAPIX Database Reference 31010)
Fig. 2.15 Tecton, 1932, *East Hamm Chest Clinic*, phase three plan of insolation, drawing and photograms mounted on board (RIBA Collections PA111/1/7; RIBAPIX Database Reference 31011)

Fig. 2.16 Tecton, 1932, *East Hamm Chest Clinic*, phase three model and isometric diagrams, drawing and photograph mounted on board (RIBA Collections PA111/1/8; RIBAPIX Database Reference 31012)
Fig. 2.17 Tecton, 1932, *East Hamm Chest Clinic*, phase three site and floor plans with sections, drawing and photograph mounted on board (RIBA CollectionsPA111/1/9; RIBAPIX Database Reference 31013)

Fig. 2.18 Unknown photographer, *Clinic in East Hamm*, photograph, 1935 (Katherine Road Community Centre)
Fig. 2.19 Cracknell, A., 1938, MARS Group Exhibition, exhibit on social services, photograph (RIBA CollectionsAP55/30; RIBAPIX Database Reference 73433)
3 TOPICS
3.1 WHIPSNADE MANIFESTO

“The one-storey house illustrated first needs some special explanation of its peculiarly personal quality. First, it is built by the architect for his own occupation; secondly, it is not designed as a permanent residence but as a summer-time or weekend retreat. This positive statement apart, the spirit in which it is designed is best indicated by the following series of definitions, which have been composed in their negative form to differentiate the architect’s conception of the house from the many current conceptions of modern architecture which are too often grouped together under the general heading—the modern idea” (Lubetkin, 1937).

3.1.1 Pretext

The third part of this dissertation argues that some of the architectural works of Berthold Lubetkin demonstrate a weakening of the theoretical frameworks of the modern movement in architecture, including a weakening of its critical, historical, and material convictions. In pursuit of this interpretation, this part shifts to a topical approach that more readily compares significant aspects of Lubetkin’s architecture to those of his colleagues and peers. Such an approach is too broad without limits; therefore this part has been artificially bracketed within a discussion of the domestic dwelling. The benefit of this limitations is that the only stand-alone dwelling Lubetkin built for himself, the Whipsnade House, is also the only project of which he wrote about the relationship between architectural practice and theory in a manner that addresses the specific nature of the work rather than the more general historical conditions of the city or society at the time. Indeed, while Lubetkin was fond of writing, and quite capable of communicating his ideas in the written word, he only rarely described the particulars of a built work; tending more often to make curt observations that led quickly to broad generalizations. The coincidence of this unique piece of writing with the only work he built for himself is an opportunity to consider Lubetkin’s entire body of work from a new point of view.
The Whipsnade House was built between 1934 and 1935 and received wide coverage in the architectural press from 1937 to 1938. Lubetkin wrote descriptions of the house to accompany articles in the *Architectural Review* (February 1937) and *L’Architecture d’Aujourd’hui* (January 1938). Photographs of the house were included in several well-circulated texts of the time, including Alan Hastings’s *Week-End Houses, Cottages and Bungalows* (June 1938), Clive Entwistle’s article on “An Approach to Interior Design” (*AR* December 1937), and Donald Pilcher’s book-length issue on “The Architecture of Leisure” (*AR* December 1938). Edwin Gunn used an aerial view of the house in his review of F. R. S. Yorke’s *The Modern House in England* (1937) when he questioned the conception of “the new architecture.” Gunn writes: “Is the argument as to reinforced concrete that since almost any liberties can be taken with it as a structural material, the more fun we can have the better? Some of the designs shown are awfully good jokes,” but only at the Whipsnade House by Lubetkin “is it admitted that entertainment of the architect was a primary motive” (Gunn, 1937).

Gunn’s evidence of the architect’s delight is Lubetkin’s publication of the what is known as the “Whipsnade Manifesto.” Lubetkin wrote the two-page manifesto in 1937, and it was included in the February issue of the *Architectural Review*. It consists of ten short aphorisms that describe the theoretical premises of the house, but these statements are all formed in the negative; i.e., the dwelling “is not” or “does not pretend to be” one thing or another. Lubetkin explains in a brief introduction that “the spirit in which [the house was] designed is best indicated by the following series of definitions, which have been composed in their negative for to differentiate the architect’s conception of the house from the many current conceptions of modern architecture” (Lubetkin, 1937). This negativity is central to the interpretation of the text and the house.

Scholars who mention the Whipsnade Manifesto tend to focus on its literary effect and maintain that its contrariety is a form of irony intended to mock contemporary English architects and critics (Powers, 1996). This notion assumes Lubetkin’s arrogance, which was well recorded in his later years, but it also suggests that the proper interpretative field for this text is other texts.
This approach tends to overlook the possibility of the relationship of the text to the work of architecture. Indeed, just as much as the aphorisms of the Whipsnade Manifesto were a rebuff of contemporary conceptions, they were also an invitation to continue interpreting the work of architecture. In other words, one must suspend the impulse to treat the Whipsnade Manifesto as literature in order to consider that its negations might not only have intentions toward a literary effect, but rather, that they were also attempts at creating opportunities for interpretation within existing conceptual frameworks. It is important—albeit rather pedantic—to note that the negations of the Whipsnade Manifesto do not presume an affirmative process. They do not presume to reveal a larger truth, and in this way, the Manifesto is not a form of ideological criticism so much as an opening of opportunities for creativity and discursivity within the existing topics of the modern movement.

In this third part of this dissertation, the negative aphorisms of the Whipsnade Manifesto are taken individually as opportunities to interpret the work of architecture from a topical point of view. Despite their negativity, these aphorisms indicate a series of topics that are significant to Lubetkin’s practice. Some of these are introductory or redundant, and so for the sake of argument, this series has been limited to seven architectural topics: 1. distribution; 2. orientation; 3. proportion; 4. elevation; 5. structure; 6. enclosure; and 7. contrariety. Elevation, for example, is a combination of aphorism number six on platforms and aphorism number ten on-site context. These topics can be rendered as perennial questions insofar as architects, when they are engaged in practice, generally come to ask themselves: From what elevation shall this building rise? Or in which direction shall this building face? The answers to these questions vary depending on the circumstances.

In this part, these seven architectural topics are the headings for seven separate sections. Each section consists of an inquiry into a separate topic, and is furthermore composed of three subsections. The first subsection of each topic is a description of that topic as it is manifest in the Whipsnade House and how this compares to one or two other works by Lubetkin and Tecton.

51 The combination of statements 1, 2, and 3 into a single topic on distributions is considerably more problematic.
While the animal buildings for zoos do not qualify as domestic dwelling projects, their inclusion in this subsection has often proved instructive. The second subsection in each topic is a review of that topic in comparable works by other architects in England at the time. The third subsection of each topic is a theoretical exegesis of that topic as it was addressed in the writings on architecture by observant associates of Lubetkin, including Donald Pilcher, F. R. S. Yorke, P. Morton Shand, and Ernő Goldfinger. On occasion it has proven instructive to include Lubetkin’s own thoughts herein. Illustrations have been included at the end of each topic rather than at the end of the dissertation. Below, the text of the Whipsnade Manifesto is reproduced (on the left) with a brief summary commentary (on the right).

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52 It is possible for various trajectories of reading to be traversed, i.e., topical inquiries may be read from start to finish in any sequence, or a particular subsection from each topic may be read in sequence without reading the others.
3.1.2 Text

1. “It is not a ‘Modern House,’ a ‘Shelter,’ which, according to professors, should be self obliterating, unselfconscious and insignificant in its hygienic anonymity; a thing of which one can only say that it is made of reinforced concrete.”

2. “It is not a direct or functional result of a haphazard choice of site and materials; or of the digestive or hygienic customs of its inhabitants; in fact, it is not a sort of mixture of philosophy, gastronomy, and statics.”

3. “It does not pretend that it is nothing but the last modest, silent, and objective link in any chain or specifically Nordic or English tradition.”

4. “It does not try to show that the plan was dictated by any trigonometry of the lines of kitchen circulation, or by angry attempts to trap sunlight into some dust-proof corner, or by the standard length of reinforcing rods.”

5. “It does not try to prove that its design grew ‘naturally’ from the given conditions like an ordinary pumpkin, Victoria Regia, or deep sea fish.”

6. “It does not pretend that its plinth, which so effortlessly raises the house by a foot all around, refusing the walls a damp contact with the earth, is conceived for reasons of statics; although it would be quite easy to explain it on these grounds, as soon as one sees that the cantilevering of the slab reduces the positive moment in the middle of the span.

1. Can the house be explained on the premises of a materialist theory? No. An interpretation of the work is not gained by overlooking the autonomy of its intentions, nor by assigning intentions to the attributes of the material practices. But if not materialist, what then?

2. Functionalist? No. An interpretation of the work is not gained by assigning teleological purposes to the site or the material, or to the customary habits of eating or bathing, nor is it gained by a synthesis of such attributes. But if not functionalist, what then?

3. Historicist? No. An interpretation of the work is not gained by including it within a progressive and providential history of national works. But if not historicist, what then?

4. Can the plan of the house be explained on the premises of a rational theory? No. An interpretation of the work is not gained by assigning reason to the techniques of circulation, orientation, or mensuration. But if not a rational basis, what then?

5. Botanical? No. An interpretation of the work is not gained by assigning a naturalness to the techniques of composition or proportion. But if not a biological basis, what then?

6. Physical? No. An interpretation of the work is not gained by assigning a lawfulness to the techniques of elevating. But what then?
7. “It does not pretend that the trellis of prefabricated reinforced concrete elements which supports the roof, filled in with thermolux, transparent glass or heating panels, is a rational or logical wall construction. This in spite of the fact that the horizontal elements of the trellis reduce the height of the verticals and so reduce the risk of bending, allowing the thickness of the supports to be decreased. A wall obtained in this way is not necessarily the most economical, logical and rational solution. As a matter of fact, other walls in the same house are monolithically constructed of 4 in. reinforced concrete insulated with 2 ins. of cork, with plaster on the side, where a solid effect, worthy of a family portrait, was wanted.”

8. “The flat roof is not a sign of the exhibitionist tendencies of nudist inhabitants; the bathroom is not top-lit in order that the bather may be jealously guarded; the cornices are not specially designed for the local cats or sleepwalkers; and the dishwasher in the kitchen has never been in working order.”

9. “On the contrary, the designer admits that there is, on the walls of the W.C., a collection of cold-blooded tropical butterflies; while the bedspreads have little bells sewn onto them to brighten the dreams of the occupants.”

10. “The designer also admits that he has not capitulated to the accidents of a site which was forced on him; he excavated eight hundred cubic yards of dazzling chalk full of megalithic fossils, to make a flat lawn and a flat house – where any Czech would have made a house in steps with a roof garden.”

7. Can its structure be explained on the premise the above theories? No.


9. What can be affirmed, if anything, is an explanation of the house and its contrariness on the premises of surrealism–of dreams and their interpretation.

10. And finally, can the house be explained on the premises of a contextual theory? No. Its sympathy with surrealism does not mean that its design is without conscious intention, and so, to return to the beginning of the manifesto, an interpretation is not gained by overlooking the autonomy of its intentions, nor by assigning intentions to the accidents of the site.
3.1.3 Figures: Whipsnade Manifesto

The one-storey house illustrated first needs some special explanation of its peculiarly personal quality. First, it is built by the architect for his own occupation; secondly, it is not designed as a permanent residence but as a summer-time or week-end retreat. This positive statement apart, the spirit in which it is designed is best indicated by the following series of definitions, which have been composed in their negative form to differentiate the architect’s conception of the house from the many current conceptions of modern architecture which are too often grouped together under the general heading—the modern idea.

It is not a “Modern House,” a “Shelter,” which, according to professors, should be self-obliterating, unformious and insignificant in its hygienic anonymity; a thing of which one can only say that it is made of reinforced concrete.

It is not a direct or functional result of an haphazard choice of site and of materials; or of the digestive or hygienic cushions of its inhabitants; in fact, it is not a sort of mixture of philosophy, gastronomy and statics.

It does not pretend that it is nothing but the last modest, silent, and objective link in any chain of specifically Nordic or English tradition.

It does not try to show that the plan was dictated by any trigonometry of the lines of kitchen circulation, or by any attempt to trap sunlight into some dust-proof corner, or by the standard length of reinforcing rods.

It does not try to prove that its design grew “naturally” from the given conditions like an ordinary pumpkin, Victoria Regina, or deep sea fish.

It does not pretend that its planning, which so effortlessly raises the house by a foot all round, refusing the walls a damp contact with the earth, is conceived for reasons of statics; although it would be quite easy to explain it on those grounds, as soon as one sees that the cantilevering of the slab reduces the positive moment in the middle of the span.

It does not pretend that the trellis of prefabricated reinforced concrete elements which supports the roof, filled in with thermostatic, transparent glass or heating panels, is a rational or logical wall construction. This is in spite of the fact that the horizontal elements of the trellis reduce the height of the verticals and so reduce the risk of bending, allowing the thickness of the supports to be decreased. A wall obtained in this way is not necessarily the most economic, logical and rational solution. As a matter of fact, other walls in the same house are monolithically constructed of 4 in. reinforced concrete insuladed with 2 lbs. of cork, with plaster on the inside, where a solid effect, worthy of a family portrait, was wanted.

The flat roof is not a sign of the exhibitionist tendencies of unqualified inhabitants; the bathroom is not top-tier in order that the bather may be more fabulously guarded; the rooms are not specially designed for the local cats or for sleepwalkers; and the dish-washer in the kitchen has never been in working order.

On the contrary, the designer admits that there is, on the walls of the W.C., a collection of cold-blooded tropical butterflies; while the hedges have little bells sewn on to them to brighten the dreams of the occupants.

The designer admits also that he has not capitulated to the accidents of a site which was forced on him; he excavated eight hundred cubic yards of dusting chalk full of megalithic fossils, to make a flat lawn and a flat house—where any Czech would have made a house in steps with a roof garden.

Fig. 3.1 Lubetkin, B., 1937, Whipsnade Manifesto (Lubetkin, 1937)
3.2 DISTRIBUTION

2. “It is not a direct or functional result of a haphazard choice of site and materials; or of the digestive or hygienic customs of its inhabitants; in fact, it is not a sort of mixture of philosophy, gastronomy, and statics.”

3. “It does not pretend that it is nothing but the last modest, silent, and objective link in any chain of specifically Nordic or English tradition.”

3.2.1 Distribution at the Whipsnade and Holly Frindle Houses

Plans for the Whipsnade House were begun in 1934. At the time, Lubetkin and Tecton were enjoying the patronage of the ZSL and its Council of Fellows. The Gorilla House and Penguin Pool at the Regents Park Zoo were recently completed, and several new buildings had been commissioned for the ZSL’s wild animal park at Whipsnade in Bedfordshire. Sometime during the construction of these latter buildings, the Secretary of the ZSL, Sir Peter Chalmers Mitchell, determined to build a small house on the land he owned adjacent to the park. At the same time, he presented a portion of this land, along with the gift of Fellowship at the ZSL, to Lubetkin in return for his architectural services. In June 1934, with Chalmers Mitchell’s support, Lubetkin set about planning two small houses on the southwestern boundary of the Park.

The first and larger of the two houses was for Lubetkin’s personal use. It has come to be known as House A or the Hillfield House, although in this dissertation it is referred hereafter as the Whipsnade House (Fig. 3.2-Fig. 3.4). The second and smaller of the houses was for Sir Chalmers Mitchell. It is known as House B or the Holly Frindle House (Fig. 3.5). Both houses were intended as fair-weather retreats, but with the start of the second world war, they were also used as temporary evacuation camps during the winter as well. Neither house was meant to shelter a family for an extended amount of time, nor were they intended to house any administrative or official business related to Tecton or the ZSL. The maintenance of the
surrounding grounds was provided by the zoo, so neither house required any facilities for attending to the land.  

The list of rooms is the same for both houses: an entry hall, living room, dining room, kitchen, bathroom, and two bedrooms. The plans of the houses exhibit the same asymmetric t-shape, positioned on a terrace that is subsequently divided into three courtyards. The location of rooms in both plans is more-or-less radial with the dining room roughly in the center and the remainder located in relation to the quadrants of the site. The Whipsnade House is oriented cardinally, which means that rooms for sleeping are located in the southeast quadrant of the plan, dining and entertaining are in the southwest, and cooking is in the northwest. The rooms of the Holly Frindle House reflect a similar distribution of uses or habits, but the plan is not cardinally oriented. There are also differences in the kind and number of rooms, of which the most obvious are the covered porches and loggias distributed along the perimeter of the two houses. This is not a small difference; indeed, it reflects a larger transformation in the significance of the center.

This transformation is reflected in the attention to thermal comfort. While both houses were intended as fair-weather retreats, they still included systems for heating. In the Whipsnade

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53 Soon after their completion, the houses became something of a problem for the ZSL, in that no agreement for the maintenance of the roads or provision for the electrical and water supply that came from the animal park had ever been reached, and while this was not an issue during Sir Chalmers Mitchell's tenure, it became a point of controversy after his retirement in 1935. After his retirement, Sir Chalmers Mitchell donated his house and property to the ZSL on the condition that its new resident, Dr. Ida Mann, would not be evicted. John Allan writes that Lubetkin gifted his house and property to his long time friend Pasha Schubersky (Choubersky) after his engagement to Margaret Church, also in 1935 (Allan, 1992: 169), but the records of the ZSL indicate that he was still using the house as late as 1939 when he approached the Council with his intentions to sell. A sale did not immediately occur, and during the war the property was rented to Ernö Goldfinger as an evacuation camp; curiously, Goldfinger's 1940 drawings for a holiday camp bears a striking resemblance to the house ("Holiday & Evacuation Camp for Families," RIBA13279: FRA/GOLD/2). Eventually, Lubetkin's house was purchased by Schubersky's second husband, the statistician, Dr. Frank Yates. (Yates married Schubersky in July 1939. She had been previously married to Alexis Tchitchkine, and until 1939 went alternatively by the name Prascovia (Pasha or Pauline) Tchitchkine or Schubersky (Choubersky). Her father was Vladimir Choubersky, a railway engineer. She was a member of the French Communist Party from at least 1927 and was the Science Secretary for the Society for Cultural Relations with the USSR and secret member of the Communist Party of Great Britain under the alias Mary Gray. Frank Yates was also a member of the Communist Party under the alias of Francis Gray (British National Archives reference number I/114645166106210V, catalog reference number KV 2/3082). Both houses were listed as a Grade II* historical buildings in September 1988. Sir Chalmers Mitchell’s house remains in the possession of the ZSL and has been used in the recent past as a temporary zoo keepers residence. Lubetkin’s was purchased from its second owner in 1990 by Mike Davies, a founding partner of the Richard Rogers Partnership. Davies has since taken up the work of its conservation, including minor weatherproofing repairs to the enclosure and aesthetic patches to the concrete. The structure of the house is still sound, although the precast concrete horizontal members of the loggia have since sagged. A new roof was installed in the mid-1980s, along with new rainwater pipes. The ‘Thermolux’ panels in the glazing system had long ago been replaced by plywood, which leaked, and Davies has since replaced these with mica panels. The house is considered an early all-electric houses in England, and so its switches and fixtures were carefully preserved or replaced with matching originals from the United States. The recessed wall-mounted heating panels were similarly re-wired. (Macdonald, 1996: 107). Compared to the conservation accomplished or being undertaken on other houses of the interwar period in England, such as Amyas Connell’s and Basil Ward’s “White House” or even Highpoint One and Two, the work on Lubetkin’s Whipsnade House is relatively moderate.
house, active heating of the interior is provided by a combination of a double-sided wood-burning fireplace in the center of the dining room and the western loggia, as well as by concealed electrical panels just below the window sill along the perimeter of the living and bedrooms. The Holly Frindle House has no fireplace in the center. Instead, the line of electrical panels in the living room is extended into the dining room without interruption. In this development from one house to the next, concealed electrical panels along the perimeter have come to replace the central fireplace; a linear element has replaced a radial element.

In the Whipsnade House, the location of rooms depends on a concentric distribution of domestic uses around and away from the central hearth. The hearth is the social—or perhaps as Gottfried Semper argued—the moral center of the plan, and proximity to this kind of center is potent. This idea of concentric distribution coincides with the composition of the curved dining room partition and the axis of the corridor, but elsewhere the t-shaped composition of the plan undermines the singular centrality of the hearth. In the plan of the Whipsnade House, moral and formal bases are not analogous; the presence of a moral type, such as the good conduct that may concern the gathering around a hearth, does not presume or prohibit the presence of a formal trope, such as the simultaneous contrast or tension between a center and a not-center. In other words, regardless of the composition, the distribution of uses in the plan is based on the priority of the hearth, which is a remarkably traditional idea.

In contrast, there is no hearth in the Holly Frindle House. The active heating that it provided in the Whipsnade House is substituted by perimeter heating elements that circumscribe

54 “[The hearth] is the first and most important, the moral element of architecture. Around it were grouped the three other elements: the roof, the enclosure, and the mound, the protecting negations or defenders of the hearth’s flame against the three hostile elements of nature…” (Gottfried Semper, The Four Elements of Architecture, 2011, 101).

55 The term “center” itself refers to the mark made by the point of a compass. The inscription that implicitly surrounds this point, whatever the shape, is a circumference or a periphery. In these terms, a center is the only position that stands in the same relationship to all of the positions along the periphery. It is the mark of something singular and yet inclusive. Should a center be conceived as a single point along a vertical line, then this line may refer to a vertical axis of any length. In this way, a center is also the mark of something that extends beyond its visible presence. It is these attributes, according to David Summers, that makes the “real spatial conditions” of the center and the periphery almost universally suitable to the social metaphors, on the one hand, of exception and inclusion, and on the other hand, of an extension beyond the immediate present (Summers, Real Spaces 130-137). These are the among the most basic attributes of groups, including their definition of others, origins, and purposes, which can be assigned to any institutional construction whatsoever, including the domestic dwelling. The appropriation of centers—which means nothing more than to have made one’s own—by various peoples reveals the conceptions they make of themselves and others. Perhaps the same can be said of individuals.
both the dining and living areas. The continuity of the concealed heating elements supports the continuity of the enclosure, which supports the composition of these areas into a single undifferentiated room. The central hearth is no longer the moral basis of distribution; instead, this responsibility is taken up by the continuity of the enclosure along the perimeter.

The Whipsnade and Holly Frindle Houses, despite their historical relationship to one another—or perhaps because of it—are two different answers to the topical question: On what basis shall the uses or habits of dwelling be distributed? In the first, this distribution is based on the centrality of the hearth, in the second, on the continuity of the enclosure along the perimeter. The movement from one house to the other is a shift in the basis of distribution.

The differences found in the bed and bathrooms support this argument. In both houses, the enclosure along the exterior of the bed and bathrooms consists of the same six precast concrete frames, which support a pattern of six repeated bays in plan. These frames, like the frames of the living and dining rooms, are in-filled with glass, thermolux, and recessed electric heating panels. The most obvious difference is in the number of sleeping porches, but the most significant difference is the position of the bathrooms. In the Whipsnade House, the bathroom is set back behind the southwestern most sleeping porch. In the Holly Frindle House, the bathroom is located in-between the bedrooms in one of the bays along the perimeter. Again, considering the two houses in chronological sequence, the bathroom is no longer the end of an axis that begins with the fireplace—as if water was the terminus of fire—it is now part of a linear distribution guided by the continuity of the perimeter, where access and maintenance to services has been radically simplified.

The consequence of this transformation is that the bed and bathrooms are now part of a standardized unit of distribution suitable for larger more repetitive plans, including Tecton’s forthcoming social housing projects (Fig. 3.7). The development from the Whipsnade House to the Holly Frindle House demonstrates a growing attention to the standardization of services in addition to the standardization of room plans and building components. The same attention to the standardization of services along the perimeter—including some of the same building
components—is also found in the Finsbury Health Centre (Fig. 3.117-Fig. 3.121), which was in the initial planning stages by the start of the Holly Frindle House.

In light of these observations, it is instructive to compare the Whipsnade and Holly Frindle Houses to the other small t-shape plans undertaken by Tecton at the time, such as Chitty’s House at Aldwick Bay (“The Dunes”) (Fig. 3.8), and Harding’s House at Farnham Common (“Egypt’s End”) (Fig. 3.9). These houses were also constructed between 1933 and 1935. Like the Whipsnade House, the House at Aldwick Bay features a hearth—in this case, an electric fireplace that is installed beneath a built-in dining table—as the center of a concentric distribution of domestic areas. And like the Holly Frindle House, the House at Farnham Common features various entertaining, dining, and sleeping areas aligned and attached to a continuous perimeter. Similar observations can be made of Harding’s somewhat later plan of the House at Sydenham Hill (“Six Pillars”) (Fig. 3.10). In both of Harding’s houses, long linear expanses of glass are paired with concealed linear heating elements to create a continuous system of enclosure along the perimeter. The significance that was given to the centrality of the hearth in the former examples—the Whipsnade and Aldwick Bay Houses—is taken up by the continuity of the perimeter in the latter—the Holly Frindle, Farnham Common, and Sydenham Hill Houses. Between these two sets of dwellings, the basis of distribution has changed.

In contrast to this change in distribution, the basis of composition remains similar throughout the plans of all five houses. Indeed, these five houses are notable as the first built examples of the “free plan” in England. As it was derived from Le Corbusier’s “Maison Domino,” the free plan is an approach to composition that depends first on the independent integrity of leveling, supporting, and enclosing building components, and second on the opportunity to reveal the interaction of these components free from the distribution of uses. Within this tradition, these houses also exhibit aspects of what Colin Rowe called “peripheric composition,” by which he meant a plan in which the compositional “elements” are seemingly thrown to the extents of the boundary and beyond, as if they were subjected to some centrifugal yet eccentric force before being fixed in their final positions. For Rowe, this tradition of composition was not evidence of an
academic formalism, but rather, evidence that the unspoken formal aspect of the modern movement in architecture was shared in common with the visual arts—the Cubism of Picasso in the case of Le Corbusier, or the Elementarism of Van Doesburg in the case of Mies van der Rohe.

In the plans by Tecton, aspects of “peripheric composition” are found in the entry halls. If the t-shape of the plan is interpreted as the overlap of two rectangular areas or wings, then these entry halls are the central square; the compositional challenge of this central overlap is apparently to render the simultaneous contrast between the order of the two rectangular areas and the order of the single central area by the careful articulation of ceiling heights, column reveals, and curved partitions that are not found elsewhere in the plans of these houses. At the Aldwick Bay House, the majority of the plan—including the location of the central hearth and dining table—observes the order of the structural grid, and while the entry hall is continuous with this order, it also contrasts it with oblique surfaces that are directed diagonally through the entrance and across the terrace. In other words, the entry hall observes the integrity of the structural grid, and with it the centrality of the hearth as the basis of distribution, but it simultaneously contrasts this order with a compositional turn—or twist—away from the center. The entry hall at the Farnham Common is similarly distinguished, but the plan of the house, in general, is conditioned by somewhat different circumstances. Its setting along a pre-existing road lends to one of its sides the sense of a traditional front or façade. The porch along this side is engaged and appears as a subtracted void in which the entry hall is composed in simultaneous contrast to—and continuity with—the order of the perpendicular wings of the house. The entry hall of the Whipsnade House is comparable to both the Aldwick Bay and Farnham Common Houses; like the former, the entry is gained from the corner of a terrace and the articulation of the hall observes the integrity of the structural grid and the centrality of the hearth and dining area, but like the latter, the hall is expressed as a void that intermingles the two perpendicular wings.

Given these examples, the similarity of their composition to trends in the visual arts supports Rowe’s argument for a common formal basis between architectural planning and contemporary painting. Nevertheless, in the case of the relationship between the Whipsnade
House and the Holly Frindle House, significance is not found in their compositional similarities, but in their distributional differences. As described above, in the movement from one house to the other, the singularity of the center has been replaced by the continuity of the enclosure along the perimeter—the centrality of the hearth is no longer the fundamental basis of distribution.\textsuperscript{56} To the extent that we might adopt Semper’s assertion that the hearth “is the first and most important, the moral element of architecture,” then this transformation also reflects an inquiry into the moral basis of the plan. This is not to argue that one plan is good because it has a hearth and the other is not good because it does not—indeed, the heating element along the perimeter is no less a kind of hearth—but rather, to argue more generally that the decisions pertaining to the distribution of the plan are primarily moral and concerned with good conduct rather than with good form.

3.2.2 Contemporary Representations of Distribution in England

A comparison of plans from several contemporary architects in England is instructive: For example, the office of Baillie Scott and Beresford continued the tradition of the English Free Style well into the 1930s, the crux of which, other than the eschewing of Continental European pattern books, was the purposeful distribution of uses independent of a concern for the composition of the whole. Their plans for Tylers (Fig. 3.14) and Blue Bonnets (Fig. 3.15) at Sevenoaks, in 1925 and 1930 respectively, demonstrate how the centrality of the hearth was essential to the English dwelling at any scale. Each major room is proportioned unto itself and aligned with the center of a different fireplace. Wooden framing is subject to the definition of each area’s enclosure, the accumulation of which results in the Picturesque variegation of the building’s perimeter. In these particular plans, however, there is also a distinct continuity of several walls throughout the interior, which, in terms of composition, provide a contrast to the location of the fireplaces and anticipate the peripheric composition of plans. Arthur Grayson’s

\textsuperscript{56} This “movement” concerns only the plans listed in this section. It is interesting to note that Lubetkin often returned to locating the hearth in the center of the distribution; this is the case at both the cottages at Haywards Heath and the Farmhouse (Fig. 3.12) at Upper Kilcott (Fig. 3.13).
ground plan for Les Lumieres in 1927 is comparable to Baillie Scott and Beresford’s plan for Tylers in the distribution of uses or habits and the composition of the forms or figures, as well as in the addition of a continuous interior wall that extends beyond the boundary of the building envelope (Fig. 3.16). In Grayson’s plan of the upper floor, however, the continuity of the perimeter takes priority and the independent integrity of each room suffers (Fig. 3.17).

In England, the earliest example of a peripheric composition in complete accordance with Rowe’s definition is likely in the plans of Wells Coates’s project for the Isotype Dwellings in 1931 (Fig. 3.18-Fig. 3.19). Here the plan consists entirely of continuous walls that asymmetrically extend beyond the boundary of the building envelope to form a series of more-or-less definite courtyards—an idea likely derived from Frank Lloyd Wright and Mies van der Rohe. The Isotype Dwellings were drawn and presented but never built; what is known of them is derived from Coates’s archives and drawings, in which the absence of a hearth and the large expanse of glass shown along the perimeter suggest an approach to thermal comfort similar to the House at Holly Frindle. The elevation drawings on the same sheets support this idea and demonstrate that the envelope of the building was conceived with a concern for the continuity of the perimeter, which undermines the integrity of the courtyards.

A better heir to Mies’s introverted courtyard plans in England is Ernö Goldfinger’s House at Broxted (“Hill Pasture”) (Fig. 3.20). Goldfinger said or wrote little about the project—he recalled only that the front door into the courtyard garden was conceived as something of a surrealist device (Dunnett, 1996: 25). The extended horizontal format, inglenook fireplace, and pin-wheel composition of the rooms around a square are all suggestive of Wright’s work, such as the houses for Joseph Husser (1899) or Darwin Martin (1905); but the differentiation of the rooms is also granted by changes in floor level and ceiling height, which refers to Adolf Loos’s concept of the “plan of volumes” or “raumplan” in the Rufer House (1922) or the house for Tristan Tzara (1925), which Goldfinger knew well.57 In Goldfinger’s plan the peripheric composition of the walls is emphatic and their continuity beyond the boundary of the building adds to the definition of the

57 Goldfinger and Loos were well acquainted with one another in Paris.
courtyard; nevertheless, the hearth remains the center of the distribution—with the living room closest to this center. While Goldfinger demonstrates a style that contrasts with Lubetkin’s adoption of Le Corbusier in the Whipsnade House, the principles of the plan are fundamentally similar when cast in terms of a contrast between a concentric distribution of uses or habits and a peripheric composition of forms.

Despite stylistic differences, the creation of architectural plans presented some architects of the Interwar period in England—such as Lubetkin, Coates, and Goldfinger—with the opportunity to question the basis of distribution. The extent to which this basis was conceived as a moral topic, more-or-less independent from a formal topic, demonstrates an ongoing concern to the architect’s plans of the dwelling with a mutable sense of morality.

3.2.3 Shand’s Scenario for a Human Drama

There is perhaps no more hallowed theme in English architectural literature that the history of the English house plan. Indeed, ever since the publication of John James Stevenson’s *House Architecture* in 1877 the domestic architect in England has been uniquely aware of the history of his subject matter. Herman Muthesius’s surveys of 1904 and 1905 furthered the reach of this appreciation, but in England this appreciation had already been well maintained by magazines like *Country Life*, which was established in 1897 and devoted in large part to contemporary domestic architects like Sir Edwin Lutyens. By the 1930s, books on the English house from publishers like the Architectural Press were a familiar genre. Many of the titles of these include the words “Modern,” “English,” or “House,” although this does not give justice to the variety of architectural works that were included. Between 1930 and 1940, books on the modern English house were published by—among others—Patrick Abercrombie, Baillie Scott and Beresford, Noel Carrington, Ella Carter, Nathaniel Lloyd, Alan Hastings, Raymond McGrath, Duncan Miller, Derek Patmore, Randal Phillips, Roger Smithells, Myles Wright, and F. R. S. Yorke. Lloyd’s *A History of the English House* in 1931 was arguably the most thorough study of
the subject since Muthesius, but his narrative ended with the Regency Period in 1830, suggesting that architecture suffered a decline after that.

During the interwar period, the compulsion to understand the architecture of more recent English houses was felt by many authors, but the meaning of the concept of "recent" ranged between Hastings’s pluralistic account of *Recent English Domestic Architecture* in 1929, to McGrath’s appreciation of the European modern movement in *The Twentieth Century House* in 1934. The first to suggest that recent English house plans were related or in some way indebted to the European modern movement was Yorke’s *The Modern House* in 1934. The premise of Yorke’s book was the potential of building materials to transform the house; he focused on the efforts to create houses made of reinforced concrete and glass, primarily in the vein of Gropius and the Bauhaus. Melvin and Allford have argued that this interpretation was based on Yorke’s professional experience as an assistant in several European ateliers and that his book was a clever introduction of "modernist" images “shoe-horned... into an English publishing context” (Melvin and Allford, 1996: 34).

Immediately following the publication of *The Modern House* in 1934, P. Morton Shand set out to bridge the gap in scholarship between Lloyd and Yorke; the former ended his narrative with Soane, and the latter began with Gropius, creating a gap of approximately a century between their histories. Shand published his study over several issues of the *Architectural Review* under the title of a “Scenario for a Human Drama,” beginning in July 1934. The premise of his argument was that the domestic architecture of the European modern movement, which was then lapping at the shores of England, was, in fact, a tradition originally derived from English Regency Period architecture—"Modernism" was conceived as a Renaissance—a recurrence—of Regency origins. He writes that the English should “welcome his foreign-born descendants not as bolshevizing foreigners but as returning émigrés” (Shand, 1934: 9). Shand was not the only English architect to present such an assertion, but he was far and away the touchstone for all those who would present it afterward; after Shand, architects in England looking to argue for the qualities of the
modern movement typically couched their observations in the renewal of Regency principles.\textsuperscript{58} For Shand the “three dominant factors are fused in the design of the modern house: a new structural technique, complete freedom of planning, and a rationalization of architectural form” (Shand, 1935: 99); the English contribution to this was the “emancipation from forms that dictated plan to forms that are the expression of plan alone,” in other words, architecture that exhibited the attributes of “free and open planning” (Shand, 1934: 9).

Shand’s focus on the plan, and in particular the “free and open” plan, as the focus of development in the domestic architecture of the modern movement was unmatched by other authors in England at the time; nevertheless, his writing also revealed his penchant for nationalism and progressivism. After summarizing the role of Behrens in the history of standardized housing, Shand turned to houses of Van de Velde, which he claimed were the first to “break up the rigid structural divisions between room and room by which the units forming the suites of continental houses were walled in as though they were groups of cells” (Shand, 1934: 131). It was then Loos who reconceived the composition of spaces within the dwelling. Citing Loos’s well-known admiration of England, Shand argued that the raumplan “faithfully reproduces the norm-type of the English urban terrace house of 1790-1820, except that its brick walls are stuccoed… and its fenestration is no longer entirely symmetrical.” He continues: “What attracted [Loos] to England was that… our houses had a natural appearance because their plans were not based on formal or structural theories” and because of this, they had “a free undoctrinaire and humanely reasonable quality that makes them eminently habitable” (Shand, 1934: 133). These are the same “qualities” that he identifies in the so-called English Free Architecture of, on the one hand, the contemporaries of William Morris (Philip Webb, Eden Nesfield, Norman Shaw) and on the other hand, contemporaries of Mackintosh (Voysey, Walton, Baillie Scott, Ashbee, Lethaby, Newton, and early Lutyens).

\textsuperscript{58} Modernism as a Regency Renaissance was patent in Steen Eiler Rasmussen’s London The Unique City (1934), John Summerson’s book on John Nash (1935), and J. M. Richards 1933 review of The Small English House of the Later Renaissance by A. E. Richardson, which was first published in 1925.
Shand’s commentary on “free and open planning” focused largely on the composition of the enclosing components, and rarely on the distribution of what they enclosed. This concern was taken up more explicitly by Wells Coates who published several short articles in the early 1930s on the concept of the “dwelling-scene,” which was largely based on his reading of Le Corbusier. For Coates, architecture was a form of service that interpreted an improved way of life and “the natural starting place for [interpreting a] new service must be the scene in which the daily drama of personal life takes place: the interior of the dwelling—the plan—and its living equipment.” He continues: “The home is no longer a permanent place from one generation to another… we move away from the old home and family; we get rid of our belongings and make for a new exciting freedom” (Coates, qtd. in Darling, Re-Forming Britain 98). Coates’s vision of the new dwelling is one of unencumbered comfort, which he describes elsewhere as possessing “diffused lighting and heating,” but also one without a “permanent center.” In his description of “modern components” of heating, Philip Scholberg reiterated Coates’s conception of the dwelling freed from the “necessity” even the “sentiment” for the “fireplace to be the focal point of the room” (Scholberg, 1937). Coates’s and Scholberg’s eschewing of a permanent center does not concern form, but rather, comfort and conduct—it is an inquiry into the changing moral basis of distribution.

Lubetkin did not explicitly discuss the status of the center in the plans of his houses, although he later considered the importance of the center to the centralized church plans of the Renaissance. His written commentary on distribution in the Whipsnade Manifesto is limited to a negation of the two most prominent ideologies of the modern movement in architecture during the interwar period in England: the commitment to expressing the functional distribution of uses or habits; and the narrative of the progressive and providential history of the English House. Houses in England were typically not considered “modern” without adherence to both of these frameworks, and Lubetkin’s undermining of their relevance to his work poses difficulty for the interpretation of the Whipsnade House.

In his Samizdat of Anarchitect, Lubetkin wrote that “‘morals’ are not accessible to interpretation, criticism, or doubt. The fact is that ‘morals’ in Greek simply means ‘habits’.” In this
memoir, Lubetkin specifically did not wish to divulge or describe a singular unified “naked truth,” and because of this he was concerned that he would be taken for a liar, and therefore that his conduct would be deemed immoral. His response was to suggest that not only was the search for the “objectivity of facts” an impossible task but also that the sense of morality on which this task was judged was misleading. Morality was something less than hard and fast principles; it was the crystallization of habits. The same could be said of the architectural plan, which concerns not only the habits of occupants but the habits of the designer. He relates a story of practical knowledge from his father:

"he said to me... “I am not a fanatical worshipper of truth or of conventional morals. Only hacks follow the rulebook unquestioningly, forgetting that it is impossible to be virtuous whilst ignoring the consequences of your decision. As Immanuel Kant said, ‘What does not involve a value judgment is not a moral decision at all’. But the rejection of convention does not imply the acceptance of opportunism or the pursuit of selfish ends. Morality is a matter of individual conscience and it shifts the responsibility for decision fairly and squarely onto oneself. That is why freedom from external authority is only possible if we establish our own rigorous rules, a network of self-imposed limitations and voluntary constraints, by which we choose to live.”

I have never met anyone who would adhere so fanatically, persistently and fastidiously to these rigorous but freely chosen rules of conduct. The impact of this discourse was never lost on me; it persisted through life.

Indeed, as soon as I acquired the conviction that a composition is an attempt to disclose a visual order in what appears to be pure chance, I realized that whatever arrangement I proposed could always be otherwise conceived and rearranged. Thus the design assumes the form of a dialogue between me and myself; in other words, it becomes a moral problem. When we design we make grave decisions, we conduct an obsessive struggle with self-imposed obstacles, often leading to despair and anguish, but we must remain free from self-deception and self-interest, without seeking recognition, admiration or even understanding, unmoved by vanity, greed or fear of scandal.

For Lubetkin, the architectural plan is based on a sense of morality. But this morality is not granted by the tradition of the English dwelling nor by the habits of its occupants. Instead, Lubetkin describes a concern for the morals or habits of the individual architect. Insofar as a plan “could always be otherwise conceived and rearranged,” it is always in relationship to multiple possibilities. In other words, there is not a single description of the good, but rather, only the
ability to judge one selection better than another. The judgment that guides this selection is a
moral judgment—it is not a kind of knowledge gained through convention and authority, but rather,
through perpetual and practical “dialogue” with one’s self. For Lubetkin, there is no original
foundation for this judgment other than an “obsessive struggle” and no providential end other than
perhaps the likelihood of “despair and anguish”; nevertheless, he implies, the architect continues
to compose on less-than-firm footing.
3.2.4 Figures: Distribution

Fig. 3.2 Lubetkin, B., 1936, Whipsnade House, roof and site plans, 1936, photograph of drawing (RIBA Collections 5024; RIBAPIX Database Reference 17942)

Fig. 3.3 Lubetkin, B., 1937, Whipsnade House, roof and floor plans, photograph of drawing (Lubetkin, 1937)
Fig. 3.4 Lubetkin, B., 1938, *Whipsnade House, floor plan*, photograph of drawing (Lubetkin, 1938)

Fig. 3.5 Lubetkin, B., 1938, *Holly Frindle House, floor plan*, photograph of drawing (Lubetkin, 1938)
CONSTRUCTION SYSTEM
A. R.C. beams to carry floors, made in channel form to act as pipe ducts.
B. Thick R.C. floor slabs spanning between beams A—A.
C. R.C. mullion (statically hinged) supporting beams A—A.
D. Tuck framework covering mullion faces and beam edges, acting as fixing for steel windows and duct covers.

HEATING SYSTEM
A. Heating coils embedded in ceiling.
B. Flow pipes to coils.
C. Return pipes from coils.
D. Control valves to coils.

ELECTRICAL SYSTEM
D. Metal skirting ducts for wiring to telephones, bells, etc., and for clinical apparatus, with removable cover for ease of access.
E. Metal ceiling ducts for lighting points, with removable under plate.

PLUMBING SYSTEM
A. Cold water supply pipe.
B. Hot water supply pipe.
C. Waste pipe.
D. Anti-siphon pipe.
E. Slots in duct walls for future connections.
Fig. 3.7 Drake and Lasdun, 1954 Paddington Flats, perimeter heating system, photograph of photomontage
(Drake, Lasdun and Tecton, 1954)
Fig. 3.8 Chitty and Tecton, 1934, *House at Aldwick Bay*, floor plans, photograph of drawing (Yorke, 1936)
Fig. 3.9 Harding and Tecton, 1935, *House at Farnham Common, floor plans*, photograph of drawing (Yorke, 1936)
Fig. 3.10 Harding and Tecton, 1935, *House at Sydenham, floor plans*, photograph of drawing (Yorke, 1936)
Fig. 3.11 Lubetkin and Tecton, 1935, *Houses at Haywards Heath, site and floor plans, photograph of drawing* (Yorke, 1936)

Fig. 3.12 Newbery, S., 1935, *Haywards Heath Type C House, living room hearth, photograph* (RIBA Collections 5301/19 / Newbery 76495; RIBAPIX Drawing Reference 49413)
Fig. 3.13 Balmer, D., 1951, *Upper Kilcott Farmhouse, living room hearth*, photograph (RIBA Collections 5065/11 / Balmer N1369; RIBAPIX Database Reference 49546)
Fig. 3.14 Baillie Scott and Beresford, 1925, *Tylers at Sevenoaks, floor plans and elevations*, drawing (RIBA CollectionsPB438/27; RIBAPIX Database Reference 31120)
Fig. 3.15 Baillie Scott and Beresford, 1930, *Barberries at Sevenoaks, floor plans and elevations*, drawing (RIBA CollectionsPB438/26; RIBAPIX Database Reference 31121)
Fig. 3.16 Grayson, A., 1927, Les Lumieres, ground floor plan, drawing (RIBA Collections Ba48/2; RIBAPIX Drawing Reference 34675)

Fig. 3.17 Grayson, A., 1927, Les Lumieres, upper floor plan, drawing (RIBA Collections Ba48/3; RIBAPIX Database Reference 34676)
Fig. 3.18 Coates, W., 1927, Isotype Dwelling Type DA6.5GN, floor plans and elevations, drawing (RIBA Collections PA202/3/17; RIBAPIX Database Reference 21721)

Fig. 3.19 Coates, W., 1927, Isotype Dwelling Type DA3GMN, floor plans and elevations, drawing (RIBA Collections PA202/3/11; RIBAPIX Database Reference 21722)
Fig. 3.20 Goldfinger, E., 1937, *House at Broxted, floor plans and elevations*, drawing (RIBA Collections PA601/5/3; RIBAPIX Database Reference 35086)
Fig. 3.21 Martin and Speight, 1938, House at Cumberland, 'Brackenfell,' floor plans, photograph of drawing (Martin and Speight, 1939)

Fig. 3.22 Moro and Llewelyn-Davis, 1940, Harbour Meadow, Birdham, floor plans, photograph of drawings (Moro and Llewelyn-Davis, 1941)
3.3 ORIENTATION

4. “It does not try to show that the plan was dictated by any trigonometry of the lines of kitchen circulation, or by angry attempts to trap sunlight into some dust-proof corner, or by the standard length of reinforcing rods.”

3.3.1 Orientation at the Whipsnade House and Penguin Pond

The earliest surviving artifact related to the Whipsnade House is a topographic survey of the site made by J. L. Kier and Co. in June 1934 ("Mr. Lubetkin’s Site, RIBA PA117/1: photograph is forthcoming). The survey consists of a blueline print with several pencil sketches in the margins. Among these is a small intersection labeled with the cardinal directions—an unadorned compass rose—aligned with the boundaries of the site platform, which are also aligned with the slope of the hillside. The platform is located in such a way as to observe two kinds of orientation: on the one hand, its width is normal to the slope; and on the other hand, its length is directed due south (Fig. 3.23). For these two kinds of orientation to coincide and still satisfy the conditions of a right angle requires careful selection of the location for the site platform, which means that orientation preceded excavation. But rather than become distracted by questions of sequence, what is significant in these observations is the acknowledgment of a qualitative difference of kinds of orientation rather than simply a quantitative difference of degrees. At the Whipsnade House, the site platform observes qualitatively distinct kinds of orientation at the same time—cardinal and topographical.

Beyond the position of the site platform, the question of orientation was also considered in the creation of the floor plan. The distribution of uses in the house is typical. As described above, the bedrooms are located toward the east of the floor plan, facing south to witness the late morning light; the living and dining rooms are in the west, facing the afternoon light; the kitchen is to the north, but surrounded by a porch. In this project, unlike others—such as the project for the
Gorilla House at the Regent’s Park Zoo—there is no evidence that Lubetkin ever diagrammed the path of the sun as it moved across the plan, or that he used such diagrams to inform its composition. This is not to say that daylighting was not carefully considered, but rather that the efficiency of daylighting was not the fundamental concern.

Instead, daylight is used to create visual contrast and relief, particularly in the vistas created between one room to the next. This contrast and relief is apparent in the interior photographs of the side lights that separate the entry door from the surrounding wall and the similarly articulated clerestory lights along the bedroom hallways, or in the view of the living room with the afternoon sun reflected and refracted by the horizontal panes of the open windows (Fig. 3.24-Fig. 3.25). Ernő Goldfinger would later insist that such horizontal surfaces were “photobolic screens” intended to bounce light off the ceiling and farther into the interior depths of a building, but the effect that is captured in the photographs of the Whipsnade House is not so much the extension of daylighting as it is the diversion or inversion of cardinal and topographical orientations; in other words, in reference to these typical alignments, the daylighting of the interior is occasionally cause for disorientation.

These photographs, especially of the entry hall (Fig. 3.26), are comparable to the well-known photograph of the “sun-catcher” porch on the north side of the Whipsnade plan (Fig. 3.27). The photograph is the work of Dell and Wainwright, who visited the house and zoo for the *Architectural Review* in 1935. Its composition is characteristic of their work, including the cavalier perspective and the dramatic framing of shapes that play off the contrast of light and dark. The seated woman is Margaret Church, who was an architect at Tecton and soon to be the wife of Lubetkin.

A careful consideration of the photograph is instructive: At some point in the photographic process, the frame was rotated counter-clockwise a few degrees from upright such that the outside profile of the curved concrete wall is parallel to the crop of the photograph’s frame. This lends to the appearance that, on the one hand, the return end of the wall is dramatically projecting into the foreground, while on the other hand, the gridded surface of the patio is
projecting deeper into the middle ground. The parallel between the concrete wall and the frame on the right-hand side is repeated on the left by the parallel between the frame and Margaret’s spine and engaged lower right leg. Just how not-vertical these are is evident in the legs of the chair which appear as if splayed under an unseen weight. In the absence of other uprights, these parallels provide an artificial reference for a vertical normal, and in respect to this artificial gravity, the surface of the patio appears to decline from the upper-right to the lower-left. Upon this apparently sloping surface, the seated figure appears to slide toward a position outside the frame to the left. Two further alignments, but this time within the depth of field, contribute to this sense of lateral movement.

First, the precise alignment of the return end of the curved concrete wall with the shadow it casts on its concavity gives to the photograph the shape of a triangle with a bilateral symmetry across a similarly declining axis. This axis is emphasized by its alignment with the gesture of the seated figure’s left forearm and the spine of the book on her lap. Second, in the lower-left corner, careful attention has been given to the relationship between the gridded surface of the patio and the surface of the gray triangle that marks the corner of the photograph. This triangle represents the edge of the roof from which the photograph was taken, which means that it is the nearest surface to the camera; nevertheless, its alignment to the patio grid and the crop of the frame lends to the appearance of a location in depth that is comparable to the background in the upper right of the photograph. Taken together, this adds to the notion that the seated figure of Margaret is precariously perched in the middle ground on the end of some long jetty.

The lateral movement down and to the left of the photograph, which in reference to the architectural plan is a western orientation down the hillside, is countered by a similar movement down and to the right, which in the plan is a southern orientation directly aligned with the much nearer front entryway of the house. That Margaret is seated directly at the intersection of these two alignments, which is also the convergence of the near and the far, is reflected in her posture. Like the contemporary sculptures by Laszlo Peri and Henry Moore, there is little about her posture that is not evidence of artifice, and what is perhaps most “natural” within it, that she is
reclining, is undermined by the artifice of the photographer. Her right leg, which is engaged with the ground and with the frame of the photograph, supports her crossed left leg, which rotates her pelvis toward her right. Her upper body, which follows from the orientation of her face, is turned counter-clockwise toward her left in such a way that her torso is nearly square to the picture plane of the camera. This is the only surface in the photograph that appears frontal in this way. Her arms take on an Egyptian profile, but relative to her lower limbs they occupy contrary positions in depth. This rotates her pelvis to her right while her shoulders follow the alignment of her face which is rotated to the left and directly aligned with the front door. In the photograph, Margaret is a compact rhetorical figure that represents various overlapping and intersecting alignments within and throughout the plan.

A similar sense of simultaneously layered alignments is fundamental to several of Lubetkin’s inter-war projects, many of which are also accompanied by photographs that suggest disorientation. Of these, the most well-known example is the Penguin Pond at Regent’s Park Zoo (Fig. 3.28-Fig. 3.29). A brief history of the project is instructive:\textsuperscript{59} Plans for a new penguin enclosure began as early as September 1933. By this time, the ZSL had already selected the existing “Waders’ Inclosure” as the site of the new exhibit (Fig. 3.30, no. 19). The Waders’ Inclosure was a small square of fenced-in ponds designated for waterfowl, not far from the southern reach of the gardens, and positioned just between the Lion House to the north and the Popular Tea House to the south. Toward the southeast, in the direction of what would become the longitudinal axis of Tecton’s pool, stood the Bird House and Aviaries, just beyond the Deer and Cattle ground. In the opposite direction, toward the northwest, stood the Raccoon Tree enclosure with the large Antelope Paddock in the distance. The principle attraction in this area of

\textsuperscript{59} A brief history of the project for the Penguin Pond is useful in ameliorating the gap between its history and its renown. A separate review of the history of interpreting the project would make for an interesting study. For example, the project is occasionally considered the centerpiece of the partnership between the disciplines of engineering and architecture; or the evidence of the diffusion or decay – depending on the relative degree of eclecticism that is interpreted in the work – of international rationalism and constructivism; or the transformation of subjectivity and the focus on childhood; or – again depending on one’s apologetics – the target or aegis of ecological, material, technological or social criticisms. What it is rarely is not considered an example of zoological architecture, which suggests that for its type, it is neither wholly exceptional nor wholly distinguishable. In the contemporary period, architects who visited London and the Zoo at Regent’s Park were impressed by the Gorilla House and the Penguin Pond, but they were rarely impressed by both; the selection of one over the other says as much about the selector as it does the work.
the zoo was the Lion House; a long Victorian exhibition hall with open seating on one side and lion cages on the other (Fig. 3.31). The Lion House was opened with considerable fanfare in 1876, and as a sign of its prominence a bust of the first president of the Society, Sir Stamford Raffles, was mounted just inside the central entry, which—being on the southern side—opened up immediately onto the Waders’ Inclosure.

By January 1934, Lubetkin and Tecton delivered a model to the ZSL that was enthusiastically approved for construction, along with a significant increase in the construction budget. The surviving artifacts of this four-month design period consist of a single drawing by Lubetkin and a handful of photographs of a model (Fig. 3.32-Fig. 3.33). The primary medium of design development was not drawing or diagramming, but rather, three-dimensional models made of cardboard. Nevertheless, the surviving drawing is a significant document because, on the one hand, it records the transition within Tecton between the Gorilla House and the Penguin Pond, and on the other hand—and certainly more relevant to the topic at hand—because it reveals an attitude toward the topic of orientation that is no longer recognizable in the setting of the built work.

Similar to the Whipsnade site survey, the early Penguin Pond drawing records an early conversation, this time between Lubetkin and Geoffrey Vevers, the superintendent of works at the ZSL. It precedes even Ove Arup’s involvement in the project. The sheet consists of a draft plan, elevation and isometric view of an initial elliptical proposal, along with three plan sketches that most certainly come later. The plan and elevation in the upper left of the sheet are the farthest from the final proposal, and presumably the earliest. These first drawings show a low elliptical

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60 The photograph is from John Edwards. London Zoo: From Old Photographs, 1852-1914.
61 Meeting minutes of the ZSL show that in December 1933 they had established a budget of £1300 based on Tecton’s drawings, in January 1934 they increased the budget to £1500.
62 Lubetkin admitted so much in a 1989 letter to the Architects’ Journal (Lubetkin, 1989), and Tecton assistant William Tatton-Brown recalled the same thing in an interview in 1996 (Tatton-Brown and Brodie, 1996). Tatton-Brown also recalled that shortly after the project started, Lubetkin distanced himself from the other Tecton partners and assembled an “unqualified” team of model makers around him, including Mary Cooke, Margaret Church, and Eileen Sparrow. Lindsay Drake would eventually join the project team, but the other Tecton partners were excluded. In a curious case of retrospective hyperbole, Lubetkin recalls elsewhere that Godfrey Samuel had been too busy at the time working on a spiral escalator; in fact, Samuel’s drawing still exists in his archive (RIBA PA832/8(1-2)).
63 Both Arup and Tatton-Brown recall that when Ove Arup was invited to work on the project, he was presented first with a model in which the helical ramps were already designed.
enclosure crossed by a trapezoidal plane or platform rotated precisely 30° from the longitudinal axis of the ellipse. This plane is at least a covering, but also possibly a low bridge over the enclosure, and is supported on one side by diagonal fin walls and on the other side by a vertical end wall that includes informational graphics about penguins. This wall rests on a lower wall that sweeps outward from the enclosure into the larger setting. A clue to the purpose of this sweeping wall can be found in the isometric drawing, which—although now mirroring the rotation of the covering—adds a pair of arrows suggesting a concern for the movement or flow of visitors alongside the enclosure and underneath the covering.

In the second plan, in the center right of the sheet, the length of the ellipse and the orientation of the trapezoidal plane are identical to that of the first. That this is not simply an act of graphic convention or convenience is apparent when the plans are viewed in light of the pre-existing setting of the gardens (Fig. 3.34–Fig. 3.36). Envisioned in its initial setting, the length and alignment of the first and second ellipse is given by the extents and axis of the Waders’ Inclosure. The orientation of the trapezoidal covering marks the cardinal orientation due east and west, presenting the aspect of its fullest length to the south and north. The low sweeping wall of the initial plan, which is now understood to be on the northern side, opens up a channel beginning from the central entry of the Lion House, then curving alongside the enclosure until parallel to the longitudinal axis of the pond, and finally aligning with the Bird Houses and Aviaries beyond. Such a channel that suggests the movement of visitors in toward the penguin exhibit, while redirecting them out toward specific directions beyond, is representative of the ZSL’s intention to design a circuit of exhibitions through the gardens that simultaneously entertains and edifies a classificatory order of the animal world, such as the ordered link between penguins and other birds. The notion that the architecture follows from the articulation and adjustment of a movement or flow between points of interest is an idea carried over from the entry and exit wings.

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64 Maps of the zoo, for example, in the nineteenth century show diagrammatic lines representing this ideal circuit through the gardens. A new map from 1932 without lines of circulation, drawn by R. B. Brook-Greaves, who along with Walter Godfrey Allen, is famous for his sectional axonometric drawing of Wren’s St. Paul’s Cathedral, was certainly familiar to Lubetkin & Tecton. By 1939, Greaves map had been replaced by a colored version. Greaves was also responsible for the design of the Whipsnade Park White Lion.
of the Gorilla House, just as were the form and technique of a simple concrete covering with circular glass block lights. But this family resemblance is subdued in the later sketches on the Penguin Pond sheet where the addition of a diving tank at eye level required the consideration of not only the alignments along a level horizon but also the coordination of those alignments in a vertical dimension as well. In the final plan of the Penguin Pond the ramps are rotated so that they align north and south, but this does not change the fact that the building is caught between kinds of orientation—topographic and cardinal—and like the posture of Margaret in the Whipsnade House, is a compact rhetorical figure of various overlapping and intersecting alignments.

3.3.2 Contemporary Representations of Orientation in England

By the time Lubetkin emigrated to London in 1931, the audience for a rhetorical interpretation of orientation in the plan was small. While his former Tecton partner Godfrey Samuel absorbed something of this interpretation in his proposed plan for the Hare House (1935) (Fig. 3.39-Fig. 3.40), a more common interpretation of orientation was to present the architectural plan as an instrument of daylighting. The plan of Oliver Hill’s Houses at Frinton-on-Sea (1934) (Fig. 3.41-Fig. 3.43), for example, represents this concern insofar as it is premised on solar orientation and a quantitative measure of insolation. Before the twentieth-century, the daylighting of buildings in London was regulated in two ways: first, by the acts of building regulation; and second, by the rights of light under English common law, i.e., the doctrine of the Ancient Lights law. In the aftermath of the Great Fire of 1666, the Rebuilding of London Act provided a basis for regulating daylighting in its recognition of the necessary relationship between building heights and street widths. Similar regulations were established in most urban areas; however, rising land values and the consequent pressures to develop the density of urban centers caused increasing litigation of rights of light cases throughout the nineteenth-century, and, by the beginning of the twentieth-century, the prevalence of such hearings had spawned a concern for an enforceable
method of calculating daylight (Atkinson, 1962: 173). While the basis of the right to light may be traced to the Roman city, it was only in the early twentieth-century that a measurable quantity of light was established as a minimum standard. This quantity was first determined, described and diagrammed by Percy Waldram in the 1920s as one foot-candle per person, or the equivalence of the illumination by 0.2 percent of the area of the sky (Defoe and Frame, 2007: 99).

The quantitative principles involved in this early daylighting research quickly consumed other topics of town and site planning. In 1918, Herbert S. Swan and George W. Tuttle published an article on “Sunlight engineering in city planning and housing,” which was followed by the similarly titled “Sunlight engineering in relation to housing and planning” by H. L. Seymour in 1920. In pair of articles in the early 1920s, Trystan Edwards outlined a geometric method for determining the number of possible hours of “effective” sun shining directly or obliquely upon the apertures of urban dwellings, based on the orientation and height of buildings. While the idea of an orthogonal city grid—cardinally oriented, with narrow north-south streets and wide east-west streets—was implicit in his work, Edwards cautioned against the “appalling monotony” that could result from an unrelenting adherence to dimensional conventions without concern for variety or tradition (Edwards, 1920: 96). The larger value of his work, he argued, was not in the establishment of regulations, but in the example of the scientific method applied to problems of planning.

Nevertheless, aside from these publications, by the early 1930s, the methodology of “planning for sunlight”—according to the Building Research Station Annual Report for 1931—had not received the “attention which it deserve[d].” To remedy this, the Royal Institute of British Architects (RIBA) appointed a Joint Committee on the Orientation of Buildings with the stated purpose of reporting on “the various points governing the planning and orientation of buildings on

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65 In 1902 Raymond Unwin writes: “let no house be built with a sunless living-room” (3); then in 1918, he defined planning as “taking advantage of all the opportunities offered by the site, position and aspect of each house in order to secure the greatest comfort and so obtain the best value for building cost” (152).
open or obstructed sites, having regard to the necessity of making the most of the more valuable of the sun’s rays” (RIBA, 1933: 1).

The committee’s report, which was first published in September 1932 issue of the RIBA Journal, claimed to offer not only a diagnosis but a cure for the ailments of planning. The report attempted to establish a “universal” theory of solar orientation for architects and planners. While portions of it were dedicated to propagating theory on the “medical value of light,” its more general purpose was to provide sound principles for site planning and to provide an empirical method for compensating for the defects of the situation in order to make the given site as useful and productive, and therefore as valuable, as possible. It played on the contemporary interest in public health while implicitly criticizing traditional land use and easement practices of the Garden City Movement and the Ancient Lights laws. The report was not well received, although the methods and devices it included were considered valuable, such as the Waldram Sunshine Gauge; the Dufton and Beckett Pin Hole Camera and the Heliodon, which, because it used physical models, had the strongest appeal for architects and town planners (Elliot, 1933: 292). It was these instruments, and the instrumental interpretation of orientation that they offered, and especially the heliodon, that emerged as the basis of planning for orientation, as in, for example, the work of Oliver Hill. On the odd occasion that the history and significance of this emergence were observed, the heliodon became the subject matter of its own inversion, as in the case of Man Ray’s double exposure photograph of Ernö Goldfinger and his heliodon (Fig. 3.43).

The Joint Committee was composed of representatives from the Ministry of Health, the Board of Education, the Department of Scientific and Industrial Research, and the RIBA. Members included Percy Waldram (Chairman), Harold Edward Beckett, Arthur Trystan Edwards, Charles Ernes Elcock, Sir Leonard Erskine Hill, George Ernest Kendall, and Samuel Pointon Taylor. Waldram was already well known for his contribution to lighting standards and measurement techniques. Hill was a trained specialist in human physiology and circulation but was more acclaimed for his research on the ventilation and illumination of urban spaces. Edwards, of course, was well established in the Town Planning Review as a critic of the Garden City movement. Elcock was an architect who specialized in hospital design. Kendall and Taylor were leading municipal architects, respectively for the London Board of Education and the Ministry of Health. The secretary of the committee was Beckett, a recent graduate in physics at the University of London and, at the time, a researcher for the recently formed Building Research Station.

In his introduction to the RIBA report, Sir Henry Gauvain claimed the Joint Committee “inspired” the heliodon “in order to achieve its own ends.” More than the other instruments, the heliodon is “becoming a household name,” he wrote. The heliodon is used to measure insolation using three-dimensional models, which can be used to represent periods of insolation graphically. Reprinted with the permission of the Department of Scientific and Industrial Research, Appendix D is dedicated to an explanation of the heliodon, and gives credit of its inspiration to a variety of sources: Mark and Woodwell, Trans. III. Engineering Society (1914); W. H. Connell J., Scientific Instruments 1931, and his device called the “Orientator,” as well as a heliodon they obtained from Messrs. G. Cussons, Ltd., in Manchester.
3.3.3 Lubetkin’s Siting of the Bourse

Lubetkin benefited from the development of the science of daylighting in England, but he also maintained the rhetorical—even moral—interpretation of the topic. In this case, it is Lubetkin’s unpublished memoirs that raise the theoretical inquiry. Lubetkin was fond of relating architectural premises in historical narratives, and like many architects, it was as a storyteller and not a scientist that he discussed the moral conflicts that encompassed his theory of architecture. There is one story in particular that he often repeated.\textsuperscript{68} In the years before the Russian Revolution, while still a young boy in St. Petersburg, he occasionally celebrated holidays with a carriage ride through the historic center of the city. Transportation and conversation were provided by an older family friend, Mikhail Dubinsky.\textsuperscript{69} On one such occasion their discussion turned to the plan of the St. Petersburg Stock Exchange on the western spit of Vasilevsky Island, just across the Bolshaya Neva River from the Winter Palace.

The plan of the new Exchange building had been an issue of some debate in the late eighteenth-century, which Dubinsky rehearsed to Lubetkin. In 1782, at the request of Ekaterina II, the Italian Baroque architect Giacomo Quarenghi proposed a plan in which the front elevation of the Exchange was positioned along the southern edge of the island directly facing the Winter Palace across the river. For Quarenghi, the boundary and character of the site was defined by the “already existing chain of the built-up embankment,” of which the Exchange was to conform as “one of the links.”\textsuperscript{70} Construction had already begun when Quarenghi’s design suffered harsh criticism from Voltaire and the Tsarina, who ordered the Exchange be demolished and rebuilt according to a new plan by the French Neoclassical architect Thomas de Thomon. De Thomon’s plan, owing more to Laugier than Quarenghi, called for a “magnificent autonomous mass, flanked by wide gaps on the two sides, as though to heighten its monumentality.” But while the plan of

\textsuperscript{68} This tale is included in both Lubetkin’s \textit{Samizdat and Memoirs} manuscripts, and both his daughter Sasha and her husband John recall the significant number of times this tale was told to visitors.

\textsuperscript{69} Lubetkin uses only the name Dubinsky, which refers most likely to Mikhail Khaimovich Dubinsky (1877-?), who graduated from the Imperial Academy of Art in St. Petersburg in 1904, designed the Nikolayevskaya Naval Academy and a series of residences from 1910-11, including work on the former Baryantinsky family mansion on Sergievskaya Street (today 46-48 Tchaikovskogo Street) in St. Petersburg (Kravtsov).

\textsuperscript{70} Lubetkin, unpublished manuscript on Russian architecture (undated) (LUB/20/8/4/5-6).
the new building was pulled away from the circumstantial boundaries of Vasilevsky Island, it was also dramatically reoriented to align with the rush of the oncoming Neva River. De Thomon’s design of the building presumed the idea of a site defined not by the boundary and character of its immediate “context,” but rather by a bilateral symmetry across a northwesterly axis extending endlessly into the distance. This axis, aligned as it was with the visible forces of nature, had the added feature of equivocating the Winter Palace on the one side with the Peter and Paul Fortress on the other, transforming their relative position within the urban hierarchy and creating a “vast, flowing, indeterminate ensemble of open space.”

After describing these events, Dubinsky asked the much younger Lubetkin: “Now, if you were the architect and had to decide about the alignment of the new design, would you center it on the Winter Palace or on the mighty flow of the Neva?” (Lubetkin, ca. 1990: 44). With what should the building align? What should it face? What should be its orientation? Lubetkin recalls pondering the question for some time before answering decisively that the plan of the new exchange building ought to have been “purely circular” in order to face all of the possible “orientations,” including those immediately across the river and those extending along its flow. When Dubinsky heard this response he exclaimed: “Now we have among us a future architect!”

The topic of the conversation was architectural orientation. It concerned, on the one hand, an understanding of orientation as a topical question which can be answered in qualitatively distinct ways; and on the other hand, an interest in avoiding what Lubetkin called a “decisive classification,” which is to say, avoiding a dogmatic commitment to any principle. The orientation of the Exchange could be astral or zodiacal, but this would not be appropriate to its civic role as a measure of commerce. It could be cardinal or solar, and in that way acknowledge the importance of organizing the interior, but again, the question was posed not in terms of access to resources, but civic decorum. The example of an orientation aligned with the flow of the river suggests a topographical possibility as well, but in this case, it is important to remember that the river is also the mythological origin of the city. Should the Exchange be oriented to the mythological origin of the city in the river or the historical source of social power in the palace?
Lubetkin’s response belies his suspicion or displeasure with this division, and suggests that he saw no need to exclude the possibility of both.

"Orientation," Lubetkin writes in his notes for Peterlee Newtown, “is the problem from which I would start.” In an undated manuscript, likely from the early 1950s, Lubetkin writes again about orientation, but this time in terms of the human capacity for making one’s way in the world. He writes: “Impelled by the necessity of communication with other men in the course of this cooperative activities, [man] abstracts the universal and isolates and fixes it in verbal symbols of general validity. He thus creates and perfects his greatest invention of all time—speech, that instrument of infinite orientation in an infinite world.”

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71 Lubetkin, Diary from Peterlee Newtown (9 January 1948) (LUB/15/20/1-2). Alignment is a familiar concept in architecture, as is orientation. The term orientation is derived from the Latin word for ‘east’, oriens, from the verb orior, meaning ‘to rise’ or ‘to appear’, but which in another sense also means ‘to flow’, ‘to move’, or ‘to run’, as in a course, or a river (i.e., the Rhine in Germany). The term is associated with a deep sense of beginning and rebirth, and therefore also with knowing one’s position and finding one’s way. It is perhaps because of these associations that we use the term ‘orientation’ as a substitute for any “proper spatial relation to things and other people in the world” (Summers, 2003: 181). We call ourselves properly ‘oriented’ when we know where to go, what to do, or how to behave amongst others; and we are ‘disoriented’ when such things are unknown. Before it is abstracted into the model of a compass, orientation is related to what the art historian David Summers calls the “cardinal structure of the human body – its normative uprightness, symmetry... and facing” (2003: 37); and insofar as we must choose to face one way or another, orientation “entails values and polarities of values” (2003: 181). But for as fundamental as the concept of orientation is to human spatiality and architecture, it suffers from a divided interpretation within the discipline. On the one hand, orienting refers to the set of instruments used for the situation and “disposition of a building in relation to the prevailing winds or to the sun” (The Columbia Electronic Encyclopedia. 2013). In this sense, orienting is a form of instrumental knowledge, characterized by its ability to be useful and assessed by the efficiency of the daylighting it projects. This is, therefore, its instrumental interpretation. We cannot ignore the fact that the contemporary world is largely fashioned by- and for- an instrumental interpretation of our relationship to the natural world.

72 The full text of Lubetkin’s manuscript on man reads as follows: “In order to survive in hostile surroundings, man must act, and no action can be effective unless sustained by adequate knowledge. In the process of passing from primitive phantasies and deceptive illusions, to a growing understanding of nature, man supplements his automatic responses to the stimuli of the external world by the acquired ability to connect and integrate sensory signals into perception of the objects by which he is confronted. At a later stage of his evolution, man passes beyond the mere identification of the qualities of observed phenomena. He learns to evoke the features and properties of countless objects not present here and now, but with which he is acquainted through experience. In relating them together, he relies on a complex network of acquired reflexes, which enable him to compare and discern common properties of related objects, and thus to recognize the general in the particular, discarding what is accidental, inessential, and out of context. Impelled by the necessity of communication with other men in the course of his co-operative activities, he abstracts the universal and isolates and fixes it in verbal symbols of general validity. He thus creates and perfects his greatest invention of all time—speech, that ‘instrument of infinite orientation in an infinite world’ (Pavlov), whose functions extend far beyond intercommunication and expression, to the whole realm of higher mental activity. Man, deprived of language, is a mental deficient not only because he is unable to utilize the vast store of accumulated knowledge, which society puts at his disposal, - but mainly because knowing no words, he lacks the very instrument of articulated thought, a method of defining, coordinating, generalizing and apprehending his environment. It is because he does not possess the means of passing from external sense signals to the inner interpretation, from concrete sense perceptions to the abstract inference – that the deaf and dumb, who is incidentally dumb only because he is deaf, - is de-humanized. The dissociation of the word from the object, its abstracting power, is at the root of human intelligence, a pre-condition of existence of any forms of conceptual thought – from elementary reasoning processes to the formation of complex categories, theories and methods of investigation. Clearly no understanding is possible without prior elimination of a cluster of distortions and irrelevancies transmitted by senses in the process of direct observation, without the reduction of accidental aspects of phenomena to the essential, significant, to the general that is contained, registered and socially accepted in a name. Having thus assembled and abstracted the features of objects which are not directly perceptible here and now, and having embodied such features in words – we proceed by combining words together to the next stage of abstraction to the formation of sentences, concepts, ideas and propositions that describe not only observed isolated objects but their interconnections,
orientation is a reference to Todor Pavlov’s “Theory of Reflection,” in which the philosopher argues for a materialist basis of consciousness that “is broader and richer in content and scope than truth” (Pavlov, 1970: 83). What Lubetkin grabs hold of as the significance of orientation is the relationship between language and existential way-finding.

relations and processes. On the basis of language we thus form abstract ideas which lead to understanding and knowledge of our surroundings.

73 “What is more important in this case is the following: although consciousness is always an organ of orientation in the environment and of acting on it, it is not always a logically thinking consciousness, i.e., it is not always a truth-grasping consciousness and not every content of consciousness at any moment is a ‘thought’ which comes to truth” (Pavlov 83).
3.3.4 Figures: Orientation

Fig. 3.23 Unknown photographer, 1937, Whipsnade House, aerial view, photograph (Lubetkin, 1937)
Fig. 3.24 Felton, L., 1936, *Whipsnade House*, view of the living room, photograph (RIBA Collections 5024/41 / Felton BN5803; RIBAPIX Database Reference 49374)

Fig. 3.25 Felton, L., 1936, *Holly Frindle House*, view of the living room, photograph (RIBA Collections 5025/6 / Felton BN5810; RIBAPIX Database Reference 49377)
Fig. 3.26 Dell and Wainwright, 1936, Whipsnade House, view of the entry hall, photograph (RIBA Collections DWN5968; RIBAPIX Database Reference 8686)
Fig. 3.27 Dell and Wainwright, 1936, Whipsnade House, Margaret Church in the suncatcher, photograph (RIBA Collections 5024/34 / DWN5969; RIBAPIX Database Reference 2088)
Fig. 3.28 Havinden, J., 1934, *Penguin Pond, view of the interior*, photograph (RIBA Collections 5028/10; RIBAPIX Database Reference 2427-3)

Fig. 3.29 Havinden, J., 1934, *Penguin Pond, view of the model*, photograph (RIBA Collections 5028; RIBAPIX Database Reference 2844-23)
Fig. 3.30 Map of the Gardens of the ZSL at Regent’s Park ca. 1934 (Zoological Society of London, 1934)

Fig. 3.31 Unknown photographer, ca. 1930s, ZSL Gardens at Regent’s Park, view of crowd near the lion house (Archives of the ZSL)
Fig. 3.32 Lubetkin, Drake and Tecton, 1934, *Penguin Pond*, sketch proposal, photograph of drawing (RIBA Collections 5028/2a; RIBAPIX Database Reference 3358-53)

Fig. 3.33 Lubetkin, Drake and Tecton, 1934, *Penguin Pond*, construction drawings and photographs, drawing and photomontage (RIBA Collections PA954/5 / RAN34/K/1; RIBAPIX Database Reference 12642)
Fig. 3.34 Tripp, A., 2016, Penguin Pond, speculative overlay of ZSL map and sketch proposal one

Fig. 3.35 Tripp, A., 2016, Penguin Pond, speculative overlay of ZSL map and sketch proposal two

Fig. 3.36 Tripp, A., 2016, Penguin Pond, speculative overlay of ZSL map and sketch proposal three
Fig. 3.37 Tecton, 1937, *Tropical Bird House at the Dudley Zoo*, photograph of section drawing (Lubetkin and Tecton, 1937)

Fig. 3.38 Tecton, 1937, *Tropical Bird House at the Dudley Zoo*, floor plan, photograph of drawing (Lubetkin and Tecton, 1937)
Fig. 3.39 Samuel and Tecton, 1935, Hare House, site plan, drawing (RIBA Collections PA953/1/25; RIBAPIX Database Reference 36126)
Fig. 3.40 Samuel and Tecton, 1935, *Hare House, floor plans and sketches*, drawing (RIBA CollectionsPA953/1/8; RIBAPIX Database Reference 36128)
Fig. 3.41 Hill, O., 1934, *House at Frinton-on-Sea, floor plans and elevations*, drawing (RIBA Collections PA499/15/24; RIBAPIX Database Reference 69024)

Fig. 3.42 Hill, O., 1934, *House at Frinton-on-sea, floor plans*, photograph of drawing (Yorke, 1936)
Fig. 3.43 Studio Ylla, 1930, Ernő Goldfinger with his Heliometer, multiple exposure photograph (RIBAPIX Database Reference 51544)
3.4 PROPORTION

5. “It does not try to prove that its design grew ‘naturally’ from the given conditions like an ordinary pumpkin, *Victoria Regia*, or deep sea fish” (Lubetkin, 1937).

3.4.1 Proportion at the Whipsnade House and Highpoint Two

In the middle 19th century, Joseph Paxton claimed that the proportions of the Crystal Palace were based on the growth of the *Victoria Regia*, also known as the *Victoria Amazonica* or more simply as the water lily. The geometric patterns of growth exhibited by the water lily were said to be represented in the measures, ratios, and proportions of the iron building components (Hughes, 2000: 92). In 1917, this analogy between natural growth and mathematical form was crystallized by D’Arcy Wentworth Thompson’s in his seminal work, *On Growth and Form*, which became the touchstone for English research on the science of natural morphology, at least up until Julian Huxley’s *Problems of Relative Growth* in 1932. Thompson’s strict analogy between geometries of growth and form was evident outside of England, most notably in the work of Matila Ghyka, but was not debated by architects in England in any meaningful way until 1946.

The is little to no direct evidence of a system or canon of proportions in the drawings of Lubetkin and Tecton, and while there is evidence of regulating axes, there are no “regulating lines”—in the sense of geometric ratios. The Whipsnade and Holly Frindle Houses bear the basic evidence of modular construction measures, although this is well within the limits of what can reasonably be assigned to the necessitates of off-site pre-fabrication and on-site assembly. A retracing of the plan reveals several surreptitious relationships of form, particularly in the modularity of the bays, but without Lubetkin’s preliminary drawings it is impossible to link such findings to any intentions in particular.
Furthermore, in an interview with John Allan, Lubetkin explicitly denied using architectural proportioning in his work. However, on two separate occasions, William Tatton-Brown, who was the project architect and draftsman in charge of Highpoint Two, testified to the systematic use of proportioning in that project as well as in Lubetkin’s pre-war work in general. Alfred Neumann testified to the same thing. On-site survey and study would be required to confirm or refute these claims. Alfred Neumann’s daughter, Eva Marie-Neumann, has shown how the discourse on architectural proportion was pronounced and well articulated between 1945 and 1952, and how, after 1952, the denial of using proportional systems was common practice for architects in England (Neumann, 1996). In light of this history, Lubetkin’s denial appears to have been fifteen years ahead of the curve.

3.4.2 Contemporary Representations of Proportion in England

There is considerable disagreement regarding the precise conditions that gave birth to this postwar discourse, but it is clear that by 1945 the RIBA Science Committee had begun investigations into standardized measures and ratios for housing and school construction, and that in reaction to this several English publications on architectural composition appeared. At least two publications on architectural proportioning were released in England in 1945: the second edition of Trystan Edwards’s *Style and Composition in Architecture* (originally published in 1924); and R. W. Gardner’s posthumously published *A Primer of Proportion in the Arts of Form and Music*. Both were received as willful attempts at maintaining anachronistic canons in architectural education. Gardner’s *Primer* was based on a study of ratios in antiquity, which he had generalized into an articulated “scale” of geometric areas analogous to a Pythagorean scale of musical notes, which were intended to serve as foundational exercises for composition in all of the “arts of form.” In a review of Gardner’s book, Rudolf Wittkower addressed the value of teaching proportion: “a study of proportion,” he writes, “is not part of the curriculum of modern architectural education [because] we regard a sense of proportion as a gift from heaven which
cannot be rationally accounted for or taught.” Wittkower traced the “relative novelty” of this “subjective aesthetic” to Hume, Burke, and Alison in contrast to the Pythagorean doctrine of “absolute and mathematical” harmony. He applauded Gardner’s attempt to return to “pre-eighteenth-century conceptions” but ultimately conceded that “in the last hundred years we have seen too many systems of proportion from which their authors expected salvation… the old universality has irrevocably gone.” (Wittkower 1946 53).

3.4.3 Le Corbusier’s Le Modulor

1946 saw the release of two highly influential texts on architectural proportioning in England: Volume 4 of Le Corbusier’s Oeuvre Complète, including images of the Unité and the Modulor sanctioned by the famous photograph of the architect with Albert Einstein; and Matila Ghyka’s first English publication, The Geometry of Art and Life. Ghyka’s publication was based largely on his earlier writings, which were also the main sources for Le Corbusier’s pre-war reflections on proportion (Cohen 3-4, 10-13). These include his Esthétique des proportions dans la nature et dans les art (1927), and Le nombre d’or: Rites et rythmes pythagoriens dans le développement de la civilization occidentale (1931). Ghyka’s approach to the topic of proportion was one of historical correction; he attempted to reckon contemporary misapprehensions with his interpretation of the classical concepts of ratio, harmony, analogy, symmetry, and eurythmy, largely by way of geometrical demonstration and an appeal to the authority of the Neo-Platonic interpretation of the Pythagorean doctrine of Numbers.74

“The notion of proportion,” Ghyka argued, was often “confused with the notion of ratio,” which he defined as a “quantitative comparison” resulting from a greater “judgment in general,” where “judgment” was understood as the operation of “perceiving… [and] discerning… a comparison of values, qualitative or quantitative” (1). Proportion was understood as “analogia”

74 One testament to this Pythagorean appeal is the repeated reference to the phrase ‘Ars Sine Scientia Nihil,’ attributed to Jean Vignot in 1392, which appears in the preface and conclusion of Ghyka’s The Geometry of Art and Life (1946), but also appears repeatedly throughout English architectural literature at this time.
and defined as the similitude of two or more ratios; and he adds that there are “ten terms of proportion… established by the Neo-Pythagorean School” (4). The remainder of his study was dedicated to elaborating four of these terms of proportion, with the majority of his focus being on the number phi (Φ) and the natural beauty of the Golden Section (ἡ τομή); that “most ‘logical’ asymmetrical division of a line, or of a surface, [that] is also the most satisfactory to the eye” (8). This idea was a survival from the nineteenth and early twentieth-century antiquarian’s fascination with the Golden Section; but it was also an argument for the definition of the contemporary architect according to a Neo-Platonic-Pythagorean doctrine where “preexisting systems of proportion” served as “eternal, paradigm, archetypes or ideas” that “impart to [the architect’s] creation the organic unity without which it cannot be considered a work of art.” (ix, 168) This understanding resonates with Le Corbusier’s description of architecture in Vers une Architecture (1924) as “a mathematical creation of [the] mind” (Le Corbusier 1924/2007 233):

> “You work with stone, with wood, with concrete; you make them into houses and palaces; this is construction... But suddenly you touch my heart, you do me good, I am happy, I say: ‘It is beautiful.’ This is architecture. Art is present... You rivet me to this spot and my eyes look. My eyes look at something that states a thought. A thought that clarifies itself without words or sounds, but only through prisms that have relationships with one another. These prisms are such that the light details them clearly. These relationships don’t necessarily have anything to do with what is practical or descriptive. They are a mathematical creation of your mind. They are the language of architecture” (Le Corbusier 2007 233).

In his research, Ghyka had observed a “Neo-Pythagorean Surge” in the work of Adolf Zeising, Theodore Cook, and more recently, in D’Arcy Wentworth Thompson’s On Growth and Form, whose stated intention was to correlate Platonic-Pythagorean mathematics with natural history. Thompson in particular referred several times to the Neo-Platonic interpretation of Pythagoras: “As soon as we adventure on the paths of the physicist, we learn to weigh and to measure, to deal with time and space and mass and their related concepts, and to find more and more our knowledge expressed and our needs satisfied through the concept of number, as in the

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75 Zeising, Adolf. Neue Lehre von den Proportionen des menschlichen Körpers (1854); Cook, Theodore. The Curves of Life (1914); and Thompson, D’Arcy Wentworth. On Growth and Form (1941).
dreams and visions of Plato and Pythagoras” (2), and “not only the movements of the heavenly host must be determined by observation and elucidated by mathematics, but whatsoever else can be expressed by number and defined by natural law. This is the teaching of Plato and Pythagoras, and the message of Greek wisdom to mankind” (Thompson 1096).

It is important to recall that On Growth and Form began with an attack on teleology in natural history; it was an attempt to undercut the Aristotelian concern for “final causes” with a new concern for “efficient causes,” which led to his well-known declaration that “the form of an object is a diagram of forces” (Thompson 1-21). He writes that “time out of mind it has been by way of the ‘final cause,’ by the teleological concept of end, of purpose or of ‘design,’ in one of its many forms (for its moods are many), that men have been chiefly wont to explain the phenomena of the living world; and it will be so while men have eyes to see and ears to hear withal,” but “the use of the teleological principle is but one way, not the whole or the only way, by which we may seek to learn how things came to be, and take their places in the harmonious complexity of the world.” (Thompson 3,14). This idea was forwarded by Julian Huxley, especially in his Problems of Relative Growth (1932).

On the basis of this scholarship, Ghyka claimed that “modern research” had confirmed the Pythagorean schools of the Renaissance, and he quoted Bertrand Russell’s statement that “perhaps the oddest thing about Modern Science is its return to Pythagoreanism” (xi, 168). But whereas Thompson had shied away from speculating on the meaning of the harmony, this was precisely Ghyka’s interest in correlating what he called “The Mathematics of Life” with “The Mathematics of Art” by way of a more fundamental “Science of Space.”

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76 It is not clear where this quote from Russell is derived, but Russell develops this idea throughout his History of Western Philosophy and its Connection with Political and Social Circumstances from the Earliest Times to the Present Day (1946).
77 Except to say that: “What I understand by ‘holism’ is what the Greeks called ἁρμονία. This is something exhibited not only by a lyre in tune, but by all handiwork of craftsmen, and by all that is ‘put together’ by art or nature. It is the ‘composite-ness of any composite whole’; and… implies a balance or attunement” (Thompson 9). This definition of harmony is a reductive gloss on an otherwise contradictory submission on Plato’s Phaedo and Aristotle’s de Anima by J. Tate. “Plato: Phaedo 92 CD,” The Classical Review, 53/1 (February 1939), 2-3.
78 Like Colin Rowe in “The Mathematics of the Ideal Villa” (1947), Ghyka loosely connects the “functionalist conditions” and the “disposition of structural elements” to the “rediscovered… eternal value of proportion” (Ghyka 1946 168). Ghyka’s phrases for “The Mathematics of…” “Life” and “Art” prefigure Rowe (1947).
If by 1946 Le Corbusier had wavered from his earlier position to any degree, it was not apparent in the new edition of the _Oeuvre Complète_, or at least it was not immediately apparent to English architects at the time. In a review, Lionel Brett noted that “Le Corbusier… gives no hint of a change of taste.” He acknowledged Le Corbusier’s “well known” use of the Golden Section, in which he had “the same superstitious belief… as had Lutyens,” but of all the projects, Brett applauded only the Museum of Unlimited Growth as “an ingenious model of the infinitely extensible Museum, inspired by the spiral growth of the snail’s shell” (Brett 1947).

By September 1946, Le Corbusier’s Modulor had become an informal part of an ongoing debate at the Architectural Association (AA) and in London in general. Alvar Aalto had just lectured at the AA on his recent work and post-war reconstruction in Finland, and was well received for his “flexible” assemblies of standardized building components. His judgment was contrasted against Le Corbusier, “who seemed [too] much concerned with the use of that old superstition, the Golden Cut… [and how] it should be applied to even the smallest details of construction.”

Mark Hartland Thomas replied with a defense of geometric proportioning: “one never hears a poet refer to the rules of scansion in this manner, nor a dramatist to the Three Unities, a musician to the intervals of the octave…” At the time, Hartland Thomas was well-known as the Honorary Secretary of MARS and the Chairman of the RIBA Science Committee, where he later started the Modular Society in 1952. To him, proportion was central to the definition of the discipline, His defense provoked disagreement and serious debate from students and architects alike, and he was forced to retrench his position in an essay in 1947, which was derived in large part from the editorial campaign in the _Review_ of that same year. With the “necessary foundation” provided by technology and sociology, he wrote, the time had come for architecture to regain its status as a visual art. Against the rising tide of Neo-Platonic

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81 Thomas, Mark Hartland. “Correspondence,” _The AA Journal_, 62 (December 1946), 78.
Pythagoreanism, Hartland Thomas imagined that an Aristotelian resolution between architectural canons and creations was possible. What was “demanded” of the architect, he wrote, was drama, tragedy, and catharsis. He argued that the practice of proportioning should serve the “task of Spatial Enclosure, with its interest in subtle gradations of enclosure from space within walls to limitless space outside, [which] is itself a play upon these contrasting themes, bringing them sometimes into harmony and at other times into dramatic conflict.”

Le Corbusier presented the Modulor and his theory of harmony at the Centenary Celebration of the AA in December of 1947. When Wittkower’s *Architectural Principles in the Age of Humanism* was published in 1949, it fanned the flames of the Neo-Platonic interpretation of Pythagorean proportions that had already been laid out by Thompson and Ghyka. Furthermore, it linked these ideas to a singular understanding of “humanism” in Post-War England. Le Modulor was finally published in book form in 1950, but English readers failed to recognize his added warnings against the role of geometry or the loss of visual judgment. Instead, the “near simultaneous” appearance of Wittkower and Le Corbusier’s texts was interpreted in England as a historical—if not supernatural—coincidence that spoke to a desire to redefine the discipline along the line of Neo-Platonic principles.

Upon the publication of Le Modulor, Clive Entwistle was asked to write a commentary for the ninth issue of *Plan*, the Journal of the Architectural Students’ Association. The request was reasonable because he had served as Le Corbusier’s “official interpreter” during his visit to London in 1947, and had worked with him on the UN Headquarters and at UNESCO. However, in his commentary, Entwistle referred more to Ghyka and Thompson than to Le Corbusier. He proposed a comparison between Highpoint Two and the Unité: “The first,” he wrote, “was produced by process of experimentation and selection, the second by the perfecting of a clear concept which existed in Le Corbusier’s mind years before a line was drawn… This is not to say that experimentation and scientific investigation are not essential phases in architectural practice, but this is technique, and to be confused with creation” (4-5). Entwistle argued that the distinction between “technique” and “creation” was the difference between building and architecture, and he
disregarded the approach at Highpoint Two as the “Tecton manner” of working. At this same time, in an interview with Lionel Brett, Lubetkin argued that “we don’t sculpt our architecture these days. We design and assemble it” (Lubetkin and Brett, 1951). Entwistle’s contrast had emerged with the disregard, even the disdain, for the particular patterns of assembling constructions and group practice that Lubetkin and Tecton promoted in England during the interwar period.

82 An undated transcript of the conversation exists in the RIBA Library Archives (LuB/20/1/1). The transcript describes the Rosebery Avenue flats as “still on the drawing board,” suggesting that the interview occurred before the start of Rosebery Avenue construction and perhaps before the release of the details surrounding the Festival of Britain.
3.5 ELEVATION

6. “It does not pretend that its plinth, which so effortlessly raises the house by a foot all around, refusing the walls a damp contact with the earth, is conceived for reasons of statics; although it would be quite easy to explain it on those grounds, as soon as one sees that the cantilevering of the slab reduces the positive moment in the middle of the span.”

10. “The designer also admits that he has not capitulated to the accidents of a site which was forced on him; he excavated eight hundred cubic yards of dazzling chalk full of megalithic fossils, to make a flat lawn and a flat house – where any Czech would have made a house in steps with a roof garden.”

3.5.1 Elevation at the Whipsnade House and Dudley Zoo

Among the sketches in the margins of the topographic survey mentioned earlier are several ideas for a retaining wall and a proposed carriageway, along with quick calculations for the amount of cut and fill required to create a horizontal platform in the hillside (“Mr. Lubetkin’s Site, RIBA PA117/1: photograph is forthcoming). The sketches are not all by the same hand, which suggests that they record an early discussion about the project. It is evidence of what Lubetkin later writes in the Whipsnade Manifesto, that he had not “capitulated to the accidents of a site,” but rather, that he had celebrated the excavation of the chalk escarpment that formed part of the Chiltern Hills. Excavating a level site platform was a primary concern within the project.

The site platform that was built extends well beyond the footprint of the building, including a stepped terrace to the west and a long rectangular green to the south. Access to the platform is from above at a level where the roof is visible. Arup once described the roof of a building as the fifth façade, but in this case, it is more properly the first. Entering the property from St. Peter’s Way in the east, the path follows the northern edge of the retaining wall which slopes down to an unassuming entry porch (Fig. 3.44). The footprint of the building itself is elevated above the site platform on its plinth, which is recessed to create what has come to be known as the flash-gap.
reveal (Fig. 3.45). A wooden ramp allows access across the flash-gap and into the building. This careful orchestration of horizontal levels continues into the dwelling, where differences in ceiling height define possible variations in the enclosure.

The site platform. The plinth. The building footprint. The ceiling. The roof. Each of these is a horizontal level or datum that includes a boundary of a particular shape and size. In the Whipsnade House, Lubetkin takes considerable license in the way in which these horizontal boundaries are connected to one another (Fig. 3.46). In part, this is a matter of structural support: The site platform does not support the building. What is called the plinth, in fact, the upper portion of the foundation walls that extend down through the platform to spread footings in the original hillside. This is why Lubetkin describes a beam when he names the plinth—because in terms of structure, the building is elevated several feet above the hillside with the horizontal level of the site platform filled-in after the fact. The flash-gap reveal that surrounds the building footprint lends to a visual sense of levitation, but more fundamentally it lends to the possibility of a variety of associations between the different horizontal levels. The flash-gap is not the cause, but the effect of joining an otherwise independently defined site platform and building footprint. The most obvious analogy is the technique of collage, in which two otherwise distinct entities are joined through the line of a cut.

The same conditions account for the plinth and reveal that surrounds the wings of the Finsbury Health Centre (1938) (Fig. 3.47), as well as the exterior of the stair landings in Highpoint Two (1938) (Fig. 3.48). A similar example is found in the Studio of Animal Art (1937) (Fig. 3.49), but in all of the buildings for animals, the relationship between the site platform and the building footprint is considerably less elaborate. Nevertheless, the zoological buildings are instructive. None of these buildings have a flash-gap reveal; instead, wherever a spread footing is required to support the load of a foundation wall, this same wall is continued above ground and is continuous with the footprint and enclosure of the building. This is the case, for example, at the Gorilla House (1934) (Fig. 3.50-Fig. 3.53) and the Penguin Pool (1933) as well as in all of the zoo buildings at Dudley as well (1937) (Fig. 3.54-Fig. 3.58). The zoo buildings are nothing more than
elaborately extruded site platforms. The Bear Ravine (1937) is a special case of the site platform conceived as the preeminent building component (Fig. 3.59). The original engineering drawings called for a complete circular platform (Fig. 3.60), but the circumstances of soil subsistence were not anticipated, and the foundations for the concrete piers had to be relocated and their number reduced in situ, which, in turn, caused the size and the shape of the elevated platforms and serpentine walls to be significantly revised (Fig. 3.61).

In his writings on the Dudley Zoo, which are precisely contemporary with his writings on the Whipsnade House, Lubetkin emphasizes the difficulty of accommodating the steepness of the site and the necessity to integrate the design of the zoo buildings into the various levels of the site. He writes that “conventional planning on one plane indeed hardly existed here, the problem for the most part being one of planning the required accommodation in three dimensions” (Lubetkin and Tecton, 1937: 180). Elsewhere he writes that “most of the animal enclosures consist of retaining walls or platforms from which visitors can watch animals placed on a lower level” (Lubetkin and Tecton, 1939: 31). Lubetkin acknowledged that the zoo buildings were conceived primarily as site platforms; indeed, their geometries, materials, and construction techniques are more akin to the art of creating foundations than to the art of creating enclosures for human occupation. But the concrete platforms of the zoo buildings are more than simply continuous with the enclosures above, in terms of representation, the extruded platform is also a material substitute of the traditional enclosure, it stands in place of the geometries, materials, and construction techniques that are otherwise appropriate to enclosing human occupation. This is allowable, of course, because these buildings are not intended for human occupation. This is also the reason that there is no flash-gap reveal in the zoo buildings; because the material and technical difference between site platform and building footprint that prompts the need for their artful connection is suppressed.
3.5.2 Contemporary Representations of Elevation in England

The relationship between the site platform and the building footprint is a topical concern throughout the contemporary English dwelling, but the manifestations of this concern vary considerably. Frank Scarlett’s plan for Starlock House in Rye (1930), for example, takes special care to define the solidity of the site platform and to position the building footprint squarely in the center along the axes of a garden (Fig. 3.62). The enclosure is constructed of rendered brick with hollow cavity walls, which are supported on concrete footings atop an earthen platform. The footings are partly visible as the dark painted plinth that differentiates them from the enclosure above and the platform below. This can be instructively compared to Marshall Sisson’s plans for Gull Rock House in Cornwall (1933), where the site platform is no less solid, but the connection between footing and enclosure is rendered as a single continuous component (Fig. 3.63-Fig. 3.64).

Somewhere in between these two extremes is Connell and Ward’s plan for a second dwelling on the grounds of the High and Over Estate, which was built at precisely the same time as the Whipsnade House in June 1934. The plan, drawn by Collin Lucas, shows the careful coordination of horizontal levels inside and outside of the dwelling, including the creation of a site platform through the cut-and-fill of the preexisting hillside (Fig. 3.65). A low concrete retaining wall along the driveway is connected to the base of the entry porch and lends to the interpretation that the lawn is a square green contained within the walls of a foundation, and indeed, like the Gull Rock House, the foundations within this platform merge seamlessly into enclosure above.

Sisson’s work is likely the immediate precedent to Godfrey Samuel’s plan of the House at Bromley (“By the Links”), which he started as a member of Tecton but finished in private practice (Fig. 3.66). Like Sisson, Samuel established the central aspect of his plan—the back wall—as a vertical extrusion of the retaining wall. Concern for the composition of the plan is balanced with a similar concern for the section; indeed, there is a remarkable similarity between the two drawings, such that the t-shape is equally visible in both. Strategies that were developed in the plan to
accommodate the multiplicity of directions have been adopted as solutions to the multiplicity of levels; unlike the other houses discussed in this section, only Samuel modulates the horizontal levels of the floor within the interior of a room, thereby altering the height of some rooms to coordinate with their proportions in plan. His plan of the East Wall ("St. George and Dragon") proceeds with the same concern for the articulation of levels, but the extrusion of the central wall, with the curved exedra on either end, demonstrates an even more emphatic approach to the continuity of the platform, footprint, and basic enclosure (Fig. 3.67). In this case, the otherwise distinct components are constructed of the same continuous monolithic reinforced concrete, which brings them closer to Lubetkin’s zoo buildings than to the Whipsnade House.

The Whipsnade House—insofar as its platform, footprint, and enclosure are represented as different components—is most alike Scarlett's Starlock House, except that where these components were once composed on the basis of a stable hierarchal system, Lubetkin has composed them in such a manner as to undermine this hierarchy of horizontal levels and open up the possibility of new associations. The effect is a consideration of levels but without foundations below.

3.5.3 Pilcher’s Platform in Space

The idea that the platform is a primary component of a work of architecture is a central argument of one-time member of Tecton, Donald Pilcher. Pilcher is a little known English architect who graduated from the AA with honors in 1933 before working in the offices of Lubetkin and Goldfinger. He was well regarded as a researcher and author on Regency period architecture, and he published several important articles in the *Architectural Review*. At the
outset of the second world war he emigrated from London to Johannesburg and joined the faculty of the Department of Architecture at Witwatersrand,\textsuperscript{85} which at the time was a small center of architectural theory under the leadership of Geoffrey Eastcott Pearse and Rex Martienssen.\textsuperscript{86}

Pilcher was among those English architects during the interwar period that conceived the modern movement as a renaissance of the Regency Style in which urbanism and aesthetic theory had combined to form a particularly rich period of architectural creativity. In a pair of commentaries on the engravings of Piranesi and their influence on English architecture, Pilcher argued that the formal basis of the modern movement was in fact the eighteenth-century aesthetic theories of the picturesque and the sublime. In a passage on the “Vedute del Tempio di Giove Tonante,” he argues that the fundamental condition of Piranesi’s “sublime vision” was his discovery of the “platform in space” (Fig. 3.68). He writes: “In the literal facts of Roman ruin, Piranesi here discovers a startling set of emotional values, and all is dependent on the change of viewpoint. Details originally intended to be seen from ground level are here experienced close up. The debris of centuries has in fact created a fresh viewpoint, an artificial platform in space which in itself discovers poetic values” (Pilcher, 1948: 327). According to Pilcher, the platform hovering...
in space, which is also a platform hovering in time, is accompanied by a concern for “contrasts… [and] with managing… the unexpected release of a long vista after the eye had been confined within a restricted volume… [or] with arranging an unforeseen sequence of upward, or even downward views following a series of horizontal vistas” (1948: 327). This concern, which is more-or-less directly derived from the eighteenth-century garden tradition, has an effect on the architectural plan. Pilcher explains this with a quote from John Britton: the plan “should be so contrived the principle rooms that each shall present a striking view when seen from that adjoining… so that the respective apartments should either relieve of contrast, or enhance the effect of each other… [so] that the imagination be called into play, and the whole offer to the eye a masterly arrangement” (1948: 327).

In a somewhat later essay on the architecture of the interwar period, Pilcher is more insistent on the role of the horizontal platform. “The origin of architectural form,” he writes, is “the generating plane, the platform in space… Place man on a platform, a plane formally defined in area and outline, and you begin to define his position in space” (Pilcher, 1950: 307). But the platform is only the beginning, he argues, because a single surface, even one so well delineated in area and outline, requires a second surface for something like a space to be enclosed. He offers two examples: Hans Erni’s mural painting of *Switzerland, Vacation Land of the People* (1939) (Fig. 3.69); and Rex Martienssen’s analysis of the Sunium Acropolis (1942) (Fig. 3.70).

In the center of Erni’s painting, hovering over the Swiss countryside, an incomplete platform supports a group of traditional dancers. To either side, lower platforms support figures of vastly different character; on the left, a rustic scene, and on the right, an urban one. Pilcher describes the space of the former as “rather vague” and the latter as “a more complete and formal enclosure” (1950: 308). In each, the characteristics of the costumes are reflected in the character of the enclosing walls around them. The single platform in the center is not complete enough to fully define a space, and so the possibility of its enclosure comes in large part from its proximity to the scenes that flank it. This notion of layered platforms and borrowed enclosures lends to the interpretation that the dancers are a part of several scenes; they are at home in—and
free to move in between—both rural and urban worlds. In Martienssen’s analysis of the Sunium Acropolis this movement between worlds is manifest in the sequence of the temenos and its several horizontal levels: a “series of platforms on different levels from each of which the spectator is presented with a different impression of the volume of the temple until, by the time he reaches a point in front of the façade, he has obtained a complete experience of its form” (1950: 308). Pilcher’s description of the platform in space refers to a technique, rather like collage, in which the possibility of a complete whole is pursued through and across the incompleteness of a fragment. When Pilcher wrote briefly about the Whipsnade House in 1938, it was the contrast between the platform and the surrounding setting that piqued his interest, and it was on the basis of the platform’s incompleteness that he asserted the house “fits no less confidently into its surroundings than the traditional design” (Pilcher, 1938: 303).
3.5.4 Figures: Elevation

Fig. 3.44 Dell and Wainwright, 1936, Whipsnade House, view from the west, photograph (RIBA Collections DWN5970; RIBAPIX Database Reference 8687)

Fig. 3.45 Dell and Wainwright, 1936, Whipsnade House, view from the east, photograph (RIBA Collections 5024/24; RIBAPIX Database Reference 54332)
Fig. 3.46 Felton, L., 1936, Whipsnade House, view of the roof, photograph (RIBA Collections 5024/32 / Felton BN5800; RIBAPIX Database Reference 49370)

Fig. 3.47 Maltby, J., 1938, Finsbury Health Centre, view from the northwest, photograph, D&W, 1938 (RIBA Collections 5037/40 / Maltby 3106; RIBAPIX Database Reference 49427)
Fig. 3.48 Maltby, J., 1938, Highpoint Two, view from the north, photograph (RIBA Collections 5052/24 / Maltby 2839; RIBAPiX Database Reference 49486)
Fig. 3.49 Maltby, J., 1937, *Studio of Animal Art, view from the southwest*, photograph (RIBA Collections 5052/24 / Maltby 2839; RIBAPiX Database Reference 71663)
Fig. 3.50 Tecton, 1932, *Gorilla House*, cutaway axonometric, photograph of drawing (RIBA Collections 5019/5; RIBAPIX Database Reference 4768)

Fig. 3.51 Felton, L., 1932, *Gorilla House*, concrete formwork under construction, photograph (RIBA Collections 35841/3; RIBAPIX Database Reference 70379)
Fig. 3.52 Felton, L., 1932, *Gorilla House, concrete formwork under construction*, photograph (RIBA Collections 35841/10; RIBAPIX Database Reference 70481)

Fig. 3.53 Felton, L., 1932, *Gorilla House, concrete formwork under construction*, photograph (RIBA Collections 35841/12; RIBAPIX Database Reference 4766)
Fig. 3.54 Aerofilms Ltd., 1937, Dudley Zoo, aerial view, photograph (Allan, 1992: fig. 6.23)

Fig. 3.55 Lubetkin and Tecton, 1937, Dudley Zoo, two-page spread in the Architectural Review, photograph (Lubetkin and Tecton, 1937: RIBAPiX Database Reference 53831)
Fig. 3.56 Lubetkin and Tecton, 1937, *Sea Lion Pool at the Dudley Zoo*, topographical model of the site, photograph (Lubetkin and Tecton, 1937)

Fig. 3.57 Lubetkin and Tecton, 1937, *Sea Lion Pool at the Dudley Zoo*, plan and sections, drawing (Lubetkin and Tecton, 1937)
Fig. 3.58 Lubetkin and Tecton, 1937, *Restaurant at the Dudley Zoo*, plan and sections, drawing (Lubetkin and Tecton, 1937)

Fig. 3.59 Lubetkin and Tecton, 1936, *Bear Ravine at the Dudley Zoo*, sections and details for construction, drawing (Dudley Archives and Local History Centre)
Fig. 3.60 Lubetkin and Tecton, 1936, *Bear Ravine at the Dudley Zoo*, plans and sections for construction, drawing (Dudley Archives and Local History Centre)

Fig. 3.61 Felton, L., 1937, *Bear Ravine at the Dudley Zoo*, photograph (RIBA Collections 5043/5 / Felton R389; RIBAPIX Database Reference 28682)
Fig. 3.62 Scarlett, F., 1930, *House at Rye, 'Starlock', floor plans and axonometric, drawing with photograph* (RIBA Collections PB575/2/2; RIBAPIX Database Reference 36438)
Fig. 3.63 Sisson, M., *House at Carlyon Bay, ‘Gull Rock’, floor plans and elevations*, drawing (RIBA Collections PB875/5/2; RIBAPIX Database Reference 36549)

Fig. 3.64 Dell and Wainwright, 1934, *House at Carlyon Bay, ‘Gull Rock’, view from the northeast*, photograph (RIBA Collections LS 35762/7; RIBAPIX Database Reference 14302)
Fig. 3.65 Connell and Ward, 1934, House at High and Over Estate, floor plans and elevations, drawing (RIBA Collections PA234/2/5; RIBAPIX Database Reference 28566)

Fig. 3.66 Samuel and Tecton, 1935, House at Lodge Road, 'By the Links', floor plans and sections, drawing (RIBA Collections PA952/7/9; RIBAPIX Database Reference S3292)
Fig. 3.67 Benjamin and Samuel, 1936, *House at Gerrard’s Cross, ‘East Wall’, floor plans and elevations*, drawing (RIBA Collections PA909/8/3; RIBAPIX Database Reference 69017)

Fig. 3.68 Piranesi, G. B., 1756, *View of the Temple of Jupiter Tonans’ in the Architectural Review*, photograph of etching (Pilcher, 1948)
Fig. 3.69 Erni, H., 1939, ‘Switzerland, Vacation Land of the People’ in the Architectural Review, photograph of painting (Pilcher, 1948)

Fig. 3.70 Martienssen, R., 1942, ‘Sunium Acropolis’ in the Architectural Review, photograph of drawing (Pilcher, 1948)
3.6 STRUCTURE

7. “It does not pretend that the trellis of prefabricated reinforced concrete elements which supports the roof, filled in with thermolux, transparent glass or heating panels, is a rational or logical wall construction. This is in spite of the fact that the horizontal elements of the trellis reduce the height of the verticals and so reduce the risk of bending, allowing the thickness of the supports to be decreased. A wall obtained in this way is not necessarily the most economical, logical and rational solution. As a matter of fact, other walls in the same house are monolithically constructed of 4 in. reinforced concrete insulated with 2 ins. of cork, with plaster on the inside, where a solid effect, worthy of a family portrait, was wanted.”

3.6.1 Structure at the Whipsnade House and Highpoint One

There are two kinds of components at the Whipsnade House that function as supports: the walls that cross the short dimension of the plan and the vertical posts within the frame of the window wall. The cross-walls are made of four inch thick reinforced concrete, cast in-situ. The posts are also reinforced concrete construction, but were pre-cast elsewhere on-site and subsequently installed on the plinth. Both the cross-walls and posts were monolithically joined to the roof as it was poured, although some portions of the roof are supported by reinforced concrete beams, as in the case of the long header over the entrance, sidelights, and clerestory window in the corridor. A single steel post—which is visible in the original plans and photographs but not included in the version published in L'Architecture d'Aujourd'hui—is not a supporting component at all, but rather a downspout that drains the roof through the interior of the central entry hall.

When the project for the houses began, Ove Arup was still an engineer with the general contracting firm of J. L. Kier and Co, and because they were already on site working on the zoo buildings, Lubetkin hired them to construct the houses. Arup and Kier were also working on Highpoint One, which was currently under construction and on schedule to be completed by early
1935. Highpoint Two and the Finsbury Health Centre would be commissioned later that year, and Arup would also play an important role in these projects. The Whipsnade House, coming as it did midway through the construction of Highpoint One but just before the start of Highpoint Two and the Finsbury Health Centre, represents a significant moment in the collaboration of Lubetkin, Tecton, and Arup.

In particular, this moment is wrapped up with the adoption of reinforced concrete cross-wall construction for medium-to-high density urban housing in England, an idea that originated with Tecton’s work on Highpoint One (Fig. 3.71-Fig. 3.74). Godfrey Samuel had asked Arup to quote the structural work for Highpoint One as early as 1933, two years before the Whipsnade Houses. In reports of their early discussions, Lubetkin seems to have envisaged a post and beam structure with non-load-bearing concrete enclosures, as found at Le Corbusier’s Villa Stein (1927), but Arup suggested that, given the presumed use of reinforced concrete, they might as well use load bearing walls as vertical support. The suggestion entailed adopting the techniques of reinforced concrete slab construction for use in vertical supports. Furthermore, a monolithic connection between horizontal and vertical slabs would exploit the strength of the material, which made it possible to reduce the thickness of the load-bearing walls from six to four inches, which was a considerable savings considering that concrete accounted for nearly a third of the total cost of building materials (Arup, 1979: 316).

The monolithic connection between horizontal and vertical slabs was made possible in large part by a sophisticated machine for shuttering that Arup had used in his work on marine silos—an architectural invention in the grand sense of Filippo Brunelleschi or Domenico Fontana. The shuttering system, which approximates a contemporary slip-form method, allowed the same set of wall and floor formwork to be used for the entire building by suspending the forms from above and then moving them up in a sequence of three steps per story (Fig. 3.74-Fig. 3.75). Lubetkin, Tecton, and Arup would complete several large housing projects reusing the same formwork, including Highpoint Two, Spa Green Estate, and Priory Green Estate.
Arup named this “box-frame construction” because the vertical slabs that replaced the need for posts and beams were also the basis of the enclosure, like a box. The use of box-frame construction allowed for the possibility of omitting the interior columns on the residential floor plates of Highpoint One; however, building regulations in London only allowed for the calculation and construction of a reinforced concrete frame in which the vertical load was carried by columns, and so a local variance was required. Arup prepared a summary of the new calculations and Tecton created drawings that favorably compared the new system to its traditional antecedent, and a variance was granted. A principle part of the argument for the new system—aside from the economic benefits of the reduction in material or the acceleration of construction—was the appearance of freedom it offered to the distribution of each floor plan. Only a single beam would run the length of each arm of the plan, which could later be absorbed into the thickness of the interior partitions, and there would be no beams running transversally across the short dimension of the plan. At this point in 1933, the notion of a plan emancipated from the impediment of vertical structure became a guiding principle in the work of both Lubetkin and Arup.

3.6.2 Contemporary Representations of Structure in England

This notion of an emancipated plan—a plan free from traditional supports—suggests that cross-wall construction can be conceived as an episode in a progressive and providential history of the column, albeit one in which the column is the antagonist. In this episode, the supporting function of the column does not disappear; rather, it is reappropriated within the practices of enclosing boundaries and calculating reinforced concrete slabs. These are conventional practices, but they are applied in an unconventional manner. Nevertheless, to call this innovative glosses over the fact that it was rarely appropriate to use a freestanding column in the history of the English dwelling, and that it was all the more indecorous to use one made of reinforced concrete. Such things were more often found in industrial buildings; to find them in the domestic setting was a sudden estrangement of tradition (Fig. 3.76).
Indeed, the free-standing column in the plan of the English house appears rather suddenly without antecedents in several projects by Tecton in 1933-34. See, for example: Lubetkin and Pilichowski’s row of terrace houses at Plumstead (1934) (Fig. 3.77); Chitty and Tecton’s House at Aldwick Bay (1934) (Fig. 3.8); Harding and Tecton’s Houses at Farnham Common (1934) and Sydenham Hill (1934) (Fig. 3.9-3.10). In each of these examples, the column is a component of the support defined both by its relation to the horizontal levels above and below it, as well as by its distinct circular shape. Outside of the Tecton partnership, one might point to the early appearance of the columns supporting Ben Nicholson’s Studio for Augustus John (1934) (Fig. 3.78), although the squareness of the supports, as well as their formal and material continuity with the treatment of the ground below and the elevated platform above suggests that these were understood as integral components of a foundation system. On paper, the free-standing column is also found in Walter Goodesmith’s plan for the All-Electric House at the C.I.D. Exhibition in London (1934), or Christian Hamp’s plan for the Glass House Competition (1935) (Fig. 3.79), both of which envisioned it as a significant component of the English dwelling of the future.

In 1935-36, the column as a free-standing figure became a common occurrence in the houses of architects in England who looked to the Continental developments of the modern movement in architecture. See, for example, the plans of Mendelsohn and Chermayeff’s House at Chalfont St. Giles (1935), Maxwell Fry’s Houses at Coombe (1935) and Hampstead (1936), Gropius and Fry’s Houses at Church Street in Chelsea (1936), and Eugene Kaufmann’s Houses at Angmering-on-Sea (1936). As one might expect, in all of these examples, the typical figure of the column is defined by the same set of attributes: its circularity, verticality, and slenderness. Whether it was part of a narrative that was oriented toward the future or the European movement, the appearance of the figural column in the English dwelling was a sudden and unconventional addition to the narrative that intended to overthrow history for the sake of progress; to emancipate the plan of a dwelling from this figure was simply a continuation of this intellectual framework.
Highpoint One stands out from this collection of single-family dwellings because it is a tall building whose multi-family program and repetitive cross-section made it a suitable figure for the concrete cross-wall construction. But as discussed above, the adoption of cross-wall construction was associated with a plan free from columns, which was, on the one hand, a return to the more traditional English dwelling, and on the other hand, a progression in the narrative of the modern movement. The one exception to this rule is found at the entry of the typical flat, where the continuity of the periphery is interrupted by an elaborate foyer, directly in the center of which is a curious architectural figure (Fig. 3.80). This figure is a protracted column and a contracted wall. As a wall, it is part of the monolithic concrete construction of the central beam, although it is never mentioned in any descriptions of the cross-wall system; and as a column, it a pronounced and distinguished figure that welcomes one home to their dwelling (Fig. 3.81). The duplicity of this figure grants it a special status as both a wall and a column.

The figure of the wall/column in the entry hall of the typical flat presents a duplicity that we more often associate with the supports at the base of Highpoint Two, the so-called Caryatid Port Cochère (Fig. 3.82). When Lubetkin wrote on Highpoint Two in 1938 he described the caryatids as part of an intention to establish the covered porch as a transitional space between the garden and the slab-block building. In order to site the building “comfortably in relation to the… accidents of its surroundings” the covered porch, he wrote, “projects far out from the building… [and] gives opportunity for a dynamic contrast to the building’s static mass” (Lubetkin and Tecton, 1938). In choosing the supports for the porch, he rejected columns that would match the ground floor interior columns because the repetition would too readily group the building and the porch together, rather than allow the porch to alternatively group with the front garden. Steel supports were rejected because their thinness limited their “expressive potentialities,” and it was decided that a more figural solution was required. The appropriate figure would “introduce gradations of scale, visual relations of weight and support… [and] through its richness in scale, give depth to the whole entrance motif.” Contemporary figurative sculptures as supports, he writes, would be “too individualistic… [and] foreign to the spirit of the building,” and while “abstract
sculpture” in the vein of Henry Moore is more “in sympathy with modern architecture” it too was rejected as “sufficiently impersonal.” What was required was a sculptural support that provided “elegance… [along with] the standard significance of a signal.” Lubetkin claimed that this was the role of the column in antiquity, and he referred to the Erechtheion caryatid as just such “a standardized sculptural building unit… [and furthermore] one that not only supports a canopy but gives relief and meaning to the shadows” (176). Lubetkin’s notion that the caryatids were a standardized unit of a signal—a unit of significance—acknowledges the temporal relay provided by the column understood as an archaeological fragment at the same time as it dismisses the historicism and materialism of the columns found in the works of his peers (Fig. 3.83).

This would suggest that the caryatids are based on a strong sense of formalism, and indeed, Lubetkin’s language promotes this interpretation. The caryatids were expected to fulfill a “dynamic contrast,” “gradations of scale,” “visual relations of weight and support,” and the provision of “relief and meaning to the shadows.” A broad review of this theme is instructive. The caryatids were installed on low, serpentine walls, one of concrete and the other of brick; and their orientation was contrasted (one facing north and the other west) in such a way to allow for the decorum of multiple directions of approach, but this also resulted in the possibility of a single view that included the Caryatid’s front and side profiles at the same time (Fig. 3.84-Fig. 3.85). The northernmost caryatid, the one closest to the street it faces, is typically shown with shadows cast along the left side of the figure, making the forward projection of the left leg and the backward recession of the right leg even more pronounced. This emphasizes the otherwise modest contrapposto of the sculpture, in which the right “engaged” limb falls back into shadow as the left “disengaged” limb steps forward into the light. In the few drawings of the plan that exist, all of...
which were made after the fact for publication, this caryatid is positioned to the west of the structural grid, which, however pedantic it might seem, aligns the engaged leg with the axis of structure and frees the opposite leg to present a dynamic profile. The fragmentary nature of the caryatid is obvious, but where the arms are missing the canopy above performs as an emphatic substitute. The portion of the canopy over the right shoulder cantilevers forward in contrast to the engaged and recessed limb below; while the portion over the left shoulder continues the line back toward the central axis of the building beyond. It is also at the point of connection between the caryatid and the canopy that, on the east side of the capital, the typography of the signage terminates, and on the west side, the linear light slot in the canopy begins. This combination of spatial contrasts between left, right, up, down, front, back, near and far constitutes a chiastic pattern of dynamic and static symmetries.

In the formalist language of modern architecture, this pattern is reduced to the simplicity of the term “movement.” This apparent “movement” is what Lubetkin had in mind in his description of the porch as an “optical mobile” with the caryatid performing as its “anchor;” however, torn between static support and dynamic movement, between engagement and disengagement with the setting, structure, and history the caryatid is also a “signal” of an antique agonism masquerading as “elegance.” The significance of this agonism is not explicit, but its appearance following the London International Surrealist Exhibition in July 1936 is suggestive of a general turning away from so-called “International Constructionist” sources. Indeed, the selection of an archeological fragment for an architectural support is an emphatic endorsement of Surrealist techniques, which were not lost on Lubetkin who only ever returned to a discussion of the caryatids in reference to his memories and dreams.  

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88 In his memoirs, Lubetkin later wrote: “Speaking of those caryatids reminds me of the time when I went to the Wroclaw conference with Margaret and Jim Richards in 1946. We passed through Warsaw and watched workers picking up bricks from the ruins, and cleaning them up for re-use. The air was filled with the croak of the frogs who lived in the broken drains; apart from that — silence. I remembered how I used to sit studying while I was at Warsaw Polytechnic and gaze at the balcony opposite with its smiling caryatids. I was dumbfounded when, clambering through the ruins, we found a three story fragment of wall, almost the only surviving sign of human habitation in the whole deserted, rubble covered area. On the third floor there remained a balcony without any floor behind it — and there were the two caryatids with their fantastic smiles.”
3.6.3 Lubetkin’s Flats in Rosebery Avenue

In contrast to the weakened conception of what support represents in Highpoint One and Two, it was Lubetkin who carefully crafted a progressive history of cross-wall construction across a sequence of Tecton’s projects in a summary description of Spa Green Estate, formerly known as the Rosebery Avenue Flats (Fig. 3.86). His writing is premised on an episodic approach to the development of each project’s supports wherein the supports are evaluated first in terms of the potential for the distribution of the plan and then for the composition of the elevation, before being reiterated and transformed in the subsequent project.

Lubetkin begins his history with the episode of Highpoint One in 1934, which as described above, was the first in England to introduce the concept of external load bearing walls in a tall housing block. Lubetkin and Arup were both aware that similar projects had already been built in Denmark. Like its appearance in Scandinavian precedents, the replacement of internal supports by external load-bearing walls was largely successful except for the vestige of a single longitudinal beam supported by a line of columns in the center of the floor plate. But in the course of the project it became apparent that the solidity of the exterior walls imposed undesirable restrictions on the character of the building envelope; it “limited the possibilities for architectural treatment” to only pierced openings augmented by narrow projecting balconies. Indeed, the sizes of the window openings were conceived and calculated as one would in the case of openings in a horizontal floor, by taking into consideration the three-dimensional behavior of a slab under variable loading. To Lubetkin, while the plan was an advance on previous housing precedents, the resulting elevation was not “sufficiently plastic,” and while the “advancing and retreating planes of the [larger] blocks helped to introduce a spatial relationship,” he was “deeply aware” that it “lacked scale and… [a] richness of treatment” (Lubetkin and Tecton, 1951: 140).

Lubetkin and Tecton’s submission for the Cement Marketing Company (CMC) Competition for Working-Class Housing in 1935 was projected as an iterative response to their
self-critique of Highpoint One. The same structural principles were used with only subtle differences: vertical concrete slabs on the exterior were still the common basis of both the support and the enclosure, but the openings in the elevation were enlarged and deeper balconies were included in the plan. These changes were intended, on the one hand, to address the insufficiently plastic elevations of Highpoint One by creating "a certain amount of elevational relief," and on the other hand to increase the private exterior area accessible in each of the flats (Lubetkin and Tecton, 1951: 140). To accomplish these intentions, changes to the supports were necessary: first, a portion of the each balcony’s enclosure was appropriated for a reinforced concrete surround at the jamb and header; second, the central line of columns in Highpoint One was developed into a spine of strip walls oriented perpendicular to the length of the floor plate, and the relieving beams along this spine were eliminated in favor of a thickened slab that coordinated with the dimensions of these strip walls.

According to Lubetkin, the CMC would become the historical ground for the third iteration of cross-wall construction techniques in the central block of Highpoint Two in 1936 (Fig. 3.87-Fig. 3.88 and Fig. 3.89-Fig. 3.94). The broad limitations imposed on the elevation by the vertical components of the structure remained a persistent problem, and so in Highpoint Two the vertical slab on front and back exterior walls were eliminated. These supports were replaced by deeper transversal strip walls in the center of the floor plate, which also allowed the edge of the horizontal slab to be articulated separately from the vertical slab, granting it the sense of a plinth rather than the bottom of a box. Finally, the supporting spine from the CMC Competition was transposed from the center of the floor plate to one of its edges. In Lubetkin’s words, these changes were intended to "largely free the elevation from its carrying function" (Lubetkin and Tecton, 1951: 140).

Despite the clarity of this narrative, it omits the role of the projects for the Whipsnade and Holly Frindle Houses. Absent from Lubetkin’s narrative is any acknowledgment of the role that the Whipsnade and Holly Frindle Houses played in the development of cross-wall construction. Indeed, these two houses bridge the same period as Lubetkin’s first three examples, and the
configuration of the supports described in the center block of Highpoint Two is nearly identical to that of the Holly Frindle House—including the number and kind of transversal cross-walls, the peripheral position of the spine-like beam, the articulation of the plinth, and a growing concern for the independence of the enclosing components (see the middle photograph in Fig. 3.86). The model of a single floor of Highpoint Two may as well be the same model for the Holly Frindle House. This observation does not contradict Lubetkin’s narrative, rather, it complicates its episodic nature, and separates it from an overtly materialistic explanation.

The lessons from all four of these projects are implicit in the configuration of the supports for the three blocks of flats at Spa Green Estate (Fig. 3.95-Fig. 3.96). Here, the remnants of the longitudinal spine are eliminated altogether in favor of an “uncompromising system of concrete cross-walls” that “eliminates all projecting stanchions and beams internally, allowing all the rooms to be cleanly designed, while also giving complete freedom of elevational treatment, unhampered by structural members” (Lubetkin and Tecton, 1951: 140). Arup was in agreement with this assessment, writing in 1945, that “unless the use of concrete is justified for structural reasons, it is not the best material for external walls” (Arup, 1945: 206). The deep transversal strip walls of the Whipsnade House and Highpoint Two are reproduced here at an even larger size. The fin walls that in the preceding projects had supported the spine-like relieving beam are also reproduced at a larger size, but at Spa Green they are lengthened and aligned along the edge of the floor plate on one side, which means that on this side the enclosing envelope forms a continuous and uninterrupted cladding over the complete height of the elevation (Fig. 3.97). Spa Green is the first example of an egg-crate or pigeon-hole tower block, the advantages of which were propagated by Lubetkin and Arup at Priory Green (Fig. 3.98-Fig. 3.99), and later by Goldfinger and Drake and Lasdun (Fig. 3.100-Fig. 3.101). To Arup, the system offered “flexibility” in planning and post-occupancy retrofitting, which suggested to him that tower blocks should be
produced with lower quality “standardized” enclosures that could later be elaborated as desired by individual tenants according to their fortune or character.89

At the start of this narrative on the development of cross-wall supports, Lubetkin and Arup stated their objective in terms of the freedom from interruption within the plan. As in the arguments and works of Shand and Coates, the plan was to be “free and open.” Nevertheless, two problems emerged. At first, this apparent freedom in plan was initially gained only at the cost of a more constrictive enclosing envelope, which, according to Arup, was also an improper use of a structural material. The plans of the final projects demonstrate no less internal floor area given over to vertical supports, rather, these supports are rearranged as the party walls between units. It was at this point that the objectives changed from the freedom in planning, to a freedom to define the character of a portion of the building envelope.

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89 In the mid 1940s, the structural engineer Ove Arup enthusiastically publicized the benefits of the concrete cross-wall system of construction for tall public housing blocks. Cross-wall construction consists of a cast-in-place and monolithic concrete structural carcass which is in-filled with prefabricated and non-load bearing walls for the purpose of interior and exterior enclosure. One benefit of this system included was that it took advantage of newer “dry” techniques of off-site manufacture in concert with already existing “wet” techniques of on-site construction. But Arup also made more sweeping claims when he described the system in terms of “liberty” and as an instrument “the three essential freedoms” of building: “architectural freedom... structural freedom... [and the] freedom to change” (Arup Archives 570).89 The “freedom to change” was characterized by the potential to physically replace, relocate, or otherwise reconfigure interior and exterior walls. He called this “flexibility,” which referred to the openness of a plan to changes of function and fortune. The concept of flexibility in cross-wall construction led Arup to two further observations: first, that it would be “possible to use cheap temporary wall units for partitions and outer walls, and replace them later on when the building situation has been eased” (570); and second, that “considerable variety in the treatment of the non-structural facades [would be] permissible -- even to the extent of letting each householder suit his own taste” (Arup, 1945).
3.6.4 Figures: Structure

Fig. 3.71 Lubetkin and Tecton, 1935, Highpoint One, ground floor plan, photograph of drawing (Lubetkin and Tecton, 1936)

Fig. 3.72 Lubetkin and Tecton, 1935, Highpoint One, typical upper level floor plan, photograph of drawing (Lubetkin and Tecton, 1936)
Fig. 3.73 Lubetkin and Tecton, 1935, *Highpoint One, floor plans of typical two and three-bedroom flats*, drawing (RIBA Collections PA952/2/5; RIBAPIX Database Reference 21527)

Fig. 3.74 Lubetkin and Tecton, 1935, *Highpoint One, diagram of shuttering, photograph of drawing* (RIBA Collections 5026/13F; RIBAPIX Database Reference 81334)
Fig. 3.75 Unknown photographer, 1935, *Highpoint One, view during construction*, photograph (RIBA Collections 5026/13M; RIBAPIX Database Reference 81333)
Fig. 3.76 Dell and Wainwright, 1935, *Highpoint One, entry hall*, photograph (RIBA Collections DWN5528; RIBAPIX database Reference 8752)
Fig. 3.77 Lubetkin and Pilichowski, 1933, *Terrace Houses at Genesta Rd.*, floor plans, photograph of drawing (Yorke, 1936)
Fig. 3.78 Nicholson, C., 1934, Studio for Augustus John, floor plans and elevations, drawing (RIBA Collections PA1205/9/39; RIBAPIX Database Reference 28509)
Fig. 3.79 Hamp, C., 1935, Glass House Competition, floor plans, drawing (RIBA Collections PA1220/7/1; RIBA Database Reference 36649)

Fig. 3.80 Lubetkin and Tecton, 1935, Highpoint One, floor plan of a typical two-bedroom flat, photograph of drawing (Lubetkin and Tecton, 1936)
Fig. 3.81 Dell and Wainwright, 1935, *Highpoint One, entrance to a flat*, photograph (RIBA CollectionsDWN5526; RIBAPIX Database Reference 8750)
Fig. 3.82 Lubetkin and Tecton, 1938, Highpoint Two, porte cochère, photograph of drawing (Lubetkin and Tecton, 1938)
In order to site the building comfortably in relation to the trees, path, and nature of its surroundings, and to provide a sited space for cars in front of the entrance, a concrete canopy projects far out from the main building near the drive. The treatment of this canopy is important, and it is therefore desirable to attempt to make it a freestanding feature of the building itself, and it is therefore handled as far as possible. But the effect of a flat slab floating wholly unsupported from the soil would give a very disturbing visual impression of instability (resulting from structural considerations). A support for the canopy is therefore necessary, in order to tie it down and to create an enclosed volume below it.

The easiest way of doing this would be to use columns like those which support the main building. But the visual relationship between the single-story building and its supporting columns would not automatically be achieved, and the canopy, with its supporting columns, would tend to dominate the building. Thus the effect of tying the canopy to the building rather than of detaching it and merging it instead with the garden.

This (simpler) supports, on the other hand, would either be so slender as to be virtually invisible, which would give the same effect as No. 1 was supposed to, if they were so slender it is difficult to see how they could be sufficiently differentiated from the structure of the building (No. 3). The expressive possibilities of a structural column are too limited to allow of any intermediate stages.

The desired effect could be achieved by the use of a sculptured support, which gives much greater expressiveness. The organic character and form instead of such a support, the elephantine of its form and structure, would be accentuated, the sense of scale, visual relations of weight and support, which a single column would never convey (especially owing to its predetermined height). The introduction of sculptural elements in the floating canopy to be linked to the natural forms of the garden, provides a definite visual and material support when needed, makes possible a differentiation between heavy-duty columns and expressive supports, and through this difference in scale, gives the possible a structurally based element of signification to the volume instead of a negative empty hollow.

But sculptures like this are too indeterminate, and are stylistically foreign to the spirit in which the building itself is conceived.

Abstract sculpture, the obvious alternative, although much more objective and without the structural symbiosis of figurative sculpture, as well as being stylistically much more in sympathy with modern architecture, still remains too passive. It solves partially the formal problems of the sculptor, in the best case.

The contemporary sculptor has yet to tackle this problem. Meanwhile the classical solution to the same problem, the caryatid figure, will serve as a precedent. In Highpoint number two (see pages 167-168) caryatid columns have been temporarily made use of as standard objects to adorn the entrance, pending the creation of their modern equivalent.

Fig. 3.83 Lubetkin and Tecton, 1938, Highpoint Two, ‘a footnote on sculpture’, porte cochère, photograph of drawing (Lubetkin and Tecton, 1938)
Fig. 3.84 Dell and Wainwright, 1938, *Highpoint Two, porte cochère*, photograph (RIBA Collections DWN7214; RIBAPIX Database Reference 8766)

Fig. 3.85 Dell and Wainwright, 1938, *Highpoint Two, colonnaded entrance hall*, photograph (RIBA Collections DWN7224; RIBAPIX Database Reference 8774)
Fig. 3.66 Skinner, Bailey and Lubetkin, 1950, Development of Concrete Cross-Wall Construction, one-page spread in the Architectural Review, photograph (Lubetkin and Tecton, 1951)
Fig. 3.87 Lubetkin and Tecton, 1938, *Highpoint Two*, floor plans, photograph of drawing (Lubetkin and Tecton, 1938)
Fig. 3.88 Lubetkin and Tecton, 1938, *Highpoint Two*, cutaway axonometric, photograph of drawing (Lubetkin and Tecton, 1938)

Fig. 3.89 Lubetkin and Tecton, 1938, *Highpoint One and Two*, floor plans and elevations, drawing (RIBA Collections PA123/21; RIBAPIX Database Reference 35763)
Fig. 3.90 Lubetkin and Tecton, 1938, *Highpoint Two*, ground floor plan, drawing (RIBA Collections PA121/2/6; RIBAPIX Database Reference 69031)

Fig. 3.91 Lubetkin and Tecton, 1938, *Highpoint Two*, third and fifth floor plan, drawing (RIBA Collections PA121/1/3; RIBAPIX Database Reference 69029)
Fig. 3.92 Lubetkin and Tecton, 1938, *Highpoint Two, fourth and sixth floor plan*, drawing (RIBA Collections PA121/1/4; RIBAPiX Database Reference 69030)

Fig. 3.93 Lubetkin and Tecton, 1938, *Highpoint Two, center unit floor plans*, drawing (RIBA Collections PA952/3/4; RIBAPiX Database Reference 30183)
Fig. 3.94 Lubetkin and Tecton, 1938, *Highpoint Two, sections*, drawing (RIBA Collections PA122/1/3; RIBAPIX Database Reference 69032)
Fig. 3.95 Skinner, Bailey and Lubetkin, 1950, Spa Green, one-page spread of floor plans in the Architectural Review, photograph of drawing (Lubetkin and Tecton, 1951)
Fig. 3.96 Skinner, Bailey and Lubetkin, 1949, Spa Green Estate, axonometric section, drawing (RIBA Collections PA953/5/14; RIBAPIX Database Reference 36119)
Fig. 3.97 Skinner, Bailey and Lubetkin, 1949, Spa Green Estate, diagram of the structural system, drawing (RIBA Collections PA953/5/10; RIBAPIX Database Reference 81988)

Fig. 3.98 Skinner, Bailey and Lubetkin, 1950, Priory Green Estate, floor plans, drawing (RIBA Collections PA953/3/10; RIBAPIX Database Reference 36120)
Fig. 3.99 Skinner, Bailey and Lubetkin, 1950, *Priory Green Estate, floor plans*, drawing (RIBA CollectionsPA953/3/11; RIBAPIX Database Reference 36121)

Fig. 3.100 Arup, O., ca. 1951, *Goldfinger’s Proposal for a Box-Frame Maisonette Block*, general structural arrangement (Elwall, 1996)
Fig. 3.101 Drake and Lasdun, 1954, *Paddington Flats, concrete cross-wall construction and cladding*, photomontage (Drake, Lasdun and Tecton, 1954)
3.7 ENCLOSURE

8. “The flat roof is not a sign of the exhibitionist tendencies of nudist inhabitants; the bathroom is not top-lit in order that the bather may be jealously guarded; the cornices are not specially designed for the local cats or sleepwalkers; and the dishwasher in the kitchen has never been in working order.”

3.7.1 Enclosure at the Whipsnade House and Spa Green

The Whipsnade House was not created, Lubetkin quips, either to expose or to conceal the human body, nor were the components of its boundary—such as the cornice or parapet—intended to contain an interior apart from an exterior. These are all matters that pertain to the architectural topic of enclosure. As described above, the Whipsnade House represents a particularly potent moment within Lubetkin’s corpus; this section attends to an explanation of his inquiry into enclosure by way of three themes: materials, forms, and spaces.

The introduction of reinforced concrete load-bearing walls as the enclosure at Highpoint One had been a significant event, but when the structural components of this system were developed into cross-wall construction it prompted the need to reconsider the kinds and degrees of enclosure required in-between. At Highpoint One it was argued that the size, location, and finish of the enclosure was determined by structural and material technologies, but when these walls were rotated and concealed within the depth of the building, as in the Whipsnade House or central block of Highpoint Two, it could no longer be argued that the components of the enclosure were similarly determined. At the Whipsnade House, the exploration of cross-wall construction led to the exploration of mixing cast-in-place concrete cross-walls with pre-fabricated concrete frames, which, if they were not left open, were in-filled with either fixed glass windows, horizontal pivot-hung windows, or Thermolux brand insulating glass (Fig. 3.102-Fig. 3.103). Aside from the cross-walls and the in-fill frames, there is a third kind of wall along the northern boundary of the
tapered hallway, where a thirty-five foot long beam supports the roof independent of the concrete wall below. This wall is aligned with the external boundary of the platform and therefore exposed to the exterior, akin to enclosures at Highpoint One, but does not function to support anything other than itself, and therefore is a-tectonic, akin to the enclosures at Highpoint Two.

As an a-tectonic instrument of enclosure, this wall is instructively compared to Lubetkin and Tecton’s occasional use of brick masonry in other projects. As early as 1934, at least two projects employed a significant amount of brick masonry: the Restaurant at Whipsnade Zoo (Fig. 3.104); and the Houses at Hayward Heath (Fig. 3.105). In each, brick was conceived as an impediment and was the prompt for a substitution of materials. At the Whipsnade Restaurant, a preexisting low brick wall was to be the foundation for completing the enclosure above. Tecton’s approach was to build a concrete sill atop the brick wall, then mount a glass brick wall above this, to be buttressed by the new roof which was supported elsewhere. At the Hayward Heath Houses, the local council had rejected concrete construction and required a material that they thought was more fitting with the character of the neighborhood; nevertheless, Lubetkin treated the brick as much as possible as if it were a monolithic material. In 1935, this monolithic approach was repeated in portions of the ground floor of the House at Sydenham Hall and Highpoint One as well, except that in these later projects, brick was no longer a substitute for concrete, but rather was used in simultaneous contrast to the concrete above. Consistent with this contrast, is significant to note that the portions of the Highpoint One ground floor enclosure that are brick are those that are skewed from the orientation of the concrete tower above. Here, enclosure and orientation are coordinated to emphasize the layering of each, which are furthermore coordinated with the layering of levels in the interior. There are no brick enclosures at the Whipsnade House, but the experimentation with concrete cross-wall construction demonstrated the combination of different assemblies was possible and even preferable to completely monolithic construction. After the Whipsnade House, Tecton used brick for the first time as in-fill within a concrete cross-wall frame, including in Highpoint Two, Priory Green, and Spa Green. In these projects, while the use of brick shed the premises of material substitution, it maintained the quality of simultaneous
contrast within and between structure and enclosure, including the formal contrasts of light and dark, or rough and smooth, as well as near and far.

As described earlier, the apparent freedom in planning lost to the constriction of the concrete cross-wall was assumed in the freedom of composing the components of the enclosure in-between. Lubetkin was aware that the load-bearing exterior walls of Highpoint One and the Cement Marketing Company competition proposal lacked "scale and… richness of treatment." Arup similarly saw the exterior enclosure was a poor application of reinforced concrete material. In response to these criticisms, the load bearing cross-walls in the Whipsnade House and Highpoint Two were developed. In these latter two examples the components of the enclosure do not clad the components of the horizontal levels or the vertical structures, rather, the enclosure is set within the depth of the concrete walls and slabs. The position of these walls, then, was an opportunity to exercise what Lubetkin called the "principle of relief," by which he meant the visual relief created by the artful recession of enclosing walls into the depth of the façade. In the development from Highpoint Two to Spa Green Estate the cladding was extended over the edges of the concrete cross walls and slabs to create a single control layer over the entire height and width of the façade. However, the extension of cladding did not dictate the continuity of depth, and Lubetkin set about to maintain both the continuity of an exterior control layer with a pattern of visual relief that receded into the depth of the cross walls.

The only surviving drawings of Tecton’s façade studies demonstrate the reiteration of this concern at Spa Green (Fig. 3.108-Fig. 3.111). The checker-board elevational treatment of receding and advancing surfaces, he wrote, was intended to create an “overall dynamic pattern” in the relationship between the balcony recesses, which are painted a deep slate, and the balustrades, which are clad in light-colored tiles “to bring them forward.” The “juxtaposition” of the “solid and void of balustrades alternates from floor to floor, to give an overall rhythm” (140). On this rhythm he wrote:

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90 It should be noted that, in the postwar context, in the project for Priory Green, this careful balance of lateral continuity and relief in depth was replaced by a renewed concern for the emphatic exposure of the concrete frame (Fig. 3.112-Fig. 3.113).
Too often in contemporary buildings of this kind the elevational proportions, with their repetitive rhythm of openings, seem to form part of a continuous band of indeterminate limits, which could be snipped off by the yard at any point. It was our endeavor to devise a design which, instead of relying solely on the interplay of the main volumes irrespective of their treatment, would take the basic rhythm proceeding from the plan, and further develop this rhythm in an overall pattern of light and shade, bringing the human scale to the main abstract forms (140).

In the Whipsnade House, the inquiry into the topic of enclosure was similarly concerned with the articulation of depth. In a description of the frames of the panel wall assemblies—in particular, how the horizontal members continue into the interior as broad sills to create a cavity for the electric heaters below and the mount for a curtain track above—he writes: “From the inside the strong concrete horizontals and verticals, together with the projecting cill (sic.) and soffit, give scale to a landscape which might otherwise be overpowering” (63). The components of the enclosure give scale to the landscape; they relate the measure of man to his surroundings, which in this case are described as overpowering, akin to the sublime. It should come as no surprise that the opening in an enclosure provides for a relationship between one side and the other, between the inside and the outside, but what distinguishes Lubetkin’s presentation is the way in which this relationship is concerned with such great distances or depths.

When the Whipsnade House was first published, it was accompanied by two photomontages created by Gordon Cullen, who was an assistant at Tecton at the time (Fig. 3.114-Fig. 3.115). The photomontages were carefully crafted from photographs created by Dell and Wainwright. Cullen cropped the photographs, mounted them to a larger support, then used pen-and-ink lines to extend the edges of the surfaces beyond the frame of the photograph. They were the first drawings created using this technique that were published in England, but more relevant to our topic at hand, they also emphasize the concept of enclosures in depth. For example, consider the photomontage of the interior. The original photograph used is remarkable because it is one of the few from this shoot that does not take a dramatically oblique view of their subject (Fig. 3.116). Instead, it creates a view that is oriented squarely down the axis of the passageway that connects the dining room, through the entry hall, to the bed and bath beyond.
This alignment permits the longest view within the house and is the only one along which the distinct parts of the plan are seen simultaneously. This long view is articulated in the photograph by layers in depth; the foreground is defined by the curved header of the dining-room divide; beyond, the glow of the entry vestibule floods the raised ceiling and defines the middle ground; and in the background is the hallway leading into the distance. This hallway, as seen in plan, is tapered, which lends to an exaggerated appearance of depth in the background of the photograph, a characteristic of the plan that Lubetkin repeatedly called Baroque. When Cullen extends the surfaces represented in the photograph with pen-and-ink lines he makes it clear that we are supposed to imagine ourselves positioned within the interior of the house; there is no sense that portions of the enclosure have been subtracted to achieve this view, and the perspective of the floor plane seems to extend out beneath our feet. The foreground is the place within the house designated for the viewer of the photomontage. But Cullen gives most of his attention to the middle ground where the photograph is extended from the central hall into the living room toward the right of the drawing. Here, the exaggeration of depth in the photograph is contrasted or balanced against the lateral exaggeration of breadth in the line drawing. At the farthest right portion of the drawing, there is a single figure of a man, turned away from us, and looking into the distance through a north facing window. There is no background beyond the window and we are left to imagine what he sees. The lines of perspective that otherwise give clear and concise definition to the interior of the middle ground do not extend to clarify the background. A similar condition is evident in the photograph. Indeed, in both the photograph and the line drawing, what is farther is separately conceived and constructed from what is nearer. The extension of the line drawing into the foreground seems to overwrite the difference between the middle ground and the background, but it too shows qualitative differences. Each of the three named layers in depth is rendered qualitatively different from the others; in terms of the concept of depth, instead of several degrees, one is left with the notion of several kinds. A similar
analysis of the various overlaid horizon lines in the drawing would reveal how these three kinds of depth are furthermore associated with three different horizontal levels.91

3.7.2 Contemporary Representations of Enclosure in England

Cullen’s photomontage of the interior of the Whipsnade House can be instructively compared to other renderings of the domestic interior in Interwar England. In domestic interiors, the articulation of depth and the coordination of an interior with a broader horizon was hardly evident within an English Arts and Crafts approach to architectural drawing (Richardson, 1983). However, just before the first world war English architects and designers began to experiment with color in a way wholly consistent with post-impressionism; we should take care to remember that this was an aesthetic term first coined by Roger Fry in 1906, then used for the title of his 1910 exhibition, Manet and the Post-Impressionists at Grafton Galleries (Fry, 1910). In the same year, a drawing for a house at Reed Pond by Clough Williams-Ellis demonstrates the powerful effect of the exhibition on the architect’s conception of the interior (Fig. 3.123). Here we find a careful rendering of color rather than depth; a concern for luminosity, chromacity and the resolution of complimentary oppositions (for example, the opposition between orange and blue, or yellow and purple); these conditions qualify the rendering in a way remarkably similar to Van Gogh or Cézanne. A similarly contemporary concern for the fugitive qualities of surface and light are evident the renderings of Walter Keesey (Fig. 3.125) and Robert Atkinson (Fig. 3.126), even Peter Behrens (Fig. 3.127).

91 Part of imaging ourselves within the interior of the house is observing the levels at which the horizon has been implied. As the articulation of different kinds of depths, there is more than one kind of horizon articulated in the photomontage. The horizon of the middle ground is well defined by the coordination of the floor pattern with the hidden-line description of the central hall and the furniture of the living room; indeed, in the middle ground, the drawing describes an eye-level of someone in the sitting position. In regards to the photograph, however, a contradiction ensues in which the implied horizon level is now that of a standing position. The simultaneous rendering of the two levels inflects both the background and the middle ground; the association of a lower horizon with the background lends a greater sense of height to the hallway, and a higher horizon associated with the middle ground lends to a somewhat cavalier point of view. Finally, in the foreground there is little to suggest a horizon aside from the near symmetry of the top and bottom of the curved wall, which is also nearly dead center of the sheet and the same height as the figure of the man. The photomontage simultaneously articulates three distinct levels and three distinct depths; from the highest in the foreground to the lowest in the background.
In contrast to this general tendency toward the modulation of light and color, an emphatic insistence on the value of design understood as delineation is evident in the contemporary drawings of someone like Charles Holden (Fig. 3.128-Fig. 3.129). Holden's renderings of interior conditions, much like his renderings of exterior conditions, insist on the simple accumulation and articulation of masses, which creates an effect similar to Leonardo's early architectural sketches. Even in the rendering of an interior, the masses of architectural features seem to swell with anatomical and body-like attributes; enclosed space is rarely the subject matter of the drawing, and color is never applied, except in elevations as a means of communicating a change in material. Curiously, it is Roger Fry again who provided the literary component to this general pivot toward formalism, this time, in the publication of his Vision and Design in 1920 (Fry, 1920).

But the 1920s also marks the emergence of a new type of interior altogether as the ocean vessel industry shifted from wartime to peace-time production of luxury passenger vessels. Holden was commissioned in 1920 for the interior outfitting of the TSS Cameronia 4 for Anchor Line, a subsidiary of Cunard (Fig. 3.130-Fig. 3.131). The masters of this typology were the art deco designers Edward Brian O'Rorke, who adopted the cavalier perspective of neo-plasticism to the rendering of individual units within luxury liners, such as the design of the RMS Orcades II in 1932 (Fig. 3.132), and Grey Wornum in his similarly conceived drawings for the RMS Queen Elizabeth (Fig. 3.133-Fig. 3.134). Andrew Prentice's 1934 drawings for the MV Manoora reflect the survival of an older form of the eighteenth-century developable elevation drawing (Fig. 3.135-Fig. 3.136); nevertheless, they show the extent to which designers of ship interiors encouraged the continuity and self-sameness within each room at the sacrifice of a large coordinated whole.

What this digression into color, design, and new typologies in the interwar period in England demonstrates is that the articulation and manipulation of an exaggerated depth as we found it in the drawings of Gordon Cullen and Tecton was by no means the status quo of conceiving the interior. Indeed, one is hard-pressed to find drawings similar to these in England before 1930; the earliest rendering of an interior that makes emphatic distance into the subject-matter itself is likely Serge Chermayeff sketches for the De La Warr Pavillion in 1930 (Fig. 3.137).
Tecton’s proposal for a Chest Clinic in East Hamm also included renderings that exaggerated the depth of the interior to illustrate how that interior was controlled by the distribution of the plan according to the program (Fig. 3.138-Fig. 3.139). Further drawings by Goldfinger round out the larger collection of these drawings (Fig. 3.140).

By the mid-to-late 1930s, drawings by Serge Chermayeff (Fig. 3.141) and Patrick Gwynne (Fig. 3.142), not to mention Gordon Cullen, show that the introduction of photomontage techniques dramatically altered the techniques of the rendering of the interior in modern architecture in England. In these works, the relationship between photography, delineation, and the articulation of depth take on the possibility of an increasingly complex character; a photograph can be added to augment the depth of a line drawing, or a line drawing can be added to augment the depth of a photograph.

What is revealed in these renderings is that it is not solely the articulation and manipulation of depth that is sought, but just as important is the development of contrast, i.e., the exaggeration of the contrast between things near and things far, as could be found, for example, in the paintings of Tintoretto. This is the lesson of Tecton’s photomontages for the publication of the Finsbury Health Centre; it is also the lesson of Lubetkin’s rendering of the interior of his Bungalow at Whipsnade, where the hallway photograph—which records the false perspective of an otherwise relatively short hallway—is contrasted against a more or less flat line drawing of the living room that it intersects. In contrast to the renderings above, in Lubetkin’s Bungalow rendering, the function of the photograph and the delineation do not ultimately augment one another, rather, they remain at odds.

A similar structure is also evident in Ernö Goldfinger’s drawings. In the early 1940s, while waiting out the war, Goldfinger set himself to several theoretical projects, including a comprehensive proposal for typical urban dwellings using concrete cross-wall construction techniques. The most crystalline drawing of this effort is a rendering of the interior of a living room looking out over the balcony and into the adjacent green (Fig. 3.143). The proposal is for a Zeilenbau configuration of mid-rise social housing blocks organized around a broad open space
bisected by an elevated expressway. Here, again, we can identify a sequence of coordinated distances; a domestic interior in the foreground; beyond this, a green commons; and at the horizon, a depiction of the housing block that is evidently similar to the one we are to imagine ourselves within. But Goldfinger has also taken great care to render the interior as comfortable, habitable, and safe. The armchair and table with the bowl of fruit, paper, and glass suggest ongoing and incomplete affairs. The woman is with her child, but turns away from him unconcerned for his safety. Her posture is reflected in the artwork hanging on the opposite wall. Altogether—between the armchair, the woman and child, and the painting—a lateral zone of gesture fills the interior and records a movement counter to the orientation into the distance. But despite greater attention to a depiction of daily life, Goldfinger's drawing is still premised on the coordination of the interior with a distant horizon, which again, presents an idealization, in this case, the ideal of social housing.

The cavalier view precludes the possibility of a perspectival horizon and places limitations on the degree to which it is possible to represent depth or distance. A review of published drawings by those architects mentioned above who made use of the cavalier view—such as O'Rorke and Wornum—suggests that they rarely made renderings that emphasized extensive depth. On the other hand, those architects mentioned above who were committed to the exaggeration of depth—such as Chermayeff, Goldfinger, Lubetkin—rarely made use of a cavalier perspective. A striking example of invention within this context is contained in a set of drawings Goldfinger completed in 1940 (Fig. 3.144–Fig. 3.148), two years after the construction of his terrace houses at 1-3 Willow Road. If we continue the discussion from above, these drawings transform the visual depth of the view out into a configural depth of the plan; but just as the earlier drawings accommodated the articulation of this depth into three distinct concerns, so too do these drawings suggest meaningful distinctions: a concern for the relative structure and solidity of the wall section and enclosure is closest, the area of the floor plan and landings is the farthest, and caught in between is the realm of furniture, again, left in a state of incompleteness and invitation.
While Goldfinger drew this view of a dwelling in the course of his proposal for a larger housing project, he would later publish the drawing in a collection of three essays in the *Architectural Review* on the topic of what he called the "enclosure of space." The essays leaned heavily on German aesthetic theory and the notion of empathy in the apprehension of space and spatiality.

3.7.3 Goldfinger’s Sensation of Space

In 1941-42 Ernö Goldfinger published a series of important articles on his theory of spatial enclosure: “The Sensation of Space” (November 1941), “Urbanism and Spatial Order” (December 1941), and “The Elements of Enclosed Space” (January 1942). Altogether, these three articles are Goldfinger’s most developed contribution to architectural theory. While his writing appears to have had little influence beyond his pupils, it was admired by Erich Mendelsohn and Herbert Read. Its central argument persisted throughout his career; for example, in February 1948 he lectured at the Architectural Association (AA) and defended these same ideas against John Summerson and his former pupil, Ralph Tubbs.

Goldfinger’s essay concerned what he called “the sensation of space,” by which he meant the “psychological effect” or “impression” on a person within a “defined space.” In the context of architectural literature during Interwar England, only P. Morton Shand, in his “Scenario for a Human Drama,” had relied as much on the theory of a “Raumgestaltung” (Shand, 1934). But whereas Shand saw this as a matter of the historical influence of German architects, Goldfinger saw the need for analytical explanation. The basis of his argument is that we are always subjected to a sensation of space—albeit one that he says we are not conscious of—because we are always within a more-or-less well-defined space. The elements that contribute to

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92 The nuances of this argument, especially the importance of enclosure and cladding seems to have escaped Shand. In his consideration of Henri Van de Velde he writes: “the exterior of [his] houses usually went wrong because he failed to achieve an exteriorization of their organic unity. Though its earliest pioneer, he lost much of what he won for Raumgestaltung, by informing his surfaces with coarse and florid Raumkunst that was much easier to copy” (Shand, 1934: 131).
this definition are 1. “the enclosing agent (wall, fence, etc. … imaginary or real),” and 2. “the enclosed space (room, square, field, clearing, etc. …).” Both the “quality and quantity of both play an important and interrelated role” (Goldfinger, 1941: 129). Goldfinger, therefore, imagines that one might consider enclosures in terms of both kinds and degrees.

In terms of degree, one might imagine a scale from 0 to 100 percent in which 0 is a person without any spatial relationships whatsoever, although this hardly exists, he states, “subject as we are to gravitation, air pressure, etc.” And so rather than 0 percent enclosure one might imagine the “minimum enclosure” of “a person on a perfectly flat expanse, reaching to the horizon and covered by the apparent celestial sphere. The quality of this enclosure is determined by the apparently flat barrier of the horizontal plane limited by the circle of the apparent horizon and imaginary globe of the celestial sphere.” Nevertheless, Goldfinger argues, even within this imaginary condition there are important differences in height and distance that would alter the sensation of space. In contrast, 100 percent enclosure is a frightening consideration of a person “imagined either completely cast in plaster-of-Paris or enclosed in a coffin or inside a cavern with no opening. In which case, the size plays an essential role” (Goldfinger, 1941: 129).93 Perhaps Goldfinger’s most insightful consideration is for the articulation of distances away from a person. There are “several nodal points,” he writes, between where “the casting (where all movement was prohibited) gives place to a space where movement is possible, up to the completion of expansion when the enclosed space has grown to such an extent that it can no longer be experienced” (130). Regardless of the other aims of the architect, Goldfinger argues, “architecture becomes manifest by the barriers (imaginary or real) enclosing space”—and presumably these barriers are all the more significant insofar as they observe the articulations of these “nodal points” (30).

93 In one of the most fervent dismissals of the canon of architectural proportioning during interwar England, Goldfinger argues that the importance of the size of an enclosed area in relation to a person, is essential “to comprehend the absurdity of the venerable classical assumption of self-contained ideal spatial proportions without relation to human size, and to reflect on the complete absence of scale articulation in classical architecture… Such architecture, although it has always relied for effect on spatial sensation seems to have done everything to destroy scale by fixed modulation” (Goldfinger, Sensation of Space 130)
For Goldfinger, enclosure is what grants architecture its particular kind of order. To illustrate his point he contrasts what he considers typical of architecture to that of painting and sculpture: pictorial order refers to sensations supported by two-dimensional and flat conditions, plastic order refers to sensations supported by three-dimensional and convex conditions, and spatial order refers to sensations supported by three-dimensional and concave conditions. These kinds of order are furthermore distinguished by the degree of awareness and the organs of perception required to be affected: for a painting to be enjoyed, Goldfinger suggests, one must contemplate it consciously without moving; sculpture requires semi-conscious stereoscopic vision in movement; but for architecture, which is more akin to music in that “it is not necessary to listen consciously to be affected by music” has no special organ (130), “awareness… is subconscious and takes place by the automatic registration of successive images and by the effect of memorized analogies” (130).

Goldfinger is well within G. E. Lessing’s formalist description of the arts up until his discussion of “memorized analogies.” “Memories and experience,” he writes, “not only of visual sensation but also of sound and touch and smell, enter into it… every element, plastic or pictorial, partially obstructing the view, as well as people in the crowd rubbing against you, are part of it” (Goldfinger, 1941: 131). Indeed, it is the memory and experience of these people that constitute an essential aspect of enclosure. Goldfinger writes: “a vast expanse without any spatial meaning is capable of becoming a tightly knitted entity around the magnet of a central attraction—an orator for instance” (131). The memory of enclosure refers to a primary origin in the “tightly knitted” formation of the group focused on observing a social center.

Lubetkin also conceived enclosure initially in formalist terms, then in broader social terms modeled on his understanding of Caucasian carpets. As mentioned above, Lubetkin had studied at the Academy of the Textile and Clothing Industry in Berlin, and then traveled to Marburg to attend Wilhelm Worringer’s lectures, which led him to Vienna to study the carpet collection at the Imperial Royal Museum of Applied Arts. In all likelihood, he had firsthand knowledge of the writings of Gottfried Semper on the relationship between architecture and the textile arts, and his
awareness of Loos in Paris in the mid-1920s must have only emphasized his understanding of
the premises that linked the clothing of the body to the definition of space. Lubetkin never
mentions these references, but he does write about the idea of the Caucasian carpet on several
occasions. In his Samizdat, he recalls how his fascination with the Caucasian carpet-weaver
“started in the dim past, when, spellbound, I watched a grown finger meandering amongst the
lion-headed serpents in the rainless gardens of a wall carpet.” And in a 1964 lecture he writes:

“The profusion of a multitude of designs can be broadly classified in two big groups: the
static and the dynamic designs. The enmeshed, tightly fitting patterns of the static design
form a coherent overall continuity without visible background, without void between the
components. The presence of a background, and of intervals, is a precondition of
displacement and change, so that in their absence the whole field of vision acquires a
homogenous compactness, a sort of weighty substantiality and balanced harmony.
There is no beginning, no end, no climax and no resolution.

I have very little doubt that this design mirrors the cosmology of the Eleatics, an early
school of Greek philosophers, who were opposed to the notion of change in favor of a
static world in which nothing new can occur. They came from a Greek colony in southern
Italy, isolated from the world. They were not threatened, and the stability of their
surroundings appeared to them permanent, and the most essential attribute of their
existence. Conceiving of change and transformation as a result of magical intervention,
they argued in support of the static idea that everything which exists is known to exist,
and is accordingly named. This it cannot be known not to exist, and the notion of non-
existence, of emptiness, of void, which is a prerequisite of all movement is a logical
absurdity, since what is empty is nothing, and what is nothing cannot be.

How different are the dynamic designs of the other group, which I have called
Heracletian. Here the entire web seems to waver and break into a multitude of fragments,
or clusters. The dispersed clusters recoil and recede into the depths of the setting, but
suddenly their detachment is lost, and in a flash they link up into new systems, transgress
their limits, overspill, form new regularities, completely different from the original ones we
had been contemplating. The more closely one watches the substitution of forms and
intervals, of planes and voids, of bursts and fusions, the clearer it becomes that the
design has a conceptual meaning, that it is attempting in geometrical forms to express a
system of thought whereby the parts are relevant only in terms of the constantly-changing
whole, and all the events and relations are but instances of the continuous process of
renovation and becoming.”

94 In contrast to his peers, he rarely used the term “space” in either his published or unpublished writings; more often he used the term “depth.”
The suggestion of Eleatic and Heracletian designs, regardless of its accuracy, characterizes Lubetkin’s interest in the broader interpretation of textiles as the basis of enclosure, and with this, his interest in considering the relative conceptions of stability in traditional philosophical frameworks. Lubetkin does not argue for a progression of one over the other; nevertheless, the so-called “dynamic designs” of the Heracletian are sympathetic with his presentation of enclosure in the Whipsnade House and the other cross-wall projects—a “multitude of fragments” that “recoil and recede into the depths of the setting” and “in a flash link up into new systems, transgress their limits, overspill, form new regularities, completely different from the original ones.” In these designs the whole is not conceived as fixed, but rather, as a “constantly-changing” web of “events and relations,” which are not simply a matter of visible forms, but are analogous to a “system of thought” in which the man is a textile woven together—“tightly knitted” as Goldfinger would say—by his incomplete conception of nature.
3.7.4 Figures: Enclosure

Fig. 3.102 Felton, L., 1936, Whipsnade House, view from the northeast, photograph (RIBA Collections 5024/30 / Felton BN5796; RIBAPIX Database Reference 49369)

Fig. 3.103 Dell and Wainwright, 1936, Whipsnade House, view out from bedroom, photograph (RIBA Collections DWN5966; RIBAPIX Database Reference 8684)
Fig. 3.104 Lubetkin and Tecton, 1935, Restaurant at Whipsnade, floor plan and isometrics of construction, photograph of drawing (Lubetkin and Tecton, 1935)

Fig. 3.105 Newbery, S., 1935, Houses at Haywards Heath, view from the southeast, photograph (RIBA Collections 5031/9 / Newbery 76476; RIBAPix Database Reference 49407)
Fig. 3.106 Tecton, 1946, Spa Green Estate, balcony side elevation, drawing (RIBA Collections PA115/4/2; RIBAPIX Database Reference 80982)

Fig. 3.107 Tecton, 1946, Spa Green Estate, bedroom side elevation, drawing (RIBA Collections PA115/4/1; RIBAPIX Database Reference 80981)
Fig. 3.108 Tecton, 1946, Spa Green Estate, elevation study, drawing (RIBA Collections 5059/1C; RIBAPIX Database Reference 69441)

Fig. 3.109 Tecton, 1946, Spa Green Estate, elevation study, drawing (RIBA Collections 5059/1D; RIBAPIX Database Reference 69442)
Fig. 3.110 Tecton, 1946, Spa Green Estate, elevation study, drawing (RIBA Collections 50591E; RIBAPIX Database Reference 69443)

Fig. 3.111 Tecton, 1946, Spa Green Estate, elevation study, drawing (RIBA Collections 5059/1F; RIBAPIX Database Reference 69444)
Fig. 3.112 Skinner, Bailey and Lubetkin, 1950, Priory Green Estate, elevation study, drawing (RIBA Collections PA953/3/22; RIBAPIX Database Reference 36124)
Fig. 3.113 Skinner, Bailey and Lubetkin, 1950, *Priory Green Estate, sectional isometric*, photograph of drawing (Skinner, Bailey and Lubetkin, 1952)
Fig. 3.114 Lubetkin, B., 1937, *Whipsnade House, view of the exterior*, photograph of photomontage (Lubetkin, 1937)

Fig. 3.115 Lubetkin, B., 1937, *Whipsnade House, view of the interior*, photograph of photomontage (Lubetkin, 1937)
Fig. 3.116 Dell and Wainwright, 1936, Whipsnade House, view of the corridor, photograph (RIBA Collections DWN5967; RIBAPIX Database Reference 8685)
The Wing Unit

On the preceding pages the centre block has been illustrated. The wing unit that flanks it on either side and contains the clinics and offices differs from the centre block in that it is planned primarily for flexibility. The design of partitions, electrical, heating and plumbing services has been based on this necessity. On this and the following pages it is explained how flexibility has been achieved, taking in each case one standard floor only, which is shown in the upper photograph in its bare structural stage.

1. FLEXIBILITY

As a result of the yearly incidence of various diseases, the size and planning of clinics may vary, also new methods of treatment may require changes in planning. In order to cater for these changes, the wings are designed with bare unencumbered floors without columns or beams. Regularly spaced window mullions are capable of taking light partitions in positions required. Public corridors are separated from working rooms by a row of cupboards designed to the requirements of individual rooms, but of a standard pattern. The corridors, instead of being uniform rectangular channels, are shaped in plan for decreasing circulation to give directional sense and relieve the monotony.

Fig. 3.117 Lubetkin and Tecton, 1938, Finsbury Health Centre, “1. Flexibility,” photomontage page spread (Lubetkin and Tecton, 1939)
2. ELECTRICITY

For the sake of complete flexibility in use, all internal and external telephones, bells, power and lighting cables, have been taken in a metal skirting duct with removable cover plates, so that additional outlets can be provided at any time. The dispositional form of furniture and equipment has been considered in relation to the running of short flexes to this skirting. The ceiling points are found to a built-in metal duct with removable under-plates in order to facilitate changes in the positions of light points. Conduits in the upper portion of cupboards give connection between the ceiling duct and ventilators by the doors wherever they are required. The current to each floor is supplied through easily accessible vertical ducts.

Fig. 3.118 Lubetkin and Tecton, 1938, Finsbury Health Centre, "2. Electricity," photomontage page spread (Lubetkin and Tecton, 1939)
3. HEATING AND PLUMBING

New methods of treatment may require alterations to the plumbing system. Special lateral ducts carry all the service pipes to the vertical ducts at each end of the wing. Access to the horizontal service is from external removable panels, and holes are left in the concrete wall for future tapping through to the service pipes. These holes being temporarily filled with bungs and plastered over.

A radiant panel heating system in the ceiling is controlled through panels over the windows, giving access to the insulated flow and return pipes in the outside ducts. This system allows adjustment in the distribution of partitions.

Fig. 3.119 Lubetkin and Tecton, 1938, Finsbury Health Centre, “3. Heating and Plumbing,” photomontage page spread (Lubetkin and Tecton, 1939)
4. Construction of the Wing Unit

Thick double concrete floor slabs with hollow tile infill spanning across the wing between channel-shaped concrete beams which fan the service ducts. This gives an unobstructed ceiling and floor spans for flexibility of structural alterations. The channel-shaped beams are supported one over the other by a series of irregularly spaced hinged mullions designed to take only the vertical stress, the rest being taken by the remaining stress.

Fig. 3.120 Lubetkin and Tecton, 1938, Finsbury Health Centre, “4. Construction of the Wing Unit,” photomontage page spread (Lubetkin and Tecton, 1939)
5. CONSTRUCTION AND FINISHES

In the sooty atmosphere, it was considered essential to provide easy cleaning surfaces. Concrete surfaces have been tiled, and special grooves were formed in the concrete walk to provide a strong key for the tile bedding. This was obtained by fixing steel rods on the side of the shuttering and ripping these rods away from the concrete after the shuttering was removed (see photograph on right, below). The tank framing is applied to the concrete mullions with lugs fixed during concreting, and serves as a support to the steel window frames and to the removable steel frames for the special insulating glass panels, which cover the ducts. The recessed plinth separates the main mass of the building from the surrounding gardens.

Alternating top and bottom ventilation is provided in the glazing of the windows, and this also introduces variety, rhythm and scale to the elevations.

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Fig. 3.121 Lubetkin and Tecton, 1938, Finsbury Health Centre, “5. Construction and Finishes,” photomontage page spread (Lubetkin and Tecton, 1939)
Fig. 3.122 Lubetkin and Tecton, 1938, *Finsbury Health Centre, “Lecture Hall,”* photomontage page spread (Lubetkin and Tecton, 1938)
Fig. 3.123 Williams-Ellis, C., 1910, Reed Pond House, elevation and section, drawing (RIBA Collections PA483/2 / RAN32/H/3; RIBAPIX Database Reference 12692)

Fig. 3.124 Williams-Ellis, C., 1930, Fountain Hotel, floor plans and elevations, drawing (RIBA Collections PA444/4/1 / RAN33/D/14/1; RIBAPIX Database Reference 12712)
Fig. 3.125 Keesey, W., 1921, 162 West Hill, interior perspective of the living room, drawing (RIBA Collections PA526/39; RIBAPIX Database Reference 36569)
Fig. 3.126 Atkinson, R., 1920, *Cherkley Court, interior elevation*, drawing (RIBA Collections PB712/8; RIBAPIX Database Reference 31423)

Fig. 3.127 Behrens, P., 1920, *New Ways, perspective of the Interior*, drawing (RIBA Collections PA9/2/1 / U18/28/1; RIBAPIX Database Reference 12385)
Fig. 3.128 Holden, C., 1930, *London Underground Station, perspective of the interior*, drawing (RIBA Collections PA1431/AHP/124/5; RIBAPIX Database Reference 32868)

Fig. 3.129 Holden, C., 1932, *London Underground Station, perspective of the interior*, drawing (RIBA Collections PA1447/AHP/155; RIBAPIX Database Reference 32890)
Fig. 3.130 Holden, C., 1920, TSS Cameronia, perspective of the interior, drawing (RIBA Collections PA1458/AHP/249/3; RIBAPIX Database Reference 21961)

Fig. 3.131 Holden, C., 1920, TSS Cameronia, perspective of the interior, drawing (RIBA Collections PA1458/AHP/248/5; RIBAPIX Database Reference 21967)
Fig. 3.132 O’Rorke, E., 1932, RMS Orcades II, perspective of the interior, drawing (RIBA Collections PA828/2/5; RIBAPIX Database Reference 4002)
Fig. 3.133 Wornum, G., 1938, *RMS Queen Elizabeth*, axonometric of the Interior, drawing (RIBA Collections PA229/1/10; RIBAPIX Database Reference 31225)

Fig. 3.134 Wornum, G., 1938, *RMS Queen Elizabeth*, axonometric of the interior, drawing (RIBA Collections PA229/1/9; RIBAPIX Database Reference 31227)
Fig. 3.135 Prentice, A., 1934, *MV Manoora*, developed elevation of the interior, drawing (RIBA Collection PA885/1/23; RIBAPIX Database Reference 31456)

Fig. 3.136 Prentice, A., 1934, *MV Manoora*, developed elevation of the interior, drawing (RIBA Collection PA885/1/24; RIBAPIX Database Reference 31455)
Fig. 3.137 Chermayeff, S., 1930, De la Warr Pavilion, perspective of the interior, drawing (RIBA Collection PA200/1/1; RIBAPIX Database Reference 28537)

Fig. 3.138 Tecton, 1932, East Ham Chest Clinic, phase two interior perspective, drawing (RIBA Collections PA111/1/10; RIBAPIX Database Reference 31014)
Fig. 3.139 Tecton, 1932, *East Hamm Chest Clinic, phase three interior perspective*, drawing (RIBA Collections PA111/1/11; RIBAPIX Database Reference 31015)

Fig. 3.140 Goldfinger, E., 1934, *Expanding Nursery School, perspective of the interior*, drawing (RIBA Collections SD161/5; RIBAPIX Database Reference 81033)
Fig. 3.141 Chermayeff, S., 1937, Remodeled Interior in Connaught Place, perspective of interior, photograph of photomontage (Chermayeff, 1937)
Fig. 3.142 Gwynne, P., 1938, *House at Esher, 'Homewood', perspectives of the interior, photomontage* (RIBA Collections DR53/5/2; RIBAPIX Database Reference 94439)
Fig. 3.143 Goldfinger, E., 1942, *Typical Urban Enclosure, perspective of the interior*, drawing (RIBA Collections PA626/1/2; RIBAPIX Database Reference 13283)

Fig. 3.144 Goldfinger, E., 1944, *Exhibition on ‘Planning Your Home’, perspectival plan of an entry floor*, drawing (RIBA Collections PB1102/4/51; RIBAPIX Database Reference 36501)
Fig. 3.145 Goldfinger, E., 1944, *Exhibition on ‘Planning Your Home’*, perspectival plan of an entry floor, drawing (RIBA Collections PB1102/4/53; RIBAPIX Database Reference 36502)

Fig. 3.146 Goldfinger, E., 1944, *Exhibition on ‘Planning Your Home’*, perspectival plan of an upper floor, drawing (RIBA Collections PB1102/4/59; RIBAPIX Database Reference 36503)
Fig. 3.147 Goldfinger, E., 1944, Exhibition on ‘Planning Your Home’, perspectival plan of an upper floor, drawing (RIBA Collections PB1102/4/80; RIBAPIX Database Reference 36504)
Fig. 3.148 Goldfinger, E., 1944, *Eating*, Exhibition panel for 'Planning Your Home', photographs mounted to board (RIBA Collections PA654/1/9; RIBAPIX Database Reference 39642)
3.8 CONTRARIETY

9. “On the contrary, the designer admits that there is, on the walls of the W.C., a collection of cold-blooded tropical butterflies; while the bedspreads have little bells sewn onto them to brighten the dreams of the occupants.”

3.8.1 Contrariety at the Whipsnade House and Penthouse

Contrariety is the basic premise of all of the Whipsnade aphorisms; but contrary to this basic premise, the ninth aphorism is an affirmative admission to an interest in delicate creatures and dreams. It has not passed the notice of scholars that the form and content of this double negative is a sign of Lubetkin’s interest in Surrealism, although, the question of whether these butterflies ever existed seems to have escaped the attention of scholars, which is a testament to the degree that some have persisted in linking this interest to a literary movement. In fact, Lubetkin did own a small collection of butterflies that he had mounted behind glass—an image of the Highpoint Two Penthouse just after he sold the Whipsnade House shows the collection hung in the master bedroom over the bed (Fig. 3.149). The butterflies are not positioned in any particular taxonomic system, rather, they are positioned as if flying in a group, with one oriented ninety degrees from the group. Nevertheless, while these delicate creatures were likely only part-time occupants of the Whipsnade House, Lubetkin’s other admission, that the dreams of its occupants are unconsciously brightened by its décor is well beyond verification. Indeed, his only affirmation is one that escapes rationalism. Much of the material presented in this dissertation has shown the general contrariness within Lubetkin’s approach to architectural topics and the theories that have subsumed them. In other words, as in the Whipsnade Manifesto so in the Whipsnade House, contrariety is a general principle, one that deserves its place among the other architectural topics covered above. However, because of its generality, it is also difficult to raise
further instances of contrariety in the Whipsnade House that have not been addressed already. Nevertheless, it is possible and productive to briefly place within view those other Tecton projects in which contrariety rises to the level of topicality.

For example, the interior of the penthouse atop Highpoint Two is a veritable index of contrariety (Fig. 3.150). On the frameless entry door, an enlarged “micro-photograph” (close-up) of some biological origin—printed black-on-white on the exterior side with the counter-changed image on the interior—was contrasted with a distant view across the room, exaggerated by the elevated condition of the interior floor plane. Its material palette makes explicit references to far-off places: cowhide from Argentina, yew from Norway; or it presented a juxtaposition of textures, as in the sandblasted pine boards against the white cast concrete fireplace surround (Fig. 3.151). In a niche originally intended for a sculpture by Henry Moore, hanging mobiles by Calder assume various physiognomic effects, and the wall to the kitchen was papered with Benjamin Pollock’s miniature toy-theater woodblock prints (popular in London ever since Sergei Diaghilev used them in his 1926 ballet The Triumph of Neptune at the Lyceum Theater (Fig. 3.154). The plates Lubetkin choose show carnivalesque figures gesticulating in the tradition of the commedia dell’arte. While Lubetkin only selected and recomposed these plates—he did not draw them himself—the theme of the commedia della-arte and the burlesque is powerful and persistent. The significance of these prints is put in context by their earlier use in 1926, by the Russian artistic director of the Ballet Russes, Diaghilev, who had used the same prints in his production of The Triumph of Neptune, which he noted was inspired by English pantomime, folk songs, the caricatures of George Cruikshank and Jacques Callot. Similar prints had been central to Vsevolod Meyerhold’s experimental theater and teaching in Moscow (Moody, 1978). The commedia dell’arte was a resonant source of meaning and method for both the English and the Russians.

Hélène Lipstadt has shown how in the political climate of London in the 1930s “being funny about architecture was a deadly serious business,” mostly because it was an effective method of criticism that avoided libel by remaining just within the boundaries of social decorum.
and politeness (Lipstadt, 1983). In satire, Lipstadt writes, "criticism found safe harbor." The reliance on the subversive potential of comic prose is a well-worn tradition in English literature on architecture; we only need to consider Ben Johnson on Inigo Jones, Alexander Pope on Blenheim, or Aldous Huxley on Sir Charles Barry. The illustrator Peter Fleetwood-Hesketh also recalled that poets and draughtsmen of the Architectural Review in the 1930s were "concerned in a serious way to make architecture more amusing" for the sake of discourse (Recollections of the '20s and '30s, 1980: 16). Peter Fleetwood-Hesketh drew the cartoons for Betjeman's A Ghastly Good Taste in 1933, which likewise fall into a tradition of English caricature from William Hogarth to George Cruikshank, with Jacques Callot's prints of the commedia dell'arte lurking further in the European background. Betjeman recalled the same thing, pointing specifically to the "wit" of Osbert Lancaster, Frederick Etchells, John Summerson, Michael Dugdale, and Peter Fleetwood-Hesketh (Betjeman, 1970: xxvii). The image of the Venus de Milo at the MARS Group Exhibition—i.e., the Romantic contrariety of Venus and Mars in the description of the modern movement in England—is another demonstration of the degree to which this "wit" was enjoyed. Lubetkin was not typically listed among these figures, but seven handwritten pages of jokes in his personal notebooks (LUB/17/2), and the sense of quick repartee throughout his Samizdat suggest otherwise.

If there was a center of architectural satire in the 1930s, it was at the AA; or perhaps it would be better to say that it was the culture of the AA that concentrated this discourse into a social practice. There were at least two student magazines that thrived on the commedia dell-arte, the Purple Patch (1905-09) and the Harlequinade (1923-26); and then there was the annual Pantomime, in which "topical satire on professional affairs" was set to burlesque song and dance (Summerson, 1947: 39). This culture of the commedia dell-arte is all the more apparent in Lindsay Drake's poster for the 1931 Pantomime, in which the mannerist satyrs and groteschi in
the margins and the spiraling line of dancers is an even more explicit nod to sixteenth-century subversions of normative culture as a model for contemporary satire (Fig. 3.155).  

If this interpretation is permitted, and the contrariety found in the Highpoint Penthouse is allowed to find a place among the satirists of architecture and theater, then perhaps it is furthermore permissible to see in the Whipsnade House, the Penthouse, and Drake’s drawing, something of a common thread in the carnival and the figure of the grotesque that Lubetkin would  

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95 Of the future Tecton members, Michael Dugdale was the most active in the AA Pantomime. Michael Dugdale (Michael Arthur Stratford Dugdale, 1905-1970) joined Tecton (much like Chitty, Drake, Harding and Skinner) after graduating from the Architectural Association in 1932. Two years later, in 1934, he was the first partner to leave the group. Lubetkin had named him the “Piccadilly Highlander” (something of a euphemism for a Scottish dandy in London) and described him as the “least serious member” of Tecton, a slight which is often used to explain his apparent disinterest in architecture and the group (Lubetkin, ca. 1990). On the other hand, if “least serious” were to mean “most comedic,” then for Dugdale this would have likely been a source of pride rather than embarrassment. Dugdale’s introduction to the discipline of architecture was certainly different from the others. He was from a prominent landowning Warwickshire family descended from the famous antiquarian Sir William Dugdale (1605-86). His familiar connections to London architecture and politics were also well entrenched: His maternal grandfather was the London-based Scottish architect Eustace Balfour (1854-1911), a Fellow of both the RIBA and the ZSL; and his cousin was the well-connected Labour politician John Dugdale (1905-1963), first elected to the LCC Council in 1934 for the seat of Islington South and Finsbury, where Tecton would find patronage in late 1935. John Dugdale’s grandfather, James Tertius Dugdale (1835-1915), was the purchaser of Cockrell’s Sezincote House in 1884, and it was there that the cousins (Michael and John) hosted their friends from Eton and Oxford, including the young English poet John Betjeman. Betjeman would later write fondly of Sezincote and Michael Dugdale in his autobiographical poem Summoned by Bells: “Come, Michael Arthur Stratford Dugdale, rise | And Lionel Geoffrey Perry. It is ten. | Binsey to Cowley, Oxford open lies” (Betjeman, 2006: 470). After earning a BA from Balliol College at Oxford University, Dugdale enrolled in the Architectural Association from 1927 to 1932. There is no evidence of Dugdale’s studies except for his participation in the annual AA Pantomime, which was at the height of its popularity between the wars. The Panto, as it was called, was an architecturally themed version of the traditional English Christmas Pantomime; a seasonal parody event in which recognizable musical and theatrical arrangements were adopted and transformed into satirical verses with comedic and subversive results. It included several arrangements from the “traditional” versus the “modern” architect. The entire debate surrounding architectural style, education, internationalism, and xenophobia in England was parodied and, for the most part, cathartically diffused temporarily on a stage in the basement of the AA. In the Panto, so called progressive and conservative “types” were united in crafting jokes for an audience of architectural literati. For example, in the 1936 Panto, Anthony Cox in a scene set to music composed by H. S. Goodhart-Rendel, wrote: “Here is the reason for our recovery | We have made the great discovery | That Le Corbusier is the only way, | Get a new master, get a new man. | We’re recovering what we used to lack | without an aphrodisiac. | Free love, free plan” (Lipstadt, 1983: 75). Cox, at the time, was already an ardent socialist, and Goodhart-Rendel was two years away from being the President of the RIBA, the bastion of conservatism in English architecture at the time; it didn’t hurt that Le Corbusier’s writing and the idea of the “plan libre” was largely misunderstood or that he was rumored to have cuckolded Clive Entwistle at a recent visit to Lawn Road Flats (Moro and Brodie, 1996). In 1929, Dugdale and Wilfred Mallows penned the third year’s script for “The Waltzing Mouse”; a satire set in a Chinese nightclub, decorated with assorted Eastern motifs, owned by a “monstrous... person called Cheng,” played by Bernard Hebeler (Denison and Ren, 2014). Dugdale crossed gender to play the role of Ariadne in what was apparently a West meets East variation on the myth of the labyrinth, wrought with racist and Orientalist sentiment. He was also active in his fourth (1930) and fifth (1931) year productions. Fellow future Tecton members Godfrey Samuel and Lindsay Drake were also participants in the annual parodies. A year more advanced in the AA, Samuel co-authored the 1929 fourth year’s production of England Preserved, a play on the conflict between the “ruralist” and the “urbanist,” and he was also credited as a writer for his fifth year production in 1930. Drake, it should be noted, was responsible for drawing a recently rediscovered poster for the 1931 Panto. After graduating from the AA in 1932, Tecton presented Dugdale with his first professional experience as an architect. Lubetkin recalls that Dugdale was responsible for the very first project that Tecton undertook; although, as he remembers it, this was the design of a fireplace for the conservative politician Stanley Baldwin. There is no material evidence of this project, and there is a real possibility that Lubetkin’s reference to conservatism is a further slight against his English colleagues. On the other hand, there are documents that suggest in 1933 Dugdale secured a commission from his paternal uncle Sir William Francis Stratford Dugdale, then Justice of the Peace for Warwickshire County Council, for some minor alterations and additions to the other Dugdale family manor house called Merevale Hall, near Atherstone, Warwickshire. Unfortunately, there are also no existing drawings of this project. The only other documented project undertaken by Dugdale & Tecton is a proposed block of flats at Bayswater Road, London, Westminster (1934-35), which appears to have never progressed beyond the very first drawing.
have known was central to Meyerhold’s work, in which “what is said in jest is often more serious than what is said seriously” (860). In a 1913 article on the Fairground Booth, Meyerhold wrote what he called “an apologia for his favorite device... the grotesque.” He continued: “in life, besides what we see there is a huge unfathomed region. The grotesque, in search of the supernatural, synthesizes opposites, creates a picture of the incredible, and invites the spectator to attempt to solve the riddle of the incomprehensible” (860).

Contrariness understood in terms of the carnival and the grotesque is different from contrariness understood in terms of ideological criticism. Whereas ideological criticism renders truth as a totality to be revealed through critique (Vattimo, 2012: 49), no such revelation is presumed in a carnavalesque synthesis of opposites. In the carnavalesque, negation is not a precursor to the reappropriation of an intellectual foundation, rather it is an opening to possibilities that were otherwise implausible. Likewise, Lubetkin’s negations in the Whipsnade Manifesto are not directed at the revelation of some fundamental truth, or at the projection of some final end; rather, they are statements that open up opportunity for creativity and discursivity without unbending critical, historical, material, or metaphysical frameworks. This is why a close reading of the manifesto reveals contradictions between the individual aphorisms—because it is not a text that presumes completion or comprehension—even in its referent, the Whipsnade House.

Insofar as Lubetkin negates the theoretical premises of the modern movement—specifically, its materialist, functionalist, and historicist frameworks, as well as its rational, botanical, physical, structural, spatial, and contextual premises—he opens up those topics to new and non-exclusive interpretations. The orientation of the Bourse, for example, was interpreted as both mythological and historical; positions that are not necessarily antithetical, but when articulated as such, present the architectural plan as something of a grotesque synthesis—a synthesis of opposites that all the while maintains its duplicitous identity. The structure of the column/wall in the entry hall of the a typical Highpoint One flats is similarly duplicitous, as are the caryatids in front of Highpoint Two, and the interior of the Penthouse. The immoral significance that we tend to ascribe to the concept of duplicity, however, points to the more general challenge of the Whipsnade Manifesto
and Lubetkin’s work—the possibility that these statements and the architecture they refer to are created on the basis of a questionable moral framework. The notion that architectural works can present the framework of morality as something to be questioned, and not something to be presumed, is the first and the final lesson of the Whipsnade Manifesto and House. When Lubetkin returned to architecture after the four-year hiatus of the second world war, this questioning was replaced by the overwhelming moralizing of architectural purpose that swept away the more fleeting qualities of his interwar work.
3.8.2 Figures: Contrariety

Fig. 3.149 Dell and Wainwright, 1938, *Highpoint Two Penthouse, view of the master bedroom*, photograph (RIBA Collection DWN7764; RIBAPIX Database Reference 8788)
Fig. 3.150 Lubetkin and Tecton, 1938, *Highpoint Two Penthouse, diagrammatic perspective*, drawing (Lubetkin and Tecton, 1939)
Fig. 3.151 Lubetkin and Tecton, 1938, *Highpoint Two Penthouse*, two-page spread in the Architectural Review, photograph (Lubetkin and Tecton, 1939)

Fig. 3.152 Dell and Wainwright, 1938, *Highpoint Two Penthouse, view of the living area*, photograph (RIBA Collections DWN7759; RIBAPIX Database Reference 8783)
Fig. 3.153 Dell and Wainwright, 1938, *Highpoint Two Penthouse*, view of the dining area, photograph (RIBA Collection 5053/5A; RIBAPIX Database Reference 5247)
Fig. 3.154 Dell and Wainwright, 1938, *Highpoint Two Penthouse, view of the living room*, photograph (RIBA Collections DWN 7765; RIBAPIX Database Reference 8789)
Fig. 3.155 Drake, L. 1931, *AA Pantomine Poster*, drawing (Architectural Association Collections AA/02/02/06/11/04)
4 COUNTERPOSITIONS
4.1 BEVIN COURT CONTRAPPOSTO

4.1.1 Introduction

In this section, the topics established above regarding the Whipsnade House are reviewed in one summary project—the housing block at Holford Square known as Bevin Court. Bevin Court is the main housing block of the Holford Square Estate, which was the third public housing project that the Metropolitan Borough of Finsbury commissioned from Tecton (Fig. 4.1). It was preceded by projects at Busaco Street (later known as Priory Green, 1937-39, 1943-52) and Rosebery Avenue (later known as Spa Green, 1938-39 and 1943-50). The project at Holford Square was started with Tecton as the architect in 1946, and after the dissolution of the partnership in 1948, it was continued by the partnership of Skinner, Bailey and Lubetkin until its completion in 1954 (it was Grade II listed in 1998). Bevin Court was the first housing block that Lubetkin designed and constructed entirely after the war, although this did not prevent significant transformation over the course of the project. The final built scheme was a radial plan of three linear housing blocks with three separate greens in between, all of which was connected to a central hub occupied by the main stairway. The final scheme closely resembles the Y-plan *dom-kommuna* projects undertaken at the Leningrad Institute in the late 1920s, which Anatole Kopp has described as marking the “beginning of a deviation from, or rather an exaggeration of, the idea of the communal house” (Kopp, 1970: 151).

In the broadest sense, the site for Bevin Court was conditioned by two events that occurred in the parish of Clerkenwell: the completion of the New River Channel in 1613, and the New Road in 1756. The aqueduct for the New River Channel originated in the freshwater springs in Hertfordshire and terminated at the New River Head at Islington Hill, where the main reservoir and Water House became the visible emblems of a large estate gradually acquired by the New River Company over the next century. During the English Civil War of 1642-43, the waterworks
were encircled by the fortified Lines of Communication, except for the northernmost reservoir (later named the Upper Pond, not the site of Claremont Square), which was separately enclosed by a large quadrangular bastioned fort (leveled in 1647) (Abbott, 2000). Before and after that time, Islington Hill was well known for its natural springs, spas and pleasure grounds, including the resort at Sadler's Wells located on the channel and adjacent to the main reservoir. In northern Clerkenwell, the New Road was established in 1756 as a bypass route around London’s West End. The road tracked along the southern edge of Henry Penton’s estate, where the speculative development of a gridded suburb promptly began in the 1760s. Development was slower in the New River estate; however, in the first decades of the nineteenth century the New River Company encountered financial strain from its competitors and was compelled to modernize its distribution network as an entirely underground system of high-capacity cast-iron supply mains. This initiative prepared the way for aboveground speculative development, and in 1811, the surveyor William Chadwell Mylne began a master street plan for the estate, with the first building agreements being secured in 1816-17. The organization of this master plan follows from the location of four open spaces: Claremont Square (first laid out around the Upper Pond in 1828, which was covered in 1856), Myddleton Square (the primary precinct of New River estate, laid out in 1836), Holford Square, and Percy Circus (1853) (Fig. 4.2) (Temple, 2008: 225-228).

The delineation of Holford Square existed for only a century from the start of construction in 1841 to the 1941 bombings that left many of the surrounding row houses damaged beyond repair. Most of these houses were constructed between 1845-48 using conventional means and methods, except for the east and west sides of the square which were organized behind palace facades with pedimental projections at the ends (Fig. 4.3). The houses built along the north and south sides of the square stepped down along the slope from the east to west to accommodate for a change in elevation of approximately fifteen feet. Access streets to the square were forestalled by the competing development of the Penton estate, which left the only street access to the square from the southwest (via the recently laid-out Percy Circus and Holford Place), and from the southeast (via Bond Street and Holford Street). The corners opposite of the streets were
filled with two large houses in 1866 and 1870, and the central garden was maintained by a local committee until the original ground lease expired in 1932, when it was acquired by the Finsbury Borough Council (FBC). Two years later the FBC transformed the garden into a large public bowling green, which, due to the slope of the square, required the cut-and-fill leveling of the eastern three-quarters of the green, leaving the western quarter to remain a separately enclosed garden (Fig. 4.4) (Temple, 2008: 228-230).

During the 1941 bombing of London, all four sides of Holford and a good portion of Holford Place and Percy Circus were damaged beyond repair. In 1943, the New River Company began plans for reconstruction, and in 1946 it presented to the FBC a plan to demolish the buildings surrounding the square and replace them with blocks of four-story flats on the north, east, and south sides, with the west side being reserved by the London City Council (LCC) for the expansion of the Vernon Square School (built from 1912-16, as known as the Sir Philip Magnus School from 1952-80). The FBC rejected the New River Company’s proposal and resolved to acquire the properties adjacent to Holford Square by compulsory purchase and then develop the site itself.

The role of Lubetkin and Tecton in the reconstruction of the urban square must have been partly premeditated, because only one month later, in July 1946, Lubetkin presented an alternative plan to redevelop the square as high-density housing. Tecton’s initial proposal, which is only recorded in the minutes of the FBC, enlarged the area of development southward to the edge of Great Percy Street from Percy Circus to Holford Street. The extension required the FBC to request further compulsory purchases, which were contested by the New River Company and rejected by the LCC, and by March 1947, the limits of the site had contracted back to the perimeter of the properties on the square. The FBC separately bought the properties adjoining Percy Circus (Nos. 25-29), but were unable to purchase those along Great Percy Street. This sequence of events determined the final delineation of the Holford Square Housing site and conditioned the development of the “first final scheme” that was presented along with an analysis by Lubetkin to the FBC in November 1947 (Lubetkin and Tecton, 1952).
The involvement of Lubetkin and Tecton in the redevelopment of Holford Square was prefigured by two events: their previous projects for the FBC and Lubetkin’s personal involvement in the commemoration of Lenin’s residence during his 1902-03 stay in house No. 30 Holford Square. Two memorials were presented in 1942 to commemorate Lenin’s residence: one was intended to be temporary, the other permanent. The idea to commemorate Lenin’s residence with a heritage “Blue Plaque” was first proposed by the Finsbury Communist Party in 1939, but was promptly rejected by the LCC because an official plaque was not permitted until 1944, twenty years after his death. The idea was forgotten with the arrival of war, but when fighting intensified on the Russian front in 1941, and the bombings in London eased, public concern shifted temporarily from the mere survival of England to its solidarity with the USSR. In this new political climate, the idea of a memorial to Lenin was revived by the Finsbury Anglo-Soviet Committee with support from Alderman Harold Riley and Ivan Maisky, the Soviet Ambassador to England. The LCC overlooked the 20 year rule and permitted an unofficial plaque (which was no “Blue”), and in front of placards that read “QUIET NIGHTS, THANKS TO RUSSIA,” Maisky unveiled a temporary plaque mounted to the remains of the recently bombed house at NO. 30 Square (Fig. 4.5). The theatricality of the ruinous setting, Maisky remarked before the ceremony, “would have in it a certain dramatic appeal to public opinion in this country and mine.”

At the same time, Alderman Riley and the FBC commissioned Lubetkin to design a permanent free-standing monument across the street, which was unveiled on Lenin’s birthday one month later on 22 April 1942. Lubetkin’s design, which survives only in a handful of photographs, was a casing constructed of concrete, marble, and granite, with a red glass top light that cast a red glow on a portrait bust of Vladimir Lenin gazing forward and to his left (Fig. 4.6). Within a year the bust was defaced by fascist protestors, and a public guard was stationed at the site, but further attacks occurred in 1945. In 1948, the houses surrounding Holford Square were cleared for development, but it wasn’t until 1951 that the memorial was disassembled. The bust was moved to Finsbury Town Hall and the casing that Lubetkin had designed was buried in the

96 English Heritage, Blue Plaques file 690, Ivan Maisky to Charles Ammon (LCC), 25 February 1942.
foundations for the northwestern access ramp to Bevin Court, which was under construction between 1951-57. The Finsbury Communist Party proposed a replacement "Blue Plaque" to the LCC in 1960, this time at No. 16 Percy Circus where Lenin had stayed in 1905. It was installed in 1962, only to be removed and given to the mayor of Moscow when the house was demolished in 1968 (Temple, 2008: 230).

An initial proposal for the postwar redevelopment of the area surrounding Holford Square was presented by Lubetkin as early as July 1946. This was well received by the FBC, and by November 1947 a “first final scheme” was completed and presented to the borough’s Housing Committee. Tecton was encouraged to proceed with the design, but by March 1948, the LCC expressed serious doubts about the cost of construction and the ability of the project to provide lower rents, and in September 1949 the Finsbury Housing Committee requested that an altogether new scheme be developed. The Tecton partnership was officially dissolved in 1948, and the project was transferred to the newly formed partnership of Skinner, Bailey and Lubetkin, Architects (SB&L), who completed the “second final scheme” in late 1950. Construction began the next spring, and the estate was opened as Bevin Court in 1954.

The series of events that led to the reevaluation of the project and the development of the second final scheme coincided with Lubetkin’s disappointing experience at Peterlee Newtown and confirmed his growing sense of apostasy; when he wrote an “architectural preview” of the project in 1952, rather than a forward-looking introduction, he outlined a retrospective summary of the changing conditions that had frustrated the design process. In his summary of the project, Lubetkin refrained from any serious discussion of specific urban housing problems; indeed, from his article, one might believe that the problems posed by the project were primarily historical and aesthetical. “The Holford Square design,” he writes echoing Shand and Goldfinger, “was evolved as a result of [a] study of the proper modern equivalent of the enclosed domestic square which it replaces” (Lubetkin and Tecton, 1952: 403). The square which the project was to replace, Lubetkin insisted—albeit incorrectly—was characteristic of the squares of the Regency period, which “are all characterized by a particularly happy relation of height to volume, and the unity of
ensemble is largely dependent upon the scale effects achieved by means of a simple richness of detail, by modulation of the elevations, fenestration, rhythmic skylines, and a wealth of textures” (403). For Lubetkin, the summit of these principles was found in the echo of the ground plane in the profile of the skyline above: “the skyline is strikingly exploited, as a reminder to re-establish the geometrical unity of the plan above eye-level” (403). As he imagined it, the Regency Square was a space articulated by the definition of horizontal levels and vertical enclosures, which are further articulated “through the richness and interplay of the secondary rhythms and subdivisions” (403).

In his summary of the project there are photographs of seven different models which illustrate the narrative of the process of design as a sequence of decisions. The first five models are photographed all at the same session from the same point of view under the same lighting scenario (with a light source represented in the southeast). The sixth and seventh model show similar points of view, but both camera and light have moved significantly. While these last two were photographed by H. L. Wainwright, they were created at a separate session in the late 1940s and early 1950s. Lubetkin’s narrative argues that a clear division is evident between a “first final scheme” (models 1-5), evidently based on Zeilenbau principles, and a “second final scheme” (models 6-7), which was ultimately approved and built. The notion of two “distinct phases” is shared by scholars (Allan, 1992: 418); however, at least one model is known to be missing, which was an intermediary proposal between the first and second final schemes. Furthermore, there are significant differences within the so-called first scheme that go unmentioned in the narrative. The division between the first and the second schemes is not so clear, nor is it possible to isolate one from the other entirely; nevertheless, it is apparent that each scheme takes a different approach to the topics presented above.

Whereas the earlier scheme attended to the levels of the site as an opportunity for a series of terraced platforms, the later scheme consolidated the differences of the site’s elevation into the center knuckle of the building, which exaggerated these differences and created a new opportunity for the association of levels within the interior of the building. In this sense, it was an
introversion of the approach to the site platform. The approach to alignment, however, exhibits the opposite of introversion. Whereas the earlier scheme took its alignment from the boundaries of an imaginary but nonetheless persistent idea of a Regency Square, the later scheme directed its wings and interstitial grounds toward more distant interests; including the school just across the property boundary to the west, which at the time was planned be expanded with a new daycare; but also, in the greater distance, St. Paul’s Cathedral to the south. The English painter Cyril Mann, who lived at Bevin Court from 1956-64, painted this very view of St. Paul’s from his house on several occasions. On the alignment of the final scheme, Lubetkin writes that it “relies on drawing the surrounding open spaces into the composition by means of the extended arms, on the contrasts of light and shade ensured by the plan-form itself to provide relief, and on the visual tension between the building and the surrounding open space, to create the sense of balance of an ensemble” (Lubetkin and Tecton, 1952: 406). Elsewhere in his summary of the project’s premises, he brings additional attention to his concern for proportion. More so than in other projects he notes the presence of traditional principles; however, this is in sharp contrast with the notion that Bevin Court is one of the first large-scale housing projects in London to make use of almost entirely prefabricated and modular pre-cast concrete parts that are assembled on site into a concrete box-frame. In between first and final schemes, as well as in between design and description, Bevin Court holds together at least as many contrapositions as Lubetkin had gathered in his Whipsnade Manifesto. These contrarieties are nowhere more evident than in the staircase at the center of the housing block. The staircase has received considerable appreciation, but relatively little interpretation (Allan, 1992: 424-427; Allan, 2002: 120; Campbell and Tutton, 2014: 129; Harwood, 2003: 510; Temple, 2008: 237). Images of the staircase are abundant; nevertheless, a close reading of the photographs that were taken under Lubetkin’s direction is instructive.

The most celebrated view of the Bevin Court staircase under construction is the view from below looking up from a position on the ground floor along the southeast edge of the entry
This view permits a continuous line of sight up through the void of the stairwell without interruption from any of the central triangular platforms or flying stair crossings. The coherence of the staircase as a single isolated body is emphasized by the vertical alignment and rhythmic spacing of the central triangular platforms, but this coherence also disengages the tight geometry of the staircase from the sweeping curves of the surrounding balconies at each floor. The first platform above the ground level is circular, but above this they are all triangular in plan with truncated corners that are impressed into shallow concave surfaces, which furthermore are extended up to serve as newel posts for the balustrade. The gradient of light and shadow cast on these surfaces contrasts the central supporting column, resulting in a subtle but significant chiaroscuro when the central column is visible, and a more striking contrast above when the column is not apparent. Without the apparent support of this column, the upper platforms appear suspended in space and connected to the surrounding balconies by only the flying soffits of the stair crossings.

The second view of the Bevin Court stairway under consideration is the view looking across the staircase at an upper level. Here, the staircases offer an approach, a promenade, which does not spiral around the central column; rather, it reciprocates between the central platforms and the surrounding balconies. The pattern of the stair crossings repeats every four landings and there are two landings for every story. Following the stair upwards, the promenade alternates between turning right, left, right, left, and right; where right-hand turns occur on the landings of the central platforms at the concave newel posts and left-hand turns occur on the landings of the surrounding balconies at square posts. Furthermore, the height of the parapet surrounding the balconies is such that at each central platform the long-view out of the large window opening is obscured, and instead, a near-view of the balcony parapet is presented with the end wall of the linear housing block beyond. Again, the pattern is one of reciprocity or alternation between a near-view on the central landings and a long view on the balcony landings. Just as the staircase exaggerates the contrasts of various levels and kinds of supports, so too, in its

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horizontal alignments, does it exaggerate the contrasts of various distances near and far in its relationship to the bounding components of the enclosure.

4.1.2 Contemporary Representations of Contrapposto in England

The attributes that are present in Bevin Court are not common throughout architecture in England at the time, but are they also not entirely singular. A 1953 drawing by Gordon Cullen for Drake and Lasdun’s Keeling House demonstrates many of the same conditions (Fig. 4.21). Keeling House is the most prominent architectural monument of the Claredale Street Estate in Bethnal Green, and is among the earliest examples of a clustered housing plan. In Cullen’s rendering of the tower, the cladding surrounding floor levels twelve and thirteen has been removed to reveal the open-air commons circumscribing the core; areas for laundry, nursery, and pram storage are all visible. The drawing shows various kinds and degrees of interior enclosure, including the boundaries of the floor slabs, as well as the safety and cladding systems. Just behind the tower to the left, a gray wash describes the profile of the two housing wings coming together as they might be seen looking southwest out from the commons. In the distance is the profile of St. Paul’s Cathedral, floating above an otherwise cacophonous collection of urban forms. Altogether, the drawing is a collage of different views, but in no version of Keeling House was the floor plan ever oriented so precisely as to render the skyline of the cathedral framed within the profile of its flanking towers. What is important here is not the precise orientation toward the cathedral, but rather, the idea of orientation in general and its relationship to the depths of enclosure. We should remember that St. Paul's was the principle ornament of Wren's city plan; and for Londoners it was the emblem of the possibility they once entertained of a thoroughly baroque plan of the city. The profile of the cathedral is a reference to the idea of this plan and the capital investment in public works that it represented. For many architects in twentieth-century London, the historic failure to adopt Wren's city plan was the great tragedy of the early modern period.
Like Goldfinger’s drawing of an ideal interior, Cullen’s drawing goes a good way toward implying a connection between the commons in the foreground, the housing towers in the middle ground, and the very heart of the city in the background. Three separate depths articulated along with three separate concerns, aligned by an idea of orientation. The primacy of this idea to the architecture is evident in Lasdun’s unexecuted site plans for the rest of the estate (Fig. 4.22-Fig. 4.23), which show, on the one hand, how the tower was intended to relate specifically to solar incidence, and on the other hand, how the geometric pattern of this incidence disposed the site into something like a tessellated surface. In these drawings, even on such a gross scale, it is evident how the orientation toward a distant horizon is the premise upon which the unique configuration of the floor plan is based. In this drawing, the rendering of the interior, and with it the articulation of depth, is coordinated with a meaningful sign on the horizon; in this case, as in Cyril Mann’s paintings from Bevin Court, a sign of the closest thing that London has ever known to an ideal plan of the city.

Many of these themes—layered and contrasting components of orientation, elevation, structure, enclosure, etc.—are also taken up in the new Trades Union Congress Building, an institutional project that had been initiated in 1944 at the Trades Union Congress in Blackpool as a memorial to the unionists who fought in the first and second world wars. The commission for the building was won by David du Rhieu Aberdeen in a competition in 1948. At the time of its completion in 1957, J. M. Richards argued that it the building was “not an easy building to apprehend” because it had “no clear three-dimensional shape that can be seen from the outside. All the public sees is one main street frontage—the façade to Great Russell St.—an oblique view down Dyott Street, consisting of a rather incoherent pile-up of external features that can only be understood in reference to the plan, and such views into the interior as can be got from the street; views… that are unusually interesting because they afford a sight of a number of levels of the building simultaneously” (Richards, 1957).

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There were 181 competition entries.
Part of the architectural commission for the TUC Building was also to elaborate a rhetorical program of sculpture, and in 1954, with criteria determined largely by Aberdeen, a competition for two sculptures was announced: one to be located in the interior courtyard, and the other to be located on an elevated platform along Great Russell Street. A jury led by Herbert Read dismissed all of the initial competition entries and then independently commissioned Jacob Epstein and Henry Moore’s former assistant, Bernard Meadows for the two sculptures, respectively. At the time, Meadows was known for his inclusion in the so-called “Geometry of Fear” group at the British Pavilion for the 1952 Venice Biennale, but his proposal for the TUC Building strayed far from the dysmorphic surrealism of his familiar encrusted birds or crabs and leaned well into the realm of social realism. The sculpture owes more to the work of Peter Peri than Henry Moore, and Meadows was reluctant to discuss it, describing it as “not my line of country”; nevertheless, he considered that “it does what it was intended to do…[and is] quite a good solution…in relation to the building” (Meadows 112). Indeed, it is Meadows’s bronze figural group that draws comparison to the architecture of Lubetkin’s Bevin Court and Lasdun’s Keeling House.

The figurative group, which is titled *Spirit of Brotherhood*, consists of two men in the decisive moment of clasping arms (Fig. 4.25-Fig. 4.26). The TUC described the sculpture as the “enduring nature of trade unionism” and a representation of “the strong helping the weak or

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99 Epstein was responsible for a war memorial of a Pieta carved in situ from a single ten-ton block of Roman stone in front of a green Ligurian marble screen, which was eventually replaced with mosaics. Meadows’s relationship to Moore was profound. Meadows was Moore’s assistant from 1936 to 1940, during which time he worked on several sculptures, including *Torso, Standing Figure, Mother and Child*, and various stringed figures carved in 1936 but not cast until 1938-40. He also worked on Moore’s two early architectural commissions: the *Stringed Reclining Figure* (1938), originally intended for a site in Berthold Lubetkin’s Highpoint Penthouse; and the *Recumbent Figure* (1938), for Serge Chermayeff’s house at Bentley Wood. After the war, Meadows returned as Moore’s assistant, but left in 1948 for a teaching position at the Chelsea School of Art. For the next decade, they continued to collaborate on several notable works, including Moore’s *Three Standing Figures* (1948), *Family Group* (1949), and the *Time Life Screen* (1953). In 1951, Meadows was among the twelve sculptors commissioned by the Arts Council to create pieces for the Festival of Britain, for which he made his *Standing Figure in Elmwood* (1951).

100 Meadows noted that his first proposal was rejected as “too belligerent,” which caused him to think that “it’s an unsatisfactory thing to do really, one is conscious the whole time of all these chaps subscribing 10p pieces for something of a sort, and one has got to do the best you can within their limits of understanding. It’s an impossible situation, impossible problem” (113).

101 The sculpture was not installed until September 1958.
the spirit of brotherhood” (TUC Pamphlet). It depicts a fallen man—naked and destitute upon the platform, his chest sunken with despair—as he reaches out for the arm of his fellow man, who stands over him and reaches down with his right arm to lift him up. The standing man wears the costume of an unspecified worker, which is flung about him in an upward spiral conforming to the composition as a whole. Together the pair offers a range of contrasts. The face of the fallen is expressive, even tormented, as he looks up at his rescuer. But the standing man does not return his gaze; rather, he looks down into the street to match the gaze of onlookers below. His face is stoic and without expression his passion is evident in the action of his body, which twists and turns in violent contrast to the pitifulness of the fallen. Neither figure is without physique, both have large chests, hands, and feet, which are bare and prominent from almost all angles of view; and both support relatively small heads.

The group is certainly a nod to Moore, and through him to Michelangelo, in several ways, for example, in the proportions of the limbs, in the expression of the faces, and most importantly, in the furious torsion of the standing body, a position that we typically define as contrapposto or contraposition. It has escaped scholarly notice that the posture and expression of the standing man bear an uncanny resemblance to the Townley Discobolus at the British Museum—the only significant difference in the posture being that the direction of the twist in Meadows’s figure is reversed, although this only invites a separate and further comparison to the Torso Belvedere, the so-called Torso Michelangelo. In either case, the reference to the exaggerated flexus of the figure is a patent acknowledgment of the relevance of Michelangelo to the Postwar English sculptor, and through him, to the English architect.

But Meadows’s sculpture is also well within the tradition of allegorical figures that line the streets of London. It is an allegory of strife, in particular, an allegory of class struggle and the

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102 Elsewhere the TUC promoted it as “a powerful figure [that] bends to raise a fallen comrade... the flowing lines of the group contrast sharply with the somewhat severe but dignified façade of the building” (Glasgow Herald 27 September 1958).

103 While Moore once said he tried to avoid looking to Rodin or Michelangelo, in the 1950s, he turned to them as influences. Moore owned a Torso that was from the figure that was to be for St. John the Baptist by Rodin, which he thought was based on a Michelangelo drawing in the British Museum (Study of a Nude Youth) but it was without arms or a head, which to Moore removed the literary or allegorical meaning.
prospect of strength overcoming weakness. In classical rhetoric, contrapposto refers to the figure of antithesis, which, when employed in front of the TUC Building, is projected as a dialectic of the working class struggle. There is hardly any way to avoid the interpretation that posits the way in which contrapposto is here appropriated for the representation of the working class plight, and yet simultaneously, through the reification of this figure, also suggestive of the palliation of that suffering. The effects of class conflict and the prospect of its overcoming are succinctly manifest in the work of art, ultimately confirming the persistence of Tafuri’s argument that began this dissertation. In the postwar context, the reappropriation of the figure of contrapposto is entirely consistent with the expansion of the planning state, and with it the manifestation of the crises of the capitalist city. This argument extends into the architecture of Bevin Court and Keeling House: both are intent on the empowerment and emancipation of the working class, and both reappropriate the figure of contrapposto into an architectural work. Whatever weakening of the theoretical premises of the modern movement Lubetkin had achieved during the interwar period—i.e., the weakening of intellectual frameworks that support the projection of an overcoming alongside the reappropriation of an origin—was all but lost after the war.

4.1.3 Survival of Architectural Contrapposto

On the idea of architectural contrapposto, one final comparison is constructive, albeit one more anachronistic. At first, there seems little to be gained from a comparison of the entry hall of Bevin Court with Il Rosso’s painting of Moses Defending the Daughters of Jethro (Fig. 4.24). The two works are separated by geography and by over four hundred years, and by their differences in media and subject matter; but if it’s allowed, a certain outward similarity may lend to the presentation of larger topics in the theory of architecture. This comparison is premised on the analogy of a building being something like a body, and discloses an attitude toward the concept of the figure: on the one hand, the figure of Moses, and on the other, the figure of a stairway.
Moses is clearly part of a historic scene, which depends on his interactions with the shepherds below, with the daughters of Jethro above, and with the mysterious man sweeping in from the left. Each of these is an interest or concern that draws the figure of Moses in any number of divergent directions. The one thing that occupies the background is the image of the city; which is also to say that all of his immediate concerns more-or-less occupy the same distance away from him. He is engaged with his surroundings. On the other hand, the overt circumscription of his profile and the contrast of coloration within and around it, serve to enclose and isolate his figure from the others. This is true even in the anatomical details, where the grip of his hand, so firm in itself, is not convincingly joined to the body of the shepherd that it suppresses. The figure is engaged, but also composed and isolated. Moses remains a stranger in a strange land.

Something comparable is found at the Bevin Court entry hall.\textsuperscript{104} The vertical alignment and rhythmic spacing of the landings emphasize the composition of the stairway as a singular figure; but its elaborate and angular profile also isolates it from the sweeping curves of the surrounding balconies. The lowest landing is a circle; above they are triangles with concave corners extruded up to serve as newel posts for the one continuous balustrade. The light cast on these posts contrasts with the central column, giving a subtle but significant chiaroscuro if the central column is visible, and a more striking contrast if not. Without a view of the column, the upper platforms appear to levitate, and while the thicknesses of these slabs are exaggerated well beyond structural necessity, the connections that would lend them a sense of firmness and stasis are concealed. Like Moses, the stairway is muscular but without a grip. It is composed and isolated.

But on the other hand, when understood as part of a larger plan, it is clear that the components of the stairway have been oriented to face and to reach toward different aspects of
the surrounding housing blocks, which radiate around the central hall like spokes around a hub. In elevation, there is a pattern to the stair which repeats every four landings and upon each landing we are presented with a close-up of the balcony parapet, but upon stepping onto the balcony, the view opens up to a horizontal window that frames the skyline of the city far beyond. The stairway is composed and isolated, but also engaged with its surroundings.

II Rosso’s painting is a well-known touchstone of sixteenth-century contrapposto or counterposition—that impossible contortion of the human body which is often attributed to Michelangelo’s interest in archaeology and anatomy, but which in this case, is also directly modeled after the left-to-right twist of Myron’s *Discobolus.* The genealogy of this model is further dignified by its appearance in the paintings of Il Salviati, Bandinelli, and Giulio Romano. In all of these, as David Summers has shown, the pronounced flexion of the figure represents the idea of antithesis, which the humanists had appropriated from classical sources in rhetoric. For Summers, antithesis refers to the “evidently artificial juxtaposition or balancing of contraries as distinct from the simple inclusion of opposites in a unit of meaning” (Summers, “Contraposto,” 351). This is the idea as it can be found in the writings of Aristotle, Cicero, Augustine, and

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105 Before the beginning of the twentieth-century, the term contrapposto was translated into English simply as counterposition. In this form, it had a history of usage well back into the sixteenth-century and was associated more generally with the logical or rhetorical structure of antithesis, opposition, or contrast. When contrapposto was finally adopted as a loan word, it was done so as a species of counterposition almost exclusively within the visual arts, and it was in this sense that contrapposto was first defined in the 1933 supplement to the Oxford English Dictionary (OED) as "the arrangement of a figure so that the action of arms and shoulders contrasts as strongly as possible with that of the hips and legs; a twisting of the figure on its own axis." Bernard Berenson is cited with its first English use in 1903 when he wrote about the figure of the Soldan in Giotto’s frescoes of St. Francis. In the second edition of the OED supplement, several newer citations are added, including Alan Clutton-Brock’s 1935 review of Kenneth Clark’s catalog of Leonardo drawings. The intentionality of this usage is somewhat clarified by an allegorical scene that Clutton-Brock painted, perhaps as early as 1924, but more likely during his tenure as the Slade Professor of Fine Art at Cambridge between 1955-58. Also added to the second edition of the OED supplement was a citation to W. H. Auden’s 1944 *The Sea and the Mirror*, in which he writes that "a sudden eruption of musical and metaphorical power is instantly recognized as standing for grief and disgust, an elegant contrapposto for violent death." Colin Rowe first published the term "architectural contrapposto" in his introductory essay to the catalog for the 1987 Arts Council exhibition on Le Corbusier. The essay was based on a lecture he had first delivered in the early 1960s, which was focused on the Swiss architect’s meditations on Michelangelo in *Vers Une Architecture* (1923) and the question of the mannerist influences on such projects as Villa Schwob (1916-17), Villa Stein (1926-28), Villa Savoye (1928-30), and La Tourette (1953-59). If we believe Rowe, he invented the term as a matter of descriptive necessity; no other single term, he claimed, could be found that was suitable to describe the qualitatively distinct articulations of depth that he observed in the works of those architects that fascinated him. The creation of architectural contrapposto, he later wrote, was "a matter of making surfaces pregnant with depth, [which] some architects have always understood and some others will never comprehend. It was understood by Alberti, by Michelangelo, by Borromini. It was not understood by Bernini. It was understood by Hawksmoor - though not by Vanbrugh... it was always understood by Jim Stirling... [and it] always continued to be basic for Le Corbusier" (Rowe, Provocative Facade, 174). But rather than a necessity, the term was something more like a convenience for Rowe; it allowed him, first, to disclose a thematic tradition within the discipline of European architecture regardless of its historicity, and second, to engage a theme that was evidently visible and susceptible to the sort of formal analysis that he always intended.
Petrarch, but also in Alberti, Leonardo and Vasari, in which the idea of antithesis was extended beyond ornament to the very structure of the visual arts.

In paintings and sculptures structured by antithesis, figures have several typical characteristics. First, they simultaneously disclose several definite contrarieties—such as the opposition between front and back, left and right, near and far, engaged and disengaged, light and dark, etc. Second, the disclosure of these contrarieties implies a form of weighing or balancing that does not accord with a knowledge of nature, but rather, with a form of knowledge implicit in the judgment of the artist; or, as Vasari's called it, the guidizio dell'occhio. It is in light of these observations that Summers, in his analysis of Leonardo's Adoration of the Magi, first suggested that the "vividness of counterposition... [was] a mode of synthesis equal and alternative to perspective" (360). In architecture, an analogous idea was evident to Gian Lorenzo Bernini, who was reported to have said that while geometry and perspective were necessary to the architect, it was just as necessary "to have a good eye for judging well i contrapposti; [for] things do not appear to us only as they are, but in relation to their surroundings, which modify their appearance" (Lavin 9).

The Bevin Court entry hall was not modeled on any particular precedent, although Lubetkin later recalled a fascination with baroque stairways, and photographs of the design models suggest an affinity with the work of Naum Gabo; nevertheless, its genesis was largely caused by the conditions of designing public housing in postwar London. Initially, Lubetkin had proposed a layout that would recreate the character of a Regency Square as much as possible within the economic context of London's increased density and land values; but when this was rejected due to cost and property disputes, he was forced to design a more compact plan with "centralized services, reduced ground coverage, and [a] smaller number of stairs and lifts" (406). Instead of a series of housing blocks to enclose a large urban space, he proposed the highly figurative Y-shaped plan with the entry hall in the center. The premise of the new design, he writes, "relies on drawing the surrounding open spaces into the composition by means of the extended arms, on the contrasts of light and shade ensured by the plan-form itself to provide
relief, and on the visual tension between the building and the surrounding open space, to create the sense of balance of an ensemble” (406). Lubetkin often spoke of his buildings as empathetic bodies—the Gorilla House had a welcoming hand, the Health Centre had a smiling face—but at Bevin Court the analogy suggests a form of contrariety between the disposition of the building and its position in the surroundings; i.e. a counterpositioning.

The general idea of a resonance between sixteenth-century “Mannerism and Modern Architecture” was first made famous by Colin Rowe in his 1950 article of the same title; but a year earlier, a lesser known architect named Donald Pilcher had already presented a similar idea using Il Rosso’s painting as a principle example. Pilcher was an architect and educator in South Africa, but he was a Londoner by birth. He had graduated from the Architectural Association with honors in 1933, and worked in the ateliers of Goldfinger and Lubetkin.106 Whereas Rowe had concentrated his research on the formal resonance of sixteenth and twentieth-century architecture, Pilcher was more concerned with the resonance of their attitude toward context. He compared Il Rosso’s painting to Picasso’s Guernica, and disclosed the similarity of their "deliberate confusion of space, poignant diagonals, counterchanging patterns cutting across planes, interpenetrating polygonal forms... [and even] the emotional accents" (312); but he also pointed to Jacopo da Pontormo’s painting of Joseph in Egypt, which, he argued "carries the story from painting into architecture" (312). In this observation, Pilcher referred to the repetition of counterposition in the sculpture and architecture depicted by Pontormo. He writes:

"notice a new element, the great loops through space suggested by the arms of the statues; statues which are rather counterchange representations of men than statues in their own right. Then notice how the loops through space are taken up by the staircase and note particularly the form of the staircase. Structural support is at a minimum. The staircase is as nearly as possible suspended in space. If I had to sum up the architectural values shown in this picture I should say that they were: coherence

106 On Goldfinger's recollection of Pilcher, see: Stamp, Gavin, and Ernö Goldfinger. “Conversation with Ernö Goldfinger,” Journal (Thirties Society) 2 (1982), p. 21. In 1935-36, Pilcher assisted Goldfinger in drafting a book on modern flats, which was never published, however, a wealth of plans, illustrations, and building construction research was collected (GolEr / 340-346). Henry Thomas Cadbury-Brown and Ralph Tubbs worked on the design and construction of Goldfinger’s Willow Road Houses at Hampstead, completed in 1939. Later, both Cadbury-Brown and Tubbs were instrumental in planning and design of the Royal Exhibition at South Bank in 1951. Pilcher emigrated to Johannesburg to join faculty of the Department of Architecture at Witwatersrand in Johannesburg no later than 1947.
achieved through deliberate confusion, the interlocking of planes and volumes in space, and the emphasis of suspension in structure” (312).

My argument is that the entry hall of Bevin Court is a testament to what David Summers calls the "formula of counterposition" embodied in architecture, which is evident not only in the work, but also in the comparisons that encompass the work, as well as other works of this time. A broader history of the arts in twentieth-century England would reveal that at the time sculpture was a significantly more developed and mature discipline than painting; and that in this discipline an entire history of the survival of counterposition could be written. Such a history would likely include Jacob Epstein's carvings on the British Medical Association Building (1908), Frank Dobson's Torso (1933), and Henry Moore's sculpture of the same name, Torso (1935), as well as Lubetkin's own Caryatids (1938). Perhaps the last significant work in this vein was Bernard Meadows Spirit of Brotherhood.

There is, of course, a long history of the concept of contrapposto in English art theory. Before the beginning of the twentieth-century, the Italian term contrapposto was translated into English simply as contraposition. In this form it had a history of usage well back into the sixteenth-century and was associated more generally with the logical or rhetorical structure of antithesis, opposition, or contrast. When contrapposto was finally adopted as a loanword, it was done so as a species of contraposition within the visual arts, and it was in this sense that the term was first defined in the 1933 supplement to the Oxford English Dictionary (OED): "In the visual arts, [contrapposto is] the arrangement of a figure so that the action of arms and shoulders contrasts as strongly as possible with that of the hips and legs; a twisting of the figure on its own axis."\(^{107}\) The OED entry cited Bernard Berenson with the adoption of the Italian term in 1903 when he wrote: "In the figure of the soldan [Giotto] gives a superb instance of almost Michelangelesque contrapposto" (Berenson, 1903)\(^ {108}\) The second edition of the supplement to

\(^{107}\) "Contrapposto, n." OED Online (Oxford University Press, June 2015), Web. 24 August 2015.

\(^{108}\) Republished as a book in 1909. The early adoption of the term contrapposto in Berenson's text was identified as early as 1911 by the American publication The Century Dictionary and Cyclopaedia, which gives the following definition: "In pictorial or sculptural composition, the crossing of limbs and contrasting of masses which is especially pronounced in the works of Michelangelo.” The distinction of the earliest adoption, however, can be just as readily given to William Warren
the *OED* added several new citations. The first new citation refers to a review of Kenneth Clark's catalog of Leonardo drawings at Windsor Castle.\(^{109}\) The review was written in 1935 by the critic and painter Alan Clutton-Brock, but was published anonymously (Cumming, 2015: 166). The second new citation refers to W. H. Auden's use of the term in *The Sea and the Mirror*, in 1944, when he writes that "a sudden eruption of musical and metaphorical power is instantly recognized as standing for grief and disgust, an elegant *contrapposto* for violent death" (Auden, 1945: 35).

It is important to note Auden's philosophical interest in the construction of language and his personal ambition to be cited in the *OED* (Brewer, 2007),\(^{110}\) which was fostered by the preferential treatment given to his poetry by the editor of its second supplement, R. W. Burchfield. Burchfield was a close acquaintance of Auden while both were on the faculty at Oxford in 1956-57, and on at least one occasion, he relayed a tale of an excited Auden bursting into his office to insist that he include in the *OED* some word Auden had rehabilitated and written into a poem just moments before (Burchfield, 1969). It is compelling to imagine that Auden sought credit for his role in adopting a loan word like *contrapposto*, not only to satisfy his own ambition but also because its utility and value within the language of the figurative arts had already been established. In the construction of this hermeneutic pretext, it is also important to understand the persistent influence of Horace on Auden (Callan, 1983: 252), and the survival of the orator's famous analogy between poetry and painting in which both are considered equally figurative (*ut pictura poesis*).\(^{111}\) Auden's well-known short poem *Musée des Beaux Arts*, published in 1940, exemplifies this analogy, and it also demonstrates his reliance on the role of a more general and literary understanding of *contrapposto*. He writes: "About suffering they were never wrong, | The old Masters: how well they understood | Its human position: how it takes

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\(^{109}\) The review was the lead article in the *Times Literary Supplement* on 11 July 1935. It included the assertion that: "[Leonardo's] *contrapposto* is the work of an ardent anatomist."

\(^{110}\) Brewer quotes Auden from *The Observer*: "one of my [W. H. Auden's] great ambitions is to get into the OED, as the first person to have used in print a new word. I have two candidates at the moment."

\(^{111}\) It should be noted that Rensselaer Lee's analysis of the survival of Horace's analogy in the 16th-18th centuries was published in the same year as Auden's poem on Pieter Breughel the Elder: Lee, R. "Ut Pictura Poesis: The Humanist Theory of Painting," *The Art Bulletin* 22/4 (December 1940), 197-269.
place." And at the beginning of the second stanza: "In Breughel's Icarus, for instance: how everything turns away | Quite leisurely from the disaster; the ploughman may | Have heard the splash, the forsaken cry, | But for him it was not an important failure; the sun shone." Auden's poem is a haunting testament of the intellectual at the end of the interwar period. But in this analogy, Bevin Court, Keeling House, and the TUC building do not take the place of Icarus, they are the ploughmen, who witnessed the fall from grace, but for whom it was no longer an important failure.
4.1.4 Figures: Counterpositions

Fig. 4.1 McCann, J., 1954, Bevin Court, view from the northwest, photograph (RIBA Collections 5068/6 / MC4052C; RIBAPIX Database Reference 81834)

Fig. 4.2 Percy Circus Area, map ca. 1874 (Temple, 2008: fig. 280)
Fig. 4.3 Unknown photographer, ca. 1939, Holford Square, Finsbury Council bowling green, photograph from Country Life (Temple, 2008: fig. 299)

Fig. 4.4 Unknown photographer, ca. 1937, Holford Square, garden, photograph from London Metropolitan Archives (Temple, 2008: fig. 298)
Fig. 4.5 Unknown photographer, 1942. Ivan Maisky at the Lenin Memorial, photograph from the Architects’ Journal, 25 June 1942 (Temple, 2008: fig. 301)
Fig. 4.6 Lubetkin, B., 1942, *Lenin Memorial, view from the northeast*, photograph (RIBA Collections 5061/A; RIBAPIX Database Reference 30860)

Fig. 4.7 Dell and Wainwright, 1948, *Holford Square Estate, first scheme final model*, photograph (RIBA Collections 5068/25 / Wainwright 10331 / ON171; RIBAPIX Database Reference 28323)
Fig. 4.8 Dell and Wainwright, 1948, Holford Square Estate, first scheme final model, photograph (RIBA Collections 5068/21 / Wainwright 10332 / ON167; RIBAPIX Database Reference 28324)

Fig. 4.9 Dell and Wainwright, 1948, Holford Square Estate, first scheme study model, photograph (RIBA Collections 5068/15; RIBAPIX Database Reference 28325)
Fig. 4.10 Dell and Wainwright, 1950, Holford Square Estate, ‘Bevin Court’, second scheme final model, photograph (RIBA Collections 5068/26 / Wainwright 10337; RIBAPIX Database Reference 81833)

Fig. 4.11 Percy Circus Area, map ca. 2008 (Temple, 2008: 279)
Fig. 4.12 Skinner, Bailey and Lubetkin, 1950, Bevin Court, site plan, photograph of drawing (RIBA Collections 5068/6 / MAL15612; RIBAPIX Database Reference 81832)

Fig. 4.13 Skinner, Bailey and Lubetkin, 1950, Bevin Court, floor plan, drawing (RIBA Collection PA952/5/4; RIBAPIX Database Reference 32534)
Fig. 4.14 Maltby, J., 1953, Bevin Court, view of the stairway under construction, photograph (RIBA Collections MAL20099; RIBAPIX Database Reference 24138)
Fig. 4.15 Maltby, J., 1953, *Bevin Court, view of the stairway under construction*, photograph (RIBA Collections 5068/101 / MAL20100; RIBAPIX Database Reference 81845)
Fig. 4.16 Pantlin, J., 1954, *Bevin Court, view of the stairway*, photograph (RIBAPiX Database Reference 24139)
Fig. 4.17 Maltby, J., 1954, *Bevin Court, view of the stairway*, photograph (RIBA Collections 5068/108 / MAL22030; RIBAPIX Database Reference 5251)
Fig. 4.18 McCann, J., 1954, Bevin Court, view of the stairway, photograph (RIBA Collection 5068/105 / MC4063/3; RIBAPIX Database Reference 49553)
Fig. 4.19 Avenell, 1954, Bevin Court, view of the stairway, photograph (RIBA Collections 5068/112 / Avenell L930; RIBAPIX Database Reference 49554)
Fig. 4.20 Maltby, J., 1954, Bevin Court, view of the stairway, photograph (RIBA Collection 5068/114 / MAL22029; RIBAPIX Database Reference 49555)
Fig. 4.21 Drake and Lasdun, 1957, Keeling House, cutaway perspective, drawing (RIBA Collection PB889/2/4; RIBAPIX Database Reference 39643)
Fig. 4.22 Drake and Lasdun, 1954, Keeling House, site plan, drawing (RIBA Collections PB889/2/1; RIBAPIX Database Reference 22759)

Fig. 4.23 Drake and Lasdun, 1954, Keeling House, site plan, drawing (RIBA Collections PB888/2/3; RIBAPIX Database Reference 92616)

Fig. 4.25 Unknown photographer, 1977, Firefighter's Strike, Congress Hall, photograph (TUC Library Collections, London Metropolitan University)
Fig. 4.26 Maroudas, N., 2011 *Bernard Meadows’s ‘The Spirit of Brotherhood,’* photograph (Maroudas, 2011)
5 APPENDIX
5.1 CATALOG OF PROJECTS

5.1.1 Introduction

This catalog collects—for the first time—information pertaining to all the presently known existing drawings, archives, and works by the Tecton architectural group practice, including all of its minor, non-partner, members. The procedures for managing the construction of a work of architecture privilege the preservation of drawings for those projects that are built rather than those that are speculative or abandoned; however, it should be remembered that Tecton was conceived and perceived as a group actively engaged in social organization and agency at large, and it should not be assumed that the construction of built works was the only possible avenue for acquiring agency. Therefore, this catalog assumes the classification of projects related to the constitution of Tecton as a social group in itself. These transformations are readily divided into four periods: Period A (1932-33); Period B (1933-35); Period C (1935-39); and Period D (1943-48).

Period A (1932-33) includes those projects and drawings associated with the initial formation of Tecton by its founding partners: Anthony Chitty, Lindsay Drake, Michael Dugdale, Val Harding, Berthold Lubetkin, Godfrey Samuel, and Francis Skinner. In this short period, Tecton was committed to an idea of collective group architectural practice and a system of equal fee sharing, despite being managed in large part by Godfrey Samuel.

Period B (1933-35) accounts for the most experimental period of Tecton’s history; when its membership first began to expand beyond its seven founding partners to include other employees. This period is notable for the variety of executed and unexecuted proposals, the collection of which allows for an assessment of individual members beyond the measure of their built works. This was also the time when Lubetkin’s prominence within the group began to emerge. Projects during this period were no longer collective, but were started by a single
partner before others from the group were brought in to assist with its development. Hence a new project naming system was employed that foregrounded the partner’s name before adding the group’s name; i.e., Samuel and Tecton, or Lubetkin and Tecton. This experimental and internally competitive phase did not last long. Tensions between the partners were fueled by their differences in politics and by the friction caused with the founding of the Modern Architectural Research Group (MARS), the English chapter of CIAM. In 1934, Michael Dugdale was the first to leave Tecton; two years later he formed a partnership with Frederick Abraham Ruhemann. Godfrey Samuel, at the time the Secretary of MARS, left in 1935 after an inheritance allowed him to pursue individual commissions on his own. Samuel was soon joined by Val Harding, and then briefly by Anthony Chitty, who did not stay long but went to work at the Office of Wallis Gilbert in 1936, and then eventually into partnership with Robert Hening. Samuel and Harding formed a relatively productive partnership until the start of the war, in which Harding was killed in Brussels in 1940.

Period C (1935-39) accounts for the period of Tecton after the 1935 departures of Dugdale, Samuel, Harding and Chitty. At this point a new group was formed around Lubetkin’s leadership, their opposition to MARS, and a handful of larger commissions. This new group mostly dropped the individuated naming system in favor of the collective name Tecton, but maintained a hierarchical compensation structure with Lubetkin at the top. During this time, the scale of Tecton’s commissions grew significantly, including their first public commissions for the Finsbury and Bethnal Borough Councils. Likewise, the size of the office grew to include several young English architects, such as Gordon Cullen, Wilfred Mallows and William Tatton-Brown, as well as refugees from Germany, including Carl Ludwig Franck, Peter Moro and Gerhard Rosenberg. For better or for worse, it was the works from this period that would have the greatest effect on the next generation of architects in England. Nevertheless, this productivity of this period was sharply concluded by the outbreak of war in 1939.

Period D (1943-48) refers to the period after the four year hiatus for the Second World War, and includes those works developed up until the permanent dissolution of the group in 1948.
At this time, Tecton consisted of Drake, Lubetkin, Skinner and Denys Lasdun, who was made full partner in 1945. Their work amounted a handful of re-started and new public housing projects for the Borough Councils in Finsbury, Bethnal, and Paddington. When Lubetkin was appointed architect-planner of Peterlee Newtown in 1947, existing tensions between the partners were exacerbated and the group was permanently dissolved following a lengthy legal dispute in 1948. The remaining housing projects were divided between two new partnerships, Skinner and Lubetkin, and Drake and Lasdun. These projects, separately pursued, continued well into the mid 1950s.

After 1948, although most of Tecton’s founding members continued in some form of architectural practice or official service, the peoples and principles of the inter-war periods were significantly diffused: Dugdale remained in a small partnership with Frederick Abraham Ruhemann until 1953, and then for a few years afterwards with Geoffrey Whittaker. In 1948, Samuel was appointed Secretary of the Royal Fine Art Commission, a post he held until 1969. Chitty was named the President of the Architectural Association in 1950-51, and was otherwise committed to architectural education until his appointment as architect-planner of the colonial university in Zambia in the 1960s. Drake and Lasdun went on to a new partnership with Maxwell Fry and Jane Drew in 1952, until Lasdun and Partners was formed in 1959. Finally, after resigning from the Peterlee Development Corporation in 1950, Lubetkin joined with Francis Skinner and Douglas Bailey to pursue their ongoing public housing projects well into the 1960s. Some significant successes were achieved in the 1950s by the younger architects who were present before the war, including Peter Moro and William Tatton-Brown, but these fall outside of the main line of Tecton’s development and are not compiled in this section.

The articulation of the history of Tecton into a sequence of five periods of birth, maturation, and death—of growth pruned by the advent of the war—has the unfortunate appearance of George Kubler calls a “biological metaphor of art and history” (Kubler, 1962: 7). At some level of stylistic generality this metaphor is appropriate and accurate. In Period A, the few projects that the group pursued were notably committed to the most novel mechanisms of
architecture and ironmongery; for example, the circulation baffles in the East Hamm Chest Clinic, the rotating screen in the Gorilla House, and even Samuel’s proposal for a spiral escalator. In Period B, this mechanisticism made way for a more wholesale adoption of the International Style and the tenets of early CIAM, in particular the principles of the Zeilenbau layout, which can be found in projects from the Penguin Pond to Highpoint One. In Period C, Tecton demonstrated a sudden awareness and desire to possess its own historicity; its work favored the representation of ‘continuity’—rather than ‘truth’—which they pursued in at least two ways: first, through simple corporate growth; and second, by way of compositional techniques derived from Russian formalism. In Period D, after the hiatus for the war, Tecton’s projects amounted to a series of large scale reiterations of principles defined prior the war, but these suffered from the stagnant economy and the unsteady polarity between the welfare state and the long foreshadow of neoliberalism.

While there is a degree of accuracy in this diachronic portrayal, it also leads to misconceptions about the creativity and productivity of the group and its members, especially during the inter-war periods. For example, it could appear that Lubetkin’s inter-war success rate in constructing built works is based largely on his access to clients and his ability to carefully collect and cultivate a select few patrons (such as Sir Peter Chalmers Mitchell and Julian Huxley of the Zoological Society of London, Sigmund Gestetner, or the Finsbury and Bethnal Borough Councils). This could be contrasted to Samuel’s relative inability to do the same with almost all of his clients. Indeed, it was a fact of architecture in England in the 1930s that built examples of the modern movement depended on patronage from a few individual clients in the private sector, but using construction as a measure of success ignores a large portion of what architects practice. In this context, it is important to note that the Lubetkin Archive is disproportionately filled with evidence of inter-war projects that were built and is noticeably lacking in the preservation of unexecuted proposals. This disproportion is a fiction created by omission; between 1932 and the end of 1935, we know that Lubetkin had already initiated sixty-six individual projects, of which only about ten led to built works that survive along with their drawings and archives, while the
remaining fifty or so projects were lost altogether to the fury of time. In the same period, we know that Samuel logged fifty-one individual projects, and, despite only seeing eight of these into construction, almost half were preserved and survive in the form of drawings and archives. This indicates three things: First, both architects were extraordinarily industrious practitioners; neither can be described as apathetic. Second, in terms of the quantity of projects, both architects had nearly the exact same success rate in moving proposals into the construction of built works, which furthermore means that the necessary distinctions are a more matter of quality and scale. And finally, third, each corpus suggests a different value placed on the construction of the built work within the project at large. In the interpretation of Lubetkin's work, there are almost no projects without the built work, whereas for Samuel, unexecuted proposals for projects are mostly all that survives. It is possible to imagine—in the catalog that follows—the interjection of empty spaces for those projects that were lost, however, without consistent documentation throughout the entire history of Tecton, such a gesture toward precision and objectivity would be doubtful.

Finally, it is important to establish the caveat that this catalog marks the existence of works that were known to exist by the year 2016, but given the various conditions of the Tecton architectural group it is probable that further works exist beyond the reach of this research.
5.1.2 Period A (1932-33)

5.1.2.1 Tecton

5.1.2.1.1 East Hamm Chest Clinic, 1932
- unbuilt proposal for a health clinic for chest diseases
- designed by Tecton
- for Dr. Phillip Ellman
- drawings: RIBA PA111/1 (1-12): twelve sheets of preliminary design and presentation drawings, including plans, elevations and section, 1932

5.1.2.1.2 Gorilla House, 1932-33
- gorilla enclosure at the London Zoo, Regent's Park, London
- designed by Tecton
- for the Zoological Society of London
- built
- listed as number 01 on 1935 resume, office project number T1
- drawings: RIBA PA115/3 (1-3): three sheets of working drawings, plans, elevations and section
- drawings: RIBA PA117/5 (1): one sheet of plans and sections
- drawings: RIBA 954/3 (1-3): four sheets of working drawings, including plans, elevations and sections

5.1.2.1.3 Block of Flats at Ferdinand Street, 1933-34
- unbuilt proposal for a block of flats at Ferdinand Street, London
- designed by Tecton (1933) / Samuel and Tecton (1933-34)
- for Saint Pancras House Improvement Society Limited
- not listed on 1935 resume, office project number T12 / ?
- notes: commission eventually awarded to Connell, Ward and Lucas
- archives: RIBA SAG/1/5
- drawings: RIBA PA112/3 (1): one sheet of preliminary design drawings, including plans, elevations and sections

5.1.2.1.4 Osea Island Development, Essex, 1933-36
- unbuilt proposal for speculative development in Essex
- designed by Tecton (1933) / Samuel and Tecton (1933-36)
- for Osea Summer Estate Organization
- not listed on 1935 resume, office project number T19 / ?
- archives: RIBA SAG/1/6
- drawings: RIBA PA124/11 (1-7): seven sheets of preliminary plans
5.1.2.1.5 House at Merton Lane, 1933-35
- unbuilt proposal for a sculptor’s house and studio at Merton Lane, London
- designed by Tecton (1933) / Samuel and Tecton (1933-34) / Samuel (1934-35)
- for Richard Gilbert Hare and Dora Gordine
- not listed on 1935 resume, office project number T20 / ? / B5
- notes: a house was eventually built by Gordine and Henry Cole
- archives: RIBA SAG/8/1-3
- drawings: RIBA PA953/1 (1-29): twenty-nine sheets of preliminary design and design drawings, including plans, elevations, sections, details, and perspective

5.1.3 Period B (1933-35)

5.1.3.1 Chitty and Tecton

5.1.3.1.1 House at Aldwick Bay, “The Dunes,” 1933-34
- private house at Aldwick Bay, Bognor Regis, West Sussex
- designed by Chitty and Tecton
- for Aldwick Bay Estate Ltd.
- built
- listed as number 02 on 1935 resume
- drawings: RIBA PA108/1 (1-2): two sheets of drawings, including garden layout and bathroom addition

5.1.3.1.2 Lyric Variety Cinema, 1934
- unbuilt proposal for a leisure centre on Saint Matthew’s St., Ipswich, Suffolk
- designed by Chitty and Tecton
- for Lyric Variety Cinema
- drawings: RIBA PA109/1 (1-4): four sheets of preliminary design drawings, including plans and perspective view

5.1.3.1.3 Block of Flats at Morden Hill, 1935
- unbuilt proposal for a block of flats at Modern Hill, London
- designed by Chitty and Tecton
5.1.3.1.4 Block of Flats at Prince Albert Road, 1935
- unbuilt proposal for a block of flats at 63-74 Prince Albert Road, London
- designed by Chitty and Tecton
- drawings: RIBA PA114/6 (1-2): two sheets of preliminary design drawings, including plans and sections

5.1.3.1.5 House at Churt, 1935
- private house at Churt, Surrey
- designed by Chitty and Tecton
- for David Lloyd George
- built

5.1.3.2 Dugdale and Tecton
5.1.3.2.1 Merevale Hall, 1933-34
- private house, alterations and additions, near Atherstone, Warwickshire
- designed by Dugdale and Tecton
- for William Francis Stratford (Michael Dugdale’s uncle)
- built
- listed as number 04 on 1935 resume

5.1.3.2.2 Block of Flats at Bayswater Road, 1935
- unbuilt proposal for a block of flats at Bayswater Road, London
- designed by Dugdale and Tecton
- not listed on 1935 resume
- drawings: RIBA PA109/2 (1): one sheet of preliminary design drawings, including plans, elevation and section

5.1.3.3 Harding and Tecton
5.1.3.3.1 Chapel at Forres School, 1933-35
- private chapel at Forres School, Swanage
- designed by Harding and Tecton
- for the Forres School
- built
- listed as number 03 on 1935 resume
• archives: RIBA SAG/11/4-5, SAG/12/1-6; SAG/81/2-4
• drawings: RIBA PA116/3 (1-33): thirty-three sheets of design and working
drawings, including plans, elevations, sections, details and perspective

5.1.3.3.2 House at Crescentwood Road, “Six Pillars,” 1933-35
• private house at 1-2 Crescentwood Road, Sydenham Hill
• designed by Harding and Tecton
• for James Leakey, Esq.
• built
• listed as number 05 on 1935 resume, office project number VH21
• archives: RIBA SAG/13/1-6, SAG/15/1-2, SAG/25/1-6, SAG/81/2-4
  SAG/86/3-4; SAG/87/1-3
• drawings: RIBA PA951/1 (1-41): forty-one sheets of design and working
drawings, including plans, elevations, sections, details and axonometric

5.1.3.3.3 House at Farnham Common, “Egypt End,” 1933-35
• private house at Farnham Common, Buckinghamshire
• designed by Harding and Tecton
• for Val Harding
• built
• listed as number 14 on 1935 resume, office project number VH22
• archives: RIBA SAG/16/1-5; SAG/17/1-3; SAG/81/2-4; SAG/86/3-4;
  SAG/87/1-3
• drawings: RIBA PA108/3 (1-31): thirty-one design and working drawings,
including plans, elevations, sections and details

5.1.3.3.4 Studio at Peter’s Lane, 1933-36
• private studio and garage at Monks Princes Risborough, Buckinghamshire
• designed by Harding and Tecton
• for Clare Leighton
• built
• office project number VH27
• archives: RIBA SAG/17/4-5
• drawings: RIBA PA116/2 (1-12): twelve sheets of preliminary design
drawings, including plans, elevations, sections, details, axonometric and
perspective sketch

5.1.3.3.5 Vega Restaurant, 1935-36, 1937-40
• vegetarian restaurant at Panton and Whitcomb Streets, Leicester Square,
London
• designed by Harding and Tecton / Samuel and Harding
• for Walter and Jenny Fliess of Vega Modern Vegetarian Restaurants Ltd.
• built
• listed as number 33 on 1935 resume, office project number / 3, 27, 42
• archives: RIBA SAG/23/3-4, SAG/24/1, SAG/30/4-7, SAG/31/1, SAG/48/1-4, SAG/49/1-6, SAG/50/1-2; SAG/81/2-4; SAG/86/3-4; SAG/87/1-3
• drawings: RIBA PA953/2 (1-28): twenty-eight sheets of survey and working drawings, including plans, sections, details, interior elevations and axonometric
• bibliography: Architects' Journal 84 (27 August 1936), 479-482; Architectural Review 80 (1936), 74-76

5.1.3.4 Lubetkin, Drake and Tecton

5.1.3.4.1 Penguin Pond, 1933-34
• penguin enclosure at the London Zoo, Regent's Park, London
• designed by Lubetkin, Drake and Tecton
• for the Zoological Society of London
• built
• notes: listed as number 06 on 1935 resume
• drawings: RIBA PA954/4 (1): one sheet of working drawings, including plans, elevations and sections
• drawings: RIBA PA954/5 (1): one sheet of design drawing, including sections, details, aerial view of model and photograph of roof and ramps in construction, for publication

5.1.3.4.2 Whipsnade Giraffe House, 1934-35
• giraffe enclosure at the Whipsnade Park Zoo, Bedfordshire
• designed by Lubetkin, Drake and Tecton
• for the Zoological Society of London
• built

5.1.3.4.3 Whipsnade Elephant House, 1934-35
• elephant enclosure at the Whipsnade Park Zoo, Bedfordshire
• designed by Lubetkin, Drake and Tecton
• for the Zoological Society of London
• built
• drawings: RIBA PA117/2 (1), DR120/8 (1): one sheet of design drawings, including plan, elevation, and section
• drawings: RIBA PA954/11 (1-2): two sheets of working drawings

5.1.3.4.4 Whipsnade Shelters and Lavatories, 1934-35
• shelter and lavatories at the Whipsnade Park Zoo, Bedfordshire
• designed by Lubetkin, Drake and Tecton
• for the Zoological Society of London
• built
• drawings: RIBA DR120/9: one sheet of design drawings, including plans, elevation, sections and details

5.1.3.4.5 Whipsnade Restaurant, 1934-35
• restaurant at the Whipsnade Park Zoo, Bedfordshire
• designed by Lubetkin, Drake and Tecton
• for the Zoological Society of London
• built

5.1.3.5 Lubetkin and Tecton

5.1.3.5.1 Highpoint One, 1933-35
• block of private flats in North Hill, Highgate, London
• designed by Lubetkin and Tecton
• for Sigmund Gestetner
• built
• drawings: RIBA PA952/2 (1-5): five sheets of drawings, including plans for three- four- and five- room flats
• drawings: RIBA PA113/1 (1-3): three sheets of drawings, including plans and diagrammatic sections of typical flats
• drawings: RIBA PA113/2 (1): one sheet of drawings, plan of typical flat
• models: RIBA MODE/LUBE/2: model of the ground floor

5.1.3.5.2 Working Class Housing Competition Entry, 1934-35
• unbuilt winning competition entry for a block of flats in reinforced concrete
• designed by Lubetkin and Tecton, with Ove Arup
• for the Cement Marketing Company competition
• drawings: RIBA PA954/12 (1): one sheet of plans, 1935
• drawings: RIBA SA52/1 (1-12): twelve sheets of competition drawings, 1935

5.1.3.5.3 Whipsnade Bungalow, 1934-35
• private weekend house at Hillfield, Whipsnade, Bedfordshire
• designed by Lubetkin and Tecton
• for Berthold Lubetkin
• built
• drawings: RIBA PA117/1 (1): One survey drawing of the site by J. L. Krier and Company Ltd., print with pencil added, dated 1934

5.1.3.6 Samuel and Tecton

5.1.3.6.1 House at Ashley Cottage, 1933-34
• sun room addition at the Ashley Cottage, Roehampton Lane, London
• designed by Samuel and Tecton

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• for Major Frederick Sassoon (Godfrey Samuel's cousin)
• built
• not listed on 1935 resume, office project number GS30
• notes: drawings are the work of Anthony Chitty
• archives: RIBA SAG/1/7
• drawings: RIBA PA113/5 (1-3): three sheets of working drawings, including plans, elevations and sections

5.1.3.6.2 Warburg Institute Library, 1933-35

• library addition at the Thames House, Millbank, London
• designed by Samuel and Tecton
• for Drs. Fritz Saxl and Gertrud Bing
• built
• listed as number 17 on 1935 resume, office project number GS34
• archives: RIBA SAG/2/1
• drawings: RIBA PA114/5 (5-9): five sheets of layout and lantern design drawings, including plans and details, a. 1934
• bibliography: "Warburg Institute Library in Thames House, Burlington, London" Library Association Record (August 1934), 262-266

5.1.3.6.3 Renovation at Warwick Square, 1933-36

• conversion of a house into flats at 26 Warwick Square, London
• designed by Samuel and Tecton / Samuel and Harding
• for Lady Alice Violet Waley Cohen
• built
• listed as number 18 on 1935 resume, office project number GS35 / 5
• archives: RIBA SAG/2/2-5, SAG/3/1-4
• drawings: RIBA PA124/10 (1-4): four sheets of design drawings, including plans and sections

5.1.3.6.4 Cottages at Street, Somerset, 1933-35, 37

• unbuilt proposal for standardized cottages
• designed by Samuel and Tecton / Samuel and Harding
• for Bancroft Clark of Street Estates Ltd.
• office project number GS36 / 32
• archives: RIBA SAG/3/5, SAG/44/1
• drawings: RIBA PA954/10 (1-20): design and working drawings, including plans, elevations, sections and perspectives

5.1.3.6.5 Renovation at Porchester Terrace, 1934

• repairs and renovation of private residence at 35-36 Porchester Terrace, London
• designed by Samuel and Tecton

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5.1.3.6.6 Renovation at Norfolk Crescent, 1934
- minor repairs and renovation of private residence at 22 Norfolk Crescent
- designed by Samuel and Tecton
- for Antionette Schnapper
- built
- not listed on 1935 resume, office project number GS38B
- archives: RIBA SAG/24/2-3

5.1.3.6.7 Isokon Bungalows, 1934
- unbuilt proposal for prefabricated bungalows
- designed by Samuel and Tecton
- for Jack Pritchard of Isokon Ltd.
- not listed on 1935 resume, office project number GS39
- archives: RIBA SAG/4/1
- drawings: RIBA DR17/1 (1-5), PA2041/4 (1-2): seven sheets of drawings, including preliminary plans, elevations, sections, perspectives, and axonometric

5.1.3.6.8 Renovation at Hyde Park, 1934
- minor repairs and renovation of private residence at 10 Hyde Park Place, London
- designed by Samuel and Tecton
- built
- not listed on 1935 resume, office project number GS40
- archives: RIBA SAG/4/2
- drawings: RIBA PA114/1 (1): one sheet of alteration plans and section

5.1.3.6.9 Beacon Hill School, 1934
- unbuilt proposal for a building for the Beacon Hill School
- designed by Samuel and Tecton
- for Jack Pritchard of Isokon, on behalf of Bertrand and Dora Russell
- not listed on 1935 resume, office project number GS41
- archives: RIBA SAG/4/3

5.1.3.6.10 Baghdad Hospital and School, 1934-35
- unbuilt proposal for a teaching hospital in Baghdad, Iraq
- designed by Samuel and Tecton
• for Thomas Carey Evans, Medical Superintendent of the Hammersmith Hospital
• not listed on 1935 resume, office project number GS42
• archives: RIBA SAG/4/4
• drawings: RIBA PA832/7 (1-14), DR17/3 (1-2): sixteen sheets of preliminary design drawings, 1935

5.1.3.6.11 Block of Flats at High Street, 1934-35
• unbuilt proposal for a block of studio flats at High Street
• designed by Samuel and Tecton
• for Edgar Boas
• not listed on 1935 resume, office project number GS44A
• archives: RIBA SAG/5/1

5.1.3.6.12 Renovation at Lower Common South, 1934-35
• minor repairs and renovation of private residence at 5 Lower Common South, London
• designed by Samuel and Tecton
• for Cecil and Kathleen Franklin (cousins of Godfrey Samuel)
• built
• not listed on 1935 resume, office project number GS44B
• archives: RIBA SAG/5/1

5.1.3.6.13 Renovation at Eton Avenue, 1934-36
• underpinning and other repairs to 14 Eton Avenue, London
• designed by Samuel and Tecton / Samuel and Harding
• for Antionette Schnapper
• built
• not listed on 1935 resume, office project / 4

5.1.3.6.14 Block of Flats at High Street, 1934-35 / 36 / 38
• unbuilt proposal for a block of studio flats at 2-8 High Street, Highgate
• designed by Samuel and Tecton / Samuel / Samuel and Harding
• for Cobis Thomson Limited
• not listed on 1935 resume, office project number GS47 / B6 / 10
• archives: SAG/26/1
• drawings: RIBA PA952/4 (1-23): twenty-three sheets, including site survey, preliminary design and design drawings, including plans, elevations, sections, and perspective

5.1.3.6.15 House at Bromley, “By the Links,” 1934-36
• private house at Lodge Road, Bromley
• designed by Samuel and Tecton / Samuel / Samuel and Harding
5.1.3.6.16 House at Elstree Hill, 1934-36

- unbuilt proposal for a private house at Elstree Hill, Lewisham
- designed by Samuel and Tecton
- for Fritz Saxl and Gertrud Bing
- not listed on 1935 resume, office project number GS54
- archives: SAG/7/7
- drawings: RIBA PA112/1 (1-4): preliminary design drawings, including plans, elevations, and sections

5.1.4 Period C (1935-39)

5.1.4.1 Tecton

5.1.4.1.1 Exhibition of Working Class Housing, Housing Centre, 1935

5.1.4.1.2 Finsbury Health Centre, 1935-38

- public health services building at Pine Street, Islington
- designed by Tecton
- for the Finsbury Borough Council
- built
- drawings: RIBA DR140/1: one exploded isometric drawing showing the circulation systems for staff and patients, pen and watercolor on board

5.1.4.1.3 Exhibition of the Finsbury Health Centre, 1938

- public exhibition of the Finsbury Health Centre at Finsbury Town Hall
- designed by Tecton, drawings by Gordon Cullen and Francis Skinner
• for the Finsbury Borough Council
• bibliography: A&BN 157 (1939), 65-74; Builder 156 (1939), 90-96; AJ 89 (1939), 7-22.

5.1.4.1.4 News Chronicle New School Competition Entry, 1937
• unplaced entry
• bibliography: Architects’ Journal (25 March 1937), 536.

5.1.4.1.5 Planned Air Raid Precautions, 1937-39
• unbuilt proposal for underground air raid shelters in Finsbury
• designed by Tecton, drawings by Francis Skinner
• for the Finsbury Borough Council
• drawings: RIBA DR48/2 (1-3): three sheets of planimetric survey maps showing heights of buildings, existing basements and open spaces, and building uses
• drawings: RIBA DR48/1 (1-2): two sheets of plans, sections, and photographs of the underground shelter

5.1.4.1.6 Busaco Street (later, Priory Green) Housing Estate, 1937-39 (1943-50)
• proposal for a public housing estate
• for the Finsbury Metropolitan Borough
• built
• drawings: RIBA PA114/9 (1-5): five sheets of design drawings, including layout, plans and elevations. RIBA PA114/10(1-2, 5-6), DR134/9 (3-4): six sheets of elevation drawings for publication, cs., 1952. RIBA PA953/3 (1-22): twenty-two sheets of plans, elevations, sections, and axonometrics.

5.1.4.1.7 Sadler Street (later, Spa Green) Housing Estate, 1938-39 (1943-50)
• proposal for a public housing estate
5.1.4.2 Tecton and Arup

5.1.4.2.1 Planned Air Raid Shelters, 1938-39
- proposal for underground air raid shelters
- designed by Lubetkin, Skinner and Tecton and Ove Arup
- for the Finsbury Borough Council
- unbuilt
- archives
- drawings: RIBA DR48/1 (1-2): two sheets of plans, sections, and diagrams, including photograph of sectional model; RIBA DR48/2 (1-3): three sheets of air raid survey plans for Finsbury based on the Ordnance Survey maps

5.1.4.3 Church and Tecton

5.1.4.3.1 The Wilderness, 1938-39
- private house, additions and alterations, at Joldwynds
- designed by Church and Tecton
- built
- no drawings or archives traced

5.1.4.4 Lubetkin and Tecton

5.1.4.4.1 Whipsnade Gibbons Enclosure, 1935-36
- proposal for a gibbons enclosure at the Whipsnade Park Zoo, Bedfordshire
- designed by Lubetkin and Tecton
- for the Zoological Society of London
- unbuilt

5.1.4.4.2 Whipsnade Hall Farm House, 1935-36
- private house, additions and alterations, at Hillfield, Whipsnade, Bedfordshire
- designed by Lubetkin and Tecton
- for Julian Huxley, Secretary of the ZSL
- built
- no drawings or archives traced
5.1.4.4.3 North Gate at London Zoo, 1936-37
• main north gate at the London Zoo, Regent’s Park, London
• designed by Lubetkin and Tecton
• for the Zoological Society of London
• built
• drawings: RIBA PA954/6 (1): working drawings, including plans, elevations and sections

5.1.4.4.4 Studio of Animal Art at London Zoo, 1936-37
• art students’ studio and theatre at the London Zoo, Regent’s Park, London
• designed by Lubetkin and Tecton
• for the Zoological Society of London
• built

5.1.4.4.5 Elephant House at London Zoo, 1937-39
• unbuilt proposal for an elephant enclosure at the London Zoo, Regents Park, London
• designed by Lubetkin and Tecton
• for the Zoological Society of London
• not listed on 1935 resume
• drawings: RIBA PA954/2 (1-12): twelve sheets of working drawings, including plans, sections, elevations, and details, along with Arup’s engineering sections and details by Arup

5.1.4.4.6 Dudley Zoological Gardens Layout, 1935-37
• zoological gardens and enclosures at Dudley Castle, West Midlands
• designed by Lubetkin and Tecton
• for the Dudley Zoological Society
• built
• listed as number 29 on 1935 resume
• drawings: RIBA PA108/2 (1-3), PA109/10 (1):

5.1.4.4.7 Restaurant and Cafés at Dudley Zoo, 1936-37
• restaurant and two cafés at the Dudley Zoo, West Midlands
• designed by Lubetkin and Tecton
• for the Dudley Zoological Society
• built
• drawings: PA108/2 (1-3), PA109/10 (1): four sheets of design drawings, including plans, elevations and sections

5.1.4.4.8 Aviary at Dudley Zoo, 1937
• tropical bird enclosure at the Dudley Zoo, West Midlands
• designed by Lubetkin and Tecton
• for the Dudley Zoological Society
• built
• drawings: RIBA PA109/7 (1): one photograph of a drawing with plans, elevations and sections

5.1.4.4.9 House at West Grove, 1936-37
• private house, alterations and additions, at Hammers Lane, Mill Hill, London
• designed by Lubetkin and Tecton
• built
• no materials traced

5.1.4.4.10 Highpoint Two, 1936-38
• block of private flats in North Hill, Highgate, London
• designed by Lubetkin and Tecton
• for Sigmund Gestetner
• built
• drawings: RIBA PA952/3 (1-7): seven sheets of plans
• drawings: RIBA PA110/5 (1-2): two sheets of elevation drawings for publication
• drawings: RIBA PA110/6 (1), PA121/1 (2-3), DR52/17 (1), PA122/1 (1-3, 5), PA123/21 (1), PA129/20 (1), DR52/10 (1), DR54/4 (1-3), DR55/11 (1): fifteen sheets of design and analytic presentation drawings
• models: RIBA MODE/LUBE/3: model of building

5.1.4.5 Rosenberg and Tecton

5.1.4.5.1 Rabenstein Factory, 1934-35
• sausage factory, alterations and additions, at 5 Fairhazel Gardens, London
• designed by Rosenberg and Tecton
• for Rabenstein Ltd.
• built
• notes: office project number T41
• archives: RIBA SAG/17/7
• drawings: RIBA PA112/2 (1-2): two sheets of working drawings, including details

5.1.4.6 William Tatton-Brown and Tecton

5.1.4.6.1 Block of Flats at Ladbroke Grove, 1935
• unbuilt proposal for a block of flats at Ladbroke Grove
• designed by Tatton-Brown and Tecton
• drawings: RIBA PA114/2 (1-2): two sheets of preliminary drawings, including plans, elevations and sections, 1935

5.1.4.7 Unattributed and Tecton

5.1.4.7.1 Block of Flats at Cochrane Street, Not Dated
• unbuilt proposal for a block of thirty-two flats at Cochrane Street, London
• drawings: RIBA PA109/3 (1): one sheet of preliminary design drawings, including plan, elevation and section

5.1.4.7.2 Block of Flats at Netherhall Gardens, 1935
• unbuilt proposal for a block of ten flats at Netherhall Gardens
• drawings: RIBA PA114/7 (1): one sheet of preliminary drawings, including plans and sections

5.1.4.7.3 Block of Flats at Saint James’ Mews, 1935
• unbuilt proposal for a block of flats at 7-15 Saint James’ Mews
• drawings: RIBA PA115/1 (1-2): two sheets of preliminary drawings, including plans

5.1.4.7.4 Block of Flats at an unidentified location, 1938
• unbuilt proposal for a block of flats at an unidentified location
• drawings: RIBA PA954/14 (1): one sheet of two- and three- room flat layouts, 1938

5.1.4.8 Samuel and Harding

5.1.4.8.1 Weekend Cottage, 1935
• unbuilt proposal for a timber cottage
• designed by Godfrey Samuel
• not listed on 1935 resume
• archives: SAG/8/6
• drawings: RIBA PA832/4

5.1.4.8.2 Block of Flats at Upper Ground Street, 1935
• unbuilt proposal for a block of flats at Upper Ground Street
• designed by Godfrey Samuel
• not listed on 1935 resume
• archives: SAG/74/3-5
• drawings: PA832/3

5.1.4.8.3 Block of Flats at Delancey Street, 1935
• unbuilt proposal for a block of flats at Delancey Street/Parkway
• designed by Godfrey Samuel
• not listed on 1935 resume
• archives: SAG/8/4
• drawings: PA832/5 (1-7)

5.1.4.8.4 House at Mott’s Down, 1935-38
• private house and cottage at Mott’s Down, Withyham, East Sussex
• designed by Godfrey Samuel / Samuel and Harding
• for Robert Nathaniel Eichholz and Enid Albu
• built
• notes: Enid Albu was an interior designer and friend of Elizabeth Benjamin
• not listed on 1935 resume, office project number B7 / 1
• archives: SAG/18/1-4; SAG/19/1-4; SAG/20/1-5; SAG/21/1-6; SAG/74/1
• drawings: RIBA PA906/3(1-66): preliminary design and working drawings

5.1.4.8.5 House at Stansted, "The Highways," 1935-37
• private house with doctor's surgery at Stansted, Essex
• designed by Godfrey Samuel / Samuel and Harding
• for Dr. Arthur Gabriel Salaman
• built
• not listed on 1935 resume, office project number B8 / 2
• archives: SAG/22/1-2; SAG/23/1-2
• drawings: RIBA PA906/2(1-34); preliminary design and working drawings

5.1.4.8.6 Nursery School, 1937
• unbuilt proposal for a nursery school at Dulwich College Preparatory School, 42 Alleyn Park
• designed by Samuel and Harding
• office project number 9
• archives: SAG/81/2-4

5.1.4.8.7 Bungalow at Egypt End, Farnham Common, 1939
• private bungalow at Buckinghamshire
• designed by Samuel and Harding
• for Val Harding’s father
• built
• office project number 62

5.1.4.9 Benjamin and Samuel

5.1.4.9.1 House at East Wall, "St. George and Dragon," 1935-39
• private house at Hedgerley Lane, Gerrards Cross, Buckinghamshire
• designed by Elisabeth Benjamin and Godfrey Samuel
• not listed on 1935 resume
5.1.5 Period D (1943-48)

5.1.5.1 Tecton

5.1.5.1.1 Holford Square (Bevin Court) Housing Estate, 1946-54

- public housing estate in Finsbury, London
- designed by Tecton / Skinner, Bailey and Lubetkin
- for the Metropolitan Borough of Finsbury
- built
- drawings: RIBA PA954/1 (1): one sheet drawn by Francis Skinner comparing interior floor areas of flats at Roseberry Avenue (Spa Green) and Busaco Street (Priory Green)
- drawings: RIBA PA952/5 (1-18): eighteen sheets of design drawings, including plans, elevations, and an axonometric of the entrance hall
- drawings: RIBA PA113/3 (1): one sheet of design drawings, including plan and elevation
- drawings: RIBA PA113/4 (1-4): four sheets of drawings for publication

5.1.5.1.2 Hallfield Housing Estate, 1946-54

- public housing estate in Paddington, London
- designed by Tecton / Drake and Lasdun / Fry, Drew, Drake and Lasdun
- for the Metropolitan Borough of Paddington
- built
- drawings: RIBA PA952/1 (1-5): five sheets preliminary site layouts, flat plans, and elevations
- drawings: RIBA PA2094/4 (1-23), PA2095/1 (24-37): thirty-seven sheets of design drawings, including some perspective sketches by Gordon Cullen
- drawings: RIBA PA112/6 (1-3): three sheets of design drawings, including elevations
- drawings: RIBA PA112/7 (1-3): three sheets of drawings for publication
5.1.5.2 Peterlee Development Corporation

5.1.5.2.1 Peterlee New Town, 1948-1950

• proposal for a new town in Durham County
• designed by Lubetkin and Yates
• for the Peterlee Development Corporation
• unbuilt
• drawings: RIBA PA115/6 (1-16): fifteen sheets of site survey drawings and one photograph of contour model
• drawings: RIBA PA115/7 (1-13): thirteen sheets of preliminary site plans for a new town,
• drawings: RIBA PA116/1 (1): one sheet of housing layout plan drawing

5.1.5.2.2 Standardized Housing at Thorntree Gill, 1949

• standardized houses proposed for 100 Houses Scheme at Peterlee
• designed by Lubetkin and Yates
• for the Peterlee Development Corporation
• unbuilt
• drawings: RIBA PA115/8 (1-19): nineteen sheets of alternative elevation studies for standardized houses

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